

ALIMENTAZIONE E INTEGRAZIONE PER LO SPORT E LA PERFORMANCE FISICA - II Edizione Aggiornata ed Ampliata

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BIBLIOGRAFIA

ACETILCARNITINA

- Abdul Muneer PM, *et al* Inhibitory effects of alcohol on glucose transport across the blood-brain barrier leads to neurodegeneration: preventive role of acetyl-L: -carnitine .*Psychopharmacology (Berl)*. (2011)
- Acetyl-L-carnitine. Monograph. *Alternative Medicine Review* **15** (1): 76–83. April 2010
- Angelucci L, Ramacci MT. Hypothalamo-pituitary-adrenocortical functioning in aging: Effects of acetyl-l-carnitine. In: DeSimone C, Martelli EA, eds. *Stress, Immunity and Aging, A Role for Acetyl-L-Carnitine*. Amsterdam: Elsevier; 1989.
- Aureli T, Miccheli A, Di Cocco ME, *et al*. Effect of acetyl-L-carnitine on recovery of brain phosphorus metabolites and lactic acid level during reperfusion after cerebral ischemia in the rat - study by ¹³P- and ¹H-NMR spectroscopy. *Brain Res* 1994;18:92-99.
- Barker GA, *et al* Effect of propionyl-L-carnitine on exercise performance in peripheral arterial disease . *Med Sci Sports Exerc.* (2001)
- Beal MF (2003). "Bioenergetic approaches for neuroprotection in Parkinson's disease". *Annals of Neurology* **53** (Suppl 3): S39–47; discussion S47–48
- Bloomer RJ, Fisher-Wellman KH, Tucker PS Effect of oral acetyl L-carnitine arginate on resting and postprandial blood biomarkers in pre-diabetics . *Nutr Metab (Lond)*. (2009)
- Bonavita E Study of the efficacy and tolerability of L-acetylcarnitine therapy in the senile brain . *Int J Clin Pharmacol Ther Toxicol*. (1986)
- Bonavita E. Study of the efficacy and tolerability of L-acetylcarnitine therapy in the senile brain. *Int J Clin Pharm Ther Toxicol* 1986;24:511-516.
- Bucci L. I nutrienti come aiuti ergogeni per lo sport e per l'esercizio fisico. Sandro Ciccarelli Editore., Firenze 1999, pag 48-54.
- Calvani M, Arrigoni-Martelli E. Attenuation by acetyl-L-carnitine of neurological damage and biochemical derangement following brain ischemia and reperfusion. *Int J Tissue React* 1999;21:1-6.
- Calvani M, Carta A. Clues to the mechanism of action of acetyl-L-carnitine in the central nervous system. *Dementia* 1991;2:1-6.
- Cao Y, Wang YX, Liu CJ, Wang LX, Han ZW, Wang CB (2009). "Comparison of pharmacokinetics of L-carnitine, acetyl-L-carnitine and propionyl-L-carnitine after single oral administration of L-carnitine in healthy volunteers". *Clinical and Investigative Medicine* **32**(1): E13–9
- Chiechio S, Copani A, Gereau RW, Nicoletti F (2007). "Acetyl-L-carnitine in neuropathic pain: experimental data". *CNS Drugs*. 21 Suppl 1: 31–8; discussion 45–6.
- Di Giacomo C, Latteri F, Fichera C, *et al*. Effect of acetyl-L-carnitine on lipid peroxidation and xanthine oxidase activity in rat skeletal muscle. *Neurochem Res* 1993;18:1157-1162.
- Ebeling P, *et al* The association of acetyl-L-carnitine with glucose and lipid metabolism in human muscle in vivo: the effect of hyperinsulinemia . *Metabolism*. (1997)
- Fedele D, Giugliano D. Peripheral diabetic neuropathy. Current recommendations and future prospects for its prevention and management. *Drugs* 1997;54:414-421.
- Ferreira GC., *et al.*, "L-Carnitine and Acetyl-L-carnitine Roles and Neuroprotection in Developing Brain". *Neurochem Res*. 2017 Jun;42(6):1661-1675.
- Freo U, Dam M, Ori C Cerebral metabolic effects of acetyl-l-carnitine in rats during aging . *Brain Res*. (2009)
- Furlong JH. Acetyl-L-Carnitine: Metabolism and applications in clinical practice. *Altern Med Rev* 1996;1:85-93.
- Garzya G, Corallo D, Fiore A, *et al*. Evaluation of the effects of L-acetylcarnitine on senile patients suffering from depression. *Drugs Exp Clin Res* 1990;16:101-106.
- Gecele M, Francesetti G, Meluzzi A. Acetyl-L-carnitine in aged subjects with major depression: clinical efficacy and effects on the circadian rhythm of cortisol. *Dementia* 1991;2:333-337.
- Goo MJ, *et al* Protective effects of acetyl-L-carnitine on neurodegenerative changes in chronic cerebral ischemia models and learning-memory impairment in aged rats . *Arch Pharm Res*. (2012)
- Hagen TM, *et al* Feeding acetyl-L-carnitine and lipoic acid to old rats significantly improves metabolic function while decreasing oxidative stress . *Proc Natl Acad Sci U S A*. (2002)
- Hudson S, Tabet N Acetyl-L-carnitine for dementia . *Cochrane Database Syst Rev*. (2003)

Ido Y, McHowat J, Chang KC, et al. Neural dysfunction and metabolic imbalances in diabetic rats. Prevention by acetyl-L-carnitine. *Diabetes* 1994;43:1469-1477.

Iossa S, et al Acetyl-L-carnitine supplementation differently influences nutrient partitioning, serum leptin concentration and skeletal muscle mitochondrial respiration in young and old rats . *J Nutr.* (2002)

John H. Furlong N.D. Acetyl-L-Carnitine: Metabolism and Applications in Clinical Practice *Alt Med Rev* 1996;1(2):85-93.

Kiens B (January 2006). "Skeletal muscle lipid metabolism in exercise and insulin resistance". *Physiological Reviews* **86** (1): 205–43

Longnus SL, Wambolt RB, Barr RL, Lopaschuk GD, Allard MF (October 2001). "Regulation of myocardial fatty acid oxidation by substrate supply". *American Journal of Physiology. Heart and Circulatory Physiology* **281** (4): H1561–7

Lowitt S, Malone JI, Salem AF, et al. Acetyl-L-carnitine corrects the altered peripheral nerve function of experimental diabetes. *Metabolism* 1995;44:677-680.

Malaguarnera M, et al Acetyl L-carnitine (ALC) treatment in elderly patients with fatigue . *Arch Gerontol Geriatr.* (2008)

Malaguarnera M, et al Acetyl-L-carnitine improves cognitive functions in severe hepatic encephalopathy: a randomized and controlled clinical trial . *Metab Brain Dis.* (2011)

Malaguarnera M, et al Acetyl-L-carnitine reduces depression and improves quality of life in patients with minimal hepatic encephalopathy . *Scand J Gastroenterol.* (2011)

Malaguarnera M, et al Acetyl-L-carnitine treatment in minimal hepatic encephalopathy . *Dig Dis Sci.* (2008)

Malaguarnera M, et al Effects of L-acetylcarnitine on cirrhotic patients with hepatic coma: randomized double-blind, placebo-controlled trial . *Dig Dis Sci.* (2006)

Malaguarnera M, et al Oral acetyl-L-carnitine therapy reduces fatigue in overt hepatic encephalopathy: a randomized, double-blind, placebo-controlled study . *Am J Clin Nutr.* (2011)

Marcus R, Coulston AM. Water-soluble vitamins. In: Hardman JG, Limbird LE eds. *The Pharmacological Basis of Therapeutics*. 9th edition. New York: McGraw-Hill;1996.

McMackin CJ, et al Effect of combined treatment with alpha-Lipoic acid and acetyl-L-carnitine on vascular function and blood pressure in patients with coronary artery disease . *J Clin Hypertens (Greenwich).* (2007)

Moyle GJ, Sadler M. Peripheral neuropathy with nucleoside antiretrovirals: risk factors, incidence and management. *Drug Saf* 1998;19:481-494.

Ori C, et al Effects of acetyl-L-carnitine on regional cerebral glucose metabolism in awake rats . *Brain Res.* (2002)

Paradies G, Petrosillo G, Gadaleta MN, Ruggiero FM. The effect of aging and acetyl-L-carnitine on the pyruvate transport and oxidation in rat heart mitochondria. *FEBS Lett* 1999;454:207-209.

Paradies G, et al Effect of aging and acetyl-L-carnitine on the activity of cytochrome oxidase and adenine nucleotide translocase in rat heart mitochondria . *FEBS Lett.* (1994)

Parnetti L, Gaiti A, Mecocci P, et al. Pharmacokinetics of IV and oral acetyl-L-carnitine in a multiple dose regimen in patients with senile dementia of Alzheimer type. *Eur J Clin Pharmacol* 1992;42:89-93.

Passeri M, et al Acetyl-L-carnitine in the treatment of mildly demented elderly patients . *Int J Clin Pharmacol Res.* (1990)

Passeri M, et al Mental impairment in aging: selection of patients, methods of evaluation and therapeutic possibilities of acetyl-L-carnitine . *Int J Clin Pharmacol Res.* (1988)

Patti F et al. Effects of L-acetyl-carnitina on functional recovery of hemiplegic patients. *Clinical Trials Journal* 1988; 25 (Suppl 1), 87-101.

Perez Polo JR, Werrbach-Perez K, Ramacci MT, et al. Role of nerve growth factors in neurological disease. In: Agnoli A, Cahn J, Lassen N, et al. eds. *Senile dementias. 2nd International Symposium*. Paris: Libby;1988:15-25.

Purpura DP, Girado M, Smith TG, et al. Structure activity determinants of pharmacological effects of amino acids and related compounds on central synapses. *J Neurochem* 1959;3:238.

Rai G, Wright G, Scott L, et al. Double-blind, placebo controlled study of acetyl-L-carnitine in patients with Alzheimer's dementia. *Curr Med Res Opin* 1990;11:638-647.

Rosadini G, Marengo S, Nobili F, et al. Acute effects of acetyl-L-carnitine on regional and cerebral blood flow in patients with brain ischaemia. In *J Clin Pharmacol Res* 1990;10:123-128.

Rosenthal RE, Williams R, Bogaert YE, et al. Prevention of postischemic canine neurological injury through potentiation of brain energy metabolism by acetyl-L-carnitine. *Stroke* 1992;23:1317-1318.

Rump, T. J.; Abdul Muneer, P. M.; Szlachetka, A. M.; Lamb, A; Haorei, C; Alikunju, S; Xiong, H; Keblesh, J; Liu, J; Zimmerman, M. C.; Jones, J; Donohue Jr, T. M.; Persidsky, Y; Haorah, J (2010). "Acetyl-L-carnitine protects neuronal function from alcohol-induced oxidative damage in the brain". *Free Radical Biology and Medicine* **49** (10): 1494–504.

Sano M, Bell K, Cote L, et al. Double-blind parallel design pilot study of acetyl levocarnitine in patients with Alzheimer's disease. *Arch Neurol* 1992;49:1137-1141.

Spagnoli A, Lucca U, Menasce G, et al. Long-term acetyl-L-carnitine treatment in Alzheimer's disease. *Neurology* 1991;41:1726-1732.

Stephens FB, Constantin-Teodosiu D, Greenhaff PL (June 2007). "New insights concerning the role of carnitine in the regulation of fuel metabolism in skeletal muscle". *The Journal of Physiology* **581** (Pt 2): 431–44.

Swamy-Mruthinti S, Carter AL. Acetyl-L-carnitine decreases glycation of lens proteins: in vitro studies. *Exp Eye Res* 1999;69:109-115

Tempesta E, Casella L, Pirrongelli C, et al. L-acetylcarnitine in depressed elderly subjects. A cross-over study vs placebo. *Drugs Exp Clin Res* 1987;13:417-423.

Tempesta E, Troncon R, Janiri L, et al. Role of acetyl-L-carnitine in the treatment of cognitive deficit in chronic alcoholism. *Int J Clin Pharm Res* 1990;10:101-107.

Torrioli MG, *et al* A double-blind, parallel, multicenter comparison of L-acetylcarnitine with placebo on the attention deficit hyperactivity disorder in fragile X syndrome boys . *Am J Med Genet A.* (2008)

Veronese N., et al., “Acetyl-L-Carnitine Supplementation and the Treatment of Depressive Symptoms: A Systematic Review and Meta-Analysis”. *Psychosom Med.* 2018 Feb/Mar;80(2):154-159.

White HL, Scates PW. Acetyl l-carnitine as a precursor of acetylcholine. *Neurochem Res* 1990;15:597-601.

ACETILCISTEINA

Braakhuis AJ., Hopkins WG. “Impact of Dietary Antioxidants on Sport Performance: A Review”. *Sports Med.* 2015 Jul;45(7):939-55.

De Jesus Pires de Moraes A. “Effetti della supplementazione di N- acetilcisteina sul danno cellulare e sugli indicatori dello stress ossidativo negli atleti di pallavolo”. *J Exerc Rehabil.* 31 ottobre 2018;

J Clin Invest. 1994 December; 94(6): 2468–2474

J Int Soc Sports Nutr. 2005; 2(2): 38–44

J.Mol.Med. vol 74:393-400 1996

Muscle & nerve 2005, vol. 32, no5, pp. 633-638

Paschalis V., et al., “N-acetylcysteine supplementation increases exercise performance and reduces oxidative stress only in individuals with low levels of glutathione”. *Free Radic Biol Med.* 2018 Feb 1;115:288-297.

Rhodes KM. “Acute Effect of Oral N-Acetylcysteine on Muscle Soreness and Exercise Performance in Semi-Elite Rugby Players”. 2019;16(4):443-453. Epub 2018 Jun 29.

Špela Šalamon “Medical and Dietary Uses of N-Acetylcysteine”. *Antioxidants* 2019, 8, 111; doi:10.3390/antiox8050111

Yanita McLeay, et al., “Dietary thiols in exercise: oxidative stress defence, exercise performance, and adaptation”. *Journal of the International Society of Sports Nutrition* (2017) 14:12 DOI 10.1186/s12970-017-0168-9

ACIDO D-ASPARTICO

CM. Kerksick, et al., “Exercise & Sports Nutrition Review Update: Research & Recommendations”. *J Int Soc Sports Nutr* 15, 2018

D'Aniello A. et al., “Involvement of D-aspartic acid in the synthesis of testosterone in rat testes”. *Life Sci.* 1996

Melville GW., et al., “The Effects of D-Aspartic Acid Supplementation in Resistance-Trained Men Over a Three Month Training Period: A Randomised Controlled Trial”. *PLoS One*, 2017

Melville GW., et al., “Three and Six Grams Supplementation of D-Aspartic Acid in Resistance Trained Men”. *J Int Soc Sport Nutr*, 2015

Roshanzamir F., et al., “The Putative Effects of D-Aspartic Acid on Blood Testosterone Levels: A Systematic Review”. *Int J Reprod Biomed* 2017

Topo E., et al., “The role and molecular mechanism of D-aspartic acid in the release and synthesis of LH and testosterone in humans and rats. *Reprod Biol Endocrinol.* 2009

Willoughby DS., et al., “D-aspartic acid supplementation combined with 28 days of heavy resistance training has no effect on body composition, muscle strength, and serum hormones associated with the hypothalamo-pituitary-gonadal axis in resistance-trained men”. *Nutr Res.* 2013

Willoughby DS., et al., “Heavy Resistance Training and Supplementation With the Alleged Testosterone Booster Nmدا Has No Effect on Body Composition, Muscle Performance, and Serum Hormones Associated With the Hypothalamo-Pituitary-Gonadal Axis in Resistance-Trained Males”. *J Sports Sci Med.* 2014

ACIDO FOSFATIDICO

Fang Y, Vilella-Bach M, Bachmann R, Flanigan A, Chen J: Phosphatidic acid-mediated mitogenic activation of mTOR signaling. *Science.* 2001, 294: 1942-1945. 10.1126/science.1066015.

Foster DA: Regulation of mTOR by phosphatidic acid?. *Cancer Res.* 2007, 67: 1-4. 10.1158/0008-5472.CAN-06-3016.

Hoffman JR, Stout JR, Williams DR, Wells AJ, Fragala MS, Mangine GT, Gonzalez AM, Emerson NS, McCormack WP, Scanlon TC, Purpura M, Jäger R: Efficacy of phosphatidic acid ingestion on lean body mass, muscle thickness and strength gains in resistance-trained men. *J Int Soc Sports Nutr.* 2012, 9: 47-10.1186/1550-2783-9-47.

Hornberger TA, Chu WK, Mak YW, Hsiung JW, Huang SA, Chien S: The role of phospholipase D and phosphatidic acid in the mechanical activation of mTOR signaling in skeletal muscle. *Proc Natl Acad Sci.* 2006, 103: 4741-4746. 10.1073/pnas.0600678103.

Jaafar R, De Larichaudy J, et al. Phospholipase D regulates the size of skeletal muscle cells through the activation of mTOR signaling. *Cell Commun Signal* 2013;11, 55.

Joy JM, Gundermann DM, et al. Phosphatidic acid enhances mTOR signaling and resistance exercise induced hypertrophy. *Nutr Metab (Lond)* 2014;11, 29.

Mobley CB, et al. Effects of oral phosphatidic acid feeding with or without whey protein on muscle protein synthesis and anabolic signaling in rodent skeletal muscle. *J Int Soc Sports Nutr* 2015;Aug 16;12:32.

O'Neil TK, Duffy LR, Frey JW, Hornberger TA: The role of phosphoinositide 3-kinase and phosphatidic acid in the regulation of mammalian target of rapamycin following eccentric contractions. *J Physiol.* 2009, 587: 3691-3701. 10.1113/jphysiol.2009.173609.

Peter Bond, "Phosphatidic acid: biosynthesis, pharmacokinetics, mechanisms of action and effect on strength and body composition in resistance-trained individuals". *Review Nutrition & Metabolism* (2017).

Winter JN, Fox TE, Kester M, Jefferson LS, Kimball SR: Phosphatidic acid mediates activation of mTORC1 through the ERK signaling pathway. *Am J Physiol Cell Physiol.* 2010, 299: C335-C344. 10.1152/ajpcell.00039.2010.

You JS, Frey JW, Hornberger TA: Mechanical stimulation induces mTOR signaling via an ERK-independent mechanism: implications for a direct activation of mTOR by phosphatidic acid. *PLoS One.* 2012, 7: e47258-10.1371/journal.pone.0047258.

Young A, Stokes M, Round JM, Edwards RH: The effect of high-resistance training on the strength and cross-sectional area of the human quadriceps. *Eur J Clin Invest.* 1983, 13: 411-417. 10.1111/j.1365-2362.1983.tb00122.x.

ACIDO LINOLEICO CONIUGATO (CLA)

Adams M, et al. Transcriptional activation by peroxisome proliferator-activated receptor gamma is inhibited by phosphorylation at a consensus mitogen-activated protein kinase site. *J Biol Chem.* (1997)

Andreoli MF, et al. Effects of dietary conjugated linoleic acid at high-fat levels on triacylglycerol regulation in mice. *Nutrition.* (2009)

Asp ML, et al. Time-dependent effects of safflower oil to improve glycemia, inflammation and blood lipids in obese, post-menopausal women with type 2 diabetes: a randomized, double-masked, crossover study. *Clin Nutr.* (2011)

Banni S, et al. Conjugated linoleic acids (CLA) as precursors of a distinct family of PUFA. *Lipids.* (2004)

Bassaganya-Riera J, Hontecillas R. Dietary conjugated linoleic acid and n-3 polyunsaturated fatty acids in inflammatory bowel disease. *Curr Opin Clin Nutr Metab Care.* (2010)

Bassaganya-Riera J, et al. Activation of PPAR gamma and delta by conjugated linoleic acid mediates protection from experimental inflammatory bowel disease. *Gastroenterology.* (2004)

Bassaganya-Riera J, et al. Conjugated linoleic acid modulates immune responses in patients with mild to moderately active Crohn's disease. *Clin Nutr.* (2012)

Basu S, Smedman A, Vessby B. Conjugated linoleic acid induces lipid peroxidation in humans. *FEBS Lett.* (2000)

Basu S, et al. Conjugated linoleic acid induces lipid peroxidation in men with abdominal obesity. *Clin Sci (Lond).* (2000)

Belury MA, Mahon A, Banni S. The conjugated linoleic acid (CLA) isomer, t10c12-CLA, is inversely associated with changes in body weight and serum leptin in subjects with type 2 diabetes mellitus. *J Nutr.* (2003)

Blankson H, et al. Conjugated linoleic acid reduces body fat mass in overweight and obese humans. *J Nutr.* (2000)

Bölükbaşı SC. Effect of dietary conjugated linoleic acid (CLA) on broiler performance, serum lipoprotein content, muscle fatty acid composition and meat quality during refrigerated storage. *Br Poult Sci.* (2006)

Brown JM, McIntosh MK. Conjugated linoleic acid in humans: regulation of adiposity and insulin sensitivity. *J Nutr* 2003;133:3041-3046

Brown JM, et al. Conjugated linoleic acid induces human adipocyte delipidation: autocrine/paracrine regulation of MEK/ERK signaling by adipocytokines. *J Biol Chem.* (2004)

Brown JM, et al. Isomer-specific regulation of metabolism and PPARgamma signaling by CLA in human preadipocytes. *J Lipid Res.* (2003)

Brown JM, et al. Trans-10, cis-12, but not cis-9, trans-11, conjugated linoleic acid attenuates lipogenesis in primary cultures of stromal vascular cells from human adipose tissue. *J Nutr.* (2001)

Carvalho RF, Uehara SK, Rosa G. Microencapsulated conjugated linoleic acid associated with hypocaloric diet reduces body fat in sedentary women with metabolic syndrome. *Vasc Health Risk Manag.* (2012)

Chen S, et al. Anti-aromatase activity of phytochemicals in white button mushrooms (*Agaricus bisporus*). *Cancer Res.* (2006)

Chen SC, et al. Effect of conjugated linoleic acid supplementation on weight loss and body fat composition in a Chinese population. *Nutrition.* (2012)

Cheng WL, et al. Contribution of conjugated linoleic acid to the suppression of inflammatory responses through the regulation of the NF-kappaB pathway. *J Agric Food Chem.* (2004)

- Chung S, et al. Conjugated linoleic acid promotes human adipocyte insulin resistance through NFkappaB-dependent cytokine production. *J Biol Chem.* (2005)
- Chung S, et al. Trans-10,cis-12 CLA increases adipocyte lipolysis and alters lipid droplet-associated proteins: role of mTOR and ERK signaling. *J Lipid Res.* (2005)
- Clément L, et al. Dietary trans-10,cis-12 conjugated linoleic acid induces hyperinsulinemia and fatty liver in the mouse. *J Lipid Res.* (2002)
- Clifford GM, et al. Translocation of hormone-sensitive lipase and perilipin upon lipolytic stimulation during the lactation cycle of the rat. *Metabolism.* (2001)
- Close RN, et al. Conjugated linoleic acid supplementation alters the 6-mo change in fat oxidation during sleep. *Am J Clin Nutr.* (2007)
- Colakoglu S, et al. Cumulative effects of conjugated linoleic acid and exercise on endurance development, body composition, serum leptin and insulin levels. *J Sports Med Phys Fitness.* (2006)
- Cooper MH, et al. Conjugated linoleic acid isomers have no effect on atherosclerosis and adverse effects on lipoprotein and liver lipid metabolism in apoE^{-/-} mice fed a high-cholesterol diet. *Atherosclerosis.* (2008)
- Cornish SM, et al. Conjugated linoleic acid combined with creatine monohydrate and whey protein supplementation during strength training. *Int J Sport Nutr Exerc Metab.* (2009)
- DeClercq V, Taylor CG, Zahradka P. Isomer-specific effects of conjugated linoleic acid on blood pressure, adipocyte size and function. *Br J Nutr.* (2012)
- DeClercq V, Zahradka P, Taylor CG. Dietary t10,c12-CLA but not c9,t11 CLA reduces adipocyte size in the absence of changes in the adipose renin-angiotensin system in fa/fa Zucker rats. *Lipids.* (2010)
- Degrace P, et al. Association of liver steatosis with lipid oversecretion and hypotriglyceridaemia in C57BL/6j mice fed trans-10,cis-12-linoleic acid. *FEBS Lett.* (2003)
- Diaz ML, et al. Chromium picolinate and conjugated linoleic acid do not synergistically influence diet- and exercise-induced changes in body composition and health indexes in overweight women. *J Nutr Biochem.* (2008)
- Engberink MF, et al. The effect of conjugated linoleic acid, a natural trans fat from milk and meat, on human blood pressure: results from a randomized crossover feeding study. *J Hum Hypertens.* (2012)
- Evans M, et al. Trans-10, cis-12 conjugated linoleic acid increases fatty acid oxidation in 3T3-L1 preadipocytes. *J Nutr.* (2002)
- Evans M, et al. Trans-10,cis-12 conjugated linoleic acid reduces triglyceride content while differentially affecting peroxisome proliferator activated receptor gamma2 and aP2 expression in 3T3-L1 preadipocytes. *Lipids.* (2001)
- Eyjolfsson V, Spriet LL, Dyck DJ. Conjugated linoleic acid improves insulin sensitivity in young, sedentary humans. *Med Sci Sports Exerc.* (2004)
- Gaullier JM, Halse J, Høye K, et al. Conjugated linoleic acid supplementation for 1 y reduces body fat mass in healthy overweight humans. *Am J Clin Nutr* 2004;79:1118–1125.
- Gaullier JM, et al. Clinical trial results support a preference for using CLA preparations enriched with two isomers rather than four isomers in human studies. *Lipids.* (2002)
- Gaullier JM, et al. Conjugated linoleic acid supplementation for 1 y reduces body fat mass in healthy overweight humans. *Am J Clin Nutr.* (2004)
- Gaullier JM, et al. Supplementation with conjugated linoleic acid for 24 months is well tolerated by and reduces body fat mass in healthy, overweight humans. *J Nutr.* (2005)
- Goedecke JH, et al. Conjugated linoleic acid isomers, t10c12 and c9t11, are differentially incorporated into adipose tissue and skeletal muscle in humans. *Lipids.* (2009)
- Gómez-Cortés P., et al., “Trans fatty acids and conjugated linoleic acid in food: origin and biological properties”. *Nutr Hosp.* 2019 Apr 10;36(2):479-486.
- Grube BJ, et al. White button mushroom phytochemicals inhibit aromatase activity and breast cancer cell proliferation. *J Nutr.* (2001)
- Halade GV, Rahman MM, Fernandes G. Differential effects of conjugated linoleic acid isomers in insulin-resistant female C57Bl/6J mice. *J Nutr Biochem.* (2010)
- Halade GV, Rahman MM, Fernandes G. Effect of CLA isomers and their mixture on aging C57Bl/6J mice. *Eur J Nutr.* (2009)
- Hasin A, et al. Consumption of c9,t11-18:2 or t10,c12-18:2 enriched dietary supplements does not influence milk macronutrients in healthy, lactating women. *Lipids.* (2007)
- Hattori T, et al. G2A plays proinflammatory roles in human keratinocytes under oxidative stress as a receptor for 9-hydroxyoctadecadienoic acid. *J Invest Dermatol.* (2008)
- Herrmann J, et al. Isomer-specific effects of CLA on gene expression in human adipose tissue depending on PPARgamma2 P12A polymorphism: a double blind, randomized, controlled cross-over study. *Lipids Health Dis.* (2009)
- Hontecillas R, et al. Nutritional regulation of porcine bacterial-induced colitis by conjugated linoleic acid. *J Nutr.* (2002)
- Hunt WT, et al. Protection of cortical neurons from excitotoxicity by conjugated linoleic acid. *J Neurochem.* (2010)

Iannone A, et al. Impairment of 8-iso-PGF(2 α) isoprostane metabolism by dietary conjugated linoleic acid (CLA). *Prostaglandins Leukot Essent Fatty Acids*. (2009)

Ide T. Interaction of fish oil and conjugated linoleic acid in affecting hepatic activity of lipogenic enzymes and gene expression in liver and adipose tissue. *Diabetes*. (2005)

Ioannidis O, et al. Nutritional modulation of the inflammatory bowel response. *Digestion*. (2011)

Ip C, Scimeca JA, Thompson HJ. Conjugated linoleic acid. A powerful anticarcinogen from animal fat sources. *Cancer*. (1994)

Iwata T, et al. Safety of dietary conjugated linoleic acid (CLA) in a 12-weeks trial in healthy overweight Japanese male volunteers. *J Oleo Sci*. (2007)

Joo NE, Park CS. Inhibition of excitotoxicity in cultured rat cortical neurons by a mixture of conjugated linoleic acid isomers. *Pharmacol Res*. (2003)

Joseph SV, et al. Conjugated linoleic acid supplementation for 8 weeks does not affect body composition, lipid profile, or safety biomarkers in overweight, hyperlipidemic men. *J Nutr*. (2011)

Kamphuis MM, et al. Effect of conjugated linoleic acid supplementation after weight loss on appetite and food intake in overweight subjects. *Eur J Clin Nutr*. (2003)

Kamphuis MM, et al. The effect of conjugated linoleic acid supplementation after weight loss on body weight regain, body composition, and resting metabolic rate in overweight subjects. *Int J Obes Relat Metab Disord*. (2003)

Kang K, et al. trans-10,cis-12 CLA inhibits differentiation of 3T3-L1 adipocytes and decreases PPAR gamma expression. *Biochem Biophys Res Commun*. (2003)

Katakura M, et al. Docosahexaenoic acid promotes neuronal differentiation by regulating basic helix-loop-helix transcription factors and cell cycle in neural stem cells. *Neuroscience*. (2009)

Kennedy A, et al. Inflammation and insulin resistance induced by trans-10, cis-12 conjugated linoleic acid depend on intracellular calcium levels in primary cultures of human adipocytes. *J Lipid Res*. (2010)

Kim J, et al. Eight weeks of conjugated linoleic acid supplementation has no effect on antioxidant status in healthy overweight/obese Korean individuals. *Eur J Nutr*. (2012)

Kim JH, Kim J, Park Y. trans-10,cis-12 Conjugated Linoleic Acid Enhances Endurance Capacity by Increasing Fatty Acid Oxidation and Reducing Glycogen Utilization in Mice. *Lipids*. (2012)

Kim YI, et al. Potent PPAR α activator derived from tomato juice, 13-oxo-9,11-octadecadienoic acid, decreases plasma and hepatic triglyceride in obese diabetic mice. *PLoS One*. (2012)

Kong SC, et al. The Incidence of self-prescribed oral complementary and alternative medicine use by patients with gastrointestinal diseases. *J Clin Gastroenterol*. (2005)

Kreider RB, et al. Effects of conjugated linoleic acid supplementation during resistance training on body composition, bone density, strength, and selected hematological markers. *J Strength Cond Res*. (2002)

Kuhnt K, et al. Dietary supplementation with 11trans- and 12trans-18:1 and oxidative stress in humans. *Am J Clin Nutr*. (2006)

Lambert EV, et al. Conjugated linoleic acid versus high-oleic acid sunflower oil: effects on energy metabolism, glucose tolerance, blood lipids, appetite and body composition in regularly exercising individuals. *Br J Nutr*. (2007)

Larsen TM, et al. Conjugated linoleic acid supplementation for 1 y does not prevent weight or body fat regain. *Am J Clin Nutr*. (2006)

Lasa A, et al. The combination of resveratrol and CLA does not increase the delipidating effect of each molecule in 3T3-L1 adipocytes. *Nutr Hosp*. (2011)

Laso N, et al. Effects of milk supplementation with conjugated linoleic acid (isomers cis-9, trans-11 and trans-10, cis-12) on body composition and metabolic syndrome components. *Br J Nutr*. (2007)

Lau DS, Archer MC. The 10t,12c isomer of conjugated linoleic acid inhibits fatty acid synthase expression and enzyme activity in human breast, colon, and prostate cancer cells. *Nutr Cancer*. (2010)

Lee S.R., Khamoui A.V., et al., "Effect of conjugated linoleic acids and omega-3 fatty acids with or without resistance training on muscle mass in high-fat diet-fed middle-aged mice". *Exp Physiol*. 2017 Nov 1;102(11):1500-1512. Epub 2017 Sep 30.

Lee Y. Isomer specificity of conjugated linoleic acid (CLA): 9E,11E-CLA. *Nutr Res Pract*. (2008)

Lewis JD, et al. An open-label trial of the PPAR-gamma ligand rosiglitazone for active ulcerative colitis. *Am J Gastroenterol*. (2001)

Lewis JD, et al. Rosiglitazone for active ulcerative colitis: a randomized placebo-controlled trial. *Gastroenterology*. (2008)

Lin H, et al. Survey of the conjugated linoleic acid contents of dairy products. *J Dairy Sci*. (1995)

Louter-van de Haar, J, Wielinga PY, Scheurink AJW, Nieuwenhuizen AG. Comparison of the effects of three different (-)-hydroxycitric acid preparations on food intake in rats. *Nutr Metab* 2005;2:23.

Macaluso F, et al. Effect of conjugated linoleic acid on testosterone levels in vitro and in vivo after an acute bout of resistance exercise. *J Strength Cond Res*. (2012)

Macarulla MT, et al. Effects of conjugated linoleic acid on liver composition and fatty acid oxidation are isomer-dependent in hamster. *Nutrition*. (2005)

Malpuech-Brugere C, Wihelmine PHG, Verboeket-vande V, Mensink RP, et al. Effects of two conjugated linoleic acid isomers on body fat mass in overweight humans. *Obes Res* 2004;12:591–598.

Malpuech-Brugère C, et al. Effects of two conjugated linoleic Acid isomers on body fat mass in overweight humans. *Obes Res.* (2004)

Marks DJ. Defective innate immunity in inflammatory bowel disease: a Crohn's disease exclusivity. *Curr Opin Gastroenterol.* (2011)

Martinez K, Kennedy A, McIntosh MK. JNK inhibition by SP600125 attenuates trans-10, cis-12 conjugated linoleic acid-mediated regulation of inflammatory and lipogenic gene expression. *Lipids.* (2011)

McCrorie TA, et al. Human health effects of conjugated linoleic acid from milk and supplements. *Nutr Res Rev.* (2011)

Meinert Larsen T, Toubro S, Gudmundsen O, Astrup A. Conjugated linoleic acid supplementation for 1 y does not prevent weight or body fat regain. *Am J Clin Nutr* 2006;83:606–612.

Miranda J, et al. Weak effect of trans-10, cis-12-conjugated linoleic acid on body fat accumulation in adult hamsters. *Br J Nutr.* (2009)

Moloney F, et al. Conjugated linoleic acid supplementation, insulin sensitivity, and lipoprotein metabolism in patients with type 2 diabetes mellitus. *Am J Clin Nutr.* (2004)

Moon HS, et al. Down-regulation of PPARgamma2-induced adipogenesis by PEGylated conjugated linoleic acid as the pro-drug: Attenuation of lipid accumulation and reduction of apoptosis. *Arch Biochem Biophys.* (2006)

Moya-Camarena SY, Belury MA. Species differences in the metabolism and regulation of gene expression by conjugated linoleic acid. *Nutr Rev.* (1999)

Moya-Camarena SY, Van den Heuvel JP, Belury MA. Conjugated linoleic acid activates peroxisome proliferator-activated receptor alpha and beta subtypes but does not induce hepatic peroxisome proliferation in Sprague-Dawley rats. *Biochim Biophys Acta.* (1999)

Moya-Camarena SY, et al. Conjugated linoleic acid is a potent naturally occurring ligand and activator of PPARalpha. *J Lipid Res.* (1999)

Nakamura YK, Omaye ST. Conjugated linoleic acid isomers' roles in the regulation of PPAR-gamma and NF-kappaB DNA binding and subsequent expression of antioxidant enzymes in human umbilical vein endothelial cells. *Nutrition.* (2009)

Navarro V, et al. The body fat-lowering effect of conjugated linoleic acid: a comparison between animal and human studies. *J Physiol Biochem.* (2006)

Nazare JA, et al. Daily intake of conjugated linoleic acid-enriched yoghurts: effects on energy metabolism and adipose tissue gene expression in healthy subjects. *Br J Nutr.* (2007)

Noone EJ, et al. The effect of dietary supplementation using isomeric blends of conjugated linoleic acid on lipid metabolism in healthy human subjects. *Br J Nutr.* (2002)

Norris LE, et al. Comparison of dietary conjugated linoleic acid with safflower oil on body composition in obese postmenopausal women with type 2 diabetes mellitus. *Am J Clin Nutr.* (2009)

Noto A, et al. Dietary conjugated linoleic acid decreases adipocyte size and favorably modifies adipokine status and insulin sensitivity in obese, insulin-resistant rats. *Metabolism.* (2007)

Ogawa A, et al. Identification and analysis of two splice variants of human G2A generated by alternative splicing. *J Pharmacol Exp Ther.* (2010)

Papaetis GS, Orphanidou D, Panagiotou TN. Thiazolidinediones and type 2 diabetes: from cellular targets to cardiovascular benefit. *Curr Drug Targets.* (2011)

Pariza MW, Park Y, Cook ME. The biologically active isomers of conjugated linoleic acid. *Prog Lipid Res.* (2001)

Park Y, et al. Changes in body composition in mice during feeding and withdrawal of conjugated linoleic acid. *Lipids.* (1999)

Park Y, et al. Effect of conjugated linoleic acid on body composition in mice. *Lipids.* (1997)

Park Y, et al. Evidence that the trans-10,cis-12 isomer of conjugated linoleic acid induces body composition changes in mice. *Lipids.* (1999)

Pfeuffer M, et al. CLA does not impair endothelial function and decreases body weight as compared with safflower oil in overweight and obese male subjects. *J Am Coll Nutr.* (2011)

Pinkoski C, et al. The effects of conjugated linoleic acid supplementation during resistance training. *Med Sci Sports Exerc.* (2006)

Racine NM, et al. Effect of conjugated linoleic acid on body fat accretion in overweight or obese children. *Am J Clin Nutr.* (2010)

Raff M, et al. A diet rich in conjugated linoleic acid and butter increases lipid peroxidation but does not affect atherosclerotic, inflammatory, or diabetic risk markers in healthy young men. *J Nutr.* (2008)

Raff M, et al. Diets rich in conjugated linoleic acid and vaccenic acid have no effect on blood pressure and isobaric arterial elasticity in healthy young men. *J Nutr.* (2006)

Rahman M, et al. Conjugated linoleic acid (CLA) prevents age-associated skeletal muscle loss. *Biochem Biophys Res Commun.* (2009)

Rahman MM, et al. t10c12-CLA maintains higher bone mineral density during aging by modulating osteoclastogenesis and bone marrow adiposity. *J Cell Physiol.* (2011)

Rasooly R, et al. Dietary trans 10, cis 12-conjugated linoleic acid reduces the expression of fatty acid oxidation and drug detoxification enzymes in mouse liver. *Br J Nutr.* (2007)

Ringseis R, et al. LDL receptor gene transcription is selectively induced by t10c12-CLA but not by c9t11-CLA in the human hepatoma cell line HepG2. *Biochim Biophys Acta.* (2006)

Riserus U, Berglund L, Vessby B. Conjugated linoleic acid (CLA) reduced abdominal adipose tissue in obese middle-aged men with signs of the metabolic syndrome: a randomized controlled trial. *Int J Obes* 2001;25:1129–1135.

Risérus U, et al. Effects of cis-9,trans-11 conjugated linoleic acid supplementation on insulin sensitivity, lipid peroxidation, and proinflammatory markers in obese men. *Am J Clin Nutr.* (2004)

Risérus U, et al. Supplementation with conjugated linoleic acid causes isomer-dependent oxidative stress and elevated C-reactive protein: a potential link to fatty acid-induced insulin resistance. *Circulation.* (2002)

Risérus U, et al. Treatment with dietary trans10cis12 conjugated linoleic acid causes isomer-specific insulin resistance in obese men with the metabolic syndrome. *Diabetes Care.* (2002)

Rousseaux C, et al. Intestinal antiinflammatory effect of 5-aminosalicylic acid is dependent on peroxisome proliferator-activated receptor-gamma. *J Exp Med.* (2005)

Ruan H, Pownall HJ, Lodish HF. Troglitazone antagonizes tumor necrosis factor-alpha-induced reprogramming of adipocyte gene expression by inhibiting the transcriptional regulatory functions of NF-kappaB. *J Biol Chem.* (2003)

Ruan H, et al. Profiling gene transcription in vivo reveals adipose tissue as an immediate target of tumor necrosis factor-alpha: implications for insulin resistance. *Diabetes.* (2002)

Santercole V, et al. Total lipids of Sarda sheep meat that include the fatty acid and alkenyl composition and the CLA and trans-18:1 isomers. *Lipids.* (2007)

Santos-Zago LF, Botelho AP, de Oliveira AC. Supplementation with commercial mixtures of conjugated linoleic acid in association with vitamin E and the process of lipid autoxidation in rats. *Lipids.* (2007)

Sato K, et al. The change in conjugated linoleic acid concentration in blood of Japanese fed a conjugated linoleic acid diet. *J Nutr Sci Vitaminol (Tokyo).* (2011)

Schiavon S, et al. Effect of high or low protein ration combined or not with rumen protected conjugated linoleic acid (CLA) on meat CLA content and quality traits of double-muscle Piedmontese bulls. *Meat Sci.* (2011)

Sluijs I, et al. Dietary supplementation with cis-9,trans-11 conjugated linoleic acid and aortic stiffness in overweight and obese adults. *Am J Clin Nutr.* (2010)

Smedman A, Vessby B, Basu S. Isomer-specific effects of conjugated linoleic acid on lipid peroxidation in humans: regulation by alpha-tocopherol and cyclo-oxygenase-2 inhibitor. *Clin Sci (Lond).* (2004)

Smedman A, et al. Conjugated linoleic acid increased C-reactive protein in human subjects. *Br J Nutr.* (2005).

Smit LA, et al. A high intake of trans fatty acids has little effect on markers of inflammation and oxidative stress in humans. *J Nutr.* (2011)

Sneddon AA, et al. Effect of a conjugated linoleic acid and omega-3 fatty acid mixture on body composition and adiponectin. *Obesity (Silver Spring).* (2008)

Sofi F, et al. Effects of a dairy product (pecorino cheese) naturally rich in cis-9, trans-11 conjugated linoleic acid on lipid, inflammatory and haemorheological variables: a dietary intervention study. *Nutr Metab Cardiovasc Dis.* (2010)

Steck SE, et al. Conjugated linoleic acid supplementation for twelve weeks increases lean body mass in obese humans. *J Nutr.* (2007)

Stickford JL, et al. Conjugated linoleic acid's lack of attenuation of hyperpnea-induced bronchoconstriction in asthmatic individuals in the short term. *Int J Sport Nutr Exerc Metab.* (2011)

Suzawa M, et al. Cytokines suppress adipogenesis and PPAR-gamma function through the TAK1/TAB1/NIK cascade. *Nat Cell Biol.* (2003)

Syvertsen C, et al. The effect of 6 months supplementation with conjugated linoleic acid on insulin resistance in overweight and obese. *Int J Obes (Lond).* (2007)

Taylor JS, et al. Conjugated linoleic acid impairs endothelial function. *Arterioscler Thromb Vasc Biol.* (2006)

Terasawa N., et al., "Effect of Conjugated Linoleic Acid Intake on Endurance Exercise Performance and Anti-fatigue in Student Athletes". *J Oleo Sci.* 1 lug 2017; 66 (7): 723-733. Epub 2017 giu 13.

Tholstrup T, et al. An oil mixture with trans-10, cis-12 conjugated linoleic acid increases markers of inflammation and in vivo lipid peroxidation compared with cis-9, trans-11 conjugated linoleic acid in postmenopausal women. *J Nutr.* (2008)

Thom E, Wadstein J, Gudmundsen O. Conjugated linoleic acid reduces body fat in healthy exercising humans. *J Int Med Res.* (2001)

Thrush AB, et al. Conjugated linoleic acid increases skeletal muscle ceramide content and decreases insulin sensitivity in overweight, non-diabetic humans. *Appl Physiol Nutr Metab.* (2007)

Tricon S, Burdge GC, Kew S, et al. Opposing effects of cis-9,trans-11 and trans-10,cis-12 conjugated linoleic acid on blood lipids in healthy humans. *Am J Clin Nutr* 2004;80:614–620.

Tricon S, Yaqoob P. Conjugated linoleic acid and human health: a critical evaluation of the evidence. *Clin Nutr Metab Care* 2006;9:105–110.

Tricon S, et al. Effects of dairy products naturally enriched with cis-9,trans-11 conjugated linoleic acid on the blood lipid profile in healthy middle-aged men. *Am J Clin Nutr.* (2006)

Tsuboyama-Kasaoka N, et al. Conjugated linoleic acid supplementation reduces adipose tissue by apoptosis and develops lipodystrophy in mice. *Diabetes*. (2000)

Tsuyama S, et al. Dietary conjugated linoleic acid modifies the brain endocannabinoid system in mice. *Nutr Neurosci*. (2009)

Turpeinen AM, et al. Immunological and metabolic effects of cis-9, trans-11-conjugated linoleic acid in subjects with birch pollen allergy. *Br J Nutr*. (2008)

Valeille K, et al. Lipid atherogenic risk markers can be more favourably influenced by the cis-9,trans-11-octadecadienoate isomer than a conjugated linoleic acid mixture or fish oil in hamsters. *Br J Nutr*. (2004)

Venkatramanan S, et al. Milk enriched with conjugated linoleic acid fails to alter blood lipids or body composition in moderately overweight, borderline hyperlipidemic individuals. *J Am Coll Nutr*. (2010)

Vyas D, Kadegowda AK, Erdman RA. Dietary conjugated linoleic Acid and hepatic steatosis: species-specific effects on liver and adipose lipid metabolism and gene expression. *J Nutr Metab*. (2012)

Wanders AJ, et al. A high intake of conjugated linoleic acid does not affect liver and kidney function tests in healthy human subjects. *Food Chem Toxicol*. (2010)

Wanders AJ, et al. Effect of a high intake of conjugated linoleic acid on lipoprotein levels in healthy human subjects. *PLoS One*. (2010)

Wang H, et al. Isomer-specific effects of conjugated linoleic acid on proliferative activity of cultured neural progenitor cells. *Mol Cell Biochem*. (2011)

Watras AC, et al. The role of conjugated linoleic acid in reducing body fat and preventing holiday weight gain. *Int J Obes (Lond)*. (2007)

Whigham LD, et al. Safety profile of conjugated linoleic acid in a 12-month trial in obese humans. *Food Chem Toxicol*. (2004)

Yokoi H, et al. Peroxisome proliferator-activated receptor gamma ligands isolated from adlay seed (*Coix lacryma-jobi* L. var. *ma-yuen* STAPF.). *Biol Pharm Bull*. (2009)

Yu Y, Correll PH, Vanden Heuvel JP. Conjugated linoleic acid decreases production of pro-inflammatory products in macrophages: evidence for a PPAR gamma-dependent mechanism. *Biochim Biophys Acta*. (2002)

Yuki K, et al. Isolation of 9-Hydroxy-10*E*,12*Z*-octadecadienoic Acid, an Inhibitor of Fat Accumulation from *Valeriana fauriei*. *Biosci Biotechnol Biochem*. (2012)

Zabala A, et al. trans-10,cis-12 Conjugated linoleic acid inhibits lipoprotein lipase but increases the activity of lipogenic enzymes in adipose tissue from hamsters fed an atherogenic diet. *Br J Nutr*. (2006)

ACIDO LIPOICO

Alpha-Lipoic Acid. *Journal of the Peripheral Nervous System*; Volume 5 Issue 3, Pages 169 - 170.

Alpha-Lipoic Acid. Review of Natural Products. Facts & Comparisons 4.0. April 2009.

Ames BN, Shigenaga MK, Hagen TM. Mitochondrial decay in aging. *Biochim Biophys Acta*. 1995 May 24;1271(1):165-70.

Ames BN. Optimal micronutrients delay mitochondrial decay and age-associated diseases. Optimal micronutrients delay mitochondrial decay and age-associated diseases. *Mech Ageing Dev*. 2010 Jul-Aug;131(7-8):473-9.

Ames BN. Prevention of mutation, cancer, and other age-associated diseases by optimizing micronutrient intake. *J Nucleic Acids*. 2010 Sept 22;2010.

Berkson, Burt. L'acido alfa-lipoico : il più potente antiossidante per rallentare l'invecchiamento, curare il danno epatico e ridurre il rischio di malattie degenerative. *Tecniche nuove* – 2000

Bertoni-Freddari C, Fattoretti P, Casoli T, Spagna C, Meier-Ruge W. Morphological alterations of synaptic mitochondria during aging. The effect of Hydergine treatment. *Ann N Y Acad Sci*. 1994 Jun 30;717:137-49.

Burke DG, Chilibeck PD, Parise G, Tarnopolsky MA, Candow DG. Effect of alpha-lipoic acid combined with creatine monohydrate on human skeletal muscle creatine and phosphagen concentration. *Int J Sport Nutr Exerc Metab*. 2003;13:294–302.

Complete gluco-D. *Am J Health Syst Pharm*. 2004 Jan 15;61(2):160-73; quiz 175-6.; *Diabetes Care*. 20(3):369-373, 1997.

Duby JJ, Campbell RK, Setter SM, White JR, Rasmussen KA. Diabetic neuropathy: an intensive review. *Am J Health Syst Pharm*. 2004 Jan 15;61(2):160-73; quiz 175-6. Review

Estrada E, Ewart H, Tsakiridis T, et al., Stimulation of glucose uptake by the natural coenzyme alpha lipoic acid/thioctic acid. *Diabetes* 1996;45:1798–1804.

Evans JL, Goldfine ID. Alpha-lipoic acid: a multifunctional antioxidant that improves insulin sensitivity in patients with type 2 diabetes. *Diabetes Technol Ther* 2000;2(3):410-413

Gasic-Milenkovic J, Loske C, Deuther-Conrad W, Münch G. Protein “AGEing”--cytotoxicity of a glycated protein increases with its degree of AGE-modification. *Z Gerontol Geriatr*. 2001 Dec;34(6):457-60.

Hamano Y. Effects of dietary lipoic acid on plasma lipid, in vivo insulin sensitivity, metabolic response to corticosterone and in vitro lipolysis in broiler chickens. *Br J Nutr*. 2006 Jun;95(6):1094-101.

Kalliopi Georgakouli, et al., "Exercise and Redox Status Responses Following Alpha-Lipoic Acid Supplementation in G6PD Deficient Individuals". *Antioxidants* 2018, Nov; 7(11): 162.

Kim MS, Park JY, Namkoong C, Jang PG, Ryu JW, Song HS, Yun JY, Namgoong IS, Ha J, Park IS, Lee IK, Viollet B, Youn JH, Lee HK, Lee KU. Anti-obesity effects of alpha-lipoic acid mediated by suppression of hypothalamic AMP-activated protein kinase. *Nat Med.* 2004 Jul;10(7):727-33. Epub 2004 Jun 13.

Kim, E.; Park, D. W.; Choi, S. H.; Kim, J. J.; Cho, H. S. (2008). "A Preliminary Investigation of α -Lipoic Acid Treatment of Antipsychotic Drug-Induced Weight Gain in Patients with Schizophrenia". *Journal of Clinical Psychopharmacology* 28 (2): 138–146

Kishi Y, Schmelzer J, Yao J, et al. alpha Lipoic acid: effect on glucose uptake, sorbitol pathway, and energy metabolism in experimental diabetic neuropathy. *Diabetes* 1999;48:2045–2051.

Koufaki M, Detsi A, Kiziridi C. Multifunctional lipoic acid conjugates. *Curr Med Chem.* 2009;16(35):4728-42.

Kunt T, Forst T, Wilhelm A, et al. Alpha-lipoic acid reduces expression of vascular cell adhesion molecule-1 and endothelial adhesion of human monocytes after stimulation with advanced glycation end products. *Clin Sci (Lond).* 1999 Jan;96(1):75-82.

L'acido alfa-lipoico. Ed Tecnico Nuove, Milano 2000 *Diabetes Technol Ther* 2000; 2(3): 410-413.

Li L, Smith A, Hagen TM, Frei B. Vascular oxidative stress and inflammation increase with age: ameliorating effects of alpha-lipoic acid supplementation. *Ann N Y Acad Sci.* 2010 Aug;1203:151-9

Liu J. The effects and mechanisms of mitochondrial nutrient alpha-lipoic acid on improving age-associated mitochondrial and cognitive dysfunction: an overview. *Neurochem Res.* 2008 Jan;33(1):194-203.

Luciana Tromba, et al., "Effect of Alpha-Lipoic Acid Supplementation on Endothelial Function and Cardiovascular Risk Factors in Overweight/Obese Youths: A Double-Blind, Placebo-Controlled Randomized Trial". *Nutrients.* 2019 Feb; 11(2): 375.

Maczurek A, Hager K, Kenkies M, et al. Lipoic acid as an anti-inflammatory and neuroprotective treatment for Alzheimer's disease. *Adv Drug Deliv Rev.* 2008 Oct-Nov;60(13-14):1463-70.

Midaoui AE, Elimadi A, Wu L, Haddad PS, de Champlain J. Lipoic acid prevents hypertension, hyperglycemia, and the increase in heart mitochondrial superoxide production. *Am J Hypertens.* 2003 Mar;16(3):173-9.

Miquel J. An update on the mitochondrial-DNA mutation hypothesis of cell aging. *Mutat Res.* 1992 Sep;275(3-6):209-16.

Namazi N., et al., "Alpha-lipoic acid supplement in obesity treatment: A systematic review and meta-analysis of clinical trials". *Clin Nutr.* 2018 Apr;37(2):419-428.

Ne Cameron and Ma Cotter. Alpha-Lipoic Acid Effects And Combination Therapy With Gamma-Linolenic Acid. *Journal of the Peripheral Nervous System* Volume 5, Issue 3, pages 169-170, September 2000

Prieto-Hontoria PL, Pérez-Matute P, Fernández-Galilea M, Barber A, Martínez JA, Moreno-Aliaga MJ. Lipoic acid prevents body weight gain induced by a high fat diet in rats: effects on intestinal sugar transport. *J Physiol Biochem.* 2009 Mar;65(1):43-50.

Salinthon S, Yadav V, Bourdette DN, Carr DW. Lipoic acid: a novel therapeutic approach for multiple sclerosis and other chronic inflammatory diseases of the CNS. *Endocr Metab Immune Disord Drug Targets.* 2008 Jun;8(2):132-42.

Shay KP, Moreau RF, Smith EJ, Smith AR, Hagen TM. Alpha-lipoic acid as a dietary supplement: molecular mechanisms and therapeutic potential. *Biochim Biophys Acta.* 2009 Oct;1790(10):1149-60.

Thirunavukkarasu V, Anitha Nandhini AT, Anuradha CV. Lipoic acid improves glucose utilisation and prevents protein glycation and AGE formation. *Pharmazie.* 2005 Oct;60(10):772-5.

Wang Y, Li X, Guo Y, Chan L, Guan X. alpha-Lipoic acid increases energy expenditure by enhancing adenosine monophosphate-activated protein kinase-peroxisome proliferator-activated receptor-gamma coactivator-1alpha signaling in the skeletal muscle of aged mice. *Metabolism.* 2010 Jul;59(7):967-76.

AGMATINA

Gilad GM, et al Metabolism of agmatine into urea but not into nitric oxide in rat brain . *Neuroreport.* (1996)

Raasch W, et al Agmatine is widely and unequally distributed in rat organs . *Ann N Y Acad Sci.* (1995)

Gilad GM, et al Metabolism of agmatine into urea but not into nitric oxide in rat brain . *Neuroreport.* (1996)

Piletz JE, et al Agmatine crosses the blood-brain barrier . *Ann N Y Acad Sci.* (2003)

Rushaidhi M, et al Agmatine selectively improves behavioural function in aged male Sprague-Dawley rats . *Neuroscience.* (2012)

Roberts JC, et al Pharmacodynamic and pharmacokinetic studies of agmatine after spinal administration in the mouse . *J Pharmacol Exp Ther.* (2005)

SITOGRAFIA

<http://www.ncbi.nlm.nih.gov/pubmed/4621632>.

<http://www.sciencedirect.com/science/article/pii/S0014299995006699>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2922054/>

<http://www.ncbi.nlm.nih.gov/pubmed/18926881>

<http://www.sciencedirect.com/science/article/pii/S0006899304011771>

<http://www.ncbi.nlm.nih.gov/pubmed/26424770>
<http://www.ncbi.nlm.nih.gov/pubmed/24523404>

ALFAGLICERILFOSFORIL COLINA

Ceda GP, *et al.* alpha-Glycerolphosphorylcholine administration increases the GH responses to GHRH of young and elderly subjects. *Horm Metab Res.* (1992)

Gerda Striffler, *et al.*, "Targeting Mitochondrial Dysfunction with LAlpha Glycerolphosphorylcholine". 2016

Hanahan DJ, Nelson DR. Phospholipids as dynamic participants in biological processes. *J Lipid Res* 1984, **25**:1528-1535

Kawamura T, *et al.* Glycerophosphocholine enhances growth hormone secretion and fat oxidation in young adults. *Nutrition.* (2012)

KENNEDY EP. Biosynthesis of phospholipides. *Fed Proc.* 1957 Sep;**16**(3):847-853

Lena Marcus, *et al.*, "Evaluation of the effects of two doses of alpha glycerylphosphorylcholine on physical and psychomotor performance". 2017.

R Di Perri, G Coppola, LA Ambrosio, A Grasso, FM Puca, and M Rizzo. A multicentre trial to evaluate the efficacy and tolerability of alpha-glycerolphosphorylcholine versus cytosine diphosphocholine in patients with vascular dementia. *J Int Med Res*, July 1, 1991; **19**(4): 330-41.

Schettini G, *et al.* Molecular mechanisms mediating the effects of L-alpha-glycerolphosphorylcholine, a new cognition-enhancing drug, on behavioral and biochemical parameters in young and aged rats. *Pharmacol Biochem Behav.* (1992)

Song HeeLeeBo, *et al.*, "Late treatment with choline alfoscerate (L-alpha glycerylphosphorylcholine, α -GPC) increases hippocampal neurogenesis and provides protection against seizure-induced neuronal death and cognitive impairment". 2016

Tim Ziegenfuss, Jamie Landis and Jennifer Hofheins. Acute supplementation with alpha-glycerolphosphorylcholine augments growth hormone response to, and peak force production during, resistance exercise. *Journal of the International Society of Sports Nutrition* 2008, **5**(Suppl 1):P15

AMINOACIDI ESSENZIALI

Bröer S. "Amino acid homeostasis and signalling in mammalian cells and organisms". *Biochem J.* 2017 May **25**;474(12):1935-1963. doi: 10.1042/BCJ20160822.

Chad M. Kerkick. "International society of sports nutrition position stand: nutrient timing". *Journal of the International Society of Sports Nutrition.* 2017. 14:33 DOI 10.1186/s12970-017-0189-4

Nichols S. "The effect of protein and essential amino acid supplementation on muscle strength and performance in patients with chronic heart failure: a systematic review". *Eur J Nutr.* 2019 Oct 28. doi: 10.1007/s00394-019-02108-z.

Robert R. Wolfe "Branched-chain amino acids and muscle protein synthesis in humans: myth or reality?" *J Int Soc Sports Nutr.* 2017; **14**: 30.

Santos CS., Nascimento FE. "Isolated branched-chain amino acid intake and muscle protein synthesis in humans: a biochemical review". *einstein (São Paulo).* 2019;**17**(3):eRB4898

AMINOACIDI RAMIFICATI (BCAA)

Alfred E. Harper: Interrelationships among the BCAA, International Symposium on Branched Chain Amino and Keto Acids in health and disease, Göttingen, october 21-23, 1983

Alvestrand A, *et al.* Influence of leucine infusion on intracellular amino acids in humans. *Eur J Clin Invest.* (1990)

Ament W, Verkerke GJ. Exercise and fatigue. *Sports Med.* (2009)

Anthony JC, *et al.* Leucine stimulates translation initiation in skeletal muscle of postabsorptive rats via a rapamycin-sensitive pathway. *J Nutr.* (2000)

Anthony, J. C., Yoshizawa, F., Anthony, T. G., Vary, T. C., Jefferson, L. S., & Kimball, S. R. (2000) Leucine stimulates translation initiation in skeletal muscle of postabsorptive rats via a rapamycin-sensitive pathway. *J. Nutr.* **130**: 2413-2419.

Armstrong JL, *et al.* Regulation of glycogen synthesis by amino acids in cultured human muscle cells. *J Biol Chem.* (2001)

Bassit *et al.* Branched-Chain Amino Acid Supplementation and the Immune Response of Long-Distance Athletes. *Nutrition* 2002;**18**:376-379

Bifari F, *et al.* Branched-chain amino acids differently modulate catabolic or anabolic states: a pharmacological point of view.(2017)

Bigard AX Branched-chain amino acid supplementation during repeated prolonged skiing exercise at altitude. *Int j Sport Nutr* 6: 295 - 306 (1996)

Blomstrand E, *et al.* Branched-chain amino acids activate key enzymes in protein synthesis after physical exercise. *J Nutr.* (2006)

Blomstrand E, *et al.* Effect of carbohydrate ingestion on brain exchange of amino acids during sustained exercise in human subjects. *Acta Physiol Scand.* (2005)

Blomstrand E, *et al.* Influence of ingesting a solution of branched-chain amino acids on perceived exertion during exercise. *Acta Physiol Scand.* (1997)

Blomstrand E. A role for branched-chain amino acids in reducing central fatigue. *J Nutr.* (2006)

Blomstrand E. Amino acids and central fatigue. *Amino Acids.* (2001)

Blomstrand E. A role for branched-chain amino acids in reducing central fatigue. *J Nutr.* 2006 Feb;136(2):544S-547S.

Boado RJ, *et al.* Selective expression of the large neutral amino acid transporter at the blood-brain barrier. *Proc Natl Acad Sci U S A.* (1999)

Bodine SC, *et al.* Identification of ubiquitin ligases required for skeletal muscle atrophy. *Science.* (2001)

Bolster, D. R., Crozier, S. J., Kimball, S. R., & Jefferson, L. S. (2002) AMP-activated protein kinase suppresses protein synthesis in rat skeletal muscle through down-regulated mammalian target of rapamycin (mTOR) signaling. *J. Biol. Chem.* 277: 23977-23980.

Chang TW, Goldberg AL. Leucine inhibits oxidation of glucose and pyruvate in skeletal muscles during fasting. *J Biol Chem.* (1978)

Coburn, J. W., *et al.* Effects of leucine and whey protein supplementation during eight weeks of unilateral resistance training. *J Strength Cond Res* 2006 May;20(2):284-91.

Cota, D., *et al.* Hypothalamic mTOR signaling regulates food intake. *Science.* 2006 May 12;312(5775):927-30.

Crowe, M. J., *et al.* Effects of dietary leucine supplementation on exercise performance. *Eur J Appl Physiol.* 2006 Aug;97(6):664-72.

Crozier, S. J., Kimball, S.R., Emmert, S. W., Anthony, J. C., & Jefferson, L.S. (2005) Oral leucine administration stimulates protein synthesis in rat skeletal muscle. *J. Nutr.* 135: 376-382.

De Lorenzo, A., *et al.* Effect of acute and chronic branched-chain amino acids on energy metabolism and muscle performance. *Diabetes Nutr Metab.* 2003 Oct-Dec;16(5-6):291-7.

Doi M, *et al.* Hypoglycemic effect of isoleucine involves increased muscle glucose uptake and whole body glucose oxidation and decreased hepatic gluconeogenesis. *Am J Physiol Endocrinol Metab.* (2007)

Donato, J., *et al.* Effects of leucine supplementation on the body composition and protein status of rats submitted to food restriction. *Nutrition* 22(5):520-527, 2006.

Drummond MJ, *et al.* Rapamycin administration in humans blocks the contraction-induced increase in skeletal muscle protein synthesis. *J Physiol.* (2009)

Effect of starvation on the turnover and metabolic response to leucine *J. Clin invest.* 61: 1471-1480

Elango R, *et al.* Determination of the tolerable upper intake level of leucine in acute dietary studies in young men. *Am J Clin Nutr.* (2012)

Felig P, Marliss E, Cahill GF Jr. Plasma amino acid levels and insulin secretion in obesity. *N Engl J Med.* (1969)

Fernstrom JD, Faller DV. Neutral amino acids in the brain: changes in response to food ingestion. *J Neurochem.* (1978)

Fernstrom JD, Wurtman RJ. Brain serotonin content: physiological regulation by plasma neutral amino acids *Science.* (1972)

Flakoll PJ, *et al.* Short-term regulation of insulin-mediated glucose utilization in four-day fasted human volunteers: role of amino acid availability. *Diabetologia.* (1992)

G.Marchesini *et al.* "Anticatabolic effect of BCAA enriched solutions in patients with liver cirrhosis", *Hepatology* 2 (1982):420-425

Gibala MJ, Young ME, Taegtmeyer H. Anaplerosis of the citric acid cycle: role in energy metabolism of heart and skeletal muscle. *Acta Physiol Scand.* (2000)

Glass DJ. Signalling pathways that mediate skeletal muscle hypertrophy and atrophy. *Nat Cell Biol.* (2003)

Gomez-Merino D, *et al.* Evidence that the branched-chain amino acid L-valine prevents exercise-induced release of 5-HT in rat hippocampus. *Int J Sports Med.* (2001)

Gomez-Merino, D., *et al.* Evidence that the branched-chain amino acid L-valine prevents exercise-induced release of 5-HT in rat hippocampus. *Int J Sports Med.* 2001 Jul;22(5):317-22.

Greive JS, *et al.* Leucine and insulin activate p70 S6 kinase through different pathways in human skeletal muscle. *Am J Physiol Endocrinol Metab.* (2001)

Gualano AB, *et al.* Branched-chain amino acids supplementation enhances exercise capacity and lipid oxidation during endurance exercise after muscle glycogen depletion. *J Sports Med Phys Fitness.* (2011)

Hardie DG. Energy sensing by the AMP-activated protein kinase and its effects on muscle metabolism. *Proc Nutr Soc.* (2011)

Harper AE, Miller RH, Block KP. Branched-chain amino acid metabolism. *Annu Rev Nutr.* (1984)

Harris RA, *et al.* Regulation of the branched-chain alpha-ketoacid dehydrogenase and elucidation of a molecular basis for maple syrup urine disease. *Adv Enzyme Regul.* (1990)

Haruta T, *et al.* A rapamycin-sensitive pathway down-regulates insulin signaling via phosphorylation and proteasomal degradation of insulin receptor substrate-1. *Mol Endocrinol.* (2000)

Hinault C, *et al.* Amino acids and leucine allow insulin activation of the PKB/mTOR pathway in normal adipocytes treated with wortmannin and in adipocytes from db/db mice *FASEB J.* (2004)

Holecek M, *et al.* Alterations in protein and amino acid metabolism in rats fed a branched-chain amino acids r leucine enriched diet during postprandial and postabsorptive states. *Nutrition and metabolism* (2016) 13:12

Hornberger TA, Chien S. Mechanical stimuli and nutrients regulate rapamycin-sensitive signaling through distinct mechanisms in skeletal muscle. *J Cell Biochem.* (2006)

Howarth KR, *et al.* Exercise training increases branched-chain oxoacid dehydrogenase kinase content in human skeletal muscle. *Am J Physiol Regul Integr Comp Physiol.* (2007)

Inoki K, *et al.* TSC2 is phosphorylated and inhibited by Akt and suppresses mTOR signalling. *Nat Cell Biol.* (2002)

Ispoglou T, *et al.* Daily L-leucine supplementation in novice trainees during a 12-week weight training program. *Int J Sports Physiol Perform.* (2011)

Jin G, *et al.* Changes in plasma and tissue amino acid levels in an animal model of complex fatigue. *Nutrition.* (2009)

Jones SW, *et al.* Disuse atrophy and exercise rehabilitation in humans profoundly affects the expression of genes associated with the regulation of skeletal muscle mass. *FASEB J.* (2004)

Kasperek GJ, Snider RD. Effect of exercise intensity and starvation on activation of branched chain keto acid dehydrogenase by exercise. *Am J. Phys.* 1987;238:E473

Kawamura-Yasui N, *et al.* Evaluating response to nutritional therapy using the branched-chain amino acid/tyrosine ratio in patients with chronic liver disease. *J Clin Lab Anal.* (1999)

Keast, D., Arstein, D., *et al.* "Depression of plasma glutamine concentration after exercise stress and its possible influence on the immune system", *Med. J. Aust.*, 162 : 15-8, 1995

Kimball SR, Jefferson LS. Regulation of global and specific mRNA translation by oral administration of branched-chain amino acids. *Biochem Biophys Res Commun.* (2004)

Knopf RF, Conn JW, Fajans SS, Floyd Guntsche EM, Rul1JA. Plasma growth hormone response to intravenous administration of amino acids. *J Endocr* 1965 25: 1140-4.

Kobayashi R, *et al.* Clofibrate acid stimulates branched-chain amino acid catabolism by three mechanisms. *Arch Biochem Biophys.* (2002)

Kobayashi R, *et al.* Hepatic branched-chain alpha-keto acid dehydrogenase complex in female rats: activation by exercise and starvation. *J Nutr Sci Vitaminol (Tokyo).* (1999)

Koopman R, Wagenmakers AJ, Manders RJ, Zorenc AH, Senden JM, Gorselink M, Keizer HA, van Loon LJ. (2005) Combined ingestion of protein and free leucine with carbohydrate increases postexercise muscle protein synthesis in vivo in male subjects. *Am. J. Physiol. Endocrinol. Metab.* 288(4): E645-653.

La Bounty, P., *et al.*, The effects of oral BCAAs and leucine supplementation combined with an acute lower-body resistance exercise on mTOR and 4E-BP1 activation in humans: preliminary findings. *Journal of the International Society of Sports Nutrition*, 5(Suppl 1):P21, 2008.

Lefort N, *et al.* Increased reactive oxygen species production and lower abundance of complex I subunits and carnitine palmitoyltransferase 1B protein despite normal mitochondrial respiration in insulin-resistant human skeletal muscle. *Diabetes.* (2010)

Letto J, Brosnan ME, Brosnan JT. Valine metabolism. Gluconeogenesis from 3-hydroxyisobutyrate. *Biochem J.* (1986)

Leucine: a possible regulator of protein turnover in muscle. *J Clin invest.* Vol56: 1250-1261

Liu Z, *et al.* Branched chain amino acids activate messenger ribonucleic acid translation regulatory proteins in human skeletal muscle, and glucocorticoids blunt this action. *J Clin Endocrinol Metab.* (2001)

Louard RJ, Barrett EJ, Gelfand RA. Effect of infused branched-chain amino acids on muscle and whole-body amino acid metabolism in man. *Clin Sci (Lond).* (1990)

Lu J, *et al.* Insulin resistance and the metabolism of branched-chain amino acids. *Front Med.* (2013)

Lynch CJ, *et al.* Leucine is a direct-acting nutrient signal that regulates protein synthesis in adipose tissue. *Am J Physiol Endocrinol Metab.* (2002)

Lynch CJ, *et al.* Regulation of amino acid-sensitive TOR signaling by leucine analogues in adipocytes. *J Cell Biochem.* (2000)

Lynch CJ, *et al.* Tissue-specific effects of chronic dietary leucine and norleucine supplementation on protein synthesis in rats. *Am J Physiol Endocrinol Metab.* (2002)

MacLennan, P.A., Smith, K., *et al.* "inhibition of protein breakdown by glutamine in perfused rat skeletal muscle", *feb Lett*, 257 : 133-36, 1988

Macotela Y, Emanuelli B, Bång AM, Espinoza DO, Boucher J, *et al.* (2011) Dietary Leucine - An Environmental Modifier of Insulin Resistance Acting on Multiple Levels of Metabolism. *PLoS ONE* 6(6): e21187

Manning BD, *et al.* Identification of the tuberous sclerosis complex-2 tumor suppressor gene product tuberlin as a target of the phosphoinositide 3-kinase/akt pathway. *Mol Cell.* (2002)

Manuel M1, Heckman CJ. Stronger is not always better: could a bodybuilding dietary supplement lead to ALS. *Exp Neurol.* (2011)

Marchesini G, *et al.* Nutritional supplementation with branched-chain amino acids in advanced cirrhosis: a double-blind, randomized trial. *Gastroenterology.* (2003)

Meeusen R, *et al.* Effects of tryptophan and/or acute running on extracellular 5-HT and 5-HIAA levels in the hippocampus of food-deprived rats. *Brain Res.* (1996)

Mourier, A., *et al.* Combined effects of caloric restriction and branched-chain amino acid supplementation on body composition and exercise performance in elite wrestlers. *Int J Sports Med* 1997 Jan;18(1):47-55.

Nair KS, Schwartz RG, Welle S. Leucine as a regulator of whole body and skeletal muscle protein metabolism in humans. *Am J Physiol.* (1992)

Navé BT, *et al.* Mammalian target of rapamycin is a direct target for protein kinase B: identification of a convergence point for opposing effects of insulin and amino-acid deficiency on protein translation. *Biochem J.* (1999)

Newgard CB, *et al.* A branched-chain amino acid-related metabolic signature that differentiates obese and lean humans and contributes to insulin resistance. *Cell Metab.* (2009)

Newsholme P, *et al.* New insights into amino acid metabolism, beta-cell function and diabetes. *Clin Sci (Lond).* (2005)

Nishimura, J., *et al.* "Isoleucine Prevents the Accumulation of Tissue Triglycerides and Upregulates the Expression of PPAR{alpha} and Uncoupling Protein in Diet-Induced Obese Mice." *J. Nutr.*, March 2010.

Nishitani S, *et al.* Branched-chain amino acids improve glucose metabolism in rats with liver cirrhosis. *Am J Physiol Gastrointest Liver Physiol.* (2005)

Nishitani S, *et al.* Leucine promotes glucose uptake in skeletal muscles of rats. *Biochem Biophys Res Commun.* (2002)

Nybo L, *et al.* Neurohumoral responses during prolonged exercise in humans. *J Appl Physiol.* (2003)

O'Neill HM. AMPK and Exercise: Glucose Uptake and Insulin Sensitivity. *Diabetes Metab J.* (2013)

Opara, E.C., Petro A., *et al.* "L-Glutamine supplementation of high fat diet reduces body weight and attenuates hyperglycemia and hyperinsulinemia in C57Bl/6J mice", *J nutr*, 126 : 273-79, 1996.

Paddon-Jones, D., *et al.* Amino acid ingestion improves muscle protein synthesis in the young and elderly. *Am J Physiol Endocrinol Metab.* 2004 Mar;286(3):E321-8.

Pardridge WM, Choi TB. Neutral amino acid transport at the human blood-brain barrier. *Fed Proc.* (1986)

Pardridge WM. Blood-brain barrier carrier-mediated transport and brain metabolism of amino acids. *Neurochem Res.* (1998)

Paul HS, Adibi SA. Paradoxical effects of clofibrate on liver and muscle metabolism in rats. Induction of myotonia and alteration of fatty acid and glucose oxidation. *J Clin Invest.* (1979)

Paxton R, Harris RA. Regulation of branched-chain alpha-ketoacid dehydrogenase kinase. *Arch Biochem Biophys.* (1984)

Peyrollier K, *et al.* L-leucine availability regulates phosphatidylinositol 3-kinase, p70 S6 kinase and glycogen synthase kinase-3 activity in L6 muscle cells: evidence for the involvement of the mammalian target of rapamycin (mTOR) pathway in the L-leucine-induced up-regulation of system A amino acid transport. *Biochem J.* (2000)

Pietiläinen KH, *et al.* Global transcript profiles of fat in monozygotic twins discordant for BMI: pathways behind acquired obesity. *PLoS Med.* (2008)

Popov KM, *et al.* Branched-chain alpha-ketoacid dehydrogenase kinase. Molecular cloning, expression, and sequence similarity with histidine protein kinases. *J Biol Chem.* (1992)

Portier H, *et al.* Effects of branched-chain amino acids supplementation on physiological and psychological performance during an offshore sailing race. *Eur J Appl Physiol.* (2008)

Proud CG. mTOR-mediated regulation of translation factors by amino acids. *Biochem Biophys Res Commun.* (2004)

Reynolds B, *et al.* Amino acid transporters and nutrient-sensing mechanisms: new targets for treating insulin-linked disorders. *Biochem Soc Trans.* (2007)

Riazi R, *et al.* The total branched-chain amino acid requirement in young healthy adult men determined by indicator amino acid oxidation by use of L-{1-13C}phenylalanine. *J Nutr.* (2003)

Rudman, D., Kutner, M.H., *et al.* "Impaired growth hormone secretion in the adult population : Relation to age and adiposity", *J Clin Invest*, 67 : 1361-69, 1981

Sandri M, *et al.* Foxo transcription factors induce the atrophy-related ubiquitin ligase atrogin-1 and cause skeletal muscle atrophy. *Cell.* (2004)

Schena F Branched-chain amino acid supplementation during a trekking at high altitude *Eur J Appl Physiol* 65: 394 - 398 (1992).

Shah SH, *et al.* Branched-chain amino acid levels are associated with improvement in insulin resistance with weight loss. *Diabetologia.* (2012)

She P, *et al.* Disruption of BCATm in mice leads to increased energy expenditure associated with the activation of a futile protein turnover cycle. *Cell Metab.* (2007)

Shimizu M, *et al.* Energy expenditure during 2-day trail walking in the mountains (2,857 m) and the effects of amino acid supplementation in older men and women. *Eur J Appl Physiol.* (2012)

Shimomura Y, *et al.* Branched-chain 2-oxo acid dehydrogenase complex activation by tetanic contractions in rat skeletal muscle. *Biochim Biophys Acta.* (1993)

Shimomura Y, *et al.* Branched-chain alpha-keto acid dehydrogenase complex in rat skeletal muscle: regulation of the activity and gene expression by nutrition and physical exercise. *J Nutr.* (1995)

Shimomura Y, *et al.* Branched-chain amino acid supplementation before squat exercise and delayed-onset muscle soreness. *Int J Sport Nutr Exerc Metab.* (2010)

Shimomura Y, *et al.* Effects of squat exercise and branched-chain amino acid supplementation on plasma free amino acid concentrations in young women. *J Nutr Sci Vitaminol (Tokyo)*. (2009)

Shimomura Y, *et al.* Purification and partial characterization of branched-chain alpha-ketoacid dehydrogenase kinase from rat liver and rat heart. *Arch Biochem Biophys*. (1990)

Shimomura Y, *et al.* Regulation of branched-chain amino acid catabolism: nutritional and hormonal regulation of activity and expression of the branched-chain alpha-keto acid dehydrogenase kinase. *Curr Opin Clin Nutr Metab Care*. (2001)

Shimomura Y, *et al.* Suppression of glycogen consumption during acute exercise by dietary branched-chain amino acids in rats. *J Nutr Sci Vitaminol (Tokyo)*. (2000)

Shiraki M, *et al.* Activation of hepatic branched-chain alpha-keto acid dehydrogenase complex by tumor necrosis factor-alpha in rats. *Biochem Biophys Res Commun*. (2005)

Stitt TN, *et al.* The IGF-1/PI3K/Akt pathway prevents expression of muscle atrophy-induced ubiquitin ligases by inhibiting FOXO transcription factors. *Mol Cell*. (2004)

Stoppani, J., *et al.*, Consuming branched-chain amino acid supplement during a resistance training program increases lean mass, muscle strength and fat loss. *Journal of the International Society of Sports Nutrition* 2009, 6(Suppl 1):P1, 2009.

Suryawan A, *et al.* A molecular model of human branched-chain amino acid metabolism. *Am J Clin Nutr*. (1998)

Tai ES, *et al.* Insulin resistance is associated with a metabolic profile of altered protein metabolism in Chinese and Asian-Indian men. *Diabetologia*. (2010)

Takano A, *et al.* Mammalian target of rapamycin pathway regulates insulin signaling via subcellular redistribution of insulin receptor substrate 1 and integrates nutritional signals and metabolic signals of insulin. *Mol Cell Biol*. (2001)

Takeshita Y, *et al.* Beneficial effect of branched-chain amino acid supplementation on glycemic control in chronic hepatitis C patients with insulin resistance: implications for type 2 diabetes. *Metabolism*. (2012)

Teräväinen H, Larsen A, Hillbom M. Clofibrate-induced myopathy in the rat. *Acta Neuropathol*. (1977)

Tessari P, *et al.* Hyperaminoacidaemia reduces insulin-mediated glucose disposal in healthy man. *Diabetologia*. (1985)

The role of branched-chain amino acids in decreasing muscle catabolism in vivo. *Surgery* Vol 83, No. 6, pp 611-618

Tipton, K. D., *et al.* Postexercise net protein synthesis in human muscle from orally administered amino acids. *Am J Physiol*. 1999 Apr;276(4 Pt 1):E628-34.

Toshiko T, *et al.* Role of B12 on methylmalonyl-CoA mutase activity. *J Zhejiang Univ Sci B* 2012 Jun; 13(6):423-437

Tremblay F, Marette A. Amino acid and insulin signaling via the mTOR/p70 S6 kinase pathway. A negative feedback mechanism leading to insulin resistance in skeletal muscle cells. *J Biol Chem*. (2001)

Uberall F, *et al.* Evidence that atypical protein kinase C-lambda and atypical protein kinase C-zeta participate in Ras-mediated reorganization of the F-actin cytoskeleton. *J Cell Biol*. (1999)

van Hall G, *et al.* Ingestion of branched-chain amino acids and tryptophan during sustained exercise in man: failure to affect performance. *J Physiol*. (1995)

van Hall G, *et al.* Mechanisms of activation of muscle branched-chain alpha-keto acid dehydrogenase during exercise in man. *J Physiol*. (1996)

Vander Haar E, *et al.* Insulin signalling to mTOR mediated by the Akt/PKB substrate PRAS40. *Nat Cell Biol*. (2007)

Wagenmakers AJ, *et al.* Exercise-induced activation of the branched-chain 2-oxo acid dehydrogenase in human muscle. *Eur J Appl Physiol Occup Physiol*. (1989)

Wagenmakers AJM, *et al.* Exercise-induced activation of branched chain 2-oxo acid dehydrogenase in human muscle. *Eur J. of Appl. Phys.* 1989;59:159-167

Wahren J, Felig P, Hagenfeldt L. Effect of protein ingestion on splanchnic and leg metabolism in normal man and in patients with diabetes mellitus. *J Clin Invest*. (1976)

Wang TJ, *et al.* Metabolite profiles and the risk of developing diabetes. *Nat Med*. (2011)

Wang X, Proud CG. The mTOR pathway in the control of protein synthesis. *Physiology (Bethesda)*. (2006)

Welbourne, T.C. "increased plasma bicarbonate and growth hormone after oral glutamine load", *Am. J. Clin. Nutr.*, 61 : 1058-61, 1995

Welbourne, T.C., & Joshi, S. "Interorgan glutamine metabolism during acidosis", *Jnl Parent Ent Nutr*, 14 : 775-855, 1990

Wessels AG, *et al.* High leucine diets stimulate cerebral branched-chain amino acid degradation and modify serotonin and ketone body concentrations in a pig model. *plos one*. DOI:10.1371. march 1, 2016

Wiśnik P, *et al.* The effect of branched chain amino acids on psychomotor performance during treadmill exercise of changing intensity simulating a soccer game. *Appl Physiol Nutr Metab*. (2011)

Xiao F, *et al.* Leucine deprivation increases hepatic insulin sensitivity via GCN2/mTOR/S6K1 and AMPK pathways. *Diabetes*. (2011)

Xu M, *et al.* Mechanism of activation of branched-chain alpha-keto acid dehydrogenase complex by exercise. *Biochem Biophys Res Commun*. (2001)

Yokota S, *et al.* Leucine restores murine hepatic triglyceride accumulation induced by a low-protein diet by suppressing autophagy and excessive endoplasmic reticulum stress. *Amino Acids*. 2016 APR; 48(4):1013-21

Yoshiji H, *et al.* Combination of branched-chain amino acid and angiotensin-converting enzyme inhibitor improves liver fibrosis progression in patients with cirrhosis. *Mol Med Report*. (2012)

Yoshizawa F. New therapeutic strategy for amino acid medicine: notable functions of branched chain amino acids as biological regulators. *J Pharmacol Sci.* (2012).
 Zhang et al. Branched chain amino acids cause liver injury in obese/diabetic mice by promoting adipocyte lipolysis and inhibiting hepatic autophagy. *Ebiomedicine* (2016)

ANTIOSSIDANTI

Irrcher I, Ljubcic V, et al. Interactions between ROS and AMP kinase activity in the regulation of PGC-1 α transcription in skeletal muscle cells. *Am J Physiol Cell Physiol* 2009;296 (1):p. C116-23.
 Jackson MJ. Skeletal muscle aging: role of reactive oxygen species. *Crit Care Med* 2009;37 (10Suppl):p. S368-71.
 Gomez-Cabrera MC, et al. Oral administration of vitamin C decreases muscle mitochondrial biogenesis and hampers training – induced adaptations in endurance performance. *Am J Clin Nutr* 2008;87(1):p. 142-9.
 Ristow M, et al. Antioxidants prevent health-promoting effects of physical exercise in humans. *Proc Natl Acad Sci USA*, 2009;106(21):p.8665-70.
 Close GL, et al. Ascorbic acid supplementation does not attenuate post exercise muscle soreness following muscle damaging exercise but may delay the recovery process. *Br J Nutr* 2006;95(5):p.976-81.
 Louis M, et al. Creatine increases IGF-1 and myogenic regulatory factor mRNA in C(2) C(12) CELLS.
 Papaconstantinou J. Insulin/IGF-1 and ROS signaling pathway crosstalk in aging and longevity determination. *Mol Cell Endocrinol* 2009;299(1) p. 89-100

ARGININA

AGING, May 2014, Long term exposure to L-arginine accelerates endothelial cell senescence through arginase-II and S6K1 signaling.
 Aminoacidi e proteine per l'atleta: il limite anabolico degli aminoacidi e delle proteine. Mauro Di Pasquale Sandro Ciccarelli Editore Srl, 2015
 Arginine metabolism and nutrition in growth, health and disease, Amino Acids. 2009 May.
 Asia Pac J Clin Nutr 2014; Effect of L-arginine on immune function: a meta-analysis , Kai Kang MM1, Xiao-liang Shu , Jing-xia Zhong , Ting-ting Yu, Tao Lei PhD3
 Bescos, R., et al., The effect of nitric-oxide-related supplements on human performance. *Sports Med*, 2012.
 Bolus Arginine Supplementation Affects neither Muscle Blood Flow nor Muscle Protein Synthesis in Young Men at Rest or After Resistance Exercise, Jason E. Tang, Paul J. Lysecki, Joshua J. Manolagos, Maureen J. MacDonald, Mark A. Tarnopolsky, and Stuart M. Phillips, 2011
 Curr Opin Clin Nutr Metab Care, 2007. Effects of L-arginine supplementation on exercise metabolism. McConnell GK¹. Current Opinion in Clinical Nutrition and Metabolic Care (Impact Factor: 3.99). 02/2007; 10(1):46-51. DOI: 10.1097/MCO.0b013e32801162fa
 Da Silva, D.V., et al., Hormonal response to L-arginine supplementation in physically active individuals. *Food Nutr Res*, 2014.
 Davi Vieira Teixeira da Silva, Carlos Adam Conte-Junior, Vania Margaret Flosi Paschoalin and Thiago da Silveira AlvaresReceived, 2014
 Department of Physiology, The University of Melbourne, Parkville, Victoria, Australia.
 Enciclopedia medica italiana, secondo volume, USES Edizioni Scientifiche, Firenze, 1973
 J Strength Cond Res. 2011, Acute arginine supplementation fails to improve muscle endurance or affect blood pressure responses to resistance training. Greer BK¹, Jones BT.
 L- Arginina Decreases Growth Hormone Response to weight training (International Journal of Sport Nutrition Exercise Manual di nutrizione clinica, R. Mattei, Franco Angeli, 2001
 Mor A., et al. "Effect of arginine supplementation on footballers' anaerobic performance and recovery". *Progress in Nutrition* 2018;20(1):104-12.
 Pahlavani N., et al., "The effect of L-arginine supplementation on body composition and performance in male athletes: A double-blinded randomized clinical trial". *Eur. J. Clin. Nutr.* 2017, 71, 544–548
 Potential Ergogenic Effects of Arginine and Creatine Supplementation, Douglas Paddon-Jones, Elisabet Børsheim, and Robert R. Wolfe, 2016
 Sports Med, 2011 L-Arginine as a potential ergogenic aid in healthy subjects. Alvares TS¹, Meirelles CM, Bhambhani YN, Paschoalin VM, Gomes PS. Sports Medicine
 The Journal of Nutrition Nutrient Physiology, Metabolism, and Nutrient-Nutrient Interactions
 Yuyan Xiong; Michael Forbitch Fru, Yi Yu, Jean-Pierre Montani, Xiu-Fen Ming, and Zhihong Yang Hormonal response to L-arginine supplementation in physically active individuals

ARGININA ALFACHETO GLUTARATO

Int J Sport Nutr Exerc Metab. 2011, Effects of 7 days of arginine-alpha-ketoglutarate supplementation on blood flow, plasma L-arginine, nitric oxide metabolites, and asymmetric dimethyl arginine after resistance exercise. Willoughby DS¹, Boucher T, Reid J, Skelton G, Clark M.

Nutrition. 2006, Pharmacokinetics, safety, and effects on exercise performance of L-arginine alpha-ketoglutarate in trained adult men. Campbell B¹, Roberts M, Kerksick C, Wilborn C, Marcello B, Taylor L, Nassar E, Leutholtz B, Bowden R, Rasmussen C, Greenwood M, Kreider R.

Pharmacokinetics, safety, and effects on exercise performance of L-arginine alpha-ketoglutarate in trained adult men. Campbell B, Roberts M, Kerksick C, Wilborn C, Marcello B, Taylor L, Nassar E, Leutholtz B, Bowden R, Rasmussen C, Greenwood M, Kreider R. Nutrition. 2006

Battaglia C. Adjuvant L-arginine treatment for in-vitro fertilization in poor responder patients. Hum Reprod. 1999. 14 (7): 1690-1697.

Bergamini, S., et al. (2001). N-acetylcysteine inhibits in vivo nitric oxide production by inducible nitric oxide synthase. Nitric Oxide. 5:349-60.

Campbell B, Roberts M, Kerksick C, et al. Pharmacokinetics, safety, and effects on exercise performance of L-arginine alpha-ketoglutarate in trained adult men. Nutrition 2006;22:872–881

Chen, Y., et al. (2003). Suppression of inducible nitric oxide production by indole and isothiocyanate derivatives from brassica plants in stimulated macrophages. Planta Med. 69:696-700.

Das, U. (2003). Folic acid says NO to vascular diseases. Nutrition. 8:686-92.

E. van Faassen and A. Vanin. Radicals for life: The various forms of nitric oxide. eds. Elsevier, Amsterdam 2007

Eder, K., et al. (2003). Conjugated linoleic acid lowers the release of eicosanoids and nitric oxide from human endothelial cells. J Nutr. 133:4083-4089.

Fisher, N., et al. (2003). Flavonal-rich cocoa induces nitric acid-dependent vasodilation in healthy humans. J Hypertension. 21:2281-2286

Guoyao WU, Morris SM. Arginine Metabolism: nitric oxide and beyond. Biochem J 1998; 336:1-17

Ignarro L.J. (2001): Nitric Oxide. A Novel Signal Transduction Mechanism For Transcellular Communication; 16: 477-483

Jablecka A, Checinski P, Krauss H, Micker M, Ast J. The influence of two different doses of L-arginine oral supplementation on nitric oxide (NO) concentration and total antioxidant status (TAS) in atherosclerotic patients. Med Sci Monit. 2004. 10 (1): CR29-CR32.

Maxwell AJ, Ho H-KV, Le CQ, Lin PS, Bernstein S, Cooke JP. L-arginine enhances aerobic exercise capacity in association with augmented nitric oxide production. J Appl Physiol. 2001. 90: 933–938.

McConnell GK. Effects of L-arginine supplementation on exercise metabolism. Curr Opin Clin Nutr Metab Care. 2007 Jan;10(1):46-51.

Moers, A., et al. (1997). Palmitic acid but not stearic acid inhibits NO production in endothelial cells. Exp Clin Endocrin Diabetes. 105(Suppl):78-80.

Palloschi A, Fragasso G, Piatti P, Monti LD, Setola E, Valsecchi G, Galluccio E, Chierchia SL, Margonato A. Effect of oral L-arginine on blood pressure and symptoms and endothelial function in patients with systemic hypertension, positive exercise tests, and normal coronary arteries. Am J Cardiol. 2004. 3 (7): 933-935.

Roberts, C.K., et al. (1999). Acute exercise increases nitric oxide synthase activity in skeletal muscles. Am J Physiol. 277:E390-E394.

Seidler M, Uckert S, Waldkirch E, Stief CG, Oelke M, Tsikas D, Sohn M, Jonas U. In vitro effects of a novel class of nitric oxide (NO) donating compounds on isolated human erectile tissue. Eur Urol. 2002 Nov;42(5):523-8

Shinde UA, Mehta AA, Goyal RK. Nitric Oxide: a molecule of the millennium. Indian J Exp Biol 2000 Mar;38(3):201-10

Stanislavov R, Nikolova V. Treatment of erectile dysfunction with pycnogenol and L-arginine. J Sex Marital Ther. 2003. 29 (3): 207-213.

Willoughby, DS; Boucher T; Reid J; Skelton G; Clark M (Aug 2011). "Effects of 7 days of arginine-alpha-ketoglutarate supplementation on blood flow, plasma L-arginine, nitric oxide metabolites, and asymmetric dimethyl arginine after resistance exercise". Int J Sport Nutr Exerc Metab. 2011 Aug;21(4):291-9.

Wu G, Meininger CJ. Arginine nutrition and cardiovascular function. J Nutr. 2000. 130: 2626–2629.

ASHWAGANDHA

Eline S., Van der valk, et al., “Stress and Obesity: are there more susceptible individuals?” Curr Obes Rep, 2018, 7(2):193-203

Khan B., et al., “Augmentation and proliferation of T lymphocytes and Th-1 cytokines by Withania somnifera in stressed mice”. Int Immunopharmacol, 2006 6(9):1394-403.

Kiasalari Z., et al., “Effect of Withania somnifera on levels of sex hormones in the diabetic male rats”. Int J of Repr BioMedicine, 2009, 7(4):163-0

Raut AA., Rege NN., et al., “Exploratory study to evaluate tolerability, safety, and activity of Ashwagandha in health volunteers”. J Ayurveda Integr Med, 2012, 3(3):111-4

Shenoy S., Chaskar U., et al., "Effects of eight-week supplementation of Ashwagandha on cardiorespiratory endurance in elite Indian cyclists". *J Ayurveda Integr Med*, 2012, 3(4)-209-14

Singh B., et al., "Adaptogenic activity of a novel, withanolide-free aqueous fraction from the roots of *Withania somnifera* Dun". *Phytother Res*, 2001, 15(4):311-8

Wankhede S., et al., "Examining the effect of *Withania somnifera* supplementation on muscle strenght and recovery: a randomized controlled trial". *J Int Soc Sports Nutr*, 2015, 25;12:43

ATP

Agreatesch HJ, Dagnelie PC, Rietveld T, van den Berg JWO, Danser AHJ, and Wilson JHP. Pharmacokinetics of intravenous ATP in cancer patients. *Eur. J. Clin. Pharmacol.* 2000; 56:49-55.

Agreatesch HJ, Dagnelie PC, van den Berg JWO, and Wilson JHP. Adenosine triphosphate, Established and potential clinical applications. *Drugs* 1999; 58:211-232.

Agteresch H, Dagnlie PC, van der Gaast A, and Wilson JHP: Beneficial effects of adenosine triphosphate on quality of life in patients with advanced lung cancer: a randomized clinical trial. *Proc. Amer. Soc. Clin. Oncology* 1999;18:A2240.

Agteresch HJ, Dagnalie PC, van der Gaast A, Stijnen T, and Wilson JHP. Randomized clinical trial of adenosine 5'-triphosphate in patients with advanced non-small cell lung cancer. *J. Natl. Cancer Inst.* 2000; 92: 321-328. Original submission 9/25/02; Edited April 13, 2005

Agteresch HJ, Rietveld T, Kerkhofs LGM, van den Berg JWO, Wilson JHP, and Dagnelie PC. Beneficial effects of adenosine triphosphate on nutritional status in advanced lung cancer patients: A randomized clinical trial. *J. Clin. Oncol.* 2002; 20: 371-378.

Dagnelie PC and Agteresch HJ. Promising effects of adenosine triphosphate infusion on nutritional status and quality of life in advanced non-small-cell lung cancer: a randomized clinical trial. *Drug Development Research* 2003; 59:146-151.

Dietrich HH, Ellsworth ML, Sprague RS, and Dracy Jr. RG. Red blood cell regulation of microvascular tone through adenosine triphosphate. *Am. J. Physiol. Heart Circ. Physiol.* 2000; 278:H1294-H1298.

Forrester T, Harper AM, Mackenzie ET, Thompson EM. Effect of adenosine triphosphate and some derivatives on cerebral blood flow and metabolism. *J Physiol.* 1979; 296:343-355.

Gonzalez-Alonso J, Olsen DB, Saltin B. Erythrocyte and the regulation of human skeletal muscle blood flow and oxygen delivery. *Circ. Res.* 2002; 91:1046-1055.

Hashimoto M, Shinozuka K, Bjur RA, Westfall DP, Hattori K, and Masumura S.. The effects of age on the release of adenine nucleosides and nucleotides from rat caudal artery. *J. Physiol.* 1995; 489:841-848.

Haskell CM, Wong M, Williams A, and Lee LY. Phase I trial of extracellular adenosine 5'-triphosphate in patients with advanced cancer. *Medicinal and Pediatric Oncology* 1996; 27:165-173.

Jatoi A, and Loprinzi CL. Adenosine triphosphate: Does it help cancer patients "get bigger and stronger"? *J. Clin. Oncol.* 2002; 20:362-363.

Jordan AN, Jurca R, Abraham EH, Salikhova A, Mann JK, Morss GM, Church TS, Lucia A, Earnest CP: Effects of oral ATP supplementation on anaerobic power and muscular strength. *Med Sci Sports Exerc* 2004, 36(6):983-990.

Kichenin K, and Seman M. Chronic oral administration of ATP modulates nucleoside transport and purine metabolism in rats. *J. Pharmacol. Exp. Therap.* 2000; 294:126-133.

Kichenin K, Decollogne S, Angignard, and Seman M. *J. Appl. Physiol.* 2000; 88:1962-1968

Kim MS, Lee J, Ha J, et al. ATP stimulates glucose transport through activation of P2 purinergic receptors in C2C12 skeletal muscle cells. *Arch Biochem Biophys.* 2002;401(2):205-214

Leij-Halfwerk S, Agreatesch HJ, Sijens PE, and Dagnelie PC. Adenosine triphosphate infusion increases liver energy status in advanced cancer patients: an in vivo 31P magnetic resonance spectroscopy study. *Hepatology* 2002; 35:421-424.

Rabini RA, Petrucci E, Stafolani R, Tesei M, Fumelli P, Pazzagli M, and Mazzanti L. Diabetes mellitus and subjects' ageing: a study on the ATP content and ATP-related enzyme activities in human erythrocytes. *Eur. J. Clin. Invest.* 1997; 27:327-332.

Rapaport E, and Fontaine J: Anticancer activities of adenine nucleotides in mice are mediated through expansion of erythrocyte ATP pools. *Proc. Natl. Acad. Sci. USA* 1989; 86:1662-1666

Rosenmeier JB, Hansen J, Gonsalez-Alonso J. Circulating ATP-induced vasodilatation overrides sympathetic vasoconstrictor activity in human skeletal muscle. *J. Physiol.* 2004; 558:351-365.

Shinozuka K, Hashimoto M, Kwon YM, Fukuda M, Tamashiro A, Kagota S, Yamaguchi Y, Masumura S, and Kunitomo M: Possible participation of ATP in changes of blood pressure in SHR and old rats. *Jpn. Heart J.* 1998; 39:535-537.

Sprague RS, Ellsworth ML, Stephenson AH, and Lonigro AG. ATP: the red blood cell link to NO and local control of the pulmonary circulation. *Am. J. Physiol. Heart Circ. Physiol.* 1996; 271:H2717-H2722.

Van Aken H, Puchstein C, Fitch W, Graham DI. Haemodynamic and cerebral effects of ATP-induced hypotension. *Br J Anaesth.* 1984 Dec;56(12):1409-16.

Kichenin K, Decollogne S, Angignard J, Seman M, Cardiovascular and pulmonary response to oral administration of ATP in rabbits. *J Appl Physiol.* 2000 Jun;33(6):1962-8.

US patent 5,049,372. US patent 5,227,371.

Ellsworth ML, Forrester T, Elias CG, Dietrich HH. The erythrocyte as a regulator of vascular tone. *Am J Physiol* 1995 Dec;269 (6 Pt 2):H2155-61.

Williams M., and Bhagwat SS. P2 Purinoceptors: a family of novel therapeutic targets. *Annual Reports in Medicinal Chemistry* 1996; 31:21-30

L. A. C. Machado, S. J. Kamper, D. Herbert, C. G. Maher, J. H. McAuley. Analgesic effects of treatments for non-specific low back pain: a meta-analysis of placebo-controlled randomized trials. *Rheumatology (Oxford)* May 1, 2009 vol. 48 no. 5 520-527

BACOPA

Anbarasi K., et al., (2006). "Cigarette smoking induces heat shock protein 70 kDa expression and apoptosis in rat brain: Modulation by bacoside A". *Neuroscience.* 138(4):1127-35.

Bhattacharya SK., et al., (2000). "Antioxidant activity of Bacopa monniera in rat frontal cortex, striatum and hippocampus". *Phytother Res.* 14(3):174-9.

Charles PD., et al., (2011). "Bacopa monniera leaf extract up-regulates tryptophan hydroxylase (TPH2) and serotonin transporter (SERT) expression: implications in memory formation". *J Ethnopharmacol.* 134(1):55-61.

Dethe S., Deepak M., Agarwal A. (2016). "Elucidation of Molecular Mechanism(s) of Cognition Enhancing Activity of Bacomin®: A Standardized Extract of Bacopa Monnieri". *Pharmacogn Mag.* 12 (Suppl 4):S482-S487.

Dhanasekaran M., et al., (2007). "Neuroprotective mechanisms of ayurvedic antidementia botanical Bacopa monniera". *Phytother Res.* 2007 Oct;21(10):965-9.

Hazra S., et al., (2017). "Reversion of BDNF, Akt and CREB in Hippocampus of Chronic Unpredictable Stress Induced Rats: Effects of Phytochemical, Bacopa Monnieri". *Psychiatry Investig.* 14(1):74-80.

Jyoti A., Sharma D. (2006). "Neuroprotective role of Bacopa monniera extract against aluminium-induced oxidative stress in the hippocampus of rat brain". *Neurotoxicology.* 27(4):451-7.

Kamkaew N., Norman Scholfield C., et al., (2013). "Bacopa monnieri increases cerebral blood flow in rat independent of blood pressure". *Phytother Res.* 27(1):135-8

Kongkeaw C., et al., (2014). "Meta-analysis of randomized controlled trials on cognitive effects of Bacopa monnieri extract". *J Ethnopharmacol.* 151(1):528-35.

Liu X., Yue R., Zhang J., et al. (2013). "Neuroprotective effects of bacopaside I in ischemic brain injury". *Restor Neurol Neurosci.* 31(2):109-23.

Nannepaga JS., et al., (2014). "Neuroprotective effects of Bacopa monniera whole-plant extract against aluminum-induced hippocampus damage in rats: evidence from electron microscopic images". *Chin J Physiol.* 57(5):279-85.

Nemetchek MD., et al., (2017). "The Ayurvedic plant Bacopa monnieri inhibits inflammatory pathways in the brain". *J Ethnopharmacol.* 197:92-100.

Promsuban C., et al., (2017). "Bacopa monnieri extract enhances learning-dependent hippocampal long-term synaptic potentiation". *Neuroreport.* 28(16):1031-1035.

Russo A., et al., (2003). "Nitric oxide-related toxicity in cultured astrocytes: effect of Bacopa monniera". *Life Sci.* 73(12):1517-26.

Singh B., et al., (2017). "Role of ethanolic extract of Bacopa monnieri against 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) induced mice model via inhibition of apoptotic pathways of dopaminergic neurons". *Brain Res Bull.* 135:120-128.

Viji V., Helen A. (2011). "Inhibition of pro-inflammatory mediators: role of Bacopa monniera (L.) Wettst". *Inflammopharmacology.* 19(5):283-91.

Vollala VR., et al., (2011). "Enhanced dendritic arborization of hippocampal CA3 neurons by Bacopa monniera extract treatment in adult rats". *Rom J Morphol Embryol.* 52(3):879-86.

Zhou Y., Peng L., Zhang WD., Kong DY. (2009). "Effect of triterpenoid saponins from Bacopa monniera on scopolamine-induced memory impairment in mice". *Planta Med.* 2009 May;75(6):568-74.

BETA ALANINA

Bellinger, P.M.; Howe, S.T.; Shing, C.M.; Fell, J.W. The effect of combined β -alanine and NaHCO₃ supplementation on cycling performance. *Med. Sci. Sports Exerc.* 2012, in press.

Blancquaert L., et al., "Effects of histidine and β -alanine Supplementation on human muscle carnosine storage". *Med Sci Sports Exerc* 49:602–609, 2017

Derave, W.; Özdemir, M.S.; Harris, R.C.; Pottier, A.; Reyngoudt, H.; Koppo, K.; Wise, J.A.; Achten, E. β -Alanine supplementation augments muscle carnosine content and attenuates fatigue during repeated isokinetic contraction bouts in trained sprinters. *J. Appl. Physiol.* 2007, 103, 1736–1743.

Harris, R.C. Muscle carnosine elevation with supplementation and training, and the effects of elevation on exercise performance. Presented at the 2nd Annual International Society of Sports Nutrition Conference, New Orleans, LA, USA, 16–18 June 2005; pp. 39–40.

Harris, R.C.; Tallon, M.J.; Dunnett, M.; Boobis, L.; Coakley, J.; Kim, H.J.; Fallowfield, J.L.; Hill, C.A.; Sale, C.; Wise, J.A. The absorption of orally supplied β -alanine and its effect on muscle carnosine synthesis in human vastus lateralis. *Amino Acids* 2006, 30, 279–289.

Harris, R.C.; Wise, J.A.; Price, K.A.; Kim, H.J.; Kim, C.K.; Sale, C. Determinants of muscle carnosine content. *Amino Acids* 2012, 43, 5–12.

Hill, C.A.; Harris, R.C.; Kim, H.J.; Harris, B.D.; Sale, C.; Boobis, L.H.; Kim, C.K.; Wise, J.A. Influence of β -alanine supplementation on skeletal muscle carnosine concentrations and high intensity cycling capacity. *Amino Acids* 2007, 32, 225–233.

Hobson R.M., et al., “Effects of β -alanine supplementation on exercise performance: a meta-analysis.” *Amino Acids*. 2012 Jul;43(1):25-37.

Hobson, R.M.; Saunders, B.; Ball, G.; Harris, R.C.; Sale, C. Effects of β -alanine supplementation on exercise performance: A meta-analysis. *Amino Acids* 2012, doi:10.1007/s00726-011-1200-z.

Hoffman, J.; Ratames, N.A.; Ross, R.; Kang, J.; Magrell, J.; Neese, K.; Faigenbaum, A.D.; Wise, J.A. β -Alanine and the hormonal response to exercise. *Int. J. Sports Med.* 2008, 29, 952–958.

Jordan Glenn, et al., “Comparison of Two B-Alanine Dosing Protocols on Muscle Carnosine Elevations”. *Journal Strength Conditioning Research*, 2016

Kriengsinyos W., et al., “Long-term effects of histidine depletion on whole-body protein metabolism in healthy adults”. *J Nutr* 132:3340–3348, 2002.

Matthew A., et.al. “Histone Acetylation Regulates Intracellular pH”. *Mol Cell*. 2013 January 24; 49(2): 310–321.

Sahlin, K.; Harris, R.C.; Nylin, B. Lactate content and pH in muscle samples obtained after dynamic exercise. *Pflügers Arch.* 1976, 367, 143–149.

Sale, C.; Saunders, B.; Harris, R.C. Effect of beta-alanine supplementation on muscle carnosine concentrations and exercise performance. *Amino Acids* 2010, 39, 321–333.

Saunders B., et al., “Beta-alanine supplementation to improve exercise capacity and performance: a systematic review and meta-analysis”. *Br J Sports Med* 51:658. 2017

Spradley, B.D.; Crowley, K.R.; Tai, C.Y.; Kendall, K.L.; Fukuda, D.H.; Esposito, E.N.; Moon, S.E.; Moon, J.R. Ingesting a pre-workout supplement containing caffeine, B-vitamins, amino acids, creatine, and beta-alanine before exercise delays fatigue while improving reaction time and muscular endurance. *Nutr. Metab.* 2012, 9, doi:10.1186/1743-7075-9-28.

Sterlingwerff, T.; Decombaz, J.; Harris, R.C.; Boesch, C. Optimizing human in vivo dosing and delivery of β -alanine supplements for muscle carnosine synthesis. *Amino Acids* 2012, doi:10.1007/s00726-012-1245-7.

Stout, J.R.; Graves, B.S.; Smith, A.E.; Hartman, M.J.; Cramer, J.T.; Beck, T.W.; Harris, R.C. The effect of beta-alanine supplementation on neuromuscular fatigue in elderly (55–92 Years): A double-blind randomized study. *J. Int. Soc. Sports Nutr.* 2008, 5, doi:10.1186/1550-2783-5-21.

Suzuki, Y.; Osamu, I.; Mukai, N.; Takahashi, H.; Takamatsu, K. High level of skeletal muscle carnosine contributes to the latter half of exercise performance during 30-s maximal cycle ergometer sprinting. *Jpn. J. Physiol.* 2002, 52, 199–205.

Tiedje, K.E.; Stevens, K.; Barnes, S.; Weaver, D.F. β -Alanine as a small molecule neurotransmitter. *Neurochem. Int.* 2010, 57, 177–188.

Zoeller, R.F.; Stout, J.R.; O’Kroy, J.A.; Torok, D.J.; Mielke, M. Effects of 28 days of beta-alanine and creatine monohydrate supplementation on anaerobic power, ventilatory and lactate thresholds, and time to exhaustion. *Amino Acids* 2007, 33, 505–510.

BETA ECDISTERONE

Aizikov M.I., Kurmukov A.G., Syrov V.N. (1978) “Physiological activity and correlative changes in protein, carbohydrate, and fat metabolism under the effect of ecdysone and nerobol”. *Farmakologiya Prirodnykh Veschestv* 107-125. (Chemical Abstracts 90 : 180683).

Gorelick-Feldmann J, et al., “Phytoecdysteroids increase protein synthesis in skeletal muscle cells” *J.Agric.Food Chem*, 2008 May 28;56(10):3532-7.

Gorelick-Feldmann J., et al., “Ecdysteroids elicit a rapid Ca^{2+} flux leading to Akt activation and increased protein synthesis in skeletal muscle cells.” *Steroids*. 2010 Oct;75(10):632-7.

Lafont R. and Dinan L., (2003). "Practical uses for ecdysteroids in mammals including humans: an update" *J. Insect Sci.* 3 (7).

Leonardo Cesanelli “Beta Ecdisterone—Che cos’è? Benefici, effetti ed integratori.

Parr M.K., et al., “Ecdysteroids: A novel class of anabolic agents?” *Biol Sport*. 2015 Jun; 32(2): 169–173.

Portugalov, et al., “T.F.Nautsno-Teor.J.” 1996

Saez E., et al., "Identification of ligands and coligands for the ecdysone-regulated gene switch" *Proc Natl Acad Sci U S A*. 2000 Dec 19;97(26):14512-7.
 Simakin "S.Yu.Sci.Sports Bull". (Russian) 1998
 Wilborn, et al. (2006) "Effects of Methoxyisoflavone, Ecdysterone, and Sulfo-Polysaccharide Supplementation on Training Adaptations in Resistance-Trained Males". *Journal of the International Society of Sports Nutrition* 3 (2): 19. doi:10.1186/1550-2783-3-2-19.

BETAINA

Agostoni C, et al. Scientific Opinion on the substantiation of health claims related to betaine and contribution to normal homocysteine metabolism. *EFSA Journal* 2011; 9(4):2052
 Apicella JM, et al. Betaine supplementation enhances anabolic endocrine and Akt signaling in response to acute bouts of exercise, *Eur J Appl Physiol* 2013; Mar;113(3):793-802;
 Armstrong LE, et al. Influence of betaine consumption on strenuous running and sprinting in a hot environment. *J Strength Cond Res* 2008; May; 22(3):851-60
 Cholewa JM, et al. Effects of betaine on body composition, performance and homocysteine thiolactone. *J Int Soc Sports Nutr* 2013; Aug22;10(1):39.
 Cholewa JM., et al., "An Overview of Betaine Supplementation, Sports Performance, and Body Composition". *Nutrition and Enhanced Sports Performance (Second Edition)*. Muscle Building, Endurance, and Strength. 2019, Pages 691-706
 Cholewa JM., et al., "The effects of chronic betaine supplementation on body composition and performance in collegiate females: a double-blind, randomized, placebo controlled trial". *Journal of the International Society of Sports Nutrition* (2018)
 Del Favero S, et al. Creatine but not betaine supplementation increases muscle phosphorylcreatine content and strength performance. *Amino acids* 2012 Jun;42(6); 2299-305.
 Gao X., et al., "Effect of Betaine on Reducing Body Fat—A Systematic Review and Meta-Analysis of Randomized Controlled Trials". *Nutrients*. 2019 Oct; 11(10): 2480.
 Ghyczy M. et al., "Electrophilic methyl groups present in the diet ameliorate pathological states induced by reductive and oxidative stress: a hypothesis". *Br J Nutr*. 2001 Apr;85(4):409-14
 Hoffman JR, et al. Effect of 15 days of betaine ingestion on concentric and eccentric force outputs during isokinetic exercise. *J Strength Cond Res* 2011; Aug;25(8):2235-41.
 Konstantinova SV, et al. Divergent associations of plasma choline and betaine with components of metabolic syndrome in middle age and elderly men and women. *J Nutr* 2008; May; 138(%):914-20;
 Pryor JL, et al. Effect of betaine supplementation on cycling sprint performance. *J int Soc Sport Nutr* 2012; Apr 3;9(1):12;
 Wang Z., et al., "Homocysteine suppresses lipolysis in adipocytes by activating the AMPK pathway". *Am J Physiol Endocrinol Metab*. 2011 Oct; 301(4): E703–E712.
 Zhang L., et al., "Betaine increases mitochondrial content and improves hepatic lipid metabolism". *Food Funct*. 2019 Jan 22;10(1):216-223.

BICARBONATO DI SODIO

Bicarbonato di sodio in *Tesaurus del Nuovo Soggettario*, BNCF, marzo 2013
 CRC Handbook of Chemistry and Physics, CRC Press 2010
 JiETING W., et al., "Effect of sodium bicarbonate ingestion during 6 weeks of HIIT on anaerobic performance of college students". *Journal of the International Society of Sports Nutrition* (2019)
 Nomenclature of Inorganic chemistry – IUPAC Recommendations 2005 – old.iupac.org.
 Rezaei S., et al., "Caffeine and sodium bicarbonate supplementation alone or together improve karate performance". *Journal of the International Society of Sports Nutrition* (2019)
 Sodium bicarbonate intake improves high-intensity intermittent exercise performance in trained young men – Peter Krstrup, Georgis Ermidis, and Magni Mohr – *J Int Soc Sports Nutr*. 2015; 12: 25 . Published online 2015 Jun 4 doi: 10.1186/s12970-015-0087-6
 Sodium bicarbonate supplementation improved MAOD but is not correlated with 200- and 400-m running performance: a double-blind, crossover, and placebo-controlled study – Brisola GM, Miyagi WE, da Silva HS, Zagatto AM – *Appl Physiol Nutr Metab*. 2015 Sep; 40(9):931-7 doi: 10.1139/apnm-2015-0036. Epub 2015 May 12
 Usi alternativi del bicarbonato di sodio – babygreen.it

CAFFEINA

Abian-Vicen J, Puente C, Salinero JJ, et al. A caffeinated energy drink improves jump performance in adolescent basketball players. *Amino Acids*. 2014;46(5):1333-1341.

Berne, RM. Cardiac nucleotides in hypoxia: possible role in regulation of coronary blood flow. *Am J Physiol.* 1963, 204, 317-322.

Cabañes A, Salinero JJ, Del Coso J. La ingestión de una bebida energética con cafeína mejora la fuerza-resistencia y el rendimiento en escalada deportiva. *Archivos de Medicina del Deporte.* 2013;30(4):215-220.

Caffeine Ingestion and Performance of a 1,500-Metre Swim; Brian Robert MacIntosh, Bridget Margarette Wright, *Canadian Journal of Applied Physiology*, 1995, 20(2): 168-177, 10.1139/h95-012 –

Davis JK, Green JM Caffeine and anaerobic performance: ergogenic value and mechanisms of action. *Sports Med.* 2009;39(10):813-32

Del Coso J, Munoz-Fernandez VE, Munoz G, et al. Effects of a caffeine-containing energy drink on simulated soccer performance. *PLoS One.* 2012;7(2):e31380.

Del Coso J, Perez-Lopez A, Abian-Vicen J, Salinero JJ, Lara B, Valades D. Caffeine-Containing Energy Drink Enhances Physical Performance in Male Volleyball Players. *Int J Sports Physiol Perform.* 2014.

Del Coso J, Portillo J, Munoz G, Abian-Vicen J, Gonzalez-Millan C, Munoz-Guerra J. Caffeine-containing energy drink improves sprint performance during an international rugby sevens competition. *Amino Acids.* 2013;44(6):1511-1519.

Del Coso J, Ramirez JA, Munoz G, et al. Caffeine-containing energy drink improves physical performance of elite rugby players during a simulated match. *Appl Physiol Nutr Metab.* 2013;38(4):368-374.

Del Coso J, Salinero JJ, Gonzalez-Millan C, Abian-Vicen J, Perez-Gonzalez B. Dose response effects of a caffeine-containing energy drink on muscle performance: a repeated measures design. *J Int Soc Sports Nutr.* 2012;9(1):21.

Desbrow B, et al The effects of different doses of caffeine on endurance cycling time trial performance. *J Sports Sci.* 2012;30(2):115-20.

Doherty M et al Caffeine lowers perceptual response and increases power output during high-intensity cycling. *J Sports Sci.* 2004 Jul;22(7):637-43.

Doherty M, Smith PM. Effects of caffeine ingestion on rating of perceived exertion during and after exercise: a meta-analysis. *Scand J Med Sci Sports.* 2005 Apr;15(2):69-78

Duncan MJ et al Effect of caffeine ingestion on torque and muscle activity during resistance exercise in men. *Muscle Nerve.* 2014 Oct;50(4):523-7

Exercise Physiology: Nutrition, Energy, and Human Performance (Di William D. McArdle, Frank I. Katch, Victor L. Katch)

Fredholm B. et al (1999). Actions of caffeine in the brain with special reference to factors that contribute to its widespread use. *Pharmacological Review* 51,1:83-133

Gallo-Salazar C, Areces F, Abian-Vicen J, et al. Caffeinated Energy Drinks Enhance Physical Performance in Elite Junior Tennis Players. *Int J Sports Physiol Perform.* 2014.

Ganio MS Effect of caffeine on sport-specific endurance performance: a systematic review. *J Strength Cond Res.* 2009 Jan;23(1):315-24.

Girard O Repeated-sprint ability - part I: factors contributing to fatigue. *Sports Med.* 2011 Aug 1;41(8):673-94.

Glaister M, et al Caffeine and sprinting performance: dose responses and efficacy. *J Strength Cond Res.* 2012

Glaister M, et al Caffeine supplementation and peak anaerobic power output. *Eur J Sport Sci.* 2015;15(5):400-6

Graham TE. "Caffeine and Exercise: Metabolism, Endurance and Performance". *Sports Med.* 2001.

Green JM et al Effects of caffeine on repetitions to failure and ratings of perceived exertion during resistance training. *Int J Sports Physiol Perform.* 2007 Sep;2(3):250-9.

Higdon J. et al (2006). Coffee and health: a review of recent human research. *Critical Reviews in Food Science and Nutrition* 46(2):101-23

Hursel R et al The effects of catechin rich teas and caffeine on energy expenditure and fat oxidation: a meta-analysis. *Obes Rev.* 2011 Jul;12(7):e573-81.

Irwin C et al Caffeine withdrawal and high-intensity endurance cycling performance. *Int J Sport Nutr* 2011 Mar;29(5):509-15.

Irwin J. et al., "Caffeine Withdrawal and High-Intensity Endurance Cycling Performance". *J. Sport Sci.* 2011

Jenkins NT Ergogenic effects of low doses of caffeine on cycling performance. *J Sports Sci. Exerc Metab.* 2008 Jun;18(3):328-42

Jodra P., et al., "Effects of caffeine supplementation on physical performance and mood dimensions in elite and trained-recreational athletes". *J Int Soc Sports Nutr.* 2020 Jan 3;17(1):2.

Kalmar MJ Effects of caffeine on neuromuscular function. *Appl Physiol* (1985). 1999 Aug;87(2):801-8.

Lara B, Gonzalez-Millan C, Salinero JJ, et al. Caffeine-containing energy drink improves physical performance in female soccer players. *Amino Acids.* 2014;46(5):1385-1392.

Meyers Caffeine increases time to fatigue by maintaining force and not by altering firing rates during submaximal isometric contractions. *J Appl Physiol* (1985). 2005 Sep;99(3):1056-63.

Moustakas D et al Guarana provides additional stimulation over caffeine alone in the planarian model. *PLoS One.* 2015; 10(4):

Nehlig A Caffeine and the central nervous system: mechanisms of action, biochemical, metabolic and psychostimulant effects. *Brain Res Brain Res Rev.* 1992 May-Aug;17(2):139-70.

Perez-Lopez A, Salinero JJ, Abian-Vicen J, et al. Caffeinated Energy Drinks Improve Volleyball Performance in Elite Female Players. *Med Sci Sports Exerc.* 2014.

Pontifex KJ, Wallman KE, Dawson BT, et al. Effects of caffeine on repeated sprint ability, reactive agility time, sleep and next day performance. *J Sports Med Phys Fitness.* 2010;50:455–464.

R set al Caffeine Affects Time to Exhaustion and Substrate Oxidation during Cycling at Maximal Lactate Steady State Nutrients. 2015 Jul; 7(7): 5254–5264

Schneiker KT, Bishop D, Dawson B, et al. Effects of caffeine on prolonged Sports Medicine: August 1994, Volume 18, Issue 2, pp 109-125

Spriet LLExercise and sport performance with low doses of caffeine. *Sports Med.* 2014 Nov;44 Suppl 2:S175-84.

Tarnopolsky M et al Caffeine potentiates low frequency skeletal muscle force in habitual and nonhabitual caffeine consumers. *J Appl Physiol* (1985). 2000 Nov;89(5):1719-24.

Timmins TD et al Effect of caffeine ingestion on maximal voluntary contraction strength in upper- and lower-body muscle groups. *J Strength Cond Res.* 2014 Nov;28(11):3239-44.

Trexler ET et al Effects of coffee and caffeine anhydrous on strength and sprint performance. *Eur J Sport Sci.* 2015 Sep 22:1-9.

Van Soeren MH, Graham TE Effect of caffeine on metabolism, exercise endurance, and catecholamine responses after withdrawal.

Van Soeren MH., et al., “Effect of caffeine on metabolism, exercise endurance, and catecholamine responses after withdrawal”. *Journal of Applied Physiology.* 1998

Warren GL et al Effect of caffeine ingestion on muscular strength and endurance: a meta-analysis. *Med Sci Sports Exerc.* 2010 Jul;42(7):1375-87.

Wickham KA., et al., “Administration of Caffeine in Alternate Forms”. *Sports Med.* 2018

Woolf K, Bidwell WK, Carlson AG: The effect of caffeine as an ergogenic aid in anaerobic exercise. *Int J Sport Nutr Exerc Metab.* 2008, 18: 412-429.

CAPSAICINA

Baskaran P., et al., “Capsaicin induces browning of white adipose tissue and counters obesity by activating TRPV1 channel-dependent mechanisms”. *Br J Pharmacol.* 2016 Aug;173(15):2369-89. doi: 10.1111/bph.13514. Epub 2016 Jun 21.

Chapa-Oliver AM, Mejía-Teniente L. “Capsaicin: From Plants to a Cancer-Suppressing Agent”. *Molecules.* 2016;21(8):931. Published 2016 Jul 27.

de Freitas MC., et al., “Acute Capsaicin Supplementation Improves 1,500-m Running Time-Trial Performance and Rate of Perceived Exertion in Physically Active Adults”. *J Strength Cond Res.* 2018 Feb;32(2):572-577.

Frias et al., “Capsaicin, Nociception and Pain”. *Molecules.* 2016 Jun 18;21(6). pii: E797.

Hsu YJ., et al., “Capsaicin Supplementation Reduces Physical Fatigue and Improves Exercise Performance in Mice”. *Nutrients.* 2016 Oct 20;8(10). pii: E648.

Nishikawa, Yuki et al. “Inhibition of LINE-1 Retrotransposition by Capsaicin.” *International journal of molecular sciences* vol. 19,10 3243. 19 Oct. 2018.

CARNITINA

Amat di San Filippo C, et al Cardiomyopathy and carnitine deficiency . *Mol Genet Metab.* (2008)

Ando S, et al Enhancement of learning capacity and cholinergic synaptic function by carnitine in aging rats . *J Neurosci Res.* (2001)

Bach A Carnitine biosynthesis in mammals . *Reprod Nutr Dev.* (1982)

Barnett C, et al Effect of L-carnitine supplementation on muscle and blood carnitine content and lactate accumulation during high-intensity sprint cycling . *Int J Sport Nutr.* (1994)

Bartlett K, Eaton S Mitochondrial beta-oxidation . *Eur J Biochem.* (2004)

Beckman KB, Ames BN The free radical theory of aging matures . *Physiol Rev.* (1998)

Bloomer RJ, Smith WA Oxidative stress in response to aerobic and anaerobic power testing: influence of exercise training and carnitine supplementation . *Res Sports Med.* (2009)

Bloomer RJ, Smith WA, Fisher-Wellman KH Glycine propionyl-L-carnitine increases plasma nitrate/nitrite in resistance trained men . *J Int Soc Sports Nutr.* (2007)

Bloomer RJ, Tschume LC, Smith WA Glycine propionyl-L-carnitine modulates lipid peroxidation and nitric oxide in human subjects . *Int J Vitam Nutr Res.* (2009)

Bloomer RJ, et al Comparison of pre-workout nitric oxide stimulating dietary supplements on skeletal muscle oxygen saturation, blood nitrate/nitrite, lipid peroxidation, and upper body exercise performance in resistance trained men . *J Int Soc Sports Nutr.* (2010)

Bommer J Saving erythropoietin by administering L-carnitine . *Nephrol Dial Transplant.* (1999)

Brandsch C, Eder K Effect of L-carnitine on weight loss and body composition of rats fed a hypocaloric diet . *Ann Nutr Metab.* (2002)

Brass EP Carnitine and sports medicine: use or abuse . *Ann N Y Acad Sci.* (2004)

Brass EP Pharmacokinetic considerations for the therapeutic use of carnitine in hemodialysis patients . *Clin Ther.* (1995)

Brass EP Supplemental carnitine and exercise . *Am J Clin Nutr.* (2000)

Bremer J Carnitine--metabolism and functions . *Physiol Rev.* (1983)

Brevetti G, Diehm C, Lambert D European multicenter study on propionyl-L-carnitine in intermittent claudication . *J Am Coll Cardiol.* (1999)

Brevetti G, *et al* A new therapeutic proposal for intermittent claudication. Propionyl-L-carnitine: new indications concerning mechanism of action . *Minerva Cardioangiol.* (1998)

Brevetti G, *et al* Effect of propionyl-L-carnitine on quality of life in intermittent claudication . *Am J Cardiol.* (1997)

Brevetti G, *et al* Superiority of L-propionylcarnitine vs L-carnitine in improving walking capacity in patients with peripheral vascular disease: an acute, intravenous, double-blind, cross-over study . *Eur Heart J.* (1992)

Broad EM, Maughan RJ, Galloway SD Carbohydrate, protein, and fat metabolism during exercise after oral carnitine supplementation in humans . *Int J Sport Nutr Exerc Metab.* (2008)

Broad EM, Maughan RJ, Galloway SD Effects of four weeks L-carnitine L-tartrate ingestion on substrate utilization during prolonged exercise . *Int J Sport Nutr Exerc Metab.* (2005)

Cao Y, *et al* Comparison of pharmacokinetics of L-carnitine, acetyl-L-carnitine and propionyl-L-carnitine after single oral administration of L-carnitine in healthy volunteers . *Clin Invest Med.* (2009)

Capaldo B, *et al* Carnitine improves peripheral glucose disposal in non-insulin-dependent diabetic patients . *Diabetes Res Clin Pract.* (1991)

Carmen Mingorance, *et al.*, "Propionyl-L-carnitine Corrects Metabolic and Cardiovascular Alterations in Diet-Induced Obese Mice and Improves Liver Respiratory Chain Activity". PLoS One. 2012

Carnitine L-Tartrate Supplementation for Powerlifters, Debusk R (2002) Carnitine (L-Carnitine). Retrieved: January 2, 2009).

Carroll JK, *et al* Pharmacologic treatment of cancer-related fatigue . *Oncologist.* (2007)

Cederblad G, Svenningsen N Plasma carnitine and breast milk carnitine intake in premature infants . *J Pediatr Gastroenterol Nutr.* (1986)

Cha YS, *et al* Effects of carnitine coingested caffeine on carnitine metabolism and endurance capacity in athletes . *J Nutr Sci Vitaminol (Tokyo).* (2001)

Chapela SP, *et al* Involvement of L-carnitine in cellular metabolism: beyond Acyl-CoA transport . *Mini Rev Med Chem.* (2009)

Chen Y, *et al* L-Carnitine supplementation for adults with end-stage kidney disease requiring maintenance hemodialysis: a systematic review and meta-analysis . *Am J Clin Nutr.* (2014)

Christensen QH, Cronan JE Lipoic acid synthesis: a new family of octanoyltransferases generally annotated as lipoate protein ligases . *Biochemistry.* (2010)

Colombani P, *et al* Effects of L-carnitine supplementation on physical performance and energy metabolism of endurance-trained athletes: a double-blind crossover field study . *Eur J Appl Physiol Occup Physiol.* (1996)

Crayhon R. The carnitine miracle. M. Evans and Company Inc. New York, 1999.

Cruciani RA, *et al* L-carnitine supplementation for the treatment of fatigue and depressed mood in cancer patients with carnitine deficiency: a preliminary analysis . *Ann N Y Acad Sci.* (2004)

Decombaz J, *et al* Effect of L-carnitine on submaximal exercise metabolism after depletion of muscle glycogen . *Med Sci Sports Exerc.* (1993)

Eder K, *et al* Free and total carnitine concentrations in pig plasma after oral ingestion of various L-carnitine compounds . *Int J Vitam Nutr Res.* (2005)

Evans A Dialysis-related carnitine disorder and levocarnitine pharmacology . *Am J Kidney Dis.* (2003)

Evans AM, Fornasini G Pharmacokinetics of L-carnitine . *Clin Pharmacokinet.* (2003)

Fannin SW, *et al* Aging selectively decreases oxidative capacity in rat heart interfibrillar mitochondria . *Arch Biochem Biophys.* (1999)

Fathizadeh H., *et al.*, "The effects of L-carnitine supplementation on glycemic control: a systematic review and meta-analysis of randomized controlled trials". EXCLI J. 2019 Aug 19;18:631-643. eCollection 2019.

Fielding R., *et al.*, "L-Carnitine Supplementation in Recovery after Exercise". Nutrients. 2018 Mar 13;10(3). pii: E349.

Fisher JS, *et al* Activation of AMP kinase enhances sensitivity of muscle glucose transport to insulin . *Am J Physiol Endocrinol Metab.* (2002)

Flanagan JL, *et al* Role of carnitine in disease . *Nutr Metab (Lond).* (2010)

Galloway SD, Craig TP, Cleland SJ Effects of oral L-carnitine supplementation on insulin sensitivity indices in response to glucose feeding in lean and overweight/obese males . *Amino Acids.* (2011)

Goa KL, Brogden A. L-Carnitine, a preliminary review of its pharmacokinetics, and its therapeutic use in ischaemic cardiac disease and primary and secondary carnitine deficiencies in relationship to its role in fatty acid metabolism. *Drugs* 1987;34:1-24

González-Ortiz M, *et al* Effect of oral L-carnitine administration on insulin sensitivity and lipid profile in type 2 diabetes mellitus patients . *Ann Nutr Metab.* (2008)

Gorostiaga EM, Maurer CA, Eclache JP Decrease in respiratory quotient during exercise following L-carnitine supplementation . *Int J Sports Med.* (1989)

Gottfries CG Pharmacological treatment strategies in Alzheimer type dementia . *Eur Neuropsychopharmacol.* (1990)

Gramignano G, *et al* Efficacy of l-carnitine administration on fatigue, nutritional status, oxidative stress, and related quality of life in 12 advanced cancer patients undergoing anticancer therapy . *Nutrition.* (2006)

Hakkou F, Jaouen C, Iraki L A comparative study of cyproheptadine and DL carnitine on psychomotor performance and memory in healthy volunteers . *Fundam Clin Pharmacol.* (1990)

Handa RK, *et al* Glucose transporters and glucose utilization in rat brain after acute ethanol administration . *Metab Brain Dis.* (2000)

Harris RC, Söderlund K, Hultman E Elevation of creatine in resting and exercised muscle of normal subjects by creatine supplementation . *Clin Sci (Lond).* (1992)

Hiatt WR, *et al* Effect of propionyl-L-carnitine on a background of monitored exercise in patients with claudication secondary to peripheral artery disease . *J Cardiopulm Rehabil Prev.* (2011)

Hiatt WR, *et al* Propionyl-L-carnitine improves exercise performance and functional status in patients with claudication . *Am J Med.* (2001)

Ho JY, *et al* L-Carnitine l-tartrate supplementation favorably affects biochemical markers of recovery from physical exertion in middle-aged men and women . *Metabolism.* (2010)

Hu ML, Ng HP, Shih MK Hemolytic effects of dehydroepiandrosterone in vitro . *Life Sci.* (1997)

Hurot JM, *et al* Effects of L-carnitine supplementation in maintenance hemodialysis patients: a systematic review . *J Am Soc Nephrol.* (2002)

Imbe A., *et al.*, “Effects of L-carnitine supplementation on the quality of life in diabetic patients with muscle cramps”. *Endocr J.* 2018 May 28;65(5):521-526.

Jacobs PL, Goldstein ER Long-term glycine propionyl-l-carnitine supplementation and paradoxical effects on repeated anaerobic sprint performance . *J Int Soc Sports Nutr.* (2010)

Jacobs PL, *et al* Glycine propionyl-L-carnitine produces enhanced anaerobic work capacity with reduced lactate accumulation in resistance trained males . *J Int Soc Sports Nutr.* (2009)

Jogl G, Hsiao YS, Tong L Structure and function of carnitine acyltransferases . *Ann N Y Acad Sci.* (2004)

Karanth J, Jeevaratnam K Effect of carnitine supplementation on mitochondrial enzymes in liver and skeletal muscle of rat after dietary lipid manipulation and physical activity . *Indian J Exp Biol.* (2010)

Karlic H, Lohninger A Supplementation of L-carnitine in athletes: does it make sense . *Nutrition.* (2004)

Kates AM, *et al* Impact of aging on substrate metabolism by the human heart . *J Am Coll Cardiol.* (2003)

Keller U, *et al* Carnitine status of pregnant women: effect of carnitine supplementation and correlation between iron status and plasma carnitine concentration . *Eur J Clin Nutr.* (2009)

Kraemer WJ, Volek JS, Dunn-Lewis C L-carnitine supplementation: influence upon physiological function . *Curr Sports Med Rep.* (2008)

Kraemer WJ, *et al* The effects of L-carnitine L-tartrate supplementation on hormonal responses to resistance exercise and recovery . *J Strength Cond Res.* (2003)

Krajcovicová-Kudláčková M, *et al* Correlation of carnitine levels to methionine and lysine intake . *Physiol Res.* (2000)

Lahjouji K, Mitchell GA, Qureshi IA Carnitine transport by organic cation transporters and systemic carnitine deficiency . *Mol Genet Metab.* (2001)

Laviano A, *et al* Antimyopathic effects of carnitine and nicotine . *Curr Opin Clin Nutr Metab Care.* (2006)

Lesnefsky EJ, Hoppel CL Oxidative phosphorylation and aging . *Ageing Res Rev.* (2006)

Lohninger A, *et al* Relationship between carnitine, fatty acids and insulin resistance . *Gynakol Geburtshilfliche Rundsch.* (2009)

Lombard KA, *et al* Carnitine status of lactoovovegetarians and strict vegetarian adults and children . *Am J Clin Nutr.* (1989)

Majid S. Koozehchian, *et al.*, “Effects of nine weeks L-Carnitine supplementation on exercise performance, anaerobic power, and exercise-induced oxidative stress in resistance-trained males”. *J Exerc Nutrition Biochem.* 2018 Dec 31; 22(4): 7–19.

Malaguarnera M, *et al* L-carnitine supplementation to diet: a new tool in treatment of nonalcoholic steatohepatitis--a randomized and controlled clinical trial . *Am J Gastroenterol.* (2010)

Malaguarnera M, *et al* L-Carnitine treatment reduces severity of physical and mental fatigue and increases cognitive functions in centenarians: a randomized and controlled clinical trial . *Am J Clin Nutr.* (2007)

Malaguarnera M.; Pistone G.; Recepto G.; Rapisarda R.; Tomasello F.B.; Motta M.; Maugeri D Serum Carnitine Levels in Centenarians . *Clinical Drug Investigation.* (1999)

Maria Giovanna Sciolì, *et al.*, “Propionyl-L-Carnitine Enhances Wound Healing and Counteracts Microvascular Endothelial Cell Dysfunction”. *PLoS One.* 2015.

McMillin JB, *et al* Mitochondrial metabolism and substrate competition in the aging Fischer rat heart . *Cardiovasc Res.* (1993)

Melton SA, *et al* L-carnitine supplementation does not promote weight loss in ovariectomized rats despite endurance exercise . *Int J Vitam Nutr Res.* (2005)

Mingorance C, *et al* Critical update for the clinical use of L-carnitine analogs in cardiometabolic disorders . *Vasc Health Risk Manag.* (2011)

Molfino A, *et al* Caloric restriction and L-carnitine administration improves insulin sensitivity in patients with impaired glucose metabolism . *JPEN J Parenter Enteral Nutr.* (2010)

Moradi M, *et al* Safety and efficacy of clomiphene citrate and L-carnitine in idiopathic male infertility: a comparative study . *Urol J.* (2010)

Nalecz KA, *et al* Carnitine: transport and physiological functions in the brain . *Mol Aspects Med.* (2004)

Niort G, *et al* Effect of dehydroepiandrosterone on human erythrocytes redox metabolism: inhibition of glucose-6-phosphate dehydrogenase activity in vivo and in vitro . *J Steroid Biochem.* (1985)

Noland RC, *et al* Carnitine insufficiency caused by aging and overnutrition compromises mitochondrial performance and metabolic control . *J Biol Chem.* (2009)

Okada T, *et al* Mechanisms underlying fatigue: a voxel-based morphometric study of chronic fatigue syndrome . *BMC Neurol.* (2004)

Patrick L Jacobs, *et al.*, “Long-term glycine propionyl-L-carnitine supplementation and paradoxical effects on repeated anaerobic sprint performance”. *Journal of the International Society of Sports Nutrition* 7(1):35 · October 2010.

Pekala J, *et al* L-carnitine--metabolic functions and meaning in humans life . *Curr Drug Metab.* (2011)

Pistone G, *et al* Levocarnitine administration in elderly subjects with rapid muscle fatigue: effect on body composition, lipid profile and fatigue . *Drugs Aging.* (2003)

Rai G, *et al* Double-blind, placebo controlled study of acetyl-L-carnitine in patients with Alzheimer's dementia . *Curr Med Res Opin.* (1990)

Rășanu T, *et al* Carnitine deficiency . *Rom J Morphol Embryol.* (2012)

Rebouche CJ Quantitative estimation of absorption and degradation of a carnitine supplement by human adults . *Metabolism.* (1991)

Rebouche CJ, Engel AG Carnitine metabolism and deficiency syndromes . *Mayo Clin Proc.* (1983)

Rebouche CJ, Seim H Carnitine metabolism and its regulation in microorganisms and mammals . *Annu Rev Nutr.* (1998)

Rizzon P, *et al* High doses of L-carnitine in acute myocardial infarction: metabolic and antiarrhythmic effects . *Eur Heart J.* (1989)

Robles-Valdes C, McGarry JD, Foster DW Maternal-fetal carnitine relationship and neonatal ketosis in the rat . *J Biol Chem.* (1976)

Rubin MR, *et al* Safety measures of L-carnitine L-tartrate supplementation in healthy men. *J Strength Cond Res.* (2001)

Sachan DS, Hongu N Increases in VO₂max and metabolic markers of fat oxidation by caffeine, carnitine, and choline supplementation in rats . *J Nutr Biochem.* (2000)

Safarinejad MR, Hosseini SY, Kolahi AA Comparison of vitamin E and propionyl-L-carnitine, separately or in combination, in patients with early chronic Peyronie's disease: a double-blind, placebo controlled, randomized study . *J Urol.* (2007)

Sano M, *et al* Double-blind parallel design pilot study of acetyl levocarnitine in patients with Alzheimer's disease . *Arch Neurol.* (1992)

Sharman EH, *et al* Reversal of biochemical and behavioral parameters of brain aging by melatonin and acetyl L-carnitine . *Brain Res.* (2002)

Smith WA, *et al* Effect of glycine propionyl-L-carnitine on aerobic and anaerobic exercise performance . *Int J Sport Nutr Exerc Metab.* (2008)

Spasov AA, *et al* Effects of L-, D-, and DL-carnitine on morphometric parameters of skeletal muscle and exercise performance of laboratory animals receiving carnitine-deficient diet.. *Bull Exp Biol Med.* (2006)

Spiering BA, *et al* Effects of L-carnitine L-tartrate supplementation on muscle oxygenation responses to resistance exercise . *J Strength Cond Res.* (2008)

Spiering BA, *et al* Responses of criterion variables to different supplemental doses of L-carnitine L-tartrate . *J Strength Cond Res.* (2007)

Stuessi C, *et al* L-Carnitine and the recovery from exhaustive endurance exercise: a randomised, double-blind, placebo-controlled trial . *Eur J Appl Physiol.* (2005)

Sugino T, *et al* Effects of Citric Acid and l-Carnitine on Physical Fatigue . *J Clin Biochem Nutr.* (2007)

Suskind DL Nutritional deficiencies during normal growth . *Pediatr Clin North Am.* (2009)

Sweeney JD, Arduini A L-carnitine and its possible role in red cell and platelet storage . *Transfus Med Rev.* (2004)

Tein I Carnitine transport: pathophysiology and metabolism of known molecular defects . *J Inherit Metab Dis.* (2003)

The effects of L-carnitine L-tartrate supplementation on hormonal responses to resistance exercise and recovery; *Journal of Strength and Conditioning Research* 17(3):455–62.

Trushina EN. “Immunomodulating effects of using L-carnitine and coenzyme Q10 in the nutrition of junior athletes”. *Vopr Pitan.* 2019;88(2):40-49. Epub 2019 Mar 13.

Villani RG, *et al* L-Carnitine supplementation combined with aerobic training does not promote weight loss in moderately obese women . *Int J Sport Nutr Exerc Metab.* (2000)

Volek JS, *et al* Effects of carnitine supplementation on flow-mediated dilation and vascular inflammatory responses to a high-fat meal in healthy young adults . *Am J Cardiol*. (2008)

Volek JS, *et al* L-Carnitine L-tartrate supplementation favorably affects markers of recovery from exercise stress . *Am J Physiol Endocrinol Metab*. (2002)

Vukovich MD, Costill DL, Fink WJ Carnitine supplementation: effect on muscle carnitine and glycogen content during exercise. *Med Sci Sports Exerc*. (1994)

Wall BT, *et al* Chronic oral ingestion of L-carnitine and carbohydrate increases muscle carnitine content and alters muscle fuel metabolism during exercise in humans . *J Physiol*. (2011)

Yeun JY, *et al* C-Reactive protein predicts all-cause and cardiovascular mortality in hemodialysis patients . *Am J Kidney Dis*. (2000)

Zhang L, *et al* Role of fatty acid uptake and fatty acid beta-oxidation in mediating insulin resistance in heart and skeletal muscle . *Biochim Biophys Acta*. (2010)

CARNOSINA

Antonini FM, Petrucci E, Pinzani P, *et al*. The meat in the diet of aged subjects and the antioxidant effects of carnosine. *Arch Gerontol Geriatr Suppl* 2002; 8: 7–14

Baguet A, Reyngoudt H, Pottier A, *et al*. Carnosine loading and washout in human skeletal muscles. *J Appl Physiol* 2009; 106 (3): 837–42

Baguet A, Bourgois J, Vanhee L, Achten E, Derave W. Important role of muscle carnosine in rowing performance. *J Appl Physiol* 2010 Oct;109(4):1096-101

Bakardjiev A, Bauer K. Transport of beta-alanine and biosynthesis of carnosine by skeletal muscle cells in primary culture. *Eur J Biochem* 1994; 225 (2): 617–23

Baumann L, Ingvaldsen T. Concerning histidine and carnosine. The synthesis of carnosine. *J Biol Chem* 1918; 35: 263–76

Begum G, Cunliffe A, Leveritt M. Physiological role of carnosine in contracting muscle. *Int J Sport Nutr Exerc Metab* 2005; 15 (5): 493–514

Bhardwaj RK, Herrera-Ruiz D, Eltoukhy N, *et al*. The functional evaluation of human peptide/histidine transporter 1 (hPHT1) in transiently transfected COS-7 cells. *Eur J Pharm Sci* 2006; 27 (5): 533–42

Bishop D, Edge J, Davis C, *et al*. Induced metabolic alkalosis affects muscle metabolism and repeated-sprint ability. *Med Sci Sports Exerc* 2004; 36 (5): 807–13

Boldyrev AA. Carnosine and oxidative stress in cells and tissues. New York: Nova Science Publishers, 2007

Boldyrev AA. Carnosine: new concept for the function of an old molecule. *Biochemistry (Mosc)*. 2012 Apr;77(4):313-26.

Brown BE, Kim CH, Torpy FR, Bursill CA, McRobb LS, Heather AK, Davies MJ, van Reyk DM. Supplementation with carnosine decreases plasma triglycerides and modulates atherosclerotic plaque composition in diabetic apo E(-/-) mice. *Atherosclerosis*. 2014 Feb;232(2):403-9.

Cain DF, Infante AA, Davies RE. Chemistry of muscle contraction: adenosine triphosphate and phosphorylcreatine as energy supplies for single contractions of working muscle. *Nature* 1962; 196: 214–7

Clarkson PM. Nutrition for improved sports performance: current issues on ergogenic aids. *Sports Med* 1996; 21 (6): 393–401

De Courten B., *et al*., “Effects of carnosine supplementation on glucose metabolism: Pilot clinical trial. *Obesity (Silver Spring)*”. 2016 May;24(5):1027-34.

Derave W, Ozdemir MS, Harris RC, *et al*. Beta-alanine supplementation augments muscle carnosine content and attenuates fatigue during repeated isokinetic contraction bouts in trained sprinters. *J Appl Physiol* 2007; 103 (5): 1736–43

Drozak J, Veiga-da-Cunha M, Vertommen D, *et al*. Molecular identification of carnosine synthase as ATP-grasp domain containing protein 1 (ATPGD1). *J Biol Chem Epub* 2010 Jan; 22

Dunnett M, Harris RC, Dunnett CE, *et al*. Plasma carnosine concentration: diurnal variation and effects of age, exercise and muscle damage. *Equine Vet J Suppl* 2002 (34): 283–7

Estifanos Baye, *et al*., “Carnosine Supplementation Improves Serum Resistin Concentrations in Overweight or Obese Otherwise Healthy Adults: A Pilot Randomized Trial”. *Nutrients*. 2018 Sep 7;10(9).

Harris RC, Dunnett M, Greenhaff PL. Carnosine and taurine contents in individual fibres of human vastus lateralis muscle. *J Sports Sci* 1998; 16 (7): 639–43

Harris RC, Jones G, Hill CA, *et al*. The carnosine content of V lateralis in vegetarians and omnivores [abstract]. *FASEB J* 2007; 21 (6): A944

Harris RC, Tallon MJ, Dunnett M, *et al*. The absorption of orally supplied beta-alanine and its effect on muscle carnosine synthesis in human vastus lateralis. *Amino Acids* 2006; 30 (3): 279–89

Hill CA, Harris RC, Kim HJ, *et al*. Influence of betaalanine supplementation on skeletal muscle carnosine concentrations and high intensity cycling capacity. *Amino Acids* 2007; 32 (2): 225–33

Hipkiss AR, Brownson C, Bertani MF, et al. Reaction of carnosine with aged proteins: another protective process? *Ann N Y Acad Sci* 2002; 959: 285–94

Hipkiss AR, Michaelis J, Syrris P. Non-enzymatic glycosylation of the dipeptide L-carnosine, a potential antiprotein-cross-linking agent. *FEBS Lett* 1995; 371 (1): 81–5

Hipkiss AR. Glycation, ageing and carnosine: are carnivorous diets beneficial? *Mech Ageing Dev* 2005; 126 (10): 1034–9

Hirakoba K. Buffering capacity in human skeletal muscle: a brief review. *Bulletin of the Faculty of Computer Science and Systems Engineering Kyushu Institute of Technology (Human Sciences)* 1999; 12: 1–21

Hultman E, Sahlin K. Acid-base balance during exercise. *Exerc Sport Sci Rev* 1980; 8: 41–128

Invernizzi PL., et al., “Effects of Acute Carnosine and β -Alanine on Isometric Force and Jumping Performance”. *Int J Sports Physiol Perform*. 2016 Apr;11(3):344-9

Janssen B, Hohenadel D, Brinkkoetter P, et al. Carnosine as a protective factor in diabetic nephropathy: association with a leucine repeat of the carnosinase gene CNDP1. *Diabetes* 2005; 54 (8): 2320–7

Kamal MA, Jiang H, Hu Y, et al. Influence of genetic knockout of Pept2 on the in vivo disposition of endogenous and exogenous carnosine in wild-type and Pept2 null mice. *Am J Physiol Regul Integr Comp Physiol* 2009; 296 (4): R986–91

Komi PV, Karlsson J. Skeletal muscle fibre types, enzyme activities and physical performance in young males and females. *Acta Physiol Scand* 1978; 103 (2): 210–8

Kresta JY, Oliver JM, Jagim AR, Fluckey J, Riechman S, Kelly K, Meininger C, Mertens-Talcott SU, Rasmussen C, Kreider RB. Effects of 28 days of beta-alanine and creatine supplementation on muscle carnosine, body composition and exercise performance in recreationally active females. *J Int Soc Sports Nutr*. 2014 Nov 30;11(1):55.

Nagai K, Nijijima A, Yamano T, et al. Possible role of L-carnosine in the regulation of blood glucose through controlling autonomic nerves. *Exp Biol Med (Maywood)* 2003; 228 (10): 1138–45

Nakagawa K, Ueno A, Nishikawa Y. Interactions between carnosine and captopril on free radical scavenging activity and angiotensin-converting enzyme activity in vitro. *Yakugaku Zasshi* 2006; 126 (1): 37–42 CrossRef

Pan JW, Hamm JR, Rothman DL, et al. Intracellular pH in human skeletal muscle by ¹H NMR. *Proc Natl Acad Sci U S A* 1988; 85 (21): 7836–9

Parkhouse WS, McKenzie DC. Possible contribution of skeletal muscle buffers to enhanced anaerobic performance: a brief review. *Med Sci Sports Exerc* 1984; 16 (4): 328–38

Pavlov AR, Revina AA, Dupin AM, et al. The mechanism of interaction of carnosine with superoxide radicals in water solutions. *Biochim Biophys Acta* 1993; 1157 (3): 304–12

Penafiel R, Ruzafa C, Monserrat F, et al. Gender-related differences in carnosine, anserine and lysine content of murine skeletal muscle. *Amino Acids* 2004; 26 (1): 53–8

Ponte J, Harris RC, Hill CA, et al. Effect of 14 and 28 days β -alanine supplementation on isometric endurance of the knee extensors (abstract). *J Sports Sci* 2006; 25: 344

Quinn PJ, Boldyrev AA, Formazuyk VE. Carnosine: its properties, functions and potential therapeutic applications. *Mol Aspects Med* 1992; 13 (5): 379–444

Ririe DG, Roberts PR, Shouse MN, et al. Vasodilatory actions of the dietary peptide carnosine. *Nutrition* 2000; 16 (3): 168–72

Sale C, Artioli GG, Gualano B, Saunders B, Hobson RM, Harris RC. Carnosine: from exercise performance to health. *Amino Acids*. 2013 Jun;44(6):1477-91

Sauerhofer S, Yuan G, Braun GS, et al. L-Carnosine, a substrate of carnosinase-1, influences glucose metabolism. *Diabetes* 2007; 56 (10): 2425–32

Shen Y, Hu WW, Fan YY, et al. Carnosine protects against NMDA-induced neurotoxicity in differentiated rat PC12 cells through carnosine-histidine-histamine pathway and H (1)/H (3) receptors. *Biochem Pharmacol* 2007 Mar 1; 73 (5): 709–17

Simoneau JA, Bouchard C. Human variation in skeletal muscle fiber-type proportion and enzyme activities. *Am J Physiol* 1989; 257 (4Pt1): E567–72

Stout JR, Cramer JT, Zoeller RF, et al. Effects of betaalanine supplementation on the onset of neuromuscular fatigue and ventilatory threshold in women. *Amino Acids* 2007; 32 (3): 381–6

Stuereburg HJ. The roles of carnosine in aging of skeletal muscle and in neuromuscular diseases. *Biochemistry (Mosc)* 2000; 65 (7): 862–5

Suzuki Y, Ito O, Takahashi H, et al. The effect of sprint training on skeletal muscle carnosine in humans. *Int J Sport Health Sci* 2004; 2: 105–10

T. Bex , W. Chung , A. Baguet , S. Stegen , J. Stautemas , E. Achten , W. Derave. Muscle carnosine loading by beta-alanine supplementation is more pronounced in trained vs. untrained muscles. *Journal of Applied Physiology* Published 15 January 2014 Vol. 116 no. 2, 204-209

Tipton KD, Jeukendrup AE, Hespel P. Nutrition for the sprinter. *J Sports Sci* 2007; 25 Suppl. 1: 5–15

Wim Derave, Inge Everaert, Sam Beeckman and Audrey Baguet. Muscle Carnosine Metabolism and b-Alanine Supplementation in Relation to Exercise and Training. *Sports Med* 2010; 40 (3): 247-263

Yamano T, Nijijima A, Imori S, et al. Effect of L-carnosine on the hyperglycemia caused by intracranial injection of 2-deoxy-D-glucose in rats. *Neurosci Lett* 2001; 313 (1-2): 78–82

CELLFOOD

- Benedetti S, Catalani S, Palma F, Canestrari F. The antioxidant protection of Cellfood™ against oxidative damage in vitro. *Food and Chemical Toxicology*. 2011. 49: 2292–2298.
- Chatgililoglu C, Studer A. *Encyclopedia of Radicals in Chemistry, Biology and Materials*. Wiley, Singapore. 2012.
- Coyle M. Free radical clinical study by laboratory tests. NuScience Corporation. Health products update. 2004.
- Ferrero E, Fulgenzi A, Belloni D, Foglieni C, Ferrero ME. Cellfood™ improves respiratory metabolism of endothelial cells and inhibits hypoxia-induced ROS generation. *J Physiol Pharmacol*. 2011. 62 (3): 287–293
- Fulgenzi A, et al. Improvement of oxidative and metabolic parameters by Cellfood administration in patients affected by neurodegenerative diseases on chelation treatment. *Biomed Res Int*. 2014; 2014: 281510.
- Guyton AC. *The textbook of medical physiology*. 1976. 5th Edition. WB Saunders Co. Eds. Pennsylvania (USA).
- Iorio EL, Balestrieri ML. Lo stress ossidativo. In: *Trattato Italiano di Medicina di Laboratorio*, di Angelo Burlina, Ed. Balestrieri C, Piccin, Padova. 2009. 533–549.
- Iorio EL. d-ROMs test in sport. *Cosmetic News*. 2004. 157: 272–275.
- Iorio EL. Hypoxia, free radicals and antioxidants. The “Deutrosulfazyme®” paradox. *Hypoxia Medical J*. 2006. 1-2: 32.
- Lehninger A. *Principles of Biochemistry*. Nelson DL and Cox MM Eds. 2005. 4th Edition. WH Freeman.
- Milic R, Djordjevic S: Cycling performance and Cellfood. 2009 In: Loland S, Bø K, Fasting K, Hallén J, Ommundsen Y, Roberts G, Tsolakidis E (Eds.) *Book of Abstracts of the 14th Annual Congress of the European College of Sport Science*. Gamlebyen Grafiske AS, Oslo, p. 230.
- Nieddu ME, Menza L, Baldi F, Frediani B, Marcolongo R. Efficacy of Cellfood's therapy (deutrosulfazyme) in fibromyalgia. *Reumatismo*. 2007. 59 (4): 316–321.
- Nuvoli B, et al. CELLFOOD® induces apoptosis in human mesothelioma and colorectal cancer cells by modulating p53, c-myc and pAkt signaling pathways. *J Exp Clin Cancer Res* 2014; 5: 24.
- Van Heerden J, De ‘Ath K, Nolte H. Product Efficacy Report. The study on the effects of Cellfood™ on elite athletes. Sport Institute, University of Pretoria (South Africa), 2001.
- Vigna L, et al. Valutazione degli effetti di una supplementazione naturale (Cellfood® Silica Plus gocce) sullo stato metabolico-nutrizionale-ossidativo di donne osteopeniche: studio pilota. *Progress in Nutrition* 2013, 15: 163-174.

CHETONI ESOGENI

- Chiel Poffé Monique, et al., “Ketone ester supplementation blunts overreaching symptoms during endurance training overload”. *The Journal of Physiology*. Volume 597, Issue 1 First published: 30 April 2019.
- Cox P.J., et al., “Nutritional Ketosis Alters Fuel Preference and Thereby Endurance Performance in Athletes”. *Cell Metabolism* 24, 1-13. 2016
- Taggart A.K., et al., “(D)-beta-Hydroxybutyrate inhibits adipocyte lipolysis via the nicotinic acid receptor PUMA-G”. *J Biol Chem*. 2005; 280:26649–26652.

CICLODESTRINE

- Furuyashiki T, et al., “Effect of ingesting highly branched cyclic dextrin during endurance exercise on rating of perceived exertion and blood components associated with energy metabolism”. *Bioscience, Biotechnol Biochem*. 2014.
- Furuyashiki T., et al., “Effects of ingesting highly branched cyclic dextrin during endurance exercise on rating of perceived exertion and blood components associated with energy metabolism”. *Biosci Biotechnol Biochem*. 2014;78(12):2117-9
- Kometani T., et al., “Endurance enhancing effect of cyclic Cluster Dextrin® “. *FOOD Style21*. 2003;7:62–65.
- Suzuki K, et al., “Effect of a sports drink based on highly-branched cyclic dextrin on cytokine responses to exhaustive endurance exercise”. *J Sports Med Phys Fitness* 2014
- Suzuki K., et al., “Effect of a sports drink based on highly-branched cyclic dextrin on cytokine responses to exhaustive endurance exercise.” *J Sports Med Phys Fitness*. 2014 Oct;54(5):622-30
- Takii H., et al., “A sports drink based on highly branched cyclic dextrin generates few gastrointestinal disorders in untrained men during bicycle exercise”. *Food Sci. Technol. Res*. 2004;10:428–431.10.3136/fstr.10.428
- Takii H., et al., “Enhancement of swimming endurance in mice by highly branched cyclic dextrin.” *Biosci Biotechnol Biochem*. 1999 Dec;63(12):2045-52.
- Takii H., et al., “Fluids containing a highly branched cyclic dextrin influence the gastric emptying rate”. *Int. J. Sports Med*. 2005;26:314–319.

CITRATI

- Cox G, Jenkins DG. The physiological and ventilatory responses to repeated 60s sprints following sodium citrate ingestion. *J Sports Sci.* 1994;12:469-475.
- Edge J, Mündel T, Pilegaard H, Hawke E, Leikis M, Lopez-Villalobos N, Oliveira RS, Bishop DJ. Ammonium Chloride Ingestion Attenuates Exercise-Induced mRNA Levels in Human Muscle. *PLoS One.* 2015 Dec 10;10(12):e0141317. Doi: 10.1371/journal.pone.0141317. eCollection 2015
- Linossier MT, Dormois D, Brègère P, et al. Effect of sodium citrate on performance and metabolism of human skeletal muscle during supramaximal cycling exercise. *Eur J Appl Physiol Occup Physiol.* 1997;76:48-54.
- McNaughton L, Cedaro R. Sodium citrate ingestion and its effects on maximal anaerobic exercise of different durations. *Eur J Appl Physiol Occup Physiol.* 1992;64:36-41.
- McNaughton LR. Sodium citrate and anaerobic performance: implications of dosage. *Eur J Appl Physiol.* 1990;61:392-397
- Oöpik V, Saaremets I, Medijainen L, et al. Effects of sodium citrate ingestion before exercise on endurance performance in well trained college runners. *Br J Sports Med.* 2003;37:485-489.
- Oöpik V, Saaremets I, Timpmann S, et al. Effects of acute ingestion of sodium citrate on metabolism and 5-km running performance: a field study. *Can J Appl Physiol.* 2004;29:691-703.
- Oöpik V, Timpmann S, Kadak K, et al. The effect of sodium citrate ingestion on metabolism and 1500-m racing time in trained female runners. *J Sports Sci Med.* 2008;7:125-131.
- Potteiger JA, Nickel GL, Webster MJ, et al. Sodium citrate ingestion enhances 30 Km cycling performance. *Int J Sports Med.* 1996;17:7-11.
- Requena B, Zabala M, Padial P, et al. Sodium bicarbonate and sodium citrate: ergogenic aids? *J Strength Cond Res.* 2005;19:213-222.
- Shave R, Whyte G, Siemann A, et al. The effects of sodium citrate ingestion on 3,000-meter time-trial performance. *J Strength Cond Res.* 2001;15:230-234.
- Silva Suvi, et al., "Influence of Sodium Citrate Supplementation after Dehydrating Exercise on Responses of Stress Hormones to Subsequent Endurance Cycling Time-Trial in the Heat". *Medicina (Kaunas).* 2019 Apr; 55(4): 103.
- Tiryaki GR, Atterbom HA. The effects of sodium bicarbonate and sodium citrate on 600m running time of trained females. *J Sports Med Phys Fitness.* 1995;35:194-198.
- Van Montfoort MCE, Van Dieren L, Hopkins WG, et al. Effects of ingestion of bicarbonate, citrate, lactate, and chloride on sprint running. *Med Sci Sports Exerc.* 2004;36:1239-1243
- Vivian C. R. Cunha, et al., "Sodium citrate supplementation enhances tennis skill performance: a crossover, placebo-controlled, double blind study". *J Int Soc Sports Nutr.* 2019; 16: 32.
- Yan Someren K, Fulcher K, McCarthy J, et al. An investigation into the effects of sodium citrate ingestion on high-intensity exercise performance. *Int J Sport nutr.* 1998;8:356-363

CITRULLINA

- Akashi K, Miyake C, Yokota A (2001) Citrulline, a novel compatible solute in drought-tolerant wild watermelon leaves, is an efficient hydroxyl radical scavenger. *FEBS Lett* 508:438–442;
- Ashley J., et al., "Impact of L-citrulline supplementation on oxygen uptake kinetics during walking". *Appl Physiol Nutr Met* 2018;43(6):631-7.
- Bailey SJ., et al., "Two weeks of watermelon juice supplementation improves nitric oxide bioavailability but not endurance exercise performance in humans". *Nitric Oxide Biol Chem* 2016; 59:10-20.
- Castillo L, Chapman TE, Sanchez M, Yu YM, Burke JF, Ajami AM, Vogt J, Young VR (1993) Plasma arginine and citrulline kinetics in adults given adequate and arginine-free diets. *Proc Natl Acad Sci* 90:7749–7753;
- Citrulline Prevents Gut Injury During Exercise (*Medicine Science Sports Exercise*, 46: 2039-2046,2014)
- Cunniffe B., et al., "Acute citrulline-malate supplementation and high-intensity cycling performance". *J Strength Cond Res* 2016;30(9):2638-47.
- Cynober L (2013) Amino acids metabolism. In: Lennarz WJ, Lane MD (eds) *Encyclopedia of biological chemistry*. New York, pp 91–96;
- da Silva DK., et al., "Citrulline Malate does not improve muscle recovery after resistance exercise in untrained young adult men". *Nutrients* 2017;9(10):1132.
- Farney TM., et al., "The Effect of Citrulline Malate supplementation on muscle fatigue among healthy participants". *J Strength Cond Res* 2017.
- Figuroa A., et al., "Influence of l-citrulline and watermelon supplementation on vascular function and exercise performance". *Curr Opin Clin Nutr Metab Care* 2017;20(1):92-8.
- Glenn JM., et al., "Acute citrulline malate supplementation improves upper- and lower-body submaximal weightlifting exercise performance in resistance-trained females". *Eur J Nutr* 2017;56(2):775-84.
- Glenn JM., et al., "Acute citrulline-malate supplementation improves maximal strength and anaerobic power in female, masters athletes tennis players". *Eur J Sport Sci* 2016;16(8):1095-103.

Gonzales JU., et al., "l-citrulline supplementation improve exercise blood flow in older adults?" *Exp Physiol* 2017;102(12):1661- 71.

González AM., et al., "Acute effect of citrulline malate supplementation on upper-body resistance exercise performance in recreationally resistance-trained men". *J Strength Cond Res* 2018;32(11):3088- 94.

Kiyici F., et al., "The Effect of Citrulline/Malate on Blood Lactate Levels in Intensive Exercise". *Biochem Genet* 2017;55(5- 6):387-94.

Marini JC, Keller B, Didelija IC, Castillo L, Lee B (2011) Enteral arginase II provides ornithine for citrulline synthesis. *Am J Physiol Endocrinol Metab* 300:E188–E194;

Martínez-Sánchez A., et al., "Consumption of watermelon juice enriched in L-citrulline and pomegranate ellagitannins enhanced metabolism during physical exercise". *J Agric Food Chem* 2017;65(22):4395-404.

Norris KA, Schrimpf JE, Flynn JL, Morris SM Jr (1995) Enhancement of macrophage microbicidal activity: supplemental arginine and citrulline augment nitric oxide production in murine peritoneal macrophages and promote intracellular killing of *Trypanosoma cruzi*. *Infect Immun* 63:2793–2796;

Osowska S, Duchemann T, Walrand S, Paillard A, Boirie Y, Cynober L, Moinard C (2006) Citrulline modulates muscle protein metabolism in old malnourished rats. *Am J Physiol Endocrinol Metab* 291:E582–E586

Osowska S, Moinard C, Neveux N, Loï C, Cynober L (2004) Citrulline increases arginine pools and restores nitrogen balance after massive intestinal resection. *Gut* 53:1781–1786

Romero MJ, Platt DH, Caldwell RB, Caldwell RW (2006) Therapeutic use of citrulline in cardiovascular disease. *Cardiovasc Drug Rev* 24:275–290;

Shanely RA., et al., "Comparison of watermelon and carbohydrate beverage on exercise induced alterations in systemic inflammation, immune dysfunction, and plasma antioxidant capacity". *Nutrients* 016;8(8):518.

Shirali S., et al., "Investigating the effects of resistance training on the functions of GH/IGF1 axis and L-arginine supplementation". *Int J Pharm Res Allied Sci* 2016;5(2):234-41.

Wax B, Kavazis AN, Luckett W. Effects of supplemental Citrulline-Malate ingestion on blood lactate, cardiovascular dynamics, and resistance exercise performance in trained males. *J Diet Suppl* 2016;13(3):269-82.

Wax B., et al., "Effects of supplemental citrulline malate ingestion during repeated bouts of lower-body exercise in advanced weightlifters". *J Strength Cond Res* 2015;29(3):786-92.

Windmueller HG, Spaeth AE (1981) Source and fate of circulating citrulline. *Am J Physiol* 241:E473–E480;

CITRUS AURANTIUM

Arch JR beta(3)-Adrenoceptor agonists: potential, pitfalls and progress . *Eur J Pharmacol.* (2002)

Astrup A.: "Pharmacology of thermogenic drugs", *Am. J. Clin. Nutr.*, 1992, 55:246S-48S

Bloomer RJ, *et al* Dietary supplement increases plasma norepinephrine, lipolysis, and metabolic rate in resistance trained men . *J Int Soc Sports Nutr.* (2009)

Bloomer RJ, *et al* Effect of the dietary supplement Meltdown on catecholamine secretion, markers of lipolysis, and metabolic rate in men and women: a randomized, placebo controlled, cross-over study . *Lipids Health Dis.* (2009)

Boulton AA, Wu PH Biosynthesis of cerebral phenolic amines. I. In vivo formation of p-tyramine, octopamine, and synephrine . *Can J Biochem.* (1972)

Brown CM, *et al* Activities of octopamine and synephrine stereoisomers on alpha-adrenoceptors . *Br J Pharmacol.* (1988)

Bui LT, Nguyen DT, Ambrose PJ Blood pressure and heart rate effects following a single dose of bitter orange . *Ann Pharmacother.* (2006)

Candelore, M.R., et al., "Potent and Selective Human Beta(3)-Adrenergic Receptor Antagonists," *J Pharmacol Exp Ther.* 1999 Aug;290(2):649-55

Chen, X., et al., "The Effects of *Citrus aurantium* and its Active Ingredient N-Methyltyramine on the Cardiovascular Receptors," *Yao Xue Xue Bao* 16.4 (1981) : 253-9.

Colker, C, Kalman, D, Torina, G, Perlis, T, Street, Effects of Citrus aurantium extract, caffeine, and St. John's Wort on body fat loss, lipid levels, and mood states in overweight healthy adults. *Curr Ther Res* 60: pp. 145-53 C (1999)

D'Andrea G, *et al* Abnormal platelet trace amine profiles in migraine with and without aura . *Cephalalgia.* (2006)

D'Andrea G, *et al* Elevated levels of circulating trace amines in primary headaches . *Neurology.* (2004)

Fontana, E., et al., "Effects of Octopamine on Lipolysis, Glucose Transport and Amine Oxidation in Mammalian Fat Cells," *Comp Biochem Physiol C Pharmacol Toxicol Endocrinol* 125.1 (2000) : 33-44.

Galitzky, J., et al., "Specific Stimulation of Adipose Tissue Adrenergic Beta 3 Receptors by Octopamine," *C R Acad Sci III* 316.5 (1993) : 519-23.

Gutiérrez-Hellín J., Del Coso J., "Acute p-synephrine ingestion increases fat oxidation rate during exercise". *Br J Clin Pharmacol.* 2016 Aug;82(2):362-8. Epub 2016 May 7.

Haaz S, et al Citrus aurantium and synephrine alkaloids in the treatment of overweight and obesity: an update . *Obes Rev.* (2006)

Haller CA, Benowitz NL, Jacob P 3rd Hemodynamic effects of ephedra-free weight-loss supplements in humans . *Am J Med.* (2005)

Haller CA, et al Human pharmacology of a performance-enhancing dietary supplement under resting and exercise conditions . *Br J Clin Pharmacol.* (2008)

Houslay MD, Tipton KF A kinetic evaluation of monoamine oxidase activity in rat liver mitochondrial outer membranes . *Biochem J.* (1974)

Jordan R, et al Beta-adrenergic activities of octopamine and synephrine stereoisomers on guinea-pig atria and trachea . *J Pharm Pharmacol.* (1987)

Jung Y.P., et al., “Effects of ingesting a pre-workout dietary supplement with and without synephrine for 8 weeks on training adaptations in resistance-trained males”. *Sports Nutr.* 2017 Jan 3;14:1. eCollection 2017.

Jung Y:P., et al., “Effects of acute ingestion of a pre-workout dietary supplement with and without p-synephrine on resting energy expenditure, cognitive function and exercise performance”. *Sports Nutr.* 2017 Jan 12;14:3. eCollection 2017.

Kakimoto Y, Armstrong MD - The phenolic amines of human urine . *J Biol Chem.* (1962)

Marchei E, et al A rapid and simple procedure for the determination of synephrine in dietary supplements by gas chromatography-mass spectrometry . *J Pharm Biomed Anal.* (2006)

McCarthy CG, et al A finished dietary supplement stimulates lipolysis and metabolic rate in young men and women . *Nutr Metab Insights.* (2011)

Nelson BC, et al Mass spectrometric determination of the predominant adrenergic protoalkaloids in bitter orange (*Citrus aurantium*) . *J Agric Food Chem.* (2007)

Nguyen DT, Bui LT, Ambrose PJ Response of CEDIA amphetamines assay after a single dose of bitter orange . *Ther Drug Monit.* (2006)

Park J., et al., “Bitter Orange (*Citrus aurantium* Linné) Improves Obesity by Regulating Adipogenesis and Thermogenesis through AMPK Activation”. *Nutrients.* 2019 Aug 22;11(9). pii: E1988.

Preuss HG, DiFerdinando D, Bagchi M, Bagchi D. *Citrus aurantium* as a thermogenic, weight-reduction replacement for ephedra: an overview. *J Med.* 2002;33(1-4):247-64.

Réjeanne Gougeon, Kathy Harrigan, Jean-François Tremblay, Philip Hedrei, Marie Lamarche and José A. Morais. Increase in the Thermic Effect of Food in Women by Adrenergic Amines Extracted from *Citrus Aurantium*. *Obesity Research* (2005) 13, 1187–1194

Sale C, et al Metabolic and physiological effects of ingesting extracts of bitter orange, green tea and guarana at rest and during treadmill walking in overweight males . *Int J Obes (Lond).* (2006)

Seifert JG, et al Effect of acute administration of an herbal preparation on blood pressure and heart rate in humans . *Int J Med Sci.* (2011)

Shawky E Determination of Synephrine and Octopamine in Bitter Orange Peel by HPTLC with Densitometry . *J Chromatogr Sci.* (2013)

Stohs S.J., “Safety, Efficacy, and Mechanistic Studies Regarding *Citrus aurantium* (Bitter Orange) Extract and p-Synephrine”. *Phytother Res.* 2017 Oct; 31 (10): 1463-1474. Epub 2017 Aug 28.

Stohs SJ, Preuss HG, Shara M The safety of *Citrus aurantium* (bitter orange) and its primary protoalkaloid p-synephrine . *Phytother Res.* (2011)

Stohs SJ, et al Effects of p-synephrine alone and in combination with selected bioflavonoids on resting metabolism, blood pressure, heart rate and self-reported mood changes . *Int J Med Sci.* (2011)

Thevis M1, et al Analysis of octopamine in human doping control samples . *Biomed Chromatogr.* (2012)

Yang and McElligott, Multiple actions of beta-adrenergic agonists on skeletal muscle and adipose tissue. *Biochem. J.* (1989) 261 (1–10)

COENZIMA Q10

Ab et al. Anticoagulant activity of a naphthoquinone analog of vitamin K and an inhibitor of coenzyme Q10-enzyme systems. *Res Commun Chem Pathol Pharmacol.* 1976; 13:109-14.

Agency for Healthcare Research and Quality, Rockville, Md. Evidence report/technology assessment, no. 83. AHRQ publication no. 03-E042. Accessed online March 2, 2005, at: <http://www.ahrq.gov/clinic/epcsu/antioxsum.htm>.

Alehagen U., et al., “Increase in insulin-like growth factor 1 (IGF-1) and insulin-like growth factor binding protein 1 after supplementation with selenium and coenzyme Q10. A prospective randomized double-blind placebo-controlled trial among elderly Swedish citizens”. *PLoS One.* 2017 Jun 13;12(6):e0178614.

Baggio E et al., *Clin Invest* 1993; 71(8): 145-149

Boler JB et al., *Int Z Vitaminforsch* 1969;39:281-8.

Bresolin N et al., *J Neurol Sci* 1990;100:70-8.

Chan A et al., *J Neurol* 1998;245:681-5.

Chen RS et al., *Eur Neurol* 1997;37:212-8.

Coenzyme Q10 improves endothelial dysfunction in statin-treated type 2 diabetic patients. Hamilton SJ1, Chew GT, Watts GF. *Nutr Res.* 2008 Feb;28(2):113-21. doi: 10.1016/j.nutres.2007.12.005.

Coenzyme Q10, Bhagavan HN e Chopra RK, 2005; Rosenfeldt F et al., 2005; Weant KA e Smith KM, 2005.

Coenzyme Q10. Am Fam Physician 2005 Sep 15;72(6):1065-70. Bonakdar RA1, Guarneri E. Combs

CoQ10 product earns orphan drug status [News and Trends]. Health Supplement Retailer. Accessed online May 19, 2005,

Damian MS et al., Circulation 2004;110:3011-6.

Diabetes Care. 2009 May;32(5):810-2. doi: 10.2337/dc08-1736. Epub 2009 Feb 19.

Effect of coenzyme q10 on myopathic symptoms in patients treated with statins. Caso G1, Kelly P, McNurlan MA, Lawson WE. Am J Cardiol. 2007 May 15;99(10):1409-12. Epub 2007 Apr 3.

Emami A., et al., "The effect of short-term coenzyme Q10 supplementation and pre-cooling strategy on cardiac damage markers in elite swimmers". Br J Nutr. 2018 Feb;119(4):381-390.

Folkers K et al., Proc Natl Acad Sci USA 1985;82:901-4.

Greenberg S et al., J Clin Pharmacol 1990;30:596-608.

Guitierrez-Meriscal FM et al. 2011 March 15

H.Winter Griffith, M.D.: Vitamins, herbs, minerals and supplements – the complete guide, 1998, Fisher book.

Hofman-Bang C et al., The Q10 study group. J Card Fail 1995;1:101-7.

Ito H et al., Naunyn Schmiedeberg Arch Pharmacol 1991;344:133-6.

Jeejeebhoy F et al., Am Heart J 2002;143:1092-100.

Jellin JM et al., eds. Pharmacist's letter/prescriber's letter natural medicines comprehensive database.

Judy WV et al., Clin Investig 1993;71(8 suppl):S155-61.

Keith M et al., J Am Coll Cardiol 1998;31:1352-6.

Khatta M et al., Ann Intern Med 2000;132:636-40.

Landbo C, Almdal TP. [Interaction between warfarin and coenzyme Q10]. Ugeskr Laeger. 1998; 160:3226-7. In Danish

Michael T. Murray, N.D.: Encyclopedia of nutritional supplements, 1996, Prima health

Mizuno K et al. 2008 April ; (24): 293-299.

Morisco C et al., Clin Investig 1993;71(suppl 8):S134-6.

Mortensen SA. Biofactors 2003;18:79-89.

Mortensen SA. Clin Investig 1993;71(8 suppl):S116-23.

Muller T et al., Neurosci Lett 2003;341:201-4.

Nayler WG. In: Yamamura Y, Folkers K, Ito Y, eds. Biomedical and clinical aspects of coenzyme Q. Vol. 2. Amsterdam: Elsevier, 1980:409-25.

Nutr J. 6;12(1):142.

Patrick Holford: 100% zdravi, 2000, Založba Mladinska knjiga

PDR for nutritional supplements, 2001; Medical Economics Company, Inc. at Montvale

Rosenfeldt F et al., Biofactors 2003;18:91-100.

Rozen TD et al., Cephalalgia 2002;22:137-41.

Sandor PS et al., Neurology 2005;64:713-5.

Shults CW et al., Arch Neurol 2002;59:1541-50.

Soja AM et al., Mol Aspects Med 1997;18 suppl: S159-68.

Sugiyama S et al., Experientia 1980;36:1002-3.

Supplementation of coenzyme Q10 and alpha-tocopherol lowers glycated hemoglobin level and lipid peroxidation in pancreas of diabetic rats. Sena CM1, Nunes E, Gomes A, Santos MS, Proença T, Martins MI, Seica RM. Belardinelli R, et al. 2005, 25(1-4):137-145

Tabrizi R., et al., "The Effects of Coenzyme Q10 Supplementation on Blood Pressures Among Patients with Metabolic Diseases: A Systematic Review and Meta-analysis of Randomized Controlled Trials". High Blood Press Cardiovasc Prev. 2018 Mar;25(1):41-50.

Tran MT et al., Pharmacotherapy 2001;21:797-806.

Watson PS et al., J Am Coll Cardiol 1999;33:1549-52.

Weston SB et al., Int J Sport Nutr 1997; 7(3): 197-206.

Ylikosi T et al., Mol Aspects Med 1997; 18 (Suppl): S283-290

COLOSTRO

Antti mero, jonne kaohkonen, et al. Igf-i, IgA, and IgG responses to bovine colostrums supplementation during training. *J appl physiol* 93: 732–739, 2002.

Boudry C, Buldgena A, Portetelieb D, et al. Effect of bovine colostrum supplementation on cytokine mRNA expression in weaned piglets. *Livestock Sci* 2007; 108: 295-8;

Brinkworth GD, Buckley JD, Bourdon PC, et al. Oral bovine colostrum supplementation enhances buffer capacity but not rowing performance in elite female rowers. *Int J Sport Nutr Exerc Metab* 2002; 12: 349-65

Brinkworth GD, Buckley JD. Concentrated bovine colostrums protein supplementation reduces the incidence of self-reported symptoms of upper respiratory tract infection in adult males. *Eur J Nutr* 2003; 42: 228-32;

Buckley JD, Brinkworth GD, Abbott MJ. Effect of bovine colostrum on anaerobic exercise performance and plasma insulin-like growth factor I. *J Sports Sci* 2003; 21: 577-88;

Francis GL, Upton FM, Ballard FJ, et al. Insulin-like growth factors 1 and 2 in bovine colostrums: sequences and biological activities compared with those of a potent truncated form. *Biochem J* 1988; 251: 95-103;

Halasa M., Maciejewska D., et al., "Oral supplementation with bovine colostrum decreases intestinal permeability and stool concentrations of zonulin in athletes" *Nutrients*, 2017 Apr 8;9(4)

Jeukendrup AE, Vet-Joop K, Sturk A, et al. Relationship between gastro-intestinal complaints and endotoxaemia, cytokine release and the acute-phase reaction during and after a long-distance triathlon in highly trained men. *Clin Sci (Lond)* 2000; 98: 47-55;

Kerksick C, Kreider R, Rasmussen C, et al. Effects of bovine colostrum supplementation on training adaptations II: performance [abstract]. *FASEB J* 2001; 15: LB315;

Leppä" luoto J, Rasi S, Martikkala V, et al. Bovine colostrums supplementation enhances physical performance on maximal exercise tests. 2000 Pre-Olympic Congress Sports Medicine and Physical Education International Congress on Sport Science; 2000 Sep 7-13: Brisbane (QLD);

Mero A, Miikkulainen H, Riski J, et al. Effects of bovine colostrum supplementation on serum IGF-I, IgG, hormone, and saliva IgA during training. *J Appl Physiol* 1997; 83: 1144-51;

Playford RJ, Floyd DN, Macdonald CE, et al. Bovine colostrum is a health food supplement which prevents NSAID induced gut damage. *Gut* 1999; 44: 653-8;

Playford RJ, MacDonald CE, Calnan DP, et al. Coadministration of the health food supplement, bovine colostrum, reduces the acute non-steroidal anti-inflammatory drug-induced increase in intestinal permeability. *Clin Sci (Lond)* 2001; 100: 627-33;

Shing CM, Peake J, Suzuki K, et al. Effects of bovine colostrums supplementation on immune variables in highly trained cyclists. *J Appl Physiol* 2007; 102: 1113-22;

Shing CM., Jenkins DG., et al., "The influence of bovine colostrum supplementation on exercise performance in highly trained cyclist" *BMJ Journals*, 2006 Sep;40(9):797-801

CORDYCEPS SINENSIS

Chen S., Zhaoping Li. et al. "Effect of Cs-4 (Cordyceps sinensis) on Exercise Performance in Healthy Older Subjects: A Double-Blind, Placebo-Controlled Trial" *The Journal of Alternative and Complementary Medicine* 16, pp 585-590, 2009

Kamur R., Negi R.S., et al. "Cordyceps sinensis promotes exercise endurance capacity of rats by activating skeletal muscle metabolic regulators", *Journal of Ethnopharmacology* 136, 2011, 260-266

Kensler, T.W., Wakabayashi, N., Biswal, S., 2007. Cell survival responses to environmental stresses via the Keap1-NRF2-ARE pathway. *Annual Review of Pharmacology and Toxicology* 47, 89–116

Rossi P., Buonocore D., et al. "Improving Training Condition Assessment in Endurance Cyclists: Effects of *Ganoderma lucidum* and *Ophiocordyceps sinensis* Dietary Supplementation" *Evidence-Based Complementary and Alternative Medicine*, 2014

Yi-Hung Liao et al., "Rhodiola/Cordyceps-Based Herbal Supplement Promotes Endurance Training-Improved Body Composition But Not Oxidative Stress and Metabolic Biomarkers: A Preliminary Randomized Controlled Study". *Nutrients* 2019

CREATINA

A buffered form of creatine does not promote greater changes in muscle creatine content, body composition, or training adaptations than creatine monohydrate (Andrew R Jagim, Jonathan M Oliver, Adam Sanchez, Elfego Galvan, James Fluckey, Steven Riechman, Michael Greenwood, Katherine Kelly, Cynthia Meininger, Christopher Rasmussen and Richard B Kreider;

Antonio J, Ciccone V. The effects of pre versus post workout supplementation of creatine monohydrate on body composition and strength. *J Int Soc Sports Nutr.* 2013 Aug 6;10(1):36.

Balsom et al. Creatine in humans with special reference to creatine supplementation. *Sports Med.* 1994 Oct;18(4):268-80.

Branch JD. Effect of creatine supplementation on body composition and performance: a meta-analysis. *Int J Sport Nutr Exerc Metab.* 2003 Jun;13(2):198-226.

Brenner et al. The Effect of Creatine Supplementation During Resistance Training in Women. *J Strength Cond Res* 14: 207–213, 2000

Buford et al. International Society of Sports Nutrition position stand: creatine supplementation and exercise. *J Int Soc Sports Nutr.* 2007 Aug 30;4:6.

Burke et al. Effect of alpha-lipoic acid combined with creatine monohydrate on human skeletal muscle creatine and phosphagen concentration. *Int J Sport Nutr Exerc Metab.* 2003 Sep;13(3):294-302.

Burke et al. Effect of creatine and weight training on muscle creatine and performance in vegetarians. *Med Sci Sports Exerc* 2003, 35:1946-55.

Burke et al. The effect of 7 days of creatine supplementation on 24-hour urinary creatine excretion. *J Strength Cond Res.* 2001 Feb;15(1):59-62.

Candow DG, Chilibeck PD. Timing of creatine or protein supplementation and resistance training in the elderly. *Appl Physiol Nutr Metab.* 2008 Feb;33(1):184-90.

Cribb et al. A creatine-protein-carbohydrate supplement enhances responses to resistance training. *Med Sci Sports Exerc.* 2007 Nov;39(11):1960-8.

Cribb et al. Effects of whey isolate, creatine, and resistance training on muscle hypertrophy. *Med Sci Sports Exerc.* 2007 Feb;39(2):298-307.

Cribb PJ, Hayes A. Effects of supplement timing and resistance exercise on skeletal muscle hypertrophy. *Med Sci Sports Exerc.* 2006 Nov;38(11):1918-25.

Dempsey et al. Does oral creatine supplementation improve strength? A meta-analysis. *J Fam Pract.* 2002 Nov;51(11):945-51.

Derave et al. Combined creatine and protein supplementation in conjunction with resistance training promotes muscle GLUT-4 content and glucose tolerance in humans. *J Appl Physiol.* 2003 May;94(5):1910-6.

Dobgenski V, Santos MG, Campbell B and Kreider R. Short-term Creatine Supplementation Suppresses the Cortisol Response to a High-Intensity Swim-Sprint Workout. Volume 1 | Issue 2 *Journal of Nutrition and Health Sciences* ISSN: 2393-9060.

Eckerson et al. Effect of two and five days of creatine loading on anaerobic working capacity in women. *J Strength Cond Res.* 2004 Feb;18(1):168-73.

Ferguson TB, Syrotuik DG. Effects of creatine monohydrate supplementation on body composition and strength indices in experienced resistance trained women. *J Strength Cond Res.* 2006 Nov;20(4):939-46.

Fimognari C., et al., "RNA as a new target for toxic and protective agents". *Mutat Res* 648:15–22. 2008

Fukuda et al. The effects of creatine loading and gender on anaerobic running capacity. *J Strength Cond Res.* 2010 Jul;24(7):1826-33.

Gotshalk et al. Creatine supplementation improves muscular performance in older women. *Eur J Appl Physiol.* 2008 Jan;102(2):223-31.

Greenhaff P. The nutritional biochemistry of creatine. *J Nutrit Biochem* 1997, 11:610-618.

Greenhaff PL. Muscle creatine loading in humans: Procedures and functional and metabolic effects. 6th International Conference on Guanidino Compounds in Biology and Medicine. Cincinnati, OH 2001.

Gualano et al. Creatine in type 2 diabetes: a randomized, double-blind, placebo-controlled trial. *Med Sci Sports Exerc.* 2011 May;43(5):770-8.

Gualano et al. Effects of creatine supplementation on glucose tolerance and insulin sensitivity in sedentary healthy males undergoing aerobic training. *Amino Acids.* 2008 Feb;34(2):245-50.

Gualano et al. In sickness and in health: the widespread application of creatine supplementation. *Amino Acids.* 2012 Aug;43(2):519-29.

Hill et al. The effect of beta-alanine and creatine monohydrate supplementation on muscle composition and exercise performance. (Presented at the American College of Sports Medicine Annual conference, 2005, Nashville.)

Hoffman et al. Effect of creatine and beta-alanine supplementation on performance and endocrine responses in strength/power athletes. *Int J Sport Nutr Exerc Metab.* 2006 Aug;16(4):430-46.

Jiaji Yu, et al., "Creatine uptake regulates CD8 T cell antitumor immunity". 2019

Kalman et al. A double blind clinical trial evaluating the relative pharmacokinetics and bioavailability of oral creatine monohydrate when combined with either isomaltulose or dextrose in healthy adult males. *J Int Soc Sports Nutr.* 2012; 9(Suppl 1): P14.

Kambis KW, Pizzedaz SK. Short-term creatine supplementation improves maximum quadriceps contraction in women. *Int J Sport Nutr Exerc Metab.* 2003 Mar;13(1):87-96.

Kreider RB. Creatine in Sports. In: Antonio et al. *Essentials of Sport Nutrition & Supplements*. Springer, 2009. ISBN 1597453021

Kreider RB. Effects of creatine supplementation on performance and training adaptations. *Mol Cell Biochem* 2003, 244:89-94

Kutz MR, Gunter MJ. Creatine monohydrate supplementation on body weight and percent body fat. *J Strength Cond Res.* 2003 Nov;17(4):817-21.

Lugaresi et al. Does long-term creatine supplementation impair kidney function in resistance-trained individuals consuming a high-protein diet?. *Journal of the International Society of Sports Nutrition* 2013, 10:26

Mesa et al. Oral creatine supplementation and skeletal muscle metabolism in physical exercise. *Sports Med.* 2002;32:903–944.

People lose 20 percent of their muscle mass between ages 40 and 60 (*Medicine Science Sports Exercise*, 46:1194-1203,2014)

Persky et al. Pharmacokinetics of the dietary supplement creatine. *Clin Pharmacokinet.* 2003;42:557–574.

Pittas G, et al. "Optimization of insulin-mediated creatine retention during creatine feeding in humans. Randomized controlled trial". *J Sports Sci.* 2010

Poortmans JR, Francaux M. Long-term oral creatine supplementation does not impair renal function in healthy athletes. *Med Sci Sports Exerc.* 1999 Aug;31(8):1108-10.

Preen et al. Effect of creatine loading on long-term sprint exercise performance and metabolism. *Med Sci Sports Exerc* 2001, 33:814-21.

Sakkas GK1, Schambelan M, Mulligan K. Can the use of creatine supplementation attenuate muscle loss in cachexia and wasting? *Curr Opin Clin Nutr Metab Care.* 2009 Nov;12(6):623-7. doi: 10.1097/MCO.0b013e328331de63.

Schedel et al. Acute creatine loading enhances human growth hormone secretion. *J Sports Med Phys Fitness.* 2000 Dec;40(4):336-42.

Selsby et al. Mg²⁺-creatine chelate and a low-dose creatine supplementation regimen improve exercise performance. *J Strength Cond Res.* 2004 May;18(2):311-5.

Snow RJ, Murphy RM. Creatine and the creatine transporter: A review. *Mol Cell Biochem.* 2001;224:169–181.

Stacey J., et al., “Creatine for women: a review of the relationship between creatine and the reproductive cycle and female-specific benefits of creatine therapy”. 2015

Steenge et al. Protein- and carbohydrate-induced augmentation of whole body creatine retention in humans. *J Appl Physiol.* 2000 Sep;89(3):1165-71.

Stone et al. Effects of in-season (5 weeks) creatine and pyruvate supplementation on anaerobic performance and body composition in American football players. *Int J Sport Nutr* 1999, 9:146-65.

Supplementing creatine monohydrate (20grams consumed in four doses) for six days reduced blood lactate during an incremental test on a stationary bike – (*International Journal Sports Nutrition Exercise Metabolism*, 23: 252-258, 2013);

Tarnopolsky et al. Creatine monohydrate enhances strength and body composition in Duchenne muscular dystrophy. *Neurology.* 2004 May 25;62(10):1771-7.

Terjung et al. American College of Sports Medicine roundtable. The physiological and health effects of oral creatine supplementation. *Med Sci Sports Exerc.* 2000 Mar;32(3):706-17.

Van Loon et al. Creatine supplementation increases glycogen storage but not GLUT-4 expression in human skeletal muscle. *Clin Sci (Lond).* 2004 Jan;106(1):99-106.

Van Loon et al. Effects of creatine loading and prolonged creatine supplementation on body composition, fuel selection, sprint and endurance performance in humans. *Clin Sci (Lond).* 2003 Feb;104(2):153-62.

Volek et al. Creatine Supplementation: Its effect on human muscular performance and body composition. *J Strength Cond Res.* 1996;10(200-210)

Volek et al. Performance and muscle fiber adaptations to creatine supplementation and heavy resistance training. *Med Sci Sports Exerc.* 1999 Aug;31(8):1147-56.

Williams T., et al., “The effect of estrogen on muscle damage biomarkers following prolonged aerobic exercise in eumenorrheic women”. *Biol Sport* 32:193–198. 2015

Willoughby DS, Rosene J. Effects of oral creatine and resistance training on myosin heavy chain expression. *Med Sci Sports Exerc* 2001, 33:1674-81.

Yoshizumi WM1, Tsourounis C. Effects of creatine supplementation on renal function. *J Herb Pharmacother.* 2004;4(1):1-7.

CURCUMA LONGA

Aggarwal, et al., “Curcumin (diferuloylmethane) down-regulates the constitutive activation of nuclear factor- κ B and I κ B α kinase in human multiple myeloma cells, leading to suppression of proliferation and induction of apoptosis”. 2003, 101 (3): 1053-1062.

Delecroix B., et al., “Curcumin and Piperine Supplementation and Recovery Following Exercise Induced Muscle Damage: A Randomized Controlled Trial”. *J Sports Sci Med.* 2017 Mar 1;16(1):147-153.

Derosa G., et al., “Effect of curcumin on circulating interleukin-6 concentrations: A systematic review and meta-analysis of randomized controlled trials”. *Pharmacol Res.* 2016 Sep.

Drobnic F., et al., “Reduction of delayed onset muscle soreness by a novel curcumin delivery system (Meriva®): a randomised, placebo-controlled trial”. *J Int Soc Sports Nutr.* 2014 Jun 18

Jäger R., et al., “Eight Weeks of a High Dose of Curcumin Supplementation May Attenuate Performance Decrements Following Muscle-Damaging Exercise”. *Nutrients.* 2019 Jul 23;11(7). pii: E1692.

K. B. Soni, et al., “Short communication effect of oral curcumin administration on serum peroxides and cholesterol levels in human volunteers”. *Indian J Physiol* , 1992.

Kocaadam B., et al., “Curcumin, an active component of turmeric (*Curcuma longa*), and its effects on health”. *Rev Food Sci Nutr.* 2017 Sep 2;57(13):2889-2895.

Mazidi M., et al., “Potential effects of curcumin on peroxisome proliferator-activated receptor- γ in vitro and in vivo”. *World J Methodol.* 2016 Mar 26;6(1):112-7.

Mohebbati R., et al., “The effects of *Curcuma longa* and curcumin on reproductive systems”. *Endocr Regul.* 2017 Oct 26;51(4):220-228.

Murali M. Yallapu, et al., "Curcumin induces chemo/radio-sensitization in ovarian cancer cells and curcumin nanoparticles inhibit ovarian cancer cell growth". *Journal of Ovarian Research*, 2010.

Nicol LM., et al., "Curcumin supplementation likely attenuates delayed onset muscle soreness (DOMS)". *Eur J Appl Physiol*. 2015 Aug.

Panahi Y., et al., "Curcuminoids modify lipid profile in type 2 diabetes mellitus: A randomized controlled trial". *Complement Ther Med*. 2017 Aug;33:1-5.

Poolsup N., et al., "Effects of curcumin on glycemic control and lipid profile in prediabetes and type 2 diabetes mellitus: A systematic review and meta-analysis". *LoS One*. 2019 Apr 23;14(4):e0215840.

S.Manju, et al., "Conjugation of curcumin onto hyaluronic acid enhances its aqueous solubility and stability". *Journal of Colloid and Interface Science*. Volume 359, Issue 1, 1 July 2011(Pages 318-325).

Sahin K., et al., "Curcumin prevents muscle damage by regulating NF- κ B and Nrf2 pathways and improves performance: an in vivo model". *J Inflamm Res*. 2016 Aug.

Sciberras JN., et al., "The effect of turmeric (Curcumin) supplementation on cytokine and inflammatory marker responses following 2 hours of endurance cycling". *J Int Soc Sports Nutr*. 2015 Jan 21;12(1):5.

Shimizu K., et al., "Anti-inflammatory Action of Curcumin and Its Use in the Treatment of Lifestyle-related Diseases". *Eur Cardiol*. 2019 Jul 11;14(2):117-122.

Shoba G., et al., "Influence of piperine on the pharmacokinetics of curcumin in animals and human volunteers". *Planta Med*, 1998; 64(4):353-6.

Siviero A., et al., "Curcumin, a golden spice with a low bioavailability". *Journal of Herbal Medicine*. 2015, 64(4):353-6.

Vaughn AR., et al., "Effects of Turmeric (*Curcuma longa*) on Skin Health: A Systematic Review of the Clinical Evidence". *Phytother Res*. 2016 Aug.

DHEA

Collomp R1, laby Z, Zorgati H, et al. Therapeutic glucocorticoid administration alters the diurnal pattern of dehydroepiandrosterone. *Endocrine*. 2014 Aug;46(3):668-71

Corona G, Rastrelli G, Giagulli VA, et al. Dehydroepiandrosterone supplementation in elderly men: a meta-analysis study of placebo-controlled trials. *J Clin Endocrinol Metab* 2013 Sep;98(9):3615-26

Heaney JL, Carroll D, Phillips AC. Physical activity, life events stress, cortisol, DHEA: preliminary findings that physical activity may buffer against the negative effects of stress. *J Aging Phys Act*. 2014 Oct;22(4):465-73

Rutkowski K, Sowa P, Rutkowska-Talipska J, Kuryliszyn-Moskal A, Rutkowski R. DHEA: hypes and hopes. *Drugs*. 2014 Jul;74(11):1195-207

Sato K, Iemitsu M, Aizawa K, Ajisaka R. Testosterone and DHEA activate the glucose metabolism-related signaling pathway in skeletal muscle. *Am J Physiol Endocrinol Metab*.

Traish AM, kang HP, Saad F, Guay AT. DHEA – a precursor steroid or an active hormone in human physiology. *J Sex Med*. 2011 Nov;8(11):2960-82

Vasarhelyi B, Bencsik P, Treszl A et al. The effect of physiologic hyperinsulinemia during an oral glucose tolerance test on the levels of DHEA and its sulfate (DHEAS) in healthy young adults born with low and with normal birth weight. *Endocr J*. 2003 Dec;50(6):689-95

Villareal DT, Holloszy JO. Effect of DHEA on abdominal fat and insulin action in elderly women and men: a randomized controlled trial. *JAMA*. 2004 Nov 10;292(18):2243-8

7-KETO DHEA

7-Keto DHEA. Martindale: The Complete Drug Reference . Thomson Healthcare . 10 luglio 2011. 7-Keto-DHEA è uno steroide androgeno anabolizzante che può essere soggetto ad abusi nello sport.

Bobyleva V., et al., "Concerning the mechanism of increased thermogenesis in rats treated with dehydroepiandrosterone". *J Bioenerg Biomembr*. 1993 Jun;25(3):313-21.

Bobyleva V., et al., "The effects of the ergosteroid 7-oxo-dehydroepiandrosterone on mitochondrial membrane potential: possible relationship to thermogenesis." *Arch Biochem Biophys*. 1997 May 1;341(1):122-8

Bobyleva V., et al., "The effects of the ergosteroid 7-oxo-dehydroepiandrosterone on mitochondrial membrane potential: possible relationship to thermogenesis. *Arch Biochem Biophys*. 1997 May 1;341(1):122-8.

Bobyleva V., et al., "The effects of the ergosteroid 7-oxo-dehydroepiandrosterone on mitochondrial membrane potential: possible relationship to thermogenesis". *Arch Biochem Biophys*. 1997 May 1;341(1):122-8.

Davidson M., et al., "Safety and pharmacokinetic study with escalating doses of 3-acetyl-7-oxo-dehydroepiandrosterone in healthy male volunteers". *Clin Invest Med*. 2000 Oct;23(5):300-10.

Dias TR., et al., "Dehydroepiandrosterone and 7-oxo-dehydroepiandrosterone in Male Reproductive Health: Implications of Differential Regulation of Human Sertoli Cells Metabolic Profile". *J Steroid Biochem Mol Biol*, 154, 1-11 Nov 2015

Gallagher TF. "Adrenocortical carcinoma in man; the effect of amphenone on individual ketosteroids". *J Clin Endocrinol Metab.* 1958 Sep;18(9):937-49.

Hampl R., et al., "7-Hydroxydehydroepiandrosterone-a natural antigluco corticoid and a candidate for steroid replacement therapy?". *Physiol Res.* 2000;49 Suppl 1:S107-12.

Henwood SM., et al., "An escalating dose oral gavage study of 3beta-acetoxyandrost-5-ene-7, 17-dione (7-oxo-DHEA-acetate) in rhesus monkeys". *Biochem Biophys Res Commun.* 1999 Jan 8;254(1):124-6.

Ihler G., Chami-Stemmann H. "7-oxo-DHEA and Raynaud's phenomenon". *Med Hypotheses.* 2003 Mar;60(3):391-7.

Kalman DS CC., et al., "A randomized, double-blind, placebo-controlled study of 3-acetyl-7-oxo-dehydroepiandrosterone in healthy over- weight adults". *Curr Ther Res.* 2000;61:435-442.

Kalman DS., et al., "A randomized, double-blind, placebo-controlled study of 3-acetyl-7-oxo-dehydroepiandrosterone in healthy overweight adults". *Curr Therap Res.* 2000;61(7):435-42.

Kandutsch AA., et al., "Effects of 25-hydroxycholesterol and 7-ketocholesterol, inhibitors of sterol synthesis, administered orally to mice". *Biochim Biophys Acta.* 1977 Feb 23;486(2):260-72

Kolatorova Sosvorova L., et al., "Synthesis of 3 α -deuterated 7 α -hydroxy-DHEA and 7-oxo-DHEA and application in LC-MS/MS plasma analysis". *Steroids.* 2016 Aug;112:88-94.

Lardy H., et al., "An acute oral gavage study of 3beta-acetoxyandrost-5-ene-7,17-dione (7-oxo-DHEA-acetate) in rats". *Biochem Biophys Res Commun.* 1999 Jan 8;254(1):120-3.

Lardy H., et al., "Ergosteroids. II: Biologically active metabolites and synthetic derivatives of dehydroepiandrosterone". *Steroids.* 1998 Mar;63(3):158-65.

Lardy H., et al., "Ergosteroids: induction of thermogenic enzymes in liver of rats treated with steroids derived from dehydroepiandrosterone". *Proc Natl Acad Sci USA.* 1995 Jul 3;92(14):6617-9.

Liu YY., et al., "Effects of 7-oxo-DHEA treatment on the immunoreactivity of BALB/c mice subjected to chronic mild stress". *Yao Xue Xue Bao.* 2003 Dec;38(12):881-4.

Marenich LP. "Excretion of testosterone, epitestosterone, androstenedione and 7-ketodehydroepiandrostenedione in healthy men of different ages". *Probl Endokrinol (Mosk).* 1979 Jul;25(4):28-31.

Nestler JE., et al., "Dehydroepiandrosterone reduces serum low density lipoprotein levels and body fat but does not alter insulin sensitivity in normal men". *J Clin Endocrinol Metab.* 1988 Jan;66(1):57-61.

Nestler JE., et al., "Dehydroepiandrosterone reduces serum low density lipoprotein levels and body fat but does not alter insulin sensitivity in normal men". *J Clin Endocrinol Metab.* 1988 Jan;66(1):57-61.

Shi J., et al., "The effect of 7-oxo-DHEA acetate on memory in young and old C57BL/6 mice". *Steroids.* 2000 Mar;65(3):124-9.

Sulcova J., et al., "Effects of transdermal application of 7-oxo-DHEA on the levels of steroid hormones, gonadotropins and lipids in healthy men". *Physiol Res.* 2001;50(1):9-18.

Świzdor A., et al., "Biohydroxylation of 7-oxo-DHEA, a natural metabolite of DHEA, resulting in formation of new metabolites of potential pharmaceutical interest". *Chem Biol Drug Des.* 2016 Dec;88(6):844-849.

Zenk JL., et al., "HUM5007, a novel combination of thermogenic compounds, and 3-acetyl-7-oxo-dehydroepiandrosterone: each increases the resting metabolic rate of overweight adults". *J Nutr Biochem.* 2007 Sep;18(9):629-34.

Zenk JL., et al., "The use of 3-acetyl-7-oxo-dehydroepiandrosterone for augmenting immune response in the elderly". Presented at meeting of FASEB, April 17, 2004.

DMAE

Caille EJ. "Study concerning the bisorcate deanol effects upon quantified EEG, cortical vigilance and mood. Comparative double-blind, cross-over balanced design versus pirisudanol". *Psychol Med.* 1986

Ceder G., et al., "Deanol Affects Choline Metabolism in Peripheral Tissues of Mice". *Journal of Neurochemistry* 1981

Coleman N., et al., "Deanol in the treatment of hyperkinetic children Psychosomatics". 1976

Danysz, et al., "The influence of 2-dimethylaminoethanol (DMAE) on the mental and physical efficiency in man". *Act Nerv Super (Praha).* 1967

Dean W., et al., "Smart Drugs II"—smart publisher 1993

Dimpfel W., et al., "Efficacy of dimethylaminoethanol (DMAE) containing vitamin-mineral drug combination on EEG patterns in the presence of different emotional states". *Eur J Med Res.* 2003

Haubrich DR., et al., "Effects of 2-dimethylaminoethanol (Deanol) on the metabolism of choline in plasma". *Journal of Neurochemistry.* 1978

Jope RS., "Dimethylaminoethanol (deanol) metabolism in rat brain and its effect on acetylcholine synthesis". *J Pharmacol Exp Ther.* 1979

Kapoor V.K., et al., "Synthetic drugs with antiageing effects". *Drug Discov.* 2009

Lewis JA., Young R., "Deanol and methylphenidate in minimal brain dysfunction". *Clin Pharmacol Ther.* 1975

Malanga G., et al., "New insights on dimethylaminoethanol (DMAE) features as a free radical scavenger". *Drug Metab Lett.* 2012

Millington WR., et al., "Deanol acetamidobenzoate inhibits the blood-brain barrier transport of choline". *Ann Neurol* 1978

Oettinger L. Jr., "A review with special reference to deanol Pediatric psychopharmacology". *Dis Nerv Syst* 1977

Re O., "2-Dimethylaminoethanol (deanol): a brief review of its clinical efficacy and postulated mechanism of action". *Curr Ther Res Clin Exp.* 1974

Zahniser NR., et al., "Is di-methylaminoethanol (Deanol) indeed a precursor of brain acetylcholine? A gas chromatographic evaluation". *Journal of Pharmacology and Experimental Therapeutics*, 1977

DMG

Friesen, Russell W., et al. "Relationship of dimethylglycine, choline, and betaine with oxoproline in plasma of pregnant women and their newborn infants." *The Journal of nutrition* 137.12 (2007): 2641-2646.

Meduski, J. W., et al. 1980. "Decrease of lactic acid concentration in blood of animals given N,N-dimethylglycine." Presented at Pacific Slope Biomedical Conference, Univ. of California, San Diego, (1980) 7-9.

Moffitt, P., et al. "Venous lactic acid levels in exercising horses fed N, N-dimethylglycine." *Proceedings of the 9th Equine Nutrition and physiology Symposium*, E., Lansing, Michigan. 1985.

Rose, R. J., et al. "Effects of N, N-dimethylglycine on cardiorespiratory function and lactate production in thoroughbred horses performing incremental treadmill exercise." *Veterinary Record* 125.10 (1989): 268-271.

Pipes, T. V. "The effects of pangamic acid on performance in trained athletes." *Med. Sci. Sports Exercise* (1980) 12:98

Gray, Michael E., and Larry W. Titlow. "The effect of pangamic acid on maximal treadmill performance." *Medicine and science in sports and exercise* 14.6 (1982): 424.

Reza, Attarzadeh Seyed, et al. "The effect of DMG administration on Biochemical Blood Parameters in Youth elite Basketball Players." (2013) 55-59.

Brown, H., L. M. Reimnitz, and A. J. Koch. "No Effect of DMG on Maximal Aerobic Power." *The Journal of Strength & Conditioning Research* 25 (2011): S109-S110.

Kern, Janet K., et al. "Effectiveness of N, N-dimethylglycine in autism and pervasive developmental disorder." *Journal of Child Neurology* 16.3 (2001): 169-173.

Bolman, William M., and John A. Richmond. "A double-blind, placebo-controlled, crossover pilot trial of low dose dimethylglycine in patients with autistic disorder." *Journal of autism and developmental disorders* 29.3 (1999): 191-194.

Rossignol, Daniel A. "Novel and emerging treatments for autism spectrum disorders: a systematic review." *Ann Clin Psychiatry* 21.4 (2009): 213-36.

Graber, Charles D., et al. "Immunomodulating properties of dimethylglycine in humans." *Journal of Infectious Diseases* 143.1 (1981): 101-105.

Kleinkopf, K. "N,N-dimethylglycine and calcium gluconate and its effects on maximum oxygen consumption (max VO₂) on highly conditioned athletes." Private report. College of Southern Idaho, July 1980.

Hariganesh, K. & Prathiba, J. "Effect of Dimethylglycine on gastric ulcers in rats." *J. Pharm. Pharmacol.*, 2000;52: 1519-1522.

Mani, S., et al. "Role of perna and dimethylglycine (DMG) in modulating cytokine response and their impact on melanoma cells." 99th General Meeting of the American Society for Microbiology. May 30-June 3, 1999, Chicago, IL.

DMMA

Bloomer RJ., et al., "Effect of Caffeine and 1,3-dimethylamylamine on Exercise Performance and Blood Markers of Lipolysis and Oxidative Stress in Trained Men and Women". *Journal of Caffeine Research*. 2011b.

Bloomer RJ., et al., "Effects of 1,3-Dimethylamylamine and Caffeine Alone or in Combination on Heart Rate and Blood Pressure in Healthy Men and Women". *The Physician and Sports medicine*. 2011a.

Bloomer, R. J., et al., "Safety profile of caffeine and 1,3-dimethylamylamine supplementation in healthy men". *Human & experimental toxicology*. 2013.

Brown, JA., et al., "Toxicity from bodybuilding supplements and recreational use of products containing 1,3-dimethylamylamine". *Med J Aust* 2013

Dunn, M., "Have prohibition policies made the wrong decision? A critical review of studies investigating the effects of DMAA". *Int. J. Drug Policy*, 2017

Forrester M. "Exposures to 1,3-dimethylamylamine-containing products reported to Texas poison centers". *Human & Experimental Toxicology*. 2013

Gee P., et al., "Another bitter pill: a case of toxicity from DMAA party pills". *The New Zealand Medical Journal*. 2010.

Gee P., et al., "Use of recreational drug 1,3-dimethylethylamine (DMAA) associated with cerebral hemorrhage". *Annals of Emergency Medicine*. 2012

Van Hout MC., et al., "Plant or Poison: A Netnographic Study of Recreational Use of 1,3-dimethylamylamine (DMAA)". *Int J Drug Policy*, 2015

Whitehead P., et al., "Impact of a Dietary Supplement Containing 1,3-Dimethylamylamine on Blood Pressure and Bloodborne Markers of Health: a 10-Week Intervention Study". *Nutrition and Metabolic Insights*. 2012

Zovico PVC., et al., "Suplementos contendo DMAA: mitos e verdades". *Revista Brasileira De Nutrição Esportiva*. 2018

ECHINACEA

Shuler B. et al. Acute and chronic elevation of erythropoietin in the brain improves exercise performance in mice without inducing erythropoiesis. *Faseb J*, 2012; 26(9): p.3884-90.

Whitehead M.T. et al. The effect of 4 wk of oral echinacea supplementation on serum erythropoietin and indices of erythropoietic status. *Int J Sport Nutr Exerc Metab* 2007;17 (4) : p.378-90.

Whitehead MT, et al. Running economy and maximal oxygen consumption after 4 weeks of oral Echinacea supplementation.

Douglas Schar, Echinacea. La pianta che stimola le difese immunitarie, Tecniche Nuove, 2000, ISBN 978-88-481-1066-2.

Garrigos M, Mir LM, Orlowski S. Competitive and non-competitive inhibition of multidrug-resistance-associated experimental evidence for a multisite model. *Eur J Biochem*, 1997, 244:664-73.

Goel V, Chang C, Slama JV, Barton R, Bauer R, Gahler R, Basu TK. Alkylamides of Echinacea purpurea stimulate alveolar macrophage function in normal rats. *Int Immunopharmacol*, 2002, 2:381-7

EFEDRINA

Bell DG., et al., "Reducing the dose of combined caffeine and ephedrine preserves the ergogenic effect". *Aviation Space and Environmental Medicine*, 2000

Powers M. "Ephedra and Its Application to Sport Performance: Another Concern for the Athletic Trainer?" *Journal of athletic training*, 2001

ELEUTEROCOCCO

A preparation of Eleutherococcus senticosus increased the in vitro phagocytosis of Candida albicans by granulocytes and monocytes from healthy donors by 30-45%." Wildfeuer A, Mayerhofer D. The effects of plant preparations on cellular functions in body defense. *Arzneimittel-Forschung* 1994; 44: 361-6.

Anti-depressant effects of aqueous extract from Acanthopanax senticosus in mice. Jin L1, Wu F, Li X, Li H, Du C, Jiang Q, You J, Li S, Xu Y.

Antidepressant effects of Radix et Caulis Acanthopanax Santicosi extracts on rat models with depression in terms of immobile behavior.

Anti-Fatigue Activity of Extracts of Stem Bark from Acanthopanax senticosus. Xue-Ling Zhang 1, Feng Ren 1, Wei Huang 1, Ren-Tao Ding 1, Qiu-Sheng Zhou 2 and Xin-Wei Liu 3.(2011)

Asano K, Takahashi T, Miyashita M, Matsuzaka A, Muramatsu S, Kuboyama M, Kugo H, Imai J. Effect of Eleutherococcus senticosus extract on human physical working capacity. *Planta Medica* 1986; 3: 175-7. 11

Assessment of the effects of eleutherococcus senticosus on endurance performance. Goulet ED1, Dionne JJ.

Bohn B, Nebe CT, Birr C. Flow-cytometric studies with eleutherococcus senticosus extract as an immunomodulatory agent. *Arzneimittel-Forschung* 1987; 37:1193-6.

Chinese Journal of Physiology 53(2): 105-111, 2010 105 DOI: 10.4077/CJP.2010.AMK018. "The Effect of Eight Weeks of Supplementation with Eleutherococcus senticosus on Endurance Capacity and Metabolism in Human. Jip Kuo1, 5, 6, Kenny Wen-Chyuan Chen2, I-Shiung Cheng3, Pu-Hsi Tsai4, Ying-Jui Lu5 and Ning-Yuean Lee1, 7.

Collisson RJ. Siberian Ginseng (Eleutherococcus senticosus). *Br J Phytotherapy*. 1991;2:61-71

Gagarin IA. Eleutherococcus in the prophylaxis of the disease incidence in the Artic. In: Adaptation and adaptogens. Proceedings of the 2nd Symposium. 1977; 2: 128.

Int J Sport Nutr Exerc Metab. 2005 Feb;15(1):75-83.

Kim CG., et al., "Caspase-3/MAPK pathways as main regulators of the apoptotic effect of the phyto-mediated synthesized silver nanoparticle from dried stem of Eleutherococcus senticosus in human cancer cells". *Biomed Pharmacother*. 2018 Mar;99:128-133.

Phytother Res. 2013 Dec;27(12):1829-33. doi: 10.1002/ptr.4938. Epub 2013 Feb 18.

Release of acetylcholine by syringin, an active principle of Eleutherococcus senticosus, to raise insulin secretion in Wistar rats. *Neurosci Lett*. 2008 Mar 28; 434(2):195-9. Liu KY, Wu YC, Liu IM, Yu WC, Cheng JT.

Sannia A. Effetto sulla performance sportiva di durata di un'integrazione vitaminica e minerale paragonato a quello del Ginseng e dell'Eleuterococco presi isolatamente. *Acta Phytotherapeutica*, Vol. 1, N° 1

Steinmann GG, Esperester A, Joller P. Immunopharmacological in vitro effects of Eleutherococcus senticosus extracts. *Arzneimittelforschung*. 2001 Jan; 51(1):76-83.

Szolomicki S, Samochowiec L, Wójcicki J, Drozdziak M. The influence of active components of Eleutherococcus senticosus on cellular defence and physical fitness in man. *Phytother Res* 2000; 14:30-5. 12

Wang X, Hai CX, Liang X, Yu SX, Zhang W, Li YL. The protective effects of *Acanthopanax senticosus* Harms aqueous extracts against oxidative stress: role of Nrf2 and antioxidant enzymes. *J Ethnopharmacol.* 2010 Feb 3; 127(2):424-32.

Yamauchi Y., et al., "Memory Enhancement by Oral Administration of Extract of *Eleutherococcus senticosus* Leaves and Active Compounds Transferred in the Brain". *Nutrients.* 2019 May 22;11(5). pii: E1142.

Yoon TJ, lee SH, Hwang SH, Shin KS, Park WM, Hwang JH, Yu KW. Immunomodulating activity of pectic polysaccharides from *Eleutherococcus senticosus*. *Food Sci Biotechnol* 2003; 12:533-539.

FIENO GRECO

Abdel-Barry JA, *et al.* Hypoglycaemic effect of aqueous extract of the leaves of *Trigonella foenum-graecum* in healthy volunteers. *East Mediterr Health J.* (2000)

Al-Jenoobi FI, *et al.* Pharmacokinetic interaction studies of fenugreek with CYP3A substrates cyclosporine and carbamazepine. *Eur J Drug Metab Pharmacokinet.* (2013)

Aswar U, *et al.* Effect of furostanol glycosides from *Trigonella foenum-graecum* on the reproductive system of male albino rats. *Phytother Res.* (2010)

Bordia A, Verma SK, Srivastava KC. Effect of ginger (*Zingiber officinale* Rosc.) and fenugreek (*Trigonella foenum-graecum* L.) on blood lipids, blood sugar and platelet aggregation in patients with coronary artery disease. *Prostaglandins Leukot Essent Fatty Acids.* (1997)

Broca C, *et al.* Insulinotropic agent ID-1101 (4-hydroxyisoleucine) activates insulin signaling in rat. *Am J Physiol Endocrinol Metab.* (2004)

Christophe Broca, Vincent Breil, Ce'line Cruciani-Guglielmacci, Miche'le Manteghetti, Christine Rouault, Michel Derouet, Salwa Rizkalla, Bernard Pau, Pierre Petit, Ge'rand Ribes, Alain Ktorza, 5 Rene' Gross, Ge'rand Reach, and Mohammed Taouis. Insulinotropic agent ID-1101 (4-hydroxyisoleucine) activates insulin signaling in rat. *Am J Physiol Endocrinol Metab* 287: E463–E471, 2004

Gaur V, *et al.* Neurobehavioral assessment of hydroalcoholic extract of *Trigonella foenum-graecum* seeds in rodent models of Parkinson's disease. *Pharm Biol.* (2013)

Gupta A, Gupta R, Lal B. Effect of *Trigonella foenum-graecum* (fenugreek) seeds on glycaemic control and insulin resistance in type 2 diabetes mellitus: a double-blind, placebo-controlled study. *J Assoc Physicians India.* 2001;49:1057-1061.

Hamden K, *et al.* Inhibitory potential of omega-3 fatty and fenugreek essential oil on key enzymes of carbohydrate-digestion and hypertension in diabetes rats. *Lipids Health Dis.* (2011)

Jetté L, *et al.* 4-Hydroxyisoleucine: a plant-derived treatment for metabolic syndrome. *Curr Opin Investig Drugs.* (2009) Apr;10(4):353-8

Kiss R., *et al.*, "Diosgenin and Its Fenugreek Based Biological Matrix Affect Insulin Resistance and Anabolic Hormones in a Rat Based Insulin Resistance Model". *Biomed Res Int.* 2019 Apr 4;2019:7213913. eCollection 2019.

Madar Z, Abel R, Samish S, *et al.* Glucose-lowering effect of fenugreek in non-insulin dependent diabetics. *Eur J Clin Nutr.* 1988;42:51-54.

Maheshwari A., *et al.*, "Efficacy of Furosap™, a novel *Trigonella foenum-graecum* seed extract, in Enhancing Testosterone Level and Improving Sperm Profile in Male Volunteers". *Int J Med Sci.* 2017 Jan 10;14(1):58-66. eCollection 2017.

Mohammad Reza Haeri, Mohammad Izaddoost, Mohammad Reza Shams Ardekani, Mohammad Rahbani Nobar and Kenneth N. White. The effect of fenugreek 4-hydroxyisoleucine on liver function biomarkers and glucose in diabetic and fructose-fed rats. *Phytotherapy Research*; Volume 23 Issue 1, Pages 61 – 64, 2009.

Morgan Lewing, Earnest Pena, Chris Poole, Fanny Dufour, Eric Consancio, Hallie Jacobson, Kristen Dugan, Tyler Jones, Natalie Ervin, Cliffo Foster, Richard Kreider, Lem Taylor and Colin Wilborn. Effects of BIOCREAT supplementation on strength and body composition during an 8-week resistance training program. *Journal of the International Society of Sports Nutrition* 2009, 6(Suppl 1):P11.

Palacios S., *et al.*, "Effect of a multi-ingredient based food supplement on sexual function in women with low sexual desire". *BMC Womens Health.* 2019 Apr 30;19(1):58.

Parvizpur A, Ahmadiani A, Kamalinejad M. Spinal serotonergic system is partially involved in antinociception induced by *Trigonella foenum-graecum* (TFG) leaf extract. *J Ethnopharmacol.* (2004)

Petit PR, *et al.* Steroid saponins from fenugreek seeds: extraction, purification, and pharmacological investigation on feeding behavior and plasma cholesterol. *Steroids.* (1995)

Ruby BC, *et al.* The addition of fenugreek extract (*Trigonella foenum-graecum*) to glucose feeding increases muscle glycogen resynthesis after exercise. *Amino Acids.* (2005)

Satheeshkumar N, *et al.* Acetylcholinesterase enzyme inhibitory potential of standardized extract of *Trigonella foenum-graecum* L and its constituents. *Phytomedicine.* (2010)

Sharma RD, Raghuram TC, Rao NS. Effect of fenugreek seeds on blood glucose and serum lipids in type I diabetes. *Eur J Clin Nutr.* 1990;44:301-306.

Sharma RD, Sarkar A, Hazra DK, et al. Use of fenugreek seed powder in the management of non-insulin dependent diabetes mellitus. *Nutr Res* . 1996;16:1331-1339

Slivka D, et al. Glycogen resynthesis and exercise performance with the addition of fenugreek extract (4-hydroxyisoleucine) to post-exercise carbohydrate feeding. *Amino Acids*. (2008)

Steels E, Rao A, Vitetta L. Physiological Aspects of Male Libido Enhanced by Standardized Trigonella foenum-graecum Extract and Mineral Formulation. *Phytother Res*. (2011)

Tahiliani P, Kar A. Mitigation of thyroxine-induced hyperglycaemia by two plant extracts. *Phytother Res*. (2003)

Wankhede S., et al., "Beneficial effects of fenugreek glycoside supplementation in male subjects during resistance training: A randomized controlled pilot study". *J Sport Health Sci*. 2016 Jun;5(2):176-182. Epub 2015 Mar 7.

Wilborn C, et al. Effects of a purported aromatase and 5 α -reductase inhibitor on hormone profiles in college-age men. *Int J Sport Nutr Exerc Metab*. (2010)

Yves Sauvaire et al. 4-Hydroxyisoleucine: A Novel Amino Acid Potentiator of Insulin Secretion. *Diabetes* February 1998 vol. 47 no. 2 206-210.

FORSKOLINA (COLEUS FORSKOHLII)

Body composition and hormonal adaptations associated with forskolin consumption in overweight and obese men, *Obesity Research*, 2005, August; 12(8):1335-43

Effects of Coelus Forskohlii Supplementation on Body Composition and Hematological Profiles in Midly Overweight Women, *Journal of International Society of Sports Nutrition*, 2(2):54-62, Shonteh Henderson et al, 2005

FOSFATIDILSERINA

Amaducci L. Phosphatidylserine in the treatment of Alzheimer's disease: results of a multicenter study. *Psychopharmacol Bull*. (1988)

Calderini G, et al. Pharmacological effect of phosphatidylserine on age-dependent memory dysfunction. *Ann N Y Acad Sci*. (1985)

Casamenti F, Scali C, Pepeu G. Phosphatidylserine reverses the age-dependent decrease in cortical acetylcholine release: a microdialysis study. *Eur J Pharmacol*. (1991)

Christian JA, et al. Senescence of canine biotinylated erythrocytes: increased autologous immunoglobulin binding occurs on erythrocytes aged in vivo for 104 to 110 days. *Blood*. (1993)

Crook T, et al. Effects of phosphatidylserine in Alzheimer's disease. *Psychopharmacol Bull*. (1992)

Crook TH, et al. Effects of phosphatidylserine in age-associated memory impairment. *Neurology*. (1991)

Finkielstein C. et al., Cell migration and signaling specificity is determined by the PS recognition motif of rac1, *J. Biol. Chem.*, 2006, 281(37): 27317.

Franco RS, et al. Changes in the properties of normal human red blood cells during in vivo aging. *Am J Hematol*. (2013)

Hellhammer J, et al. Omega-3 fatty acids administered in phosphatidylserine improved certain aspects of high chronic stress in men. *Nutr Res*. (2012)

Hirayama S, et al. The effect of phosphatidylserine administration on memory and symptoms of attention-deficit hyperactivity disorder: a randomised, double-blind, placebo-controlled clinical trial. *J Hum Nutr Diet*. (2013)

Jäger R. et al., Phospholipids and sports performance., *J. Int. Soc. Sports Nutr.*, 2007, 4:5

Jorissen BL, et al. Safety of soy-derived phosphatidylserine in elderly people. *Nutr Neurosci*. (2002)

Jorissen BL, et al. The influence of soy-derived phosphatidylserine on cognition in age-associated memory impairment. *Nutr Neurosci*. (2001)

Kingsley MI, Wadsworth D, Kilduff LP, McEneny J, Benton D. Effects of phosphatidylserine on oxidative stress following intermittent running. *Med Sci Sports Exerc*. 2005 Aug

Kingsley MI, et al. Effects of phosphatidylserine on exercise capacity during cycling in active males. *Med Sci Sports Exerc*. (2006)

Kingsley MI, et al. Phosphatidylserine supplementation and recovery following downhill running. *Med Sci Sports Exerc*. (2006)

Maggioni M, et al. Effects of phosphatidylserine therapy in geriatric patients with depressive disorders. *Acta Psychiatr Scand*. (1990)

Manor I, et al. Safety of phosphatidylserine containing omega3 fatty acids in ADHD children: A double-blind placebo-controlled trial followed by an open-label extension. *Eur Psychiatry*. (2013)

Manor I, et al. The effect of phosphatidylserine containing Omega3 fatty-acids on attention-deficit hyperactivity disorder symptoms in children: a double-blind placebo-controlled trial, followed by an open-label extension. *Eur Psychiatry*. (2012)

Miranda DT, et al. Soy lecithin supplementation alters macrophage phagocytosis and lymphocyte response to concanavalin A: a study in alloxan-induced diabetic rats. *Cell Biochem Funct*. (2008)

Monteleone P, *et al.* Blunting by chronic phosphatidylserine administration of the stress-induced activation of the hypothalamo-pituitary-adrenal axis in healthy men. *Eur J Clin Pharmacol.* (1992)

Monteleone P, *et al.* Effects of phosphatidylserine on the neuroendocrine response to physical stress in humans. *Neuroendocrinology.* (1990)

Parker AG, *et al.* The effects of IQPLUS Focus on cognitive function, mood and endocrine response before and following acute exercise. *J Int Soc Sports Nutr.* (2011)

Ralf Jäger, Martin Purpura and Michael Kingsley. Phospholipids and sports performance. *Journal of the International Society of Sports Nutrition* 2007, 4:5

Richter Y, *et al.* The effect of phosphatidylserine-containing omega-3 fatty acids on memory abilities in subjects with subjective memory complaints: a pilot study. *Clin Interv Aging.* (2010)

Sakai M, Yamatoya H, Kudo S. Pharmacological effects of phosphatidylserine enzymatically synthesized from soybean lecithin on brain functions in rodents. *J Nutr Sci Vitaminol (Tokyo).* (1996)

Schroeder F. Role of membrane lipid asymmetry in aging. *Neurobiol Aging.* (1984)

Schuchardt JP, *et al.* Incorporation of EPA and DHA into plasma phospholipids in response to different omega-3 fatty acid formulations--a comparative bioavailability study of fish oil vs. krill oil. *Lipids Health Dis.* (2011)

Starks M.A. *et al.*, The effects of phosphatidylserine on endocrine response to moderate intensity exercise., *J. Int. Soc. Sports. Nutr.*, 2008, 5:11

Suzuki S, *et al.* Oral administration of soybean lecithin transphosphatidylated phosphatidylserine improves memory impairment in aged rats. *J Nutr.* (2001)

Vaisman N, *et al.* Correlation between changes in blood fatty acid composition and visual sustained attention performance in children with inattention: effect of dietary n-3 fatty acids containing phospholipids. *Am J Clin Nutr.* (2008)

Verhoven B, Schlegel RA, Williamson P. Mechanisms of phosphatidylserine exposure, a phagocyte recognition signal, on apoptotic T lymphocytes. *J Exp Med.* (1995)

Winther B, *et al.* Elucidation of phosphatidylcholine composition in krill oil extracted from *Euphausia superba*. *Lipids.* (2011)

Zanotti A, Valzelli L, Toffano G. Chronic phosphatidylserine treatment improves spatial memory and passive avoidance in aged rats. *Psychopharmacology (Berl).* (1989)

GABA

Al-Sarraf H. "Transport of 14C-gamma-aminobutyric acid into brain, cerebrospinal fluid and choroid plexus in neonatal and adult rats". *Brain Res Dev Brain Res.* 2002 Dec 15;139(2):121-9.

Cavagnini F, *et al.*, "Effect of acute and repeated administration of gamma aminobutyric acid (GABA) on growth hormone and prolactin secretion in man". *Acta Endocrinol (Copenh).* 1980 Feb;93(2):149-54.

De Palo EF., *et al.*, "Growth hormone isoforms, segments/fragments: does a link exist with multifunctionality". *Clin Chim Acta.* 2006 Feb;364(1-2):77-81.

K.Kuriyama, *et al.*, "Blood-brain barrier to H3- γ -aminobutyric acid in normal and amino oxyacetic acid-treated animals". *Neuropharmacology*, Volume 10, Issue 1, January 1971, P. 103-108

Petroff OA. "GABA and glutamate in the human brain". *Neuroscientist.* 2002 Dec;8(6):562-73

Powers ME., *et al.*, "Growth hormone isoform responses to GABA ingestion at rest and after exercise". *Med Sci Sports Exerc.* 2008 Jan;40(1):104-10.

Shyamaladevi N, *et al.*, "Evidence that nitric oxide production increases gamma-amino butyric acid permeability of blood-brain barrier". *Brain Res Bull.* 2002 Jan 15;57(2):231-6

W. Löscher, H.-H. Frey. "Transport of GABA at the Blood-CSF Interface". *Wiley Online Library.* April 1982

W. Löscher. "GABA in plasma and cerebrospinal fluid of different species. Effects of γ -acetylenic GABA, γ -vinyl GABA and sodium valproate". *Wiley Online Library.* May 1979

GINGKO BILOBA

Ahlemeyer B *et al* Pharmacological studies supporting the therapeutic use of Ginkgo biloba extract for Alzheimer's disease. *Pharmacopsychiatry.* 2003 Jun;36 Suppl 1:S8-14.

Chandrasekaran K *et al* Neuroprotective effects of bilobalide, a component of the Ginkgo biloba extract (EGb 761), in gerbil global brain ischemia. *Brain Res.* 2001 Dec 20;922(2):282-92.

Chandrasekaran K *et al* Bilobalide, a component of the Ginkgo biloba extract (EGb 761), protects against neuronal death in global brain ischemia and in glutamate-induced excitotoxicity. *Cell Mol Biol (Noisy-le-grand).* 2002 Sep;48(6):663-9

Chandrasekaran Neuroprotective effects of bilobalide, a component of Ginkgo biloba extract (EGb 761) in global brain ischemia and in excitotoxicity-induced neuronal death. *Pharmacopsychiatry.* 2003 Jun;36 Suppl 1:S89-94

Clostre F.[Ginkgo biloba extract (EGb 761). State of knowledge in the dawn of the year 2000]. *Ann Pharm Fr.* 1999 Jul;57 Suppl 1:1S8-88

DeFeudis FV, Drieu K. Ginkgo biloba extract (EGb 761) and CNS functions: basic studies and clinical applications. *Curr Drug Targets*. 2000 Jul;1(1):25-58.

de Oliveira Cruz

Diamond BJ et al Ginkgo biloba extract: mechanisms and clinical indications *Arch Phys Med Rehabil*. 2000 May;81(5):668-78.

Diamond BJ et al. Ginkgo biloba: indications, mechanisms, and safety. *Psychiatr Clin North Am*. 2013 Mar;36(1):73-83

Elsabagh S et al, Differential cognitive effects of Ginkgo biloba after acute and chronic treatment in healthy young volunteers *Psychopharmacology (Berl)*. 2005 May;179(2):437-46.

Kaschel R Ginkgo biloba: specificity of neuropsychological improvement--a selective review in search of differential effects. *Hum Psychopharmacol*. 2009 Jul;24(5):345-70.

Kennedy DO et al, The dose-dependent cognitive effects of acute administration of Ginkgo biloba to healthy young volunteers. *Psychopharmacology (Berl)*. 2000 Sep;151(4):416-23.

Kennedy DO et al Modulation of cognition and mood following administration of single doses of Ginkgo biloba, ginseng, and a ginkgo/ginseng combination to healthy young adults. *Physiol Behav*. 2002 Apr 15;75(5):739-51.

Subhan Z et al The psychopharmacological effects of Ginkgo biloba extract in normal healthy volunteers *Int J Clin Pharmacol Res*. 1984;4(2):89-93.

Yang G et al Ginkgo Biloba for Mild Cognitive Impairment and Alzheimer's Disease: A Systematic Review and Meta-Analysis of Randomized Controlled Trials *Curr Top Med Chem*. 2016;16(5):520-8.

M. Auguet, et al., "Bases Pharmacologiques de l'Impact Vasculaire de l'Extrait de Ginkgo Biloba", *La Presse Medicale* 15.31 (1986) :1524.

Bettermann, K., Arnold, A. M., Williamson, J., Rapp, S., Sink, K., Toole, J. F., Carlson, M. C., Yasar, S., Dekosky, S., and Burke, G. L. Statins, risk of dementia, and cognitive function: secondary analysis of the ginkgo evaluation of memory study. *J Stroke Cerebrovasc Dis* 2012;21(6):436-444.

Herrschaft, H., Nacu, A., Likhachev, S., Sholomov, I., Hoerr, R., and Schlaefke, S. Ginkgo biloba extract EGb 761(R) in dementia with neuropsychiatric features: a randomised, placebo-controlled trial to confirm the efficacy and safety of a daily dose of 240 mg. *J Psychiatr Res* 2012;46(6):716-723.

Jalili, J., Askeroglu, U., Alleyne, B., and Guyuron, B. Herbal products that may contribute to hypertension. *Plast Reconstr Surg*. 2013;131(1):168-173.

Bredie, S. J. and Jong, M. C. No significant effect of ginkgo biloba special extract EGb 761 in the treatment of primary Raynaud phenomenon: a randomized controlled trial. *J Cardiovasc Pharmacol* 2012;59(3):215-221.

Ihl, R., Tribanek, M., and Bachinskaya, N. Efficacy and tolerability of a once daily formulation of Ginkgo biloba extract EGb 761(R) in Alzheimer's disease and vascular dementia: results from a randomised controlled trial. *Pharmacopsychiatry* 2012;45(2):41-46.

Zhang, S. J. and Xue, Z. Y. Effect of Western medicine therapy assisted by Ginkgo biloba tablet on vascular cognitive impairment of none dementia. *Asian Pac J Trop Med* 2012;5(8):661-664.

Afr J Tradit Complement Altern Med. 2010;7(4):291-5. Epub 2010 Jul 3. Effect of Ginkgo biloba extract on free radical metabolism of liver in mice during endurance exercise. Bing Y, Zhaobao W.

Chin J Integr Med. 2009 Jun; 15(3):177-83. Doi: 10.1007/s11655-009-0177-x. Epub 2009 Jul 2. Dietary supplement with a combination of Rhodiola crenulata and Ginkgo biloba enhance the endurance performance in healthy volunteers.

Zhang ZJ, Tong Y, Zou J, Chen PJ, Yu DH. *Angiology*. 2009 Feb-Mar;60(1):36-41. Doi: 10.1177/0003319708317337. Epub 2008 May 27. Effects of supervised treadmill walking training on calf muscle capillarization in patients with intermittent claudication. Wang J, Zhou S, Bronks R, Graham J, Myers S.

M. Auguet et al "Bases Pharmacologiques de l'Impact Vasculaire de l'Extrait de Ginkgo Biloba" *La Presse Medicale* 1986

GLICEROLO

Anderson MJ, Cotter JD, Garnham AP, Casley DJ, and Febbraio MA. Effect of glycerol-induced hyperhydration on thermoregulation and metabolism during exercise in the heat. *Int J Sport Nutr Exerc Metab* 11: 315-333, 2001.

Coutts A, Reaburn P, Mummery K, and Holmes M. The effect of glycerol hyperhydration on Olympic distance triathlon performance in high ambient temperatures. *Int J Sport Nutr Exerc Metab* 12: 105-119, 2002.

Coyle EF and Hamilton MT. Fluid replacement during exercise: effects on physiological homeostasis and performance. In: *Perspectives in Exercise Science and Sports Medicine. Fluid Homeostasis During Exercise*, edited by Gisolfi CV and Lamb DR. Indianapolis, IN: Benchmark, 1990, p. 281-308.

Freund BJ, Montain SJ, Young AJ, Sawka MN, DeLuca JP, Pandolf KB, and Valeri CR. Glycerol hyperhydration: hormonal, renal, and vascular fluid responses. *J Appl Physiol* 79: 2069-2077, 1995.

Goulet ED. A meta-analysis of the effects of glycerol-induced hyperhydration on fluid retention and endurance performance. *Int J Sport Nutr Exerc Metab*. 2007 Aug;17(4):391-410.

Goulet ED. Effect of glycerol-induced hyperhydration on thermoregulatory and cardiovascular functions and endurance performance during prolonged cycling in a 25 degrees C environment. *Appl Physiol Nutr Metab*. 2006 Apr;31(2):101-9.

Goulet ED. Glycerol-induced hyperhydration: a method for estimating the optimal load of fluid to be ingested before exercise to maximize endurance performance. *J Strength Cond Res*. 2010 Jan;24(1):74-8. doi: 10.1519/JSC.0b013e3181bd43e2.

Harrison MH. Effects of thermal stress and exercise on blood volume in humans. *Physiol Rev* 65: 149–209,2004.

Hitchins S, Martin DT, Burke L, Yates K, Fallon K, Hahn A, and Dobson GP. Glycerol hyperhydration improves cycle time trial performance in hot humid conditions. *Eur J Appl Physiol* 80: 494–501, 1999.

Montner P, Stark DM, Riedesel ML, Murata G, Robergs R, Timms M, and Chick TW. Pre-exercise glycerol hydration improves cycling endurance time. *Int J Sports Med* 17: 27–33, 1996.

Nelson JL. Exploring the potential ergogenic effects of glycerol hyperhydration. *Sports Med*. 2007;37(11):981-1000.

O'Brien C. Glycerol hyperhydration: physiological responses during cold-air exposure. *J Appl Physiol* (1985). 2005 Aug;99(2):515-21. Epub 2005 Apr 7.

Polyviou TP. Effects of glycerol and creatine hyperhydration on doping-relevant blood parameters. *Nutrients*. 2012 Sep;4(9):1171-86. doi: 10.3390/nu4091171. Epub 2012 Aug 31.

Polyviou TP. Thermoregulatory and cardiovascular responses to creatine, glycerol and alpha lipoic acid in trained cyclists. *J Int Soc Sports Nutr*. 2012 Jun 22;9(1):29.

Riedesel ML, Allen DY, Peake GT, and Al-Qattan K. Hyperhydration with glycerol solutions. *J Appl Physiol* 63: 2262–2268, 1987.

Robergs RA and Griffin SE. Glycerol. *Sports Med* 26: 145–167, 1998.

S. P. van Rosendal, et al., “Hydration and endocrine responses to intravenous fluid and oral glycerol”.

S.P. van Rosendal. Lamprecht M (ed): “Acute Topics in Sport Nutrition”. *Med Sport Sci*. Basel, Karger, 2013, vol 59, pp 104–112

Savoie FA. Sodium-induced hyperhydration decreases urine output and improves fluid balance compared with glycerol- and water-induced hyperhydration. *Appl Physiol Nutr Metab*. 2015 Jan;40(1):51-8. doi: 10.1139/apnm-2014-0243.

Sawka MN, Gonzalez RR, Young AJ, Muza SR, Pandolf KB, Latzka WA, Dennis RC, and Valeri CR. Polycythemia and hydration: effects on thermoregulation and blood volume during exercise-heat stress. *Am J Physiol Regul Integr Comp Physiol* 255: R456–R463, 1988.

Sawka MN. Physiological consequences of hypohydration: exercise performance and thermoregulation. *Med Sci Sports Exerc* 24: 657–670, 1992.

Scand J Med Sci Sports 2015; 25 (Suppl. 1): 112–125 doi: 10.1111/sms.12367

Van Rosendal SP. Guidelines for glycerol use in hyperhydration and rehydration associated with exercise. *Sports Med*. 2010 Feb 1;40(2):113-29. doi: 10.2165/11530760-000000000-00000.

GLUCOSAMMINA E CONDROITINA SOLFATO

Apostu et al. “Systemic drugs with impact on osteoarthritis”. *DRUG METABOLISM REVIEWS*.
<https://doi.org/10.1080/03602532.2019.1687511>

Bassleer C, Henrotin Y, Franchiment P. In vitro evaluation of drugs proposed as chondroprotective agents. *Int J Tissue React*. 1992;14:231-241.

Bassleer C, Malaise M. Chondroitin sulfate: Its in vitro effects on human articular chondrocytes cultivated in clusters. Singapore: The Third International Congress of the Osteoarthritis Research Society; 1997.

Brandt K, Slowman-Kovacs S. Nonsteroidal anti-inflammatory drugs in treatment of osteoarthritis. *Clin Orthop*. 1985;213:84-91.

Bucci L. Chondroitin sulfate products for cardiovascular health. *The Nutritional Supplement Advisor*. 1989;4:111.

Bucci L. Chondroprotective agents: Glucosamine salts and chondroitin sulfates. *Townsend Letter for Doctors*. 1994;1:52-54.

Cornelio Barrientos, Radu Racotta, Lucía Quevedo. Glucosamine attenuates increases of intra abdominal fat, serum leptin levels, and insulin resistance induced by a high-fat diet in rats. *Nutrition Research* 30 (2010) 791–800

Dingle JT. The effect of NSAIDs on human articular cartilage glycosaminoglycan synthesis. *Eur J Rheumatol Inflamm*. 1996;16(1):47-52.

E.D. Kantor, J.W. Lampe, T.L. Vaughan, U. Peters, C.D. Rehm, E. White. *American Journal of Epidemiology* 2012, Volume 176, Number 11, Pages 1002-13. Association between use of specialty dietary supplements and C-reactive protein concentrations

Ghosh P. Second-line agents in osteoarthritis. In: *Second-Line Agents in the Treatment of Rheumatic Diseases*. New York, NY: Marcel Dekker; 1992:363-427.

Henrotin et al. “Natural Products for Promoting Joint Health and Managing Osteoarthritis”. *Current Rheumatology Reports* (2018) 20: 72 <https://doi.org/10.1007/s11926-018-0782-9>.

Hochberg et al. “Combined chondroitin sulfate and glucosamine for painful knee osteoarthritis: a multicentre, randomised, double-blind, non-inferiority trial versus celecoxib”. *Ann Rheum Dis* 2016;75:37–44. doi:10.1136/annrheumdis-2014-206792

Iwata H. Pharmacologic and clinical aspects of intraarticular injection of hyaluronate. *Clin Orthop*. 1993;289:285.

Jimenez SA. The effects of glucosamine on human chondrocyte gene expression. Madrid, Spain: The Ninth Eular Symposium; 1996:8-10.

Laurent TC. Hyaluronan in inflammatory joint disease. *Acta Orthop Scand*. 1995;226(66):116-120.

Lomonte et al. "Multicenter, randomized, double-blind clinical trial to evaluate efficacy and safety of combined glucosamine sulfate and chondroitin sulfate capsules for treating knee osteoarthritis". *Advances in Rheumatology* (2018) 58:41 <https://doi.org/10.1186/s42358-018-0041-9>

MacDonald MH. Degenerative joint disease. In: Smith BP, ed. *Large Animal Internal Medicine*. St. Louis, Mo: Mosby; 1996:1281-1283.

McIlwraith CW. Diseases of joints, tendons, ligaments and related structures. In: Stashak TS, ed. *Adams' Lameness in Horses*. Philadelphia, Pa: Lea & Febiger; 1984:368-369.

Muller-Fassbender H, et al. Glucosamine sulfate compared to ibuprofen in osteoarthritis of the knee. *Osteoarthritis Cartilage*. 1994;2:61-69.

Muller-Fassbender H, et al. Glucosamine sulfate compared to ibuprofen in osteoarthritis of the knee. *Osteoarthritis Cartilage*. 1994;2:61-69.

Mycek MJ, et al. *Pharmacology*. 2nd ed. Philadelphia, Pa: Lippincott-Raven; 1997:403-411.

Oliverieri U., et al. *Drugs in Experimental and Clinical Research*, 1991; 17(1): 45

Paroli E, et al. A pharmacological approach to glycosaminoglycans. *Drugs Exp Clin Res*. 1991;17(1):9-20.

Pipitone V., *Drugs in Experimental and Clinical Research*, 1991; 17(1): 3.

Pujalte JM, et al. Double-blind clinical efficacy and safety of intramuscular glucosamine sulfate in osteoarthritis of the knee. *Arzneimittelforschung/Drug Res*. 1980;30(I).

Raiss R. Einfluss von D-Glucosaminsulfat auf experimentell geschaedigten gelenkknorpel. *Fortschr Med*. 1985;103(24):658-668

Reginster JY et al. "Comments on the discordant recommendations for the use of symptomatic slow-acting drugs in knee osteoarthritis". *Curr Med Res Opin*. 2015;31(5):1041-5.

Roman-Blas et al. "Combined Treatment With Chondroitin Sulfate and Glucosamine Sulfate Shows No Superiority Over Placebo for Reduction of Joint Pain and Functional Impairment in Patients With Knee Osteoarthritis". *ARTHRITIS & RHEUMATOLOGY* Vol. 69, No. 1, January 2017, pp 77-85 DOI 10.1002/art.39819.

Serni U. Profile of glucosamine as an example of a slow-acting drug in osteoarthritis. In: *Proceedings of the 18th Congress of Rheumatology*. *Rev Esp Rheumatol*. 1993;20(suppl):222.

Setnikar I, Palumbo R. Pharmacokinetics of glucosamine in man. *Arzneimittelforschung/Drug Res*. 1993;43(II):1109-1113.

Towheed TE, Anastassiades TP, *J Rheumatol*, 1999 Nov; 26(11): 2294-7.

Tsubura E., et al., *Chemical Abstracts*, 1977; 86: 65688a.

Vajaradul Y. Double-blind clinical evaluation of intraarticular glucosamine in outpatients with gonarthrosis. *Clin Ther*. 1981;3:336-343.

Vaz AL. Double-blind clinical evaluation of the relative efficacy of ibuprofen and glucosamine sulfate in the management of osteoarthritis of the knee in outpatients. *Curr Med Res Opin*. 1982;8:145.

GLUTAMMINA

Akobeng AK, et al. Glutamine supplementation and intestinal permeability in Crohn's disease. *JPEN J Parenter Enteral Nutr*. (2000)

Antonio J, et al. The effects of high-dose glutamine ingestion on weightlifting performance. *J Strength Cond Res*. (2002)

Babij P, Matthews SM, Rennie MJ. Changes in blood ammonia, lactate and amino acids in relation to workload during bicycle ergometer exercise in man. *Eur J Appl Physiol Occup Physiol*. (1983)

Benjamin J, et al. Glutamine and whey protein improve intestinal permeability and morphology in patients with Crohn's disease: a randomized controlled trial. *Dig Dis Sci*. (2012)

Bowtell JL, et al. Effect of oral glutamine on whole body carbohydrate storage during recovery from exhaustive exercise. *J Appl Physiol*. (1999)

Candow DG, Chilibeck PD, Burke DG, Davison KS, Smith-Palmer T. Effect of glutamine supplementation combined with resistance training in young adults. *Eur J Appl Physiol* 2001;86:142-149.

Candow DG, et al. Effect of glutamine supplementation combined with resistance training in young adults. *Eur J Appl Physiol*. (2001)

Carvalho-Peixoto J, Alves RC, Cameron LC. Glutamine and carbohydrate supplements reduce ammonemia increase during endurance field exercise. *Appl Physiol Nutr Metab*. (2007)

Claeysens S, et al. Effect of enteral glutamine on leucine, phenylalanine and glutamine metabolism in hypercortisolemic subjects. *Am J Physiol Endocrinol Metab*. (2000)

Curthoys NP, Watford M. Regulation of glutaminase activity and glutamine metabolism. *Annu Rev Nutr* 1995;15:133-159.

Cury-Boaventura MF, *et al.* Effects of exercise on leukocyte death: prevention by hydrolyzed whey protein enriched with glutamine dipeptide. *Eur J Appl Physiol.* (2008)

Den Hond E, *et al.* Effect of long-term oral glutamine supplements on small intestinal permeability in patients with Crohn's disease. *JPEN J Parenter Enteral Nutr.* (1999)

Gleeson M, *et al.* The effect of severe eccentric exercise-induced muscle damage on plasma elastase, glutamine and zinc concentrations. *Eur J Appl Physiol Occup Physiol.* (1998)

Gleeson M., "Dosing and efficacy of glutamine supplementation in human exercise and sport training", *The Journal of Nutrition*, 2008 Oct;138(10):2045S-2049S

Hammarqvist F, Wernerman J, Ali R, von der Decken A, Vinnars E. Addition of glutamine to total parenteral nutrition after elective abdominal surgery spares free glutamine in muscle, counteracts the fall in muscle protein synthesis, and improves nitrogen balance. *Ann Surg* 1989;209:455–461.

Haub MD, *et al.* Acute L-glutamine ingestion does not improve maximal effort exercise. *J Sports Med Phys Fitness.* (1998)

Hernandes Valencia Se., *et al.*, "Glutamine as an aid in the recovery of muscle strenght: systematic review of literature", *Nutr Hosp*, 2015 Oct 1;32(4):144-53

Hiscock N, *et al.* Glutamine supplementation further enhances exercise-induced plasma IL-6. *J Appl Physiol.* (2003)

Januszkiewicz A, *et al.* Effect of a short-term infusion of glutamine on muscle protein metabolism postoperatively. *Clin Nutr.* (1996)

Keast, D., Arstein, D., *et al.* "Depression of plasma glutamine concentration after exercise stress and its possible influence on the immune system", *Med. J. Aust*, 162 : 15-8, 1995

Koo GH, Woo J, Kang S, Shin KO. Effects of Supplementation with BCAA and L-glutamine on Blood Fatigue Factors and Cytokines in Juvenile Athletes Submitted to Maximal Intensity Rowing Performance. *J Phys Ther Sci.* 2014 Aug;26(8):1241-6.

Le Boucher J, Coudray-Lucas C, Lasnier E, Jardel A, Ekindjian OG, Cynober LA. Enteral administration of ornithine alpha-ketoglutarate or arginine alpha-ketoglutarate: a comparative study of their effects on glutamine pools in burn-injured rats. *Crit Care Me.* 1997 Feb;25(2):293-8.

Lehmkuhl M1, Malone M, Justice B, Trone G, Pistilli E, Vinci D, Haff EE, Kilgore JL, Haff GG. The effects of 8 weeks of creatine monohydrate and glutamine supplementation on body composition and performance measures. *J Strength Cond Res.* 2003 Aug;17(3):425-38.

Li Y, *et al.* Oral glutamine ameliorates chemotherapy-induced changes of intestinal permeability and does not interfere with the antitumor effect of chemotherapy in patients with breast cancer: a prospective randomized trial. *Tumori.* (2006)

MacLennan PA, Brown RA, Rennie MJ. A positive relationship between protein synthetic rate and intracellular glutamine concentration in perfused rat skeletal muscle. *FEBS Lett.* (1987)

MacLennan, P.A., Smith, K., *et al.* "inhibition of protein breakdown by glutamine in perfused rat skeletal muscle", *feb Lett*, 257 : 133-36, 1988

Millward DJ, Jepson MM, Omer A. Muscle glutamine concentration and protein turnover in vivo in malnutrition and in endotoxemia. *Metabolism.* (1989)

Ockenga J, *et al.* Glutamine-enriched total parenteral nutrition in patients with inflammatory bowel disease. *Eur J Clin Nutr.* (2005)

Opara, E.C., Petro A., *et al.* "L-Glutamine supplementation of high fat diet reduces body weight and attenuates hyperglycemia and hyperinsulinemia in C57Bl/6J mice", *J nutr*, 126 : 273-79, 1996.

Parry-Billings M, *et al.* A communicational link between skeletal muscle, brain, and cells of the immune system. *Int J Sports Med.* (1990)

Parry-Billings M, *et al.* Plasma amino acid concentrations in the overtraining syndrome: possible effects on the immune system. *Med Sci Sports Exerc.* (1992)

Rennie MJ, *et al.* Effect of exercise on protein turnover in man. *Clin Sci (Lond).* (1981)

Robson PJ, *et al.* Effects of exercise intensity, duration and recovery on in vitro neutrophil function in male athletes. *Int J Sports Med.* (1999)

S Y Low, P M Taylor, and M J Rennie. Responses of glutamine transport in cultured rat skeletal muscle to osmotically induced changes in cell volume. *J Physiol.* May 1, 1996; 492(Pt 3): 877–885.

Shabert JK, Winslow C, Lacey JM, *et al.* Glutamine-antioxidant supplementation increases body cell mass in AIDS patients with weight loss: a randomized, double-blind controlled trial. *Nutrition* . 1999;15:860-864

Van der Hulst RR, *et al.* Glutamine and the preservation of gut integrity. *Lancet.* (1993)

Vinnars E, Hammarqvist F, von der Decken A, Wernerman J. Role of glutamine and its analogs in posttraumatic muscle protein and amino acid metabolism. *JPEN J Parenter Enteral Nutr* 1990;14(Suppl):125S–129S.

Walsh NP, Blannin AK, Robson PJ, Gleeson M. Glutamine, exercise and immune function. Links and possible mechanisms. *Sports Med.* 1998 Sep;26(3):177-91.

Welbourne, T.C. "increased plasma bicarbonate and growth hormone after oral glutamine load", *Am. J. Clin. Nutr.*, 61 : 1058-61, 1995

Welbourne, T.C., & Joshi, S. "Interorgan glutamine metabolism during acidosis", *Jnl Parent Ent Nutr*, 14 : 775-855, 1990

Zhou X, Thompson JR. Regulation of protein turnover by glutamine in heat-shocked skeletal myotubes. *Biochim Biophys Acta.* (1997)

GLUTATHIONE

Gambelunghe C., et al., "Physical exercise intensity can be related to plasma glutathione levels". *J Physiol Biochem.* 2001;57:9-14.

Hwang P., et al., "Eight weeks of resistance training in conjunction with glutathione and L-Citrulline supplementation increases lean mass and has no adverse effects on blood clinical safety markers in resistance-trained males". *J Int Soc Sports Nutr.* 2018 Jun.

Ji LL, Fu R. "Responses of glutathione system and antioxidant enzymes to exhaustive exercise and hydroperoxide". *J Appl Physiol* (1985). 1992;72:549-54.

John P. Richie Jr. "Randomized controlled trial of oral glutathione supplementation on body stores of glutathione". *Eur J Nutr.* 2015; 54:251-263.

Julius M., et al., "Glutathione and morbidity in a community based sample of elderly". *J Clin Epidemiol.* 1994; 47:1021-1026.

Kovacs-Nolan J., et al., "In vitro and ex vivo uptake of GSH across the intestinal epithelium, and fate of oral GSH after in vivo supplementation". *J Agric Food Chem.* in press

Lew H., Pyke S., Quintanilha A., "Changes in the glutathione status of plasma, liver and muscle following exhaustive exercise in rats". *FEBS Lett.* 1985;185:262-6.

Nuttall SL., et al., "Glutathione: in sickness and in health". *Lancet.* 1998 351:645-64613.

Park EY., et al., "Increase in the protein-bound form of glutathione in human blood after oral administration of glutathione". *J Agric Food Chem.* 2014;62:6183-9.

Pyke S., Lew H., Quintanilha A., "Severe depletion in liver glutathione during physical exercise". *Biochem Biophys Res Commun.* 1986;139:926-31.

Sinha R. "Oral supplementation with liposomal glutathione elevates body stores of glutathione and markers of immune function". *Eur J Clin Nutr.* 2018 Jan;72(1):105-111.

Townsend DM., Tew KD., Tapiero H. "The importance of glutathione in human disease". *Biomed Pharmacother.* 2003; 57:145-155 12.

GUARANÁ

Basile A et al Antibacterial and antifungal activities of acetonc extract from Paullinia cupana Mart. seeds. *Nat Prod Res.* 2013;27(22):2084-90

Bérubé-Parent S et al Effects of encapsulated green tea and Guarana extracts containing a mixture of epigallocatechin-3-gallate and caffeine on 24 h energy expenditure and fat oxidation in men. *Br J Nutr.* 2005 Sep;94(3):432-6.

Bydlowski S et al A novel property of an aqueous guarana extract (Paullinia cupana): inhibition of platelet aggregation *Brazilian Journal of Medical and Biological Research* 21(3):535-8 February 1988

Campos AR et al Acute effects of guarana (Paullinia cupana Mart.) on mouse behaviour in forced swimming and open field tests. *Phytother Res.* 2005 May;19(5):441-3.

da Silva Lima N., et al., "Guarana (Paullinia cupana) Stimulates Mitochondrial Biogenesis in Mice Fed High-Fat Diet". *Nutrient.* 2018

Espinola E et al Pharmacological activity of Guarana (Paullinia cupana) in laboratory animals. *J. Ethnopharmacol.* 1997;55:223-229.

Haskell C. F., A double-blind, placebo-controlled, multi-dose evaluation of the acute behavioural effects of guaraná in humans *Journal of Psychopharmacology* 21(1) (2007) 65-70

Herbal Principles in Cosmetics: Properties and Mechanisms of Action. *Braz. J. Med. Biol. Res.* 1991; 24(4): 421-24; *Braz. J. Med. Biol Res.* 1988; 21(3): 535-38).

Lima WP et al Lipid metabolism in trained rats: effect of guarana (Paullinia cupana Mart.) supplementation. *Clin Nutr.* 2005 Dec;24(6):1019-28. Epub 2005 Sep 22.

Marques Medeiros LL., et al., "Paullinia cupana: a multipurpose plant – a review". *Revista Brasileira de Farmacognosia.* 2019

Miura, T et al, Effect of Guarana on Exercise in Normal and Epinephrine-Induced ... *Biological & Pharmaceutical Bulletin* (Impact Factor: 1.83). 06/1998; 21(6):646-8.

Moustakas D et al Guarana provides additional stimulation over caffeine alone in the planarian model. PLoS One. 2015; 10(4):

Otobone FJ et al Effect of lyophilized extracts from guaraná seeds [Paullinia cupana var. sorbilis (Mart.) Ducke] on behavioral profiles in rats. Nutr Res Rev. 2013 Jun;26(1):49-70.

Portella, RDL, et al Guaraná (Paullinia cupana Kunth) effects on LDL oxidation in elderly people: an in vitro and in vivo study. Lipids Health Dis. 2013; 12: 12.

Protective effect of Guaraná (Paullinia cupana var. sorbilis) pre-treatment on cadmium-induced damages in adult Wistar testis. Leite RP, Wada RS, Monteiro JC, Predes FS, Dolder H. Biol Trace Elem Res. 2011 Jun;141(1-3):262-74. doi: 10.1007/s12011-010-8729-7. Epub 2010 May 22.

Schimpl FC et al Guarana: revisiting a highly caffeinated plant from the Amazon. J Ethnopharmacol. 2013 Oct 28;150(1):14-31.

Smith N, Atroch AL. Guarana's Journey from Regional Tonic to Aphrodisiac and Global Energy Drink. Review. Evid Based Complement Alternat Med. 2007 Dec

Veasey RC et al The Effects of Supplementation with a Vitamin and Mineral Complex with Guaraná Prior to Fasted Exercise on Affect, Exertion, Cognitive Performance, and Substrate Metabolism: A Randomized Controlled Trial Nutrients. 2015 Aug; 7(8): 6109–6127

Woods DJ Guarana: Paullinia cupana, P. sorbilis; also known as Brazilian cocoa and 'zoom'. J Prim Health Care. 2012 Jun 1;4(2):163-4.

HMB

S.L. Nissen, et al. “Effect of Feeding HMB on Body Composition and Strength of Women” (Experimental Biology Conference Abstract, 1997).

Van Koeveering M, Nissen S.: Oxidation of leucine and alpha-ketoisocaproate to beta-hydroxy-beta methylbutyrate in vivo. Am J Physiol 1992.

Molfinio A., Gioia G., Rossi Fanelli F e Muscaritoli M.: Beta-hydroxy-beta-methylbutyrate supplementation and disease: a systematic review of randomized trials. Amino Acids 2013;

Eley HL, Russel ST, et al: Signaling pathways initiated by Beta-hydroxy-beta-methylbutyrate to attenuate the depression of protein synthesis in skeletal muscle in response to cachectic stimuli. Am J Physiol Endocrinol Metab 2007;

Kornasio R, Riederer I, Butler-Browne G et al: Beta-hydroxy-beta-methylbutyrate stimulates myogenic cell proliferation, differentiation and survival via the MAPK/ERK and PI3K/Akt pathways. Biochim Biophys Acta 2009;

Gerlinger-Romero F, Guimaraes-Ferreira L et al: Chronic supplementation of Beta-hydroxy-beta-methylbutyrate increases the activity of the GH/IGF1 axis and induces hyperinsulinemia in rats. Growth Horm IGF Res. 2004;

Kovarik M, Muthny T et al: Effect of Beta-hydroxy-beta-methylbutyrate treatment in different types of skeletal muscle of intact and septic rats. J Physiol Biochem 2010;

Smith HJ, Wyke SM, Tisdale MJ: Mechanism of the attenuation of proteolysis-inducing factor stimulated protein degradation in muscle by beta-hydroxy-beta-methylbutyrate. Can Res 2004;

Portal S, Zadik Z et al: The effect of HMB supplementation on body composition, fitness, hormonal and inflammatory mediators in elite adolescent volleyball players: a prospective randomized, double-blind, placebo-controlled study. Eur J Appl Physiol 2011;

Wilson JM, Lowery R, Joy J et al: The effect of 12 weeks of beta-hydroxy-beta-methylbutyrate free acid supplementation on muscle mass, strength, and power in resistance-trained individuals: a randomized, double-blind, placebo-controlled study. Eur J Physiol 2014;

Fuller JC, Sharp RL et al: Free acid gel form of HMB improves HMB clearance from plasma in human subjects compared with calcium HMB salt. Br J Nutr 2011;

Wilson JM, Lowery R et al: Beta-hydroxy-beta-methylbutyrate free acid reduces markers of exercise-induced muscle damage and improves recovery in resistance-trained men. Br J Nutr 2013.

KIC

J Clin Invest, 1981 Feb;67(2):553-62.

Somergren, K. Edwards, A. Howatson G. Supplementation with B-Hydroxy-B-Methylbutyrate (HMB) and a-Ketoisocaproic Acid (KIC) Reduces Signs and Symptoms of Exercise-Induced Muscle Damage in Man. IJSNEM Vol. 15, (4) Aug 2005

Brook GA, Fahey TD, White TP, Baldwin KM (2000) Fatigue during muscular exercise. In: Human Bioenergetics and Its Applications. New York: McGraw-Hill, pp. 800-822.

Greenhaff PL, Casey A, Constantin-Teodosiu D, Tzintzas K (1999) Energy metabolism of skeletal muscle fiber types and the metabolic basis of fatigue in humans. In: Hargreaves M, Thompson M, eds. Biochemistry of Exercise X. Champaign, IL: Human Kinetics, pp. 275-287.

Stevens BR, Godfrey MD, Kaminski TW, Braith RW (2000) High-intensity dynamic human muscle performance enhanced by a metabolic intervention. *Med Sci Sports Exerc*, 32:2102-2108.

Buford BN, Koch AJ (2004) Glycine-arginine- β -ketoisocaproic acid improves performance of repeated cycling sprints. *Med Sci Sports Exerc*, 36:583-587.

Di Pasquale MG (1997) *Amino Acids and Proteins for the Athlete: The Anabolic Edge*. Boca Raton, FL: CRC Press.

Bucci LR (1993) *Nutrients as Ergogenic Aids in Sports and Exercise*. Boca Raton, FL: CRC Press.

Nissen SL, Sharp RL (2003) Effect of dietary supplements on lean mass and strength gains with resistance exercise: a meta-analysis. *J Appl Physiol*, 94:651-659.

Biol Chem, 1982 Feb. 25;257(4):1613-21.

Biochem J, 1984 Sep. 15;222(3):579-86.

J Nutr, 2006 Feb;136(2):533S-537S.

L-ALANIL-L-GLUTAMINA

Adibi SA. "The oligopeptide transporter (Pept-1) in human intestine: biology and function". *Gastroenterology*. (1997)

Alteheld B., et al., "Alanylglutamine dipeptide and growth hormone maintain PepT1-mediated transport in oxidatively stressed Caco-2 cells". *J Nutr*. (2005)

Baker LB., et al., "Progressive dehydration causes a progressive decline in basketball skill performance". *Med Sci Sports Exerc*. (2007)

Cruzat VF., Rogero MM., Tirapegui J.. "Effects of supplementation with free glutamine and the dipeptide alanyl-glutamine on parameters of muscle damage and inflammation in rats submitted to prolonged exercise". *Cell Biochem Funct*. (2010)

Cruzat VF., Tirapegui J. "Effects of oral supplementation with glutamine and alanyl-glutamine on glutamine, glutamate, and glutathione status in trained rats and subjected to long-duration exercise". *Nutrition*. (2009)

Dougherty KA., et al., "Two percent dehydration impairs and six percent carbohydrate drink improves boys basketball skills". *Med Sci Sports Exerc*. (2006)

Ford D., Howard A., Hirst BH., "Expression of the peptide transporter hPepT1 in human colon: a potential route for colonic protein nitrogen and drug absorption". *Histochem Cell Biol*. (2003)

Fürst P. "New developments in glutamine delivery". *J Nutr*. (2001)

Haque SM., et al., "Alanyl-glutamine dipeptide-supplemented parenteral nutrition improves intestinal metabolism and prevents increased permeability in rats". *Ann Surg*. (1996)

Harris RC., et al., "L-glutamine absorption is enhanced after ingestion of L-alanylglutamine compared with the free amino acid or wheat protein". *Nutr Res*. (2012)

Hirao Y., et al., "Enzymatic production of L-alanyl-L-glutamine by recombinant *E. coli* expressing α -amino acid ester acyltransferase from *Sphingobacterium siyangensis*". *Biosci Biotechnol Biochem*. (2013)

Hoffman JR., et al., "Examination of the efficacy of acute L-alanyl-L-glutamine ingestion during hydration stress in endurance exercise". *J Int Soc Sports Nutr*. (2010)

Hoffman JR., et al., "L-alanyl-L-glutamine ingestion maintains performance during a competitive basketball game". *J Int Soc Sports Nutr*. (2012)

Hoffman JR., Stavsky H., Falk B. "The effect of water restriction on anaerobic power and vertical jumping height in basketball players". *Int J Sports Med*. (1995)

Kelley PM., Schlesinger MJ., "The effect of amino acid analogues and heat shock on gene expression in chicken embryo fibroblasts". *Cell*. (1978)

Lima AA., et al., "Effects of an alanyl-glutamine-based oral rehydration and nutrition therapy solution on electrolyte and water absorption in a rat model of secretory diarrhea induced by cholera toxin". *Nutrition*. (2002)

Liu Y., et al., "Human skeletal muscle HSP70 response to physical training depends on exercise intensity. *Int J Sports Med*." (2000)

Lochs H., et al., "Splanchnic, renal, and muscle clearance of alanylglutamine in man and organ fluxes of alanine and glutamine when infused in free and peptide forms". *Metabolism*. (1990)

McAlister L., Finkelstein DB. "Heat shock proteins and thermal resistance in yeast". *Biochem Biophys Res Commun*. (1980)

Petry ER., et al., "Alanyl-glutamine and glutamine plus alanine supplements improve skeletal redox status in trained rats: involvement of heat shock protein pathways". *Life Sci*. (2014)

Richter K., Haslbeck M., Buchner J. "The heat shock response: life on the verge of death". *Mol Cell*. (2010)

Rogero MM., et al., "Effect of alanyl-glutamine supplementation on plasma and tissue glutamine concentrations in rats submitted to exhaustive exercise". *Nutrition*. (2006)

Tabata K., Hashimoto S., "Fermentative production of L-alanyl-L-glutamine by a metabolically engineered *Escherichia coli* strain expressing L-amino acid α -ligase". *Appl Environ Microbiol*. (2007)

Tazuke Y., et al., "Alanyl-glutamine-supplemented parenteral nutrition prevents intestinal ischemia-reperfusion injury in rats". *JPN J Parenter Enteral Nutr*. (2003)

Wagenmakers AJ. "Muscle amino acid metabolism at rest and during exercise: role in human physiology and metabolism". *Exerc Sport Sci Rev.* (1998)

Wagenmakers AJ., et al., "Carbohydrate supplementation, glycogen depletion, and amino acid metabolism during exercise". *Am J Physiol.* (1991)

Wang W., et al., "L-Alanylglutamine inhibits signaling proteins that activate protein degradation, but does not affect proteins that activate protein synthesis after an acute resistance exercise". *Amino Acids.* (2015)

Wernerman J. "Clinical use of glutamine supplementation". *J Nutr.* (2008)

LEUCINA

Antonio J, Ciccone V. The effects of pre versus post workout supplementation of creatine monohydrate on body composition and strength. *J Int Soc Sports Nutr.* 2013 Aug 6;10(1):36.

Antti Mero. Leucine Supplementation and Intensive Training. *Sports Medicine* June 1999, Volume 27, Issue 6, pp 347-358.

Balage M1, Dardevet D. Long-term effects of leucine supplementation on body composition. *Curr Opin Clin Nutr Metab Care.* 2010 May;13(3):265-70. doi: 10.1097/MCO.0b013e328336f6b8.

Barillaro C, Liperoti R. The new metabolic treatments for sarcopenia. *Aging Clin Exp Res.* 2013 May;25(2):119-27. doi: 10.1007/s40520-013-0030-0. Epub 2013 Apr 4.

Blomstrand E, Eliasson J, et al. Branched-chain amino acids activate key enzymes in protein synthesis after physical exercise.

Bloomer RichardJ, Goldfarb AllanH: Can nutritional supplements reduce exercise-induced skeletal muscle damage? *Strength and Conditioning Journal* 2003, 25(5):30-37.

Choi S, Disilvio B, et al. Oral branched-chain amino acid supplements that reduce brain serotonin during exercise in rats also lower brain catecholamines. *Amino Acids* 2013.

Coburn, J. W. et al. Effects of Leucine and Whey Protein Supplementation During Eight Weeks of Unilateral Resistance Training, *Journal of Strength & Conditioning Research* 2006 Vol. 20, 2 .

Donald K. Layman. The Role of Leucine in Weight Loss Diets and Glucose Homeostasis. *J. Nutr.* January 1, 2003 vol. 133 no. 1 261S-267S.

Filiputti E, Rafacho A, et al. Augmentation of insulin secretion by leucine supplementation in malnourished rats: possible involvement of the phosphatidylinositol 3-phosphate kinase/mammalian target protein of rapamycin pathway. *Metabolism* 2010; 59, 635-644.

Fu L, Bruckbauer A. Leucine amplifies the effects of metformin on insulin sensitivity and glycemic control in diet-induced obese mice. *Metabolism.* 2015 Jul;64(7):845-56. doi: 10.1016/j.metabol.2015.03.007. Epub 2015 Mar 19.

Gabriel J Wilson, Jacob M Wilson and Anssi H Manninen.. Effects of beta-hydroxy-beta-methylbutyrate (HMB) on exercise performance and body composition across varying levels of age, sex, and training experience: A review. *Nutrition & Metabolism* 2008, 5:1 doi:10.1186/1743-7075-5-1

Harper AE, Miller RH, Block KP: Branched-chain amino acid metabolism. *Annu Rev Nutr* 1984, 4:409-454.

Hefler SK, Wideman L, Gaesser GA, Weltman A: Branched-chain amino acid (BCAA) supplementation improves endurance performance in competitive cyclists. *Med Sci Sports Exerc* 1995, 27:S149.

Huffman, et al., "Insuline-stimulated phosphorylation of lipin mediated by the mTOR". *Proc. Natl. Acad. Sci.* 2002.

Jacob M Wilson, Jeong-su Kim. Acute and timing effects of beta-hydroxy-beta-methylbutyrate (HMB) on indirect markers of skeletal muscle damage. *Nutriti.*

Laplante, et al., "mTOR signaling at a glance". *J. Of Cell Sci.* 2009

Pasiakos SM, McClung HL, et al. Leucine enriched essential amino acid supplementation during moderate steady state exercise enhances postexercise muscle protein synthesis. *Am J Clin Nutr* 2011; 94, 809-818.

Porstmann, et al., "SREBP activity is regulated by mTORC1 and contributes to Akt-dependent cell growth". *Cell. Metab* 2008

S.Nissen, et al., "The Effect of the Leucine Metabolite beta-hydroxy-beta-methylbutyrate on Muscle Metabolism During Resistance-Exercise Training." *J.Appl. Physiol.* 81 (1996) : 2095-2104.

Saha AK, Xu XJ et al. Downregulation of AMPK accompanies leucine and glucose induced increases in protein synthesis and insulin resistance in rat skeletal muscle. *Diabetes* 2010; 59, 2426-2434.

The plasma level of some amino acids and physical and mental fatigue. *Experimentia* 1996;52, 413-415.

Yang J, Chi Y, et al. Leucine metabolism in regulation of insulin secretion from pancreatic beta cells. *Nutr Rev* 2010; 68, 270-279.

MAGNESIO

Alfredo Córdova, et al., “Impact of Magnesium Supplementation in Muscle Damage of Professional Cyclists Competing in a Stage Race”. *Nutrients*. 2019 Aug; 11(8): 1927. Published online 2019 Aug 16.

Anna E. Kirkland, et al., “The Role of Magnesium in Neurological Disorders. *Nutrients*. 2018 Jun; 10(6): 730. Published online 2018 Jun 6.

Córdova Martínez A., et al., “Effect of magnesium supplementation on muscular damage markers in basketball players during a full season”. *Magnes Res*. 2017 May 1;30(2):61-70.

Gordana Dmitrašinić, et al., “ACTH, Cortisol and IL-6 Levels in Athletes following Magnesium Supplementation”. *J Med Biochem*. 2016 Oct; 35(4): 375–384. Published online 2016 Nov 2.

Jelena Petrović, et al., “Magnesium Supplementation Diminishes Peripheral Blood Lymphocyte DNA Oxidative Damage in Athletes and Sedentary Young Man”. *Oxid Med Cell Longev*. 2016; 2016: 2019643. Published online 2016 Mar 6. ACTH, Cortisol and IL-6 Levels in Athletes following Magnesium Supplementation

L.Y. He, et al., “Effect of magnesium ion on human osteoblast activity”. *Braz J Med Biol Res*. 2016; 49(7): e5257. Published online 2016 Jul 4.

Ryu Yamanaka, et al., “Magnesium Is a Key Player in Neuronal Maturation and Neuropathology”. *Int J Mol Sci*. 2019 Jul; 20(14): 3439. Published online 2019 Jul 12.

MALTODESTRINE

Bosch AN, Dennis SC, Noakes TD. Influence of carbohydrate ingestion on fuel substrate turnover and oxidation during pro- longed exercise. *J Appl Physiol* 1994; 76: 2364-72

Burelle Y, Péronnet F, Charpentier S, et al. Oxidation of an oral [13C]glucose load at rest and prolonged exercise in trained and sedentary subjects. *J Appl Physiol* 1999; 86: 52-60

Casey A, Mann R, Banister K, et al. Effect of carbohydrate ingestion on glycogen resynthesis in human liver and skeletal muscle, measured by (13)C MRS. *Am J Physiol Endocrinol Metab* 2000; 278 (1): E65-75

Coggan AR, Raguso CA, Williams BD, et al. Glucose kinetics during high-intensity exercise in endurance-trained and un- trained humans. *J Appl Physiol* 1995; 78: 1203-7 conditions. *Int J Sports Med* 1990; 11: 253-8

Costill DL, Bennett A, Branam G, et al. Glucose ingestion at rest and during prolonged exercise. *J Appl Physiol* 1973; 34: 764-9

Friedlander AL, Casazza GA, Horning MA, et al. Training-induced alterations of glucose flux in men. *J Appl Physiol* 1997; 82: 1360-9

Haub MD, Haff GG, Pottenger JA. The effect of liquid carbohydrate ingestion on repeated maximal effort exercise in competitive cyclists. *Ergonomics*. 2000 Oct;43(10):1528-37.

Hawley JA, Dennis SC, Nowitz A, et al. Exogenous carbohydrate oxidation from maltose and glucose ingested during prolonged exercise. *Eur J Appl Physiol* 1992; 64: 523-7

Jeukendrup AE, Borghouts L, Saris WHM, et al. Reduced oxidation rates of orally ingested glucose during exercise after low CHO intake and low muscle glycogen. *J Appl Physiol* 1996; 81: 1952-7

Jeukendrup AE, Raben A, Gijzen A, et al. Glucose kinetics during prolonged exercise in highly trained human subjects: effect of glucose ingestion. *J Physiol (Lond)* 1999; 515: 579-89

Jeukendrup AE, Wagenmakers AJ, Stegen JH, et al. Carbohydrate ingestion can completely suppress endogenous glucose pro- duction during exercise. *Am J Physiol* 1999; 276: E672-83

Jeukendrup AE, Wagenmakers AJM, Brouns F, et al. Effects of carbohydrate (CHO) and fat supplementation on CHO meta- bolism during prolonged exercise. *Metabolism* 1996; 45: 915-21

Krzentowski G, Jandrain B, Pirnay F, et al. Availability of glucose given orally during exercise. *J Appl Physiol* 1984; 56: 315-20

man. *Eur J Appl Physiol* 1977; 36: 1620-4

Massicotte D, Péronnet F, Brisson G, et al. Oxidation of exoge- nous carbohydrate during prolonged exercise in fed and fasted

Massicotte D, Péronnet F, Brisson G, et al. Oxidation of a glucose polymer during exercise: comparison with glucose and fructose. *J Appl Physiol* 1994; 77 (3): 1537-41

Moodley D, Noakes TD, Bosch AN, et al. Oxidation of exogenous carbohydrate during prolonged exercise: the effects of the carbohydrate type and its concentration. *Eur J Appl Physiol* 1992; 64: 328-34

Noakes TD, Rehrer NJ, Maughan RJ. The importance of volume in regulating gastric emptying. *Med Sci Sports Exerc* 1991; 23: 307-13

O'Brien WJ, Rowlands DS. Fructose-maltodextrin ratio in a carbohydrate-electrolyte solution differentially affects exogenous carbohydrate oxidation rate, gut comfort, and performance. *Am J Physiol Gastrointest Liver Physiol*. 2011 Jan;300(1):G181-9. doi: 10.1152/ajpgi.00419.2010. Epub 2010 Nov 11.

Pirnay F, Lacroix M, Mosora F, et al. Effect of glucose ingestion on energy substrate utilization during prolonged exercise in

Rehrer NJ, Brouns F, Beckers EJ, et al. Gastric emptying with repeated drinking during running and bicycling. *Int J Sports Med* 1990; 11: 238-43

Rehrer NJ, Wagenmakers AJM, Beckers EJ, et al. Gastric emptying, absorption and carbohydrate oxidation during prolonged exercise. *J Appl Physiol* 1992; 72: 468-75

Romijn JA, Coyle EF, Sidossis LS, et al. Regulation of endogenous fat and carbohydrate metabolism in relation to exercise intensity. *Am J Physiol* 1993; 265: E380-91

Saris WHM, Goodpastor BH, Jeukendrup AE, et al. Exogenous carbohydrate oxidation from different carbohydrate sources during exercise. *J Appl Physiol* 1993; 75: 2168-72

Shi X, Gisolfi CV. Fluid and carbohydrate replacement during intermittent exercise. *Sports Med* 1998; 25: 157-72

Short KR, Sheffield-Moore M. Glycemic and insulinemic responses to multiple preexercise carbohydrate feedings. *Int J Sport Nutr*. 1997 Jun;7(2):128-37.

Tsintzas K, Williams C. Human muscle glycogen metabolism during exercise: effect of carbohydrate supplementation. *Sports Med* 1998; 25: 7-23

VanLoonLJ,JeukendrupAE,SarisWHM,etal.Effectoftraining status on fuel selection during submaximal exercise with glucose ingestion. *J Appl Physiol* 1999; 87: 1413-20

Wagenmakers AJM, Brouns F, Saris WHM, et al. Oxidation rates of orally ingested carbohydrates during prolonged exercise in man. *J Appl Physiol* 1993; 75: 2774-80

Wallis GA, Rowlands DS. Oxidation of combined ingestion of maltodextrins and fructose during exercise. *Med Sci Sports Exerc*. 2005 Mar;37(3):426-32.

Watanabe, et al., "Effects of resistant maltodextrin on bowel movements: a systematic review and meta-analysis". *Clinical and Experimental Gastroenterology*. 2018;11 85–96

MCT (MEDIUM CHAIN TRIGLYCERIDES)

Bueno NB, de Melo IV. Dietary medium-chain triacylglycerols versus long-chain triacylglycerols for body composition in adults: systematic review and meta-analysis of randomized controlled trials. *J Am Coll Nutr*. 2015;34(2):175-83. doi: 10.1080/07315724.2013.879844. Epub 2015 Feb 4.

C. Rego Costa, E. L. Rosado. Influence of the dietary intake of medium chain triglycerides on body composition, energy expenditure and satiety; a systematic review. *Nutr. Hosp*. vol.27 no.1 Madrid Jan.-Feb. 2012.

Clegg ME. Medium-chain triglycerides are advantageous in promoting weight loss although not beneficial to exercise performance. *Int J Food Sci Nutr*. 2010 Nov;61(7):653-79. doi: 10.3109/09637481003702114.

Clegg ME1, Golsorkhi M, Henry CJ. Combined medium-chain triglyceride and chilli feeding increases diet-induced thermogenesis in normal-weight humans. *Eur J Nutr*. 2013 Sep;52(6):1579-85. doi: 10.1007/s00394-012-0463-9.

Clegg, Miriam E. (2010). Medium-chain triglycerides are advantageous in promoting weight loss although not beneficial to exercise performance. 2010, *International Journal of Food Sciences and Nutrition* 61 (7): 653–679

Cliff J., d C. Harvey. "The Effect of Medium Chain Triglycerides on Time to Nutritional Ketosis and Symptoms of Keto-Induction in Healthy Adults. A Randomised Controlled Clinical Trial". 2018. <https://doi.org/10.1155/2018/2630565>

Décombaz et al.. Energy metabolism of medium-chain triglycerides versus carbohydrates during exercise. 1983, *European journal of applied physiology and occupational physiology*

Eaton S, Chatziandreu I. Short-chain 3-hydroxyacyl-CoA dehydrogenase deficiency associated with hyperinsulinism: a novel glucose-fatty acid cycle? *Biochem Soc Trans*. 2003 Dec; 31(Pt 6):1137-9.

Enig, Mary. Coconut: In support of Good Health in the 21st Century. Asia and Pacific Coconut Community, 36th CocoTech Meeting.

Han JR, Deng B. Effects of dietary medium-chain triglyceride on weight loss and insulin sensitivity in a group of moderately overweight free-living type 2 diabetic Chinese subjects. *Metabolism*. 2007 Jul;56(7):985-91.

Hiroaki Tsuji, Michio Kasai. Dietary Medium-Chain Triacylglycerols Suppress Accumulation of Body Fat in a Double-Blind, Controlled Trial in Healthy Men and Women. *J. Nutr*. November 1, 2001- vol. 131 no. 11 2853-2859.

Hussain K, Blankenstein O. Hyperinsulinaemic hypoglycaemia: biochemical basis and the importance of maintaining normoglycaemia during management. *Arch Dis Child*. 2007 Jul; 92(7):568-70.

Hyson D, Rutledge JC, Berglund L. Postprandial lipemia and cardiovascular disease. *Current Atherosclerosis Reports* 2003; 5: 437-444.

Marten B, Pfeuffer M. Schrezenmeir. Medium-chain triglycerides. *International dairy journal*, 2006

Medium Chain Triglycerides. Monograph. *Alternative Medicine Review* - Volume 7, Number 5 – 2002

Montgomery MK, Osborne B. Contrasting metabolic effects of medium- versus long-chain fatty acids in skeletal muscle. December 2013 *The Journal of Lipid Research*, 54, 3322-3333.

M-P St-Onge, P J H Jones. Greater rise in fat oxidation with medium-chain triglyceride consumption relative to long-chain triglyceride is associated with lower initial body weight and greater loss of subcutaneous adipose tissue. *International journal of obesity*, 2003

Mumme K, Stonehouse W. Effects of medium-chain triglycerides on weight loss and body composition: a meta-analysis of randomized controlled trials. *J Acad Nutr Diet*. 2015 Feb;115(2):249-63. doi: 10.1016/j.jand.2014.10.022.

Nadja Schulz, Heinz Himmelbauer. Role of Medium- and Short-Chain L-3-Hydroxyacyl-CoA Dehydrogenase in the Regulation of Body Weight and Thermogenesis. *Endocrinology*. 2011 Dec; 152(12): 4641–4651.

Nosaka N, Suzuki Y. Effect of ingestion of medium-chain triacylglycerols on moderate- and high-intensity exercise in recreational athletes. *J Nutr Sci Vitaminol (Tokyo)*. 2009 Apr;55(2):120-5.

Ogawa A, Nosaka N, Kasai M, Aoyama T, Okazaki M, Igarashi O, Kondo K. Dietary medium-and long-chain triacylglycerols accelerate diet-induced thermogenesis in humans. *Journal of Oleo Science* 2007; 6: 283-287.

Ooyama K, Wu J. Combined intervention of medium-chain triacylglycerol diet and exercise reduces body fat mass and enhances energy expenditure in rats. *J Nutr Sci Vitaminol (Tokyo)*. 2008 Apr;54(2):136-41.

Potent Tissue-Specific Effects of Medium-Chain Fatty Acids. *Diabetes* November 2009vol. 58 no. 11 2547-2554

Ronnett GV, Kim E-K, Landree LE, Tu Y. Fatty acid metabolism as a target for obesity treatment. *Physiology & Behavior* 2005; 85: 25-35.

St-Onge MP, Bosarge A. Weight-loss diet that includes consumption of medium-chain triacylglycerol oil leads to a greater rate of weight and fat mass loss than does olive oil. *Am J Clin Nutr* March 2008 vol. 87 no. 3 621-626

St-Onge MP, Jones PJH. Physiological effects of mediumchain triglycerides: potential agents in the prevention of obesity. *J Nutr* 2002; 132: 329-332.

St-Onge MP, Jones PJ. Greater rise in fat oxidation with medium-chain triglyceride consumption relative to long-chain triglyceride is associated with lower initial body weight and greater loss of subcutaneous adipose tissue. *Int J Obes Relat Metab Disord*. 2003 Dec;27(12):1565-71.

St-Onge, JonesPhysiological Effects of Medium-Chain Triglycerides: Potential Agents in the Prevention of Obesity. 2002 - *The Journal of nutrition*

Tsuji et al.Dietary Medium-Chain Triacylglycerols Suppress Accumulation of Body Fat in a Double-Blind, Controlled Trial in Healthy Men and Women. *The American Society for Nutritional Sciences*

Turner N, Hariharan K. Enhancement of Muscle Mitochondrial Oxidative Capacity and Alterations in Insulin Action Are Lipid Species Dependent

Wanten, GJ; Naber, AH (2004). Cellular and physiological effects of medium-chain triglycerides. 2004, Mini reviews in medicinal chemistry 4 (8): 847–57.

Wiley JH, Leveille GA. Metabolic consequences of dietary medium-chain triglycerides in the rat. *J Nutr* 1973; 103: 829-835.

Ying Wang et al., “Medium Chain Triglycerides enhances exercise endurance through the increased mitochondrial biogenesis and metabolism”. *PLoS One*. 2018; 13(2): e0191182. Published online 2018 Feb 8.

ZHANG Yong, XU Qing. Medium-Chain Triglyceride Activated Brown Adipose Tissue and Induced Reduction of Fat Mass in C57BL/6J Mice Fed High-fat Diet. *Biomed Environ Sci*, 2015; 28(2): 97-104 doi: 10.3967/bes2015.012 ISSN: 0895-3988.

MELATONINA

Ansari Dezfouli M., et al., “Melatonin protective effect against amyloid β -induced neurotoxicity mediated by mitochondrial biogenesis; involvement of hippocampal Sirtuin-1 signaling pathway”. *Physiol Behav*. 2019 May 15;204:65-75.

Atkinson G., et al., “Effects of daytime ingestion of melatonin on short-term athletic performance”. *Ergonomics*. 2005 Sep 15-Nov 15;48(11-14):1512-22.

Cardinali DP., Vigo DE., “Melatonin, Mitochondria, and the Metabolic Syndrome”. *Cell Mol Life Sci*. 2017 Nov;74(21):3941-3954. *Physiol Behav*. 2019 May 15

Doosti-Irani A., et al., “The Effects of Melatonin Supplementation on Glycemic Control: A Systematic Review and Meta-Analysis of Randomized Controlled Trials”. *Horm Metab Res*. 2018 Nov;50(11):783-790.

Halpern B., et al., “Melatonin Increases Brown Adipose Tissue Volume and Activity in Patients With Melatonin Deficiency: A Proof-of-Concept Study”. *Diabetes*. 2019 May;68(5):947-952.

Manuel Ortiz-Franco, et al., “Effect of Melatonin Supplementation on Antioxidant Status and DNA Damage in High Intensity Trained Athletes”. *Int J Sports Med* 2017; 38(14):1117-1125

Tan, D.-X. and Reiter, R.J., “Mitochondria: the birth place, battle ground and the site of melatonin metabolism in cells”. *Melatonin Research*. (Feb. 2019).

Xu P., et al., “Melatonin Prevents Obesity Through Modulation of Gut Microbiota in Mice”. *J Pineal Res*. 2017 May;62(4).

MUCUNA

Abarikwu SO., et al., "Plants in the Management of Male Infertility". *Andrologia* 2020

Amin KMY, Khan MN, Hakim Syed Zillur Rahman, et al. (1996) "Sexual function improving effect of *Mucuna pruriens* in sexually normal male rats". *Fitoterapia*, jrg.67 (nr.1): pp. 53-58.

Cilia R., et al., "Mucuna pruriens in Parkinson Disease: A Double-Blind, Randomized, Controlled, Crossover Study". *Andrology* 2017

Duangnin N., et al., "in Vitro and in Vivo Investigation of Natural Compounds From Seed Extract of *Mucuna Pruriens* Lacking l-DOPA for the Treatment of Erectile Dysfunction". *Asian Pac J Trop Med*, 2017

Hashidi JS., et al., "Assessment of Reproductive Function in Male Albino Rat Fed Dietary Meal Supplemented With *Mucuna pruriens* Seed Powder". *Heliyon*, 2019

HP-200 in Parkinson's Disease Study Group. An alternative medicine treatment for Parkinson's disease: results of a multicenter clinical trial. *J Altern Complement Med* 1995;1:249–55.

Lieu CA, Kunselman AR, Manyam BV, Venkiteswaran K, Subramanian T. A water extract of *Mucuna pruriens* provides long-term amelioration of parkinsonism with reduced risk for dyskinesias. *Parkinsonism Relat Disord*. 2010 Aug;16(7):458-65. Epub 2010 May 31.

Mutwedu WB., et al., "Effect of Dietary Inclusion of Small Quantities of *Mucuna Pruriens* Seed Meal on Sexual Behavior, Semen Characteristics, and Biochemical Parameters in Rabbit". *Trop Anim H Production*, 2019

Nagashayana N, Sankarankutty P, Nampoothirir MR, et al. Association of L-dopa with recovery following ayurveda medication in Parkinson's disease. *J Neurol Sci* 2000;176:124–7.

R Katzenschlager, A Evans, A Manson, P N Patsalos, N Ratnaraj, H Watt, L Timmermann, R Van der Giessen, A J Lees. *Mucuna pruriens* in Parkinson's disease: a double blind clinical and pharmacological study. *J Neurol Neurosurg Psychiatry* 2004;75:1672–1677.

Sahin K., et al., "MAT, a Novel Polyherbal Aphrodisiac Formulation, Enhances Sexual Function and Nrf2/HO-1 Pathway While Reducing Oxidative Damage in Male Rats". *Evid Based Alt Med*, 2018

Santos JO., et al., "Beyond Tribulus (*Tribulus Terrestris* L.): The Effects of Phytotherapies on Testosterone, Sperm and Prostate Parameters". *J Ethnopharmacol*. 2019

Seppan P., et al., "Therapeutic Potential of *Mucuna Pruriens* (Linn.) on Ageing Induced Damage in Dorsal Nerve of the Penis and Its Implication on Erectile Function". *Aging Male*, 2018

Shukla KK, Mahdi AA, Ahmad MK, Shankhwar SN, Rajender S, Jaiswar SP. *Mucuna pruriens* improves male fertility by its action on the hypothalamus-pituitary-gonadal axis. *Fertil Steril*. 2009 Dec;92(6):1934-40. Epub 2008 Oct 29.

Suresh S, Prakash S. Effect of *Mucuna pruriens* (Linn.) on oxidative stress-induced structural alteration of corpus cavernosum in streptozotocin-induced diabetic rat. *J Sex Med*. 2011 Jul;8(7):1943-56. doi: 10.1111/j.1743-6109.2011.02221.x. Epub 2011 Mar 2.

Vayda AB, Rajgopalan TS, Mankodi NA, et al. Treatment of Parkinsons disease with the cowhage plant - *Mucuna pruriens* (Bak). *Neurol India* 1978;36:171–6.

NAD⁺/NADH

Airhart SE., et al., "An open-label, non-randomized study of the pharmacokinetics of the nutritional supplement nicotinamide riboside (NR) and its effects on blood NAD⁺ levels in healthy volunteers". *PLoS ONE* 12 (12): e0186459 (2017).

Airhart SE., et al., "An open-label, non-randomized study of the pharmacokinetics of the nutritional supplement nicotinamide riboside (NR) and its effects on blood NAD⁺ levels in healthy volunteers". *PLOS ONE*. 2017.

Gabandé-Rodríguez, et al., "Control of Inflammation by Calorie Restriction Mimetics: On the Crossroad of Autophagy and Mitochondria". *Cells* 2020, 9, 82; doi:10.3390/cells9010082

Garg A., et al., "Role of Niacin in Current Clinical Practice: A Systematic Review". *Am J Med*. 2017. 130:173–187.

Gariani K., et al., "Eliciting the mitochondrial unfolded protein response by nicotinamide adenine dinucleotide repletion reverses fatty liver disease in mice". *Hepatology*. 2016. 63:1190–1204.

Gariani K., et al., "Inhibiting poly ADP-ribosylation increases fatty acid oxidation and protects against fatty liver disease". *J Hepatol*. 2017. 66:132–141.

Makarov MV., et al., "Syntheses and chemical properties of β-nicotinamide riboside and its analogues and derivatives". *Beilstein J. Org. Chem*. 2019, 15, 401–430.

Martens R., et al., "Chronic nicotinamide riboside supplementation is well-tolerated and elevates NAD⁺ in healthy middle-aged and older adults". *NATURE COMMUNICATIONS* (2018) 9:1286

Migliavacca E., et al., "Mitochondrial oxidative capacity and NAD⁺ biosynthesis are reduced in human sarcopenia across ethnicities". *NATURE COMMUNICATIONS*. 2019. 10:5808

NAD⁺ and sirtuins in aging and disease. Imai S, Guarente L. *Trends Cell Biol*. 2014 Aug;24(8):464-71. doi: 10.1016/j.tcb.2014.04.002. Epub 2014 Apr 29.

NAD⁺ in aging, metabolism, and neurodegeneration. *Science*. 2015 Dec 4;350(6265):1208-13. doi: 10.1126/science.aac4854.

Nicotinamide mononucleotide supplementation reverses vascular dysfunction and oxidative stress with aging in mice. Picciotto NE, Gano LB, Johnson LC, Martens CR, Sindler AL, Mills KF, Imai SI, Seals DR. *Aging Cell*. 2016 Mar 11. doi: 10.1111/ace.12461.

Rajman L., Chwalek K., “Therapeutic potential of NAD-boosting molecules: the in vivo evidence”. *Cell Metab*. 2018 March 06; 27(3): 529–547.

Xiao, et al., “NAD(H) and NADP(H) Redox Couples and Cellular Energy Metabolism”. *ANTIOXIDANTS & REDOX SIGNALING* Volume 28, Number 3, 2018.

OMEGA 3

Aas V, *et al*. Eicosapentaenoic acid (20:5 n-3) increases fatty acid and glucose uptake in cultured human skeletal muscle cells. *J Lipid Res*. (2006)

Abbott SK, Else PL, Hulbert AJ. Membrane fatty acid composition of rat skeletal muscle is most responsive to the balance of dietary n-3 and n-6 PUFA. *Br J Nutr*. (2010)

Agren JJ, *et al*. Fish diet, fish oil and docosahexaenoic acid rich oil lower fasting and postprandial plasma lipid levels. *Eur J Clin Nutr*. (1996)

Akinkuolie AO, *et al*. Omega-3 polyunsaturated fatty acid and insulin sensitivity: a meta-analysis of randomized controlled trials. *Clin Nutr*. (2011)

Alnajjar A, *et al*. Effect of n-3 and n-6 polyunsaturated fatty acids on lymphocyte proliferation, interleukin production and phospholipid fatty acids composition in type 2 diabetic and healthy subjects in Jordan people. *Prostaglandins Leukot Essent Fatty Acids*. (2006)

An WS, *et al*. Omega-3 fatty acid supplementation attenuates oxidative stress, inflammation, and tubulointerstitial fibrosis in the remnant kidney. *Am J Physiol Renal Physiol*. (2009)

Anderson BM, Ma DW. Are all n-3 polyunsaturated fatty acids created equal. *Lipids Health Dis*. (2009)

Ando M, Sanaka T, Nihei H. Eicosapentaenoic acid reduces plasma levels of remnant lipoproteins and prevents in vivo peroxidation of LDL in dialysis patients. *J Am Soc Nephrol*. (1999)

Andrade PM, *et al*. Effects of the fish-oil supplementation on the immune and inflammatory responses in elite swimmers. *Prostaglandins Leukot Essent Fatty Acids*. (2007)

Annuzzi G, *et al*. A controlled study on the effects of n-3 fatty acids on lipid and glucose metabolism in non-insulin-dependent diabetic patients. *Atherosclerosis*. (1991)

Antypa N, *et al*. Omega-3 fatty acids (fish-oil) and depression-related cognition in healthy volunteers. *J Psychopharmacol*. (2009)

Arita M, *et al*. Metabolic inactivation of resolvin E1 and stabilization of its anti-inflammatory actions. *J Biol Chem*. (2006)

Arita M, *et al*. Stereochemical assignment, antiinflammatory properties, and receptor for the omega-3 lipid mediator resolvin E1. *J Exp Med*. (2005)

Armstrong, V.T., et al., *Rapid flip-flop in polyunsaturated (docosahexaenoate) phospholipid membranes*. *Arch Biochem Biophys*, 2003. 414(1): p. 74-82.

Atalay M, *et al*. Vitamin E regulates changes in tissue antioxidants induced by fish oil and acute exercise. *Med Sci Sports Exerc*. (2000)

Ballantyne CM, *et al*. Efficacy and safety of eicosapentaenoic acid ethyl ester (AMR101) therapy in statin-treated patients with persistent high triglycerides (from the ANCHOR study). *Am J Cardiol*. (2012)

Bays HE, *et al*. The effect of prescription omega-3 fatty acids on body weight after 8 to 16 weeks of treatment for very high triglyceride levels. *Postgrad Med*. (2009)

Bazan NG, Birkle DL, Reddy TS. Docosahexaenoic acid (22:6, n-3) is metabolized to lipoxygenase reaction products in the retina. *Biochem Biophys Res Commun*. (1984)

Bazan NG. Synaptic lipid signaling: significance of polyunsaturated fatty acids and platelet-activating factor. *J Lipid Res*. (2003)

Behan PO, Behan WM, Horrobin D. Effect of high doses of essential fatty acids on the postviral fatigue syndrome. *Acta Neurol Scand*. (1990)

Bélanger SA, *et al*. Omega-3 fatty acid treatment of children with attention-deficit hyperactivity disorder: A randomized, double-blind, placebo-controlled study. *Paediatr Child Health*. (2009)

Belzung F, Raclot T, Groscolas R. Fish oil n-3 fatty acids selectively limit the hypertrophy of abdominal fat depots in growing rats fed high-fat diets. *Am J Physiol*. (1993)

Bernstein AM, *et al*. A meta-analysis shows that docosahexaenoic acid from algal oil reduces serum triglycerides and increases HDL-cholesterol and LDL-cholesterol in persons without coronary heart disease. *J Nutr*. (2012)

Björnsdóttir H, *et al*. Inhibition of phospholipase A(2) abrogates intracellular processing of NADPH-oxidase derived reactive oxygen species in human neutrophils. *Exp Cell Res*. (2013)

Bloomer RJ, *et al*. Effect of eicosapentaenoic and docosahexaenoic acid on resting and exercise-induced inflammatory and oxidative stress biomarkers: a randomized, placebo controlled, cross-over study. *Lipids Health Dis*. (2009)

Bo S, *et al*. Dietary fat and gestational hyperglycaemia. *Diabetologia*. (2001)

Boberg M, *et al.* Supplementation with n-3 fatty acids reduces triglycerides but increases PAI-1 in non-insulin-dependent diabetes mellitus. *Eur J Clin Invest.* (1992)

Bolin AP, *et al.* Astaxanthin prevents in vitro auto-oxidative injury in human lymphocytes. *Cell Biol Toxicol.* (2010)

Bonatto SJ, *et al.* Fish oil supplementation improves neutrophil function during cancer chemotherapy. *Lipids.* (2012)

Borkman M, *et al.* Effects of fish oil supplementation on glucose and lipid metabolism in NIDDM. *Diabetes.* (1989)

Bortolotti M, Tappy L, Schneiter P. Fish oil supplementation does not alter energy efficiency in healthy males. *Clin Nutr.* (2007)

Bourdon JA, *et al.* Polychlorinated biphenyls (PCBs) contamination and aryl hydrocarbon receptor (AhR) agonist activity of Omega-3 polyunsaturated fatty acid supplements: implications for daily intake of dioxins and PCBs. *Food Chem Toxicol.* (2010)

Bourre JM, *et al.* Dietary alpha-linolenic acid deficiency in adult rats for 7 months does not alter brain docosahexaenoic acid content, in contrast to liver, heart and testes. *Biochim Biophys Acta.* (1992)

Bouzan C, *et al.* A quantitative analysis of fish consumption and stroke risk. *Am J Prev Med.* (2005)

Brenna JT, *et al.* alpha-Linolenic acid supplementation and conversion to n-3 long-chain polyunsaturated fatty acids in humans. *Prostaglandins Leukot Essent Fatty Acids.* (2009)

Brenna JT, *et al.* Docosahexaenoic and arachidonic acid concentrations in human breast milk worldwide. *Am J Clin Nutr.* (2007)

Brown W. R., Hansen A. E., Burr G. O., McQuarrie I. Effects of prolonged use of extremely low fat diet on an adult human subject. *J. Nutr.* 1938; 16:511-524

Buckley JD, Howe PR. Anti-obesity effects of long-chain omega-3 polyunsaturated fatty acids. *Obes Rev.* (2009)

Burr G. O., Burr M. M. A new deficiency disease produced by the rigid exclusion of fat from the diet. *J. Biol. Chem.* 1929; 82:345-367

Burr G. O., Burr M. M. The nature and role of the fatty acids essential in nutrition. *J. Biol. Chem.* 1930; 86:587-621

Calder PC. Omega-3 polyunsaturated fatty acids and inflammatory processes: nutrition or pharmacology. *Br J Clin Pharmacol.* (2013)

Calon F, *et al.* Docosahexaenoic acid protects from dendritic pathology in an Alzheimer's disease mouse model. *Neuron.* (2004)

Calzada C, *et al.* Subgram daily supplementation with docosahexaenoic acid protects low-density lipoproteins from oxidation in healthy men. *Atherosclerosis.* (2010)

Cederholm, T., N. Salem, Jr., and J. Palmblad, *omega-3 fatty acids in the prevention of cognitive decline in humans.* *Adv Nutr.* 2013. 4(6): p. 672-6.

Chambers CA, Allison JP. Costimulatory regulation of T cell function. *Curr Opin Cell Biol.* (1999)

Chapkin RS, *et al.* Dietary n-3 PUFA affect TcR-mediated activation of purified murine T cells and accessory cell function in co-cultures. *Clin Exp Immunol.* (2002)

Chiu CC, *et al.* The effects of omega-3 fatty acids monotherapy in Alzheimer's disease and mild cognitive impairment: a preliminary randomized double-blind placebo-controlled study. *Prog Neuropsychopharmacol Biol Psychiatry.* (2008)

Collie-Duguid ES, Wahle KW. Inhibitory effect of fish oil N-3 polyunsaturated fatty acids on the expression of endothelial cell adhesion molecules. *Biochem Biophys Res Commun.* (1996)

Connor WE, DeFrancesco CA, Connor SL. N-3 fatty acids from fish oil. Effects on plasma lipoproteins and hypertrigly. *Food Chem Toxicol.* (2011)

Connor WE, *et al.* The hypotriglyceridemic effect of fish oil in adult-onset diabetes without adverse glucose control. *Ann N Y Acad Sci.* (1993)

Conquer JA, Holub BJ. Supplementation with an algae source of docosahexaenoic acid increases (n-3) fatty acid status and alters selected risk factors for heart disease in vegetarian subjects. *J Nutr.* (1996)

Corey EJ, Shih C, Cashman JR. Docosahexaenoic acid is a strong inhibitor of prostaglandin but not leukotriene biosynthesis. *Proc Natl Acad Sci U S A.* (1983)

Couet C, *et al.* Effect of dietary fish oil on body fat mass and basal fat oxidation in healthy adults. *Int J Obes Relat Metab Disord.* (1997)

Couet, C., *et al.*, *Effect of dietary fish oil on body fat mass and basal fat oxidation in healthy adults.* *Int J Obes Relat Metab Disord.* 1997. 21(8): p. 637-43.

Crawford MA, Gale MM, Woodford MH. Linoleic acid and linolenic acid elongation products in muscle tissue of Sncerus caffer and other ruminant species. *Biochem J.* (1969)

da Silva TM, *et al.* Depression in Parkinson's disease: a double-blind, randomized, placebo-controlled pilot study of omega-3 fatty-acid supplementation. *J Affect Disord.* (2008)

Damian DL, Barnetson RS, Halliday GM. Effects of low-dose ultraviolet radiation on in vivo human cutaneous recall responses. *Australas J Dermatol.* (2001)

Damsgaard CT, Frøkiaer H, Lauritzen L. The effects of fish oil and high or low linoleic acid intake on fatty acid composition of human peripheral blood mononuclear cells. *Br J Nutr.* (2008)

Dangardt F, *et al.* Omega-3 fatty acid supplementation improves vascular function and reduces inflammation in obese adolescents. *Atherosclerosis.* (2010)

Dangour AD, *et al.* Effect of 2-y n-3 long-chain polyunsaturated fatty acid supplementation on cognitive function in older people: a randomized, double-blind, controlled trial. *Am J Clin Nutr.* (2010)

Dangour, A.D. and R. Uauy, *N-3 long-chain polyunsaturated fatty acids for optimal function during brain development and ageing*. Asia Pac J Clin Nutr, 2008. 17 Suppl 1: p. 185-8.

Das UN. Beneficial effect of eicosapentaenoic and docosahexaenoic acids in the management of systemic lupus erythematosus and its relationship to the cytokine network. *Prostaglandins Leukot Essent Fatty Acids*. (1994)

Davidson MH, *et al.* Efficacy and tolerability of adding prescription omega-3 fatty acids 4 g/d to simvastatin 40 mg/d in hypertriglyceridemic patients: an 8-week, randomized, double-blind, placebo-controlled study. *Clin Ther*. (2007)

Davis TA, *et al.* In vivo and in vitro lipid peroxidation of arachidonate esters: the effect of fish oil omega-3 lipids on product distribution. *J Am Chem Soc*. (2006)

De Caterina R, *et al.* The omega-3 fatty acid docosahexaenoate reduces cytokine-induced expression of proatherogenic and proinflammatory proteins in human endothelial cells. *Arterioscler Thromb*. (1994)

de Grooth GJ, *et al.* A review of CETP and its relation to atherosclerosis. *J Lipid Res*. (2004)

de Grooth GJ, *et al.* The relationship between cholesteryl ester transfer protein levels and risk factor profile in patients with familial hypercholesterolemia. *Atherosclerosis*. (2004)

de Lorgeril M, *et al.* Mediterranean alpha-linolenic acid-rich diet in secondary prevention of coronary heart disease. *Lancet*. (1994)

Decsi T, Campoy C, Koletzko B. Effect of N-3 polyunsaturated fatty acid supplementation in pregnancy: the Nuheal trial. *Adv Exp Med Biol*. (2005)

Deike E, *et al.* The Effects of Fish Oil Supplementation on Markers of Inflammation in Chronic Kidney Disease Patients. *J Ren Nutr*. (2012)

Dekker MJ, *et al.* Fructose: a highly lipogenic nutrient implicated in insulin resistance, hepatic steatosis, and the metabolic syndrome. *Am J Physiol Endocrinol Metab*. (2010)

Delarue J, *et al.* Interaction of fish oil and a glucocorticoid on metabolic responses to an oral glucose load in healthy human subjects. *Br J Nutr*. (2006)

Delarue, J., *et al.*, *Effects of fish oil on metabolic responses to oral fructose and glucose loads in healthy humans*. Am J Physiol, 1996. 270(2 Pt 1): p. E353-62.

Delarue, J., *et al.*, *Fish oil prevents the adrenal activation elicited by mental stress in healthy men*. Diabetes Metab, 2003. 29(3): p. 289-95.

Delgado-Lista, J., *et al.*, *Long chain omega-3 fatty acids and cardiovascular disease: a systematic review*. Br J Nutr, 2012. 107 Suppl 2: p. S201-13.

Denys A, Hichami A, Khan NA. Eicosapentaenoic acid and docosahexaenoic acid modulate MAP kinase (ERK1/ERK2) signaling in human T cells. *J Lipid Res*. (2001)

Denys A, Hichami A, Khan NA. Eicosapentaenoic acid and docosahexaenoic acid modulate MAP kinase enzyme activity in human T-cells. *Mol Cell Biochem*. (2002)

Denys A, Hichami A, Khan NA. n-3 PUFAs modulate T-cell activation via protein kinase C-alpha and -epsilon and the NF-kappaB signaling pathway. *J Lipid Res*. (2005)

Devchand PR, *et al.* The PPARalpha-leukotriene B4 pathway to inflammation control. *Nature*. (1996)

Di Girolamo, F.G., *et al.*, *Omega-3 fatty acids and protein metabolism: enhancement of anabolic interventions for sarcopenia*. Curr Opin Clin Nutr Metab Care, 2014. 17(2): p. 145-50.

Dobrian AD, *et al.* Functional and pathological roles of the 12- and 15-lipoxygenases. *Prog Lipid Res*. (2011)

Doornbos B, *et al.* Supplementation of a low dose of DHA or DHA+AA does not prevent peripartum depressive symptoms in a small population based sample. *Prog Neuropsychopharmacol Biol Psychiatry*. (2009)

Doughman SD, Krupanidhi S, Sanjeevi CB. Omega-3 fatty acids for nutrition and medicine: considering microalgae oil as a vegetarian source of EPA and DHA. *Curr Diabetes Rev*. (2007)

Duffy EM, *et al.* The clinical effect of dietary supplementation with omega-3 fish oils and/or copper in systemic lupus erythematosus. *J Rheumatol*. (2004)

Dyerberg J, *et al.* Bioavailability of marine n-3 fatty acid formulations. *Prostaglandins Leukot Essent Fatty Acids*. (2010)

Eaton SB, *et al.* Dietary intake of long-chain polyunsaturated fatty acids during the paleolithic. *World Rev Nutr Diet*. (1998)

Egert S, *et al.* Dietary alpha-linolenic acid, EPA, and DHA have differential effects on LDL fatty acid composition but similar effects on serum lipid profiles in normolipidemic humans. *J Nutr*. (2009)

Egert S, *et al.* Effects of dietary alpha-linolenic acid, eicosapentaenoic acid or docosahexaenoic acid on parameters of glucose metabolism in healthy volunteers. *Ann Nutr Metab*. (2008)

Eguchi R, *et al.* Fish oil consumption prevents glucose intolerance and hypercorticotesteronemia in footshock-stressed rats. *Lipids Health Dis*. (2011)

Elbim C, Lizard G. Flow cytometric investigation of neutrophil oxidative burst and apoptosis in physiological and pathological situations. *Cytometry A*. (2009)

Endres S, *et al.* Dietary supplementation with n-3 fatty acids suppresses interleukin-2 production and mononuclear cell proliferation. *J Leukoc Biol*. (1993)

Endres S, *et al.* The effect of dietary supplementation with n-3 polyunsaturated fatty acids on the synthesis of interleukin-1 and tumor necrosis factor by mononuclear cells. *N Engl J Med*. (1989)

Eslick GD, *et al.* Benefits of fish oil supplementation in hyperlipidemia: a systematic review and meta-analysis. *Int J Cardiol.* (2009)

Faeh D, *et al.* Effect of fructose overfeeding and fish oil administration on hepatic de novo lipogenesis and insulin sensitivity in healthy men. *Diabetes.* (2005)

Fearon, K.C., *et al.*, *Effect of a protein and energy dense N-3 fatty acid enriched oral supplement on loss of weight and lean tissue in cancer cachexia: a randomised double blind trial.* *Gut*, 2003. 52(10): p. 1479-86.

Fedor D, Kelley DS. Prevention of insulin resistance by n-3 polyunsaturated fatty acids. *Curr Opin Clin Nutr Metab Care.* (2009)

Fenton WS, *et al.* A placebo-controlled trial of omega-3 fatty acid (ethyl eicosapentaenoic acid) supplementation for residual symptoms and cognitive impairment in schizophrenia. *Am J Psychiatry.* (2001)

Fernandes AR, *et al.* Dioxins and polychlorinated biphenyls (PCBs) in fish oil dietary supplements: occurrence and human exposure in the UK. *Food Addit Contam.* (2006)

Ferrucci L, *et al.* Relationship of plasma polyunsaturated fatty acids to circulating inflammatory markers. *J Clin Endocrinol Metab.* (2006)

Figueras M, *et al.* Effects of eicosapentaenoic acid (EPA) treatment on insulin sensitivity in an animal model of diabetes: improvement of the inflammatory status. *Obesity (Silver Spring).* (2011)

Flachs P, *et al.* Polyunsaturated fatty acids of marine origin induce adiponectin in mice fed a high-fat diet. *Diabetologia.* (2006)

Flachs P, *et al.* Polyunsaturated fatty acids of marine origin upregulate mitochondrial biogenesis and induce beta-oxidation in white fat. *Diabetologia.* (2005)

Föger B, *et al.* Relationship of plasma cholesteryl ester transfer protein to HDL cholesterol. Studies in normotriglyceridemia and moderate hypertriglyceridemia. *Arterioscler Thromb Vasc Biol.* (1996)

Fontani G, *et al.* Blood profiles, body fat and mood state in healthy subjects on different diets supplemented with Omega-3 polyunsaturated fatty acids. *Eur J Clin Invest.* (2005)

Fontani G, *et al.* Cognitive and physiological effects of Omega-3 polyunsaturated fatty acid supplementation in healthy subjects. *Eur J Clin Invest.* (2005)

Francois CA, *et al.* Supplementing lactating women with flaxseed oil does not increase docosahexaenoic acid in their milk. *Am J Clin Nutr.* (2003)

Frangou S, Lewis M, McCrone P. Efficacy of ethyl-eicosapentaenoic acid in bipolar depression: randomised double-blind placebo-controlled study. *Br J Psychiatry.* (2006)

Freeman MP, *et al.* Omega-3 fatty acids and supportive psychotherapy for perinatal depression: a randomized placebo-controlled study. *J Affect Disord.* (2008)

Friedberg CE, *et al.* Fish oil and glycemic control in diabetes. A meta-analysis. *Diabetes Care.* (1998)

Friedman SA. Preeclampsia: a review of the role of prostaglandins. *Obstet Gynecol.* (1988)

Fritsche KL, Johnston PV. Rapid autoxidation of fish oil in diets without added antioxidants. *J Nutr.* (1988)

Fujioka S, *et al.* The effects of eicosapentaenoic acid-fortified food on inflammatory markers in healthy subjects--A randomized, placebo-controlled, double-blind study. *J Nutr Sci Vitaminol (Tokyo).* (2006)

Futterman S, Kupfer C. The fatty acid composition of the retinal vasculature of normal and diabetic human eyes. *Invest Ophthalmol.* (1968)

Gabler NK, *et al.* Feeding long-chain n-3 polyunsaturated fatty acids during gestation increases intestinal glucose absorption potentially via the acute activation of AMPK. *J Nutr Biochem.* (2009)

Gammelmarm A, *et al.* Low-dose fish oil supplementation increases serum adiponectin without affecting inflammatory markers in overweight subjects. *Nutr Res.* (2012)

Gani OA. Are fish oil omega-3 long-chain fatty acids and their derivatives peroxisome proliferator-activated receptor agonists. *Cardiovasc Diabetol.* (2008)

Garman JH, *et al.* Omega-3 fatty acid rich diet prevents diabetic renal disease. *Am J Physiol Renal Physiol.* (2009)

Geppert J, *et al.* Microalgal docosahexaenoic acid decreases plasma triacylglycerol in normolipidaemic vegetarians: a randomised trial. *Br J Nutr.* (2006)

Giacco R, *et al.* Fish oil, insulin sensitivity, insulin secretion and glucose tolerance in healthy people: is there any effect of fish oil supplementation in relation to the type of background diet and habitual dietary intake of n-6 and n-3 fatty acids. *Nutr Metab Cardiovasc Dis.* (2007)

Gleeson M, *et al.* The anti-inflammatory effects of exercise: mechanisms and implications for the prevention and treatment of disease. *Nat Rev Immunol.* (2011)

Goh YK, *et al.* Effect of omega 3 fatty acid on plasma lipids, cholesterol and lipoprotein fatty acid content in NIDDM patients. *Diabetologia.* (1997)

Goldberg RJ, Katz J. A meta-analysis of the analgesic effects of omega-3 polyunsaturated fatty acid supplementation for inflammatory joint pain. *Pain.* (2007)

Goldfarb Y, *et al.* Fish oil attenuates surgery-induced immunosuppression, limits post-operative metastatic dissemination and increases long-term recurrence-free survival in rodents inoculated with cancer cells. *Clin Nutr.* (2012)

Gonzalez MJ, *et al.* Lipid peroxidation products are elevated in fish oil diets even in the presence of added antioxidants. *J Nutr.* (1992)

González-Pérez A, *et al.* Obesity-induced insulin resistance and hepatic steatosis are alleviated by omega-3 fatty acids: a role for resolvins and protectins. *FASEB J.* (2009)

Gorjão R, *et al.* Regulation of interleukin-2 signaling by fatty acids in human lymphocytes. *J Lipid Res.* (2007)

Gould JF, Smithers LG, Makrides M. The effect of maternal omega-3 (n-3) LCPUFA supplementation during pregnancy on early childhood cognitive and visual development: a systematic review and meta-analysis of randomized controlled trials. *Am J Clin Nutr.* (2013)

Gray P, *et al.* Fish oil supplementation augments post-exercise immune function in young males. *Brain Behav Immun.* (2012)

Grenyer BF, *et al.* Fish oil supplementation in the treatment of major depression: a randomised double-blind placebo-controlled trial. *Prog Neuropsychopharmacol Biol Psychiatry.* (2007)

Grimsgaard S, *et al.* Highly purified eicosapentaenoic acid and docosahexaenoic acid in humans have similar triacylglycerol-lowering effects but divergent effects on serum fatty acids. *Am J Clin Nutr.* (1997)

Guebre-Egziabher F, *et al.* Nutritional intervention to reduce the n-6/n-3 fatty acid ratio increases adiponectin concentration and fatty acid oxidation in healthy subjects. *Eur J Clin Nutr.* (2008)

Guéguen M, *et al.* Shellfish and residual chemical contaminants: hazards, monitoring, and health risk assessment along French coasts. *Rev Environ Contam Toxicol.* (2011)

Gurzell EA, *et al.* DHA-enriched fish oil targets B cell lipid microdomains and enhances ex vivo and in vivo B cell function. *J Leukoc Biol.* (2013)

Gustafsson PA, *et al.* EPA supplementation improves teacher-rated behaviour and oppositional symptoms in children with ADHD. *Acta Paediatr.* (2010)

Hadley KB, *et al.* Preclinical safety evaluation in rats using a highly purified ethyl ester of algal-docosahexaenoic acid. *Food Chem Toxicol.* (2010)

Hainault I, *et al.* Fish oil in a high lard diet prevents obesity, hyperlipemia, and adipocyte insulin resistance in rats. *Ann N Y Acad Sci.* (1993)

Hall TJ, *et al.* Modulation of human natural killer cell activity by pharmacological mediators. *Clin Exp Immunol.* (1983)

Hallahan B, *et al.* Omega-3 fatty acid supplementation in patients with recurrent self-harm. Single-centre double-blind randomised controlled trial. *Br J Psychiatry.* (2007)

Hamazaki K, *et al.* Effect of omega-3 fatty acid-containing phospholipids on blood catecholamine concentrations in healthy volunteers: a randomized, placebo-controlled, double-blind trial. *Nutrition.* (2005)

Hamazaki T, *et al.* Administration of docosahexaenoic acid influences behavior and plasma catecholamine levels at times of psychological stress. *Lipids.* (1999)

Hamazaki T, *et al.* Anti-stress effects of DHA. *Biofactors.* (2000)

Hamazaki T, *et al.* Docosahexaenoic acid does not affect aggression of normal volunteers under nonstressful conditions. A randomized, placebo-controlled, double-blind study. *Lipids.* (1998)

Hamazaki T, *et al.* The effect of docosahexaenoic acid on aggression in young adults. A placebo-controlled double-blind study. *J Clin Invest.* (1996)

Hamazaki T, *et al.* The effect of docosahexaenoic acid on aggression in elderly Thai subjects--a placebo-controlled double-blind study. *Nutr Neurosci.* (2002)

Hanebutt FL, *et al.* Long-chain polyunsaturated fatty acid (LC-PUFA) transfer across the placenta. *Clin Nutr.* (2008)

Hansen A. E., Haggard M. E., Boelsche A. N., Adam D.J.D., Wiese H. F. Essential fatty acids in infant nutrition III. Clinical manifestations of linoleic acid deficiency. *J. Nutr.* 1958; 66:564-570

Hansen JB, *et al.* Comparative effects of prolonged intake of highly purified fish oils as ethyl ester or triglyceride on lipids, haemostasis and platelet function in normolipemic men. *Eur J Clin Nutr.* (1993)

Harnack K, Andersen G, Somoza V. Quantitation of alpha-linolenic acid elongation to eicosapentaenoic and docosahexaenoic acid as affected by the ratio of n6/n3 fatty acids. *Nutr Metab (Lond).* (2009)

Harris DP, *et al.* Reciprocal regulation of polarized cytokine production by effector B and T cells. *Nat Immunol.* (2000)

Harris WS. n-3 fatty acids and serum lipoproteins: human studies. *Am J Clin Nutr.* (1997)

Harris, W.S. and C. Von Schacky, *The Omega-3 Index: a new risk factor for death from coronary heart disease?* *Prev Med*, 2004. 39(1): p. 212-20.

Harris, W.S., *Omega-3 fatty acids and cardiovascular disease: a case for omega-3 index as a new risk factor.* *Pharmacol Res*, 2007. 55(3): p. 217-23.

Hartweg J, *et al.* Omega-3 polyunsaturated fatty acids (PUFA) for type 2 diabetes mellitus. *Cochrane Database Syst Rev.* (2008)

Hartweg J, *et al.* Potential impact of omega-3 treatment on cardiovascular disease in type 2 diabetes. *Curr Opin Lipidol.* (2009)

Hashimoto M, *et al.* Chronic administration of docosahexaenoic acid ameliorates the impairment of spatial cognition learning ability in amyloid beta-infused rats. *J Nutr.* (2005)

Hashimoto M, *et al.* Docosahexaenoic acid provides protection from impairment of learning ability in Alzheimer's disease model rats. *J Neurochem.* (2002)

Hashimoto M, *et al.* Docosahexaenoic acid-induced protective effect against impaired learning in amyloid beta-infused rats is associated with increased synaptosomal membrane fluidity. *Clin Exp Pharmacol Physiol.* (2006)

Haugaard SB, *et al.* Dietary intervention increases n-3 long-chain polyunsaturated fatty acids in skeletal muscle membrane phospholipids of obese subjects. Implications for insulin sensitivity. *Clin Endocrinol {Oxf}*. (2006)

Haugaard SB, *et al.* Skeletal muscle structural lipids improve during weight-maintenance after a very low calorie dietary intervention. *Lipids Health Dis.* (2009)

Hawley, J.A., *et al.*, *Nutritional modulation of training-induced skeletal muscle adaptations.* J Appl Physiol, 2011. 110(3): p. 834-45.

Hawley, J.A., K.D. Tipton, and M.L. Millard-Stafford, *Promoting training adaptations through nutritional interventions.* J Sports Sci, 2006. 24(7): p. 709-21.

He K, *et al.* Fish consumption and incidence of stroke: a meta-analysis of cohort studies. *Stroke.* (2004)

Helland IB, *et al.* Similar effects on infants of n-3 and n-6 fatty acids supplementation to pregnant and lactating women. *Pediatrics.* (2001)

Hendrich S. (n-3) Fatty Acids: Clinical Trials in People with Type 2 Diabetes. *Adv Nutr.* (2010)

Hertz R, *et al.* Activation of gene transcription by prostacyclin analogues is mediated by the peroxisome-proliferators-activated receptor (PPAR). *Eur J Biochem.* (1996)

Higdon JV, *et al.* Supplementation of postmenopausal women with fish oil does not increase overall oxidation of LDL ex vivo compared to dietary oils rich in oleate and linoleate. *J Lipid Res.* (2001)

Hightower JM, Moore D. Mercury levels in high-end consumers of fish. *Environ Health Perspect.* (2003)

Hilakivi-Clarke L, *et al.* Mechanisms mediating the effects of prepubertal (n-3) polyunsaturated fatty acid diet on breast cancer risk in rats. *J Nutr.* (2005)

Hill, A.M., *et al.*, *Combining fish-oil supplements with regular aerobic exercise improves body composition and cardiovascular disease risk factors.* Am J Clin Nutr, 2007. 85(5): p. 1267-74.

Hirabara SM, Curi R, Maechler P. Saturated fatty acid-induced insulin resistance is associated with mitochondrial dysfunction in skeletal muscle cells. *J Cell Physiol.* (2010)

Hirashima F, *et al.* Omega-3 fatty acid treatment and T(2) whole brain relaxation times in bipolar disorder. *Am J Psychiatry.* (2004)

Holman R. T. Essential fatty acid deficiency. Prog. Lipid Res. 1968; 9:275-348

Holman R. T. George O. Burr and the discovery of essential fatty acids. J. Nutr. 1988; 118:535-540

Holman R. T. Nutritional and metabolic interrelationships between fatty acids. Fed. Proc. 1964; 23:1062-1067

Holman R. T. The ratio of trienoic:tetraenoic acids in tissue lipids as a measure of essential fatty acid requirement. J. Nutr. 1960; 70:405-410

Holman R. T., Burr G. O. Alkali conjugation of the unsaturated fatty acids. Arch. Biochem. 1948; 19:474-482

Holman R. T., Mohrhauer H. A hypothesis involving competitive inhibitions in the metabolism of polyunsaturated fatty acids. Acta Chem. Scand. 1963; 17:S84-S90

Holman, R. T. (1981) Polyunsaturated fatty acid profiles in human disease. In: New Trends in Nutrition, Lipid Research and Cardiovascular Diseases (Bazan, N. G., Paoletti, R. & Iacono, J. M., eds.), pp. 25-42. Alan R. Liss, New York, NY.

Holman, R. T. (1992) A long scaly tale the study of essential fatty acid deficiency at the University of Minnesota. In: Essential Fatty Acids and **Eicosanoids**. The Third International Conference (Sinclair, A. & Gibson, R., eds.), pp. 3-17. American Oil Chemists Society, Champaign, IL.

Holman, R. T. (1997) 3 and 6 essential fatty acid status in human health and disease. In: Handbook of Essential Fatty Acid Biology: Biochemistry, Physiology and Behavioral Neurobiology (Yehuda, S. & Mostofsky, D. I., eds.) pp. 139-182. Humana Press, Totawa NJ.

Huang T, *et al.* Increased plasma n-3 polyunsaturated fatty acid is associated with improved insulin sensitivity in type 2 diabetes in China. *Mol Nutr Food Res.* (2010)

Huang T, *et al.* Plasma phospholipids n-3 polyunsaturated fatty acid is associated with metabolic syndrome. *Mol Nutr Food Res.* (2010)

Huang XF, *et al.* Role of fat amount and type in ameliorating diet-induced obesity: insights at the level of hypothalamic arcuate nucleus leptin receptor, neuropeptide Y and pro-opiomelanocortin mRNA expression. *Diabetes Obes Metab.* (2004)

Huffman, D.M., J.L. Michaelson, and T. Thomas, R. , *Chronic supplementation with fish oil increases fat oxidation during exercise in young men.* JEPonline, 2004. 7(1): p. 48-56.

Hughes DA, *et al.* Fish oil supplementation inhibits the expression of major histocompatibility complex class II molecules and adhesion molecules on human monocytes. *Am J Clin Nutr.* (1996)

Hutchins-Wiese, H.L., *et al.*, *The impact of supplemental n-3 long chain polyunsaturated fatty acids and dietary antioxidants on physical performance in postmenopausal women.* J Nutr Health Aging, 2013. 17(1): p. 76-80.

Igarashi M, *et al.* Dietary n-3 PUFA deprivation for 15 weeks upregulates elongase and desaturase expression in rat liver but not brain. *J Lipid Res.* (2007)

Igarashi M, *et al.* Low liver conversion rate of alpha-linolenic to docosahexaenoic acid in awake rats on a high-docosahexaenoate-containing diet. *J Lipid Res.* (2006)

Igarashi M, *et al.* Upregulated liver conversion of alpha-linolenic acid to docosahexaenoic acid in rats on a 15 week n-3 PUFA-deficient diet. *J Lipid Res.* (2007)

Illingworth DR, Harris WS, Connor WE. Inhibition of low density lipoprotein synthesis by dietary omega-3 fatty acids in humans. *Arteriosclerosis*. (1984)

Im DS. Omega-3 fatty acids in anti-inflammation (pro-resolution) and GPCRs. *Prog Lipid Res*. (2012)

Innis SM, Friesen RW. Essential n-3 fatty acids in pregnant women and early visual acuity maturation in term infants. *Am J Clin Nutr*. (2008)

Ishida T, *et al*. Distinct regulation of plasma LDL cholesterol by eicosapentaenoic acid and docosahexaenoic acid in high fat diet-fed hamsters: Participation of cholesterol ester transfer protein and LDL receptor. *Prostaglandins Leukot Essent Fatty Acids*. (2013)

Iso H, *et al*. Intake of fish and omega-3 fatty acids and risk of stroke in women. *JAMA*. (2001)

Itoh Y, *et al*. Free fatty acids regulate insulin secretion from pancreatic beta cells through GPR40. *Nature*. (2003)

Itomura M, *et al*. The effect of fish oil on physical aggression in schoolchildren--a randomized, double-blind, placebo-controlled trial. *J Nutr Biochem*. (2005)

Jackson PA, *et al*. Docosahexaenoic acid-rich fish oil modulates the cerebral hemodynamic response to cognitive tasks in healthy young adults. *Biol Psychol*. (2012)

Jackson PA, *et al*. No effect of 12 weeks' supplementation with 1 g DHA-rich or EPA-rich fish oil on cognitive function or mood in healthy young adults aged 18-35 years. *Br J Nutr*. (2012)

James MJ, Gibson RA, Cleland LG. Dietary polyunsaturated fatty acids and inflammatory mediator production. *Am J Clin Nutr*. (2000)

Jazayeri S, *et al*. Comparison of therapeutic effects of omega-3 fatty acid eicosapentaenoic acid and fluoxetine, separately and in combination, in major depressive disorder. *Aust N Z J Psychiatry*. (2008)

Jelenik T, *et al*. AMP-activated protein kinase $\alpha 2$ subunit is required for the preservation of hepatic insulin sensitivity by n-3 polyunsaturated fatty acids. *Diabetes*. (2010)

Johnstone MA, Albert DM. Prostaglandin-induced hair growth. *Surv Ophthalmol*. (2002)

Jolly CA, *et al*. Dietary (n-3) polyunsaturated fatty acids suppress murine lymphoproliferation, interleukin-2 secretion, and the formation of diacylglycerol and ceramide. *J Nutr*. (1997)

Jordan RG. Prenatal omega-3 fatty acids: review and recommendations. *J Midwifery Womens Health*. (2010)

Jump DB, *et al*. Fatty acid regulation of hepatic gene transcription. *J Nutr*. (2005)

Jump, D.B., C.M. Depner, and S. Tripathy, *Omega-3 fatty acid supplementation and cardiovascular disease*. *J Lipid Res*, 2012. 53(12): p. 2525-45.

Kabir M, *et al*. Treatment for 2 mo with n 3 polyunsaturated fatty acids reduces adiposity and some atherogenic factors but does not improve insulin sensitivity in women with type 2 diabetes: a randomized controlled study. *Am J Clin Nutr*. (2007)

Kabir, M., *et al.*, *Treatment for 2 mo with n 3 polyunsaturated fatty acids reduces adiposity and some atherogenic factors but does not improve insulin sensitivity in women with type 2 diabetes: a randomized controlled study*. *Am J Clin Nutr*, 2007. 86(6): p. 1670-9.

Kalmijn S, *et al*. Dietary intake of fatty acids and fish in relation to cognitive performance at middle age. *Neurology*. (2004)

Kamolrat, T., S.R. Gray, and M.C. Thivierge, *Fish oil positively regulates anabolic signalling alongside an increase in whole-body gluconeogenesis in ageing skeletal muscle*. *Eur J Nutr*, 2013. 52(2): p. 647-57.

Kaur G, *et al*. Docosapentaenoic acid (22:5n-3): a review of its biological effects. *Prog Lipid Res*. (2011)

Keck PE Jr, *et al*. Double-blind, randomized, placebo-controlled trials of ethyl-eicosapentanoate in the treatment of bipolar depression and rapid cycling bipolar disorder. *Biol Psychiatry*. (2006)

Kelley DS, *et al*. Dietary alpha-linolenic acid and immunocompetence in humans. *Am J Clin Nutr*. (1991)

Kelley DS, *et al*. Docosahexaenoic acid ingestion inhibits natural killer cell activity and production of inflammatory mediators in young healthy men. *Lipids*. (1999)

Kelley DS, *et al*. Docosahexaenoic acid supplementation improves fasting and postprandial lipid profiles in hypertriglyceridemic men. *Am J Clin Nutr*. (2007)

Kelley, D.S., *et al.*, *DHA supplementation decreases serum C-reactive protein and other markers of inflammation in hypertriglyceridemic men*. *J Nutr*, 2009. 139(3): p. 495-501.

Kelly DP, Scarpulla RC. Transcriptional regulatory circuits controlling mitochondrial biogenesis and function. *Genes Dev*. (2004)

Kiecolt-Glaser JK, *et al*. Omega-3 supplementation lowers inflammation in healthy middle-aged and older adults: a randomized controlled trial. *Brain Behav Immun*. (2012)

Kiecolt-Glaser JK, *et al*. Omega-3 supplementation lowers inflammation and anxiety in medical students: a randomized controlled trial. *Brain Behav Immun*. (2011)

Kikugawa K, *et al*. Effect of supplementation of n-3 polyunsaturated fatty acids on oxidative stress-induced DNA damage of rat hepatocytes. *Biol Pharm Bull*. (2003)

Kikugawa K, *et al*. Protective effect of supplementation of fish oil with high n-3 polyunsaturated fatty acids against oxidative stress-induced DNA damage of rat liver in vivo. *J Agric Food Chem*. (2003)

Kim YJ, Yokozawa T, Chung HY. Effects of energy restriction and fish oil supplementation on renal guanidino levels and antioxidant defences in aged lupus-prone B/W mice. *Br J Nutr*. (2005)

Kimura Y, *et al.* PUFAs in serum cholesterol ester and oxidative DNA damage in Japanese men and women. *Am J Clin Nutr.* (2012)

Kinsella JE, Broughton KS, Whelan JW. Dietary unsaturated fatty acids: interactions and possible needs in relation to eicosanoid synthesis. *J Nutr Biochem.* (1990)

Klenk E., Mohrhauer H. Metabolism of polyene fatty acids in the rat. *Z. Physiol. Chem.* 1960; 320:218-232

Koletzko B, Larqué E, Demmelmair H. Placental transfer of long-chain polyunsaturated fatty acids (LC-PUFA). *J Perinat Med.* (2007)

Krebs JD, *et al.* Additive benefits of long-chain n-3 polyunsaturated fatty acids and weight-loss in the management of cardiovascular disease risk in overweight hyperinsulinaemic women. *Int J Obes (Lond).* (2006)

Kunesová M, *et al.* The influence of n-3 polyunsaturated fatty acids and very low calorie diet during a short-term weight reducing regimen on weight loss and serum fatty acid composition in severely obese women. *Physiol Res.* (2006)

Kunesova, M., *et al.*, *The influence of n-3 polyunsaturated fatty acids and very low calorie diet during a short-term weight reducing regimen on weight loss and serum fatty acid composition in severely obese women.* *Physiol Res*, 2006. 55(1): p. 63-72.

Kurabayashi T, Okada M, Tanaka K. Eicosapentaenoic acid effect on hyperlipidemia in menopausal Japanese women. The Niigata Epadel Study Group. *Obstet Gynecol.* (2000)

Kuriki K, *et al.* Plasma concentrations of (n-3) highly unsaturated fatty acids are good biomarkers of relative dietary fatty acid intakes: a cross-sectional study. *J Nutr.* (2003)

Lam YY, *et al.* Insulin-stimulated glucose uptake and pathways regulating energy metabolism in skeletal muscle cells: the effects of subcutaneous and visceral fat, and long-chain saturated, n-3 and n-6 polyunsaturated fatty acids. *Biochim Biophys Acta.* (2011)

Larque E, Demmelmair H, Koletzko B. Perinatal supply and metabolism of long-chain polyunsaturated fatty acids: importance for the early development of the nervous system. *Ann N Y Acad Sci.* (2002)

Larqué E, *et al.* Docosahexaenoic acid supply in pregnancy affects placental expression of fatty acid transport proteins. *Am J Clin Nutr.* (2006)

Larsson SC, *et al.* Dietary long-chain n-3 fatty acids for the prevention of cancer: a review of potential mechanisms. *Am J Clin Nutr.* (2004)

Lauretani F, *et al.* Omega-3 and renal function in older adults. *Curr Pharm Des.* (2009)

Lee TH, *et al.* Effect of dietary enrichment with eicosapentaenoic and docosahexaenoic acids on in vitro neutrophil and monocyte leukotriene generation and neutrophil function. *N Engl J Med.* (1985)

Lenn J, *et al.* The effects of fish oil and isoflavones on delayed onset muscle soreness. *Med Sci Sports Exerc.* (2002)

Lim GP, *et al.* A diet enriched with the omega-3 fatty acid docosahexaenoic acid reduces amyloid burden in an aged Alzheimer mouse model. *J Neurosci.* (2005)

Liu, J.C., *et al.*, *Long-chain omega-3 fatty acids and blood pressure.* *Am J Hypertens*, 2011. 24(10): p. 1121-6.

Llorente AM, *et al.* Effect of maternal docosahexaenoic acid supplementation on postpartum depression and information processing. *Am J Obstet Gynecol.* (2003)

Logan JL, Benson B, Lee SM. Dietary fish oil enhances renal hypertrophy in experimental diabetes. *Diabetes Res Clin Pract.* (1990)

Long SJ1, Benton D. A double-blind trial of the effect of docosahexaenoic acid and vitamin and mineral supplementation on aggression, impulsivity, and stress. *Hum Psychopharmacol.* (2013)

Lorente-Cebrián S, *et al.* Effects of eicosapentaenoic acid (EPA) on adiponectin gene expression and secretion in primary cultured rat adipocytes. *J Physiol Biochem.* (2006)

Lorente-Cebrián S, *et al.* Eicosapentaenoic acid inhibits tumour necrosis factor- α -induced lipolysis in murine cultured adipocytes. *J Nutr Biochem.* (2012)

Lorente-Cebrián S, *et al.* Eicosapentaenoic acid stimulates AMP-activated protein kinase and increases visfatin secretion in cultured murine adipocytes. *Clin Sci (Lond).* (2009)

Lucas M, *et al.* Ethyl-eicosapentaenoic acid for the treatment of psychological distress and depressive symptoms in middle-aged women: a double-blind, placebo-controlled, randomized clinical trial. *Am J Clin Nutr.* (2009)

Lund FE. Cytokine-producing B lymphocytes-key regulators of immunity. *Curr Opin Immunol.* (2008)

Luo J, *et al.* Moderate intake of n-3 fatty acids for 2 months has no detrimental effect on glucose metabolism and could ameliorate the lipid profile in type 2 diabetic men. Results of a controlled study. *Diabetes Care.* (1998)

Luo P, Wang MH. Eicosanoids, β -cell function, and diabetes. *Prostaglandins Other Lipid Mediat.* (2011)

Luu NT, *et al.* Comparison of the pro-inflammatory potential of monocytes from healthy adults and those with peripheral arterial disease using an in vitro culture model. *Atherosclerosis.* (2007)

Ma K, *et al.* 12-Lipoxygenase Products Reduce Insulin Secretion and β -Cell Viability in Human Islets. *J Clin Endocrinol Metab.* (2010)

Ma T, *et al.* Sucrose counteracts the anti-inflammatory effect of fish oil in adipose tissue and increases obesity development in mice. *PLoS One.* (2011)

MacLean CH, *et al.* Effects of omega-3 fatty acids on lipids and glycemic control in type II diabetes and the metabolic syndrome and on inflammatory bowel disease, rheumatoid arthritis, renal disease, systemic lupus erythematosus, and osteoporosis. *Evid Rep Technol Assess (Summ).* (2004)

Maiuri MC, *et al.* Control of autophagy by oncogenes and tumor suppressor genes. *Cell Death Differ.* (2009)

Maki KC, *et al.* Effects of adding prescription omega-3 acid ethyl esters to simvastatin (20 mg/day) on lipids and lipoprotein particles in men and women with mixed dyslipidemia. *Am J Cardiol.* (2008)

Maki KC, *et al.* Krill oil supplementation increases plasma concentrations of eicosapentaenoic and docosahexaenoic acids in overweight and obese men and women. *Nutr Res.* (2009)

Maki KC, *et al.* Lipid responses to a dietary docosahexaenoic acid supplement in men and women with below average levels of high density lipoprotein cholesterol. *J Am Coll Nutr.* (2005)

Maki KC, *et al.* Prescription omega-3-acid ethyl esters reduce fasting and postprandial triglycerides and modestly reduce pancreatic β -cell response in subjects with primary hypertriglyceridemia. *Prostaglandins Leukot Essent Fatty Acids.* (2011)

Makrides M, Duley L, Olsen SF. Marine oil, and other prostaglandin precursor, supplementation for pregnancy uncomplicated by pre-eclampsia or intrauterine growth restriction. *Cochrane Database Syst Rev.* (2006)

Makrides M, Neumann MA, Gibson RA. Effect of maternal docosahexaenoic acid (DHA) supplementation on breast milk composition. *Eur J Clin Nutr.* (1996)

Makrides M, *et al.* Effect of DHA supplementation during pregnancy on maternal depression and neurodevelopment of young children: a randomized controlled trial. *JAMA.* (2010)

Malekshahi Moghadam A, *et al.* Efficacy of omega-3 fatty acid supplementation on serum levels of tumour necrosis factor- α , C-reactive protein and interleukin-2 in type 2 diabetes mellitus patients. *Singapore Med J.* (2012)

Mansilla, M.C., C.E. Banchio, and D. de Mendoza, *Signalling pathways controlling fatty acid desaturation.* Subcell Biochem, 2008. 49: p. 71-99.

Marangell LB, *et al.* A double-blind, placebo-controlled study of the omega-3 fatty acid docosahexaenoic acid in the treatment of major depression. *Am J Psychiatry.* (2003)

Marcel Y. L., Christiansen K., Holman R. T. The preferred metabolic pathway from linoleic acid to arachidonic acid in vitro. *Biochim. Biophys. Acta* 1968; 164:25-34

Marsen TA, *et al.* Pharmacokinetics of omega-3-fatty acids during ingestion of fish oil preparations. *Prostaglandins Leukot Essent Fatty Acids.* (1992)

Martins JG. EPA but not DHA appears to be responsible for the efficacy of omega-3 long chain polyunsaturated fatty acid supplementation in depression: evidence from a meta-analysis of randomized controlled trials. *J Am Coll Nutr.* (2009)

Mascaró C, *et al.* Control of human muscle-type carnitine palmitoyltransferase I gene transcription by peroxisome proliferator-activated receptor. *J Biol Chem.* (1998)

Mayurasakorn K, *et al.* Docosahexaenoic acid: brain accretion and roles in neuroprotection after brain hypoxia and ischemia. *Curr Opin Clin Nutr Metab Care.* (2011)

McDaniel ML, *et al.* Cytokines and nitric oxide in islet inflammation and diabetes. *Proc Soc Exp Biol Med.* (1996)

McManus RM, *et al.* A comparison of the effects of n-3 fatty acids from linseed oil and fish oil in well-controlled type II diabetes. *Diabetes Care.* (1996)

Metz SA, Murphy RC, Fujimoto W. Effects on glucose-induced insulin secretion of lipoxygenase-derived metabolites of arachidonic acid. *Diabetes.* (1984)

Metzger BE, Coustan DR. Summary and recommendations of the Fourth International Workshop-Conference on Gestational Diabetes Mellitus. The Organizing Committee. *Diabetes Care.* (1998)

Micallef, M.A., I.A. Munro, and M.L. Garg, *An inverse relationship between plasma n-3 fatty acids and C-reactive protein in healthy individuals.* Eur J Clin Nutr, 2009. 63(9): p. 1154-6.

Miles EA, Wallace FA, Calder PC. Dietary fish oil reduces intercellular adhesion molecule 1 and scavenger receptor expression on murine macrophages. *Atherosclerosis.* (2000)

Miles EA, *et al.* Influence of age and dietary fish oil on plasma soluble adhesion molecule concentrations. *Clin Sci (Lond).* (2001)

Miles EA, *et al.* Limited effect of eicosapentaenoic acid on T-lymphocyte and natural killer cell numbers and functions in healthy young males. *Nutrition.* (2006)

Mohrhauer H., Holman R. T. Alteration of the fatty acid composition of brain lipids by varying levels of dietary essential fatty acids. *J. Neurochem.* 1963c; 10:523-530

Mohrhauer H., Holman R. T. Effect of linolenic acid upon the metabolism of linoleic acid. *J. Nutr.* 1963e; 81:67-74

Mohrhauer H., Holman R. T. Effects of dietary essential fatty acids upon polyunsaturated fatty acids in rat heart tissue. *Biochem. Problems of Lipids. BBA Library* 1963d; 1:446-452

Mohrhauer H., Holman R. T. The effect of dietary essential fatty acids upon composition of polyunsaturated fatty acids in depot fat and erythrocytes of the rat. *J. Lipid Res.* 1963b; 4:346-350

Montgomery P, Richardson AJ. Omega-3 fatty acids for bipolar disorder. *Cochrane Database Syst Rev.* (2008)

Montori VM, *et al.* Fish oil supplementation in type 2 diabetes: a quantitative systematic review. *Diabetes Care.* (2000)

Mori TA, Woodman RJ. The independent effects of eicosapentaenoic acid and docosahexaenoic acid on cardiovascular risk factors in humans. *Curr Opin Clin Nutr Metab Care.* (2006)

Mori TA, *et al.* Purified eicosapentaenoic and docosahexaenoic acids have differential effects on serum lipids and lipoproteins, LDL particle size, glucose, and insulin in mildly hyperlipidemic men. *Am J Clin Nutr.* (2000)

Mori TA. Effect of fish and fish oil-derived omega-3 fatty acids on lipid oxidation. *Redox Rep.* (2004)

Moriguchi T, Harauma A, Salem N Jr. Plasticity of mouse brain docosahexaenoic Acid: modulation by diet and age. *Lipids*. (2013)

Morris MC, *et al.* Fish consumption and cognitive decline with age in a large community study. *Arch Neurol*. (2005)

Mozaffarian D, Rimm EB. Fish intake, contaminants, and human health: evaluating the risks and the benefits. *JAMA*. (2006)

Mozaffarian D, *et al.* Fish consumption and stroke risk in elderly individuals: the cardiovascular health study. *Arch Intern Med*. (2005)

Mozurkewich EL, *et al.* The Mothers, Omega-3, and Mental Health Study: a double-blind, randomized controlled trial. *Am J Obstet Gynecol*. (2013)

Munro IA, Garg ML. Dietary supplementation with n-3 PUFA does not promote weight loss when combined with a very-low-energy diet. *Br J Nutr*. (2012)

Murphy BL, *et al.* Omega-3 fatty acid treatment, with or without cytidine, fails to show therapeutic properties in bipolar disorder: a double-blind, randomized add-on clinical trial. *J Clin Psychopharmacol*. (2012)

Nakamura MT, Nara TY. Essential fatty acid synthesis and its regulation in mammals. *Prostaglandins Leukot Essent Fatty Acids*. (2003)

Nakatani T, *et al.* Mechanism for peroxisome proliferator-activated receptor- α activator-induced up-regulation of UCP2 mRNA in rodent hepatocytes. *J Biol Chem*. (2002)

Nälsén C, *et al.* Dietary (n-3) fatty acids reduce plasma F2-isoprostanes but not prostaglandin F2 α in healthy humans. *J Nutr*. (2006)

Narendran, R., *et al.*, *Improved working memory but no effect on striatal vesicular monoamine transporter type 2 after omega-3 polyunsaturated fatty acid supplementation*. PLoS One, 2012. 7(10): p. e46832.

Nedwin GE, *et al.* Effect of interleukin 2, interferon- γ , and mitogens on the production of tumor necrosis factors α and β . *J Immunol*. (1985)

Nemets B, Stahl Z, Belmaker RH. Addition of omega-3 fatty acid to maintenance medication treatment for recurrent unipolar depressive disorder. *Am J Psychiatry*. (2002)

Neschen S, *et al.* Fish oil regulates adiponectin secretion by a peroxisome proliferator-activated receptor- γ -dependent mechanism in mice. *Diabetes*. (2006)

Nestel P, *et al.* The n-3 fatty acids eicosapentaenoic acid and docosahexaenoic acid increase systemic arterial compliance in humans. *Am J Clin Nutr*. (2002)

Nestel PJ. Fish oil attenuates the cholesterol induced rise in lipoprotein cholesterol. *Am J Clin Nutr*. (1986)

Neubronner J, *et al.* Enhanced increase of omega-3 index in response to long-term n-3 fatty acid supplementation from triacylglycerides versus ethyl esters. *Eur J Clin Nutr*. (2011)

Nielsen MS, *et al.* The effect of low-dose marine n-3 fatty acids on the biosynthesis of pro-inflammatory 5-lipoxygenase pathway metabolites in overweight subjects: a randomized controlled trial. *Prostaglandins Leukot Essent Fatty Acids*. (2012)

Niki E. Biomarkers of lipid peroxidation in clinical material. *Biochim Biophys Acta*. (2013)

Nilsson, A., *et al.*, *Effects of supplementation with n-3 polyunsaturated fatty acids on cognitive performance and cardiometabolic risk markers in healthy 51 to 72 years old subjects: a randomized controlled cross-over study*. Nutr J, 2012. 11: p. 99.

Nishiyama A, *et al.* Arachidonic acid-containing phosphatidylcholine inhibits lymphocyte proliferation and decreases interleukin-2 and interferon- γ production from concanavalin A-stimulated rat lymphocytes. *Biochim Biophys Acta*. (2000)

Noreen, E.E., *et al.*, *Effects of supplemental fish oil on resting metabolic rate, body composition, and salivary cortisol in healthy adults*. J Int Soc Sports Nutr, 2010. 7: p. 31.

Nugent S, *et al.* Brain and systemic glucose metabolism in the healthy elderly following fish oil supplementation. *Prostaglandins Leukot Essent Fatty Acids*. (2011)

Numerof RP, Aronson FR, Mier JW. IL-2 stimulates the production of IL-1 α and IL-1 β by human peripheral blood mononuclear cells. *J Immunol*. (1988)

Oh DY, Olefsky JM. Omega 3 fatty acids and GPR120. *Cell Metab*. (2012)

Olsen SF, *et al.* Randomised controlled trial of effect of fish-oil supplementation on pregnancy duration. *Lancet*. (1992)

Omori K, *et al.* Priming of neutrophil oxidative burst in diabetes requires preassembly of the NADPH oxidase. *J Leukoc Biol*. (2008)

Oostenbrug GS, *et al.* Exercise performance, red blood cell deformability, and lipid peroxidation: effects of fish oil and vitamin E. *J Appl Physiol*. (1997)

Oshima H, Taketo MM, Oshima M. Destruction of pancreatic beta-cells by transgenic induction of prostaglandin E2 in the islets. *J Biol Chem*. (2006)

Ottestad I, *et al.* Oxidised fish oil does not influence established markers of oxidative stress in healthy human subjects: a randomised controlled trial. *Br J Nutr*. (2011)

Ottom R, *et al.* Combined fish oil and astaxanthin supplementation modulates rat lymphocyte function. *Eur J Nutr*. (2012)

Park Y, Harris WS. Omega-3 fatty acid supplementation accelerates chylomicron triglyceride clearance. *J Lipid Res*. (2003)

Parrish CC, Pathy DA, Angel A. Dietary fish oils limit adipose tissue hypertrophy in rats. *Metabolism*. (1990)

Paulo MC, *et al.* Influence of n-3 polyunsaturated fatty acids on soluble cellular adhesion molecules as biomarkers of cardiovascular risk in young healthy subjects. *Nutr Metab Cardiovasc Dis*. (2008)

Pawlosky RJ, Bacher J, Salem N Jr. Ethanol consumption alters electroretinograms and depletes neural tissues of docosahexaenoic acid in rhesus monkeys: nutritional consequences of a low n-3 fatty acid diet. *Alcohol Clin Exp Res*. (2001)

Pawlosky RJ, Salem N Jr. Alcohol consumption in rhesus monkeys depletes tissues of polyunsaturated fatty acids and alters essential fatty acid metabolism. *Alcohol Clin Exp Res*. (1999)

Pedersen BK, *et al.* Indomethacin in vitro and in vivo abolishes post-exercise suppression of natural killer cell activity in peripheral blood. *Int J Sports Med*. (1990)

Pedersen BK, *et al.* Modulation of natural killer cell activity in peripheral blood by physical exercise. *Scand J Immunol*. (1988)

Pedersen EB, *et al.* Prostaglandins, renin, aldosterone, and catecholamines in preeclampsia. *Acta Med Scand Suppl*. (1983)

Peet M, Horrobin DF. A dose-ranging study of the effects of ethyl-eicosapentaenoate in patients with ongoing depression despite apparently adequate treatment with standard drugs. *Arch Gen Psychiatry*. (2002)

Pei J, *et al.* The effect of n-3 polyunsaturated fatty acids on plasma lipids and lipoproteins in patients with chronic renal failure--a meta-analysis of randomized controlled trials. *J Ren Nutr*. (2012)

Pella D, *et al.* Effects of an Indo-Mediterranean diet on the omega-6/omega-3 ratio in patients at high risk of coronary artery disease: the Indian paradox. *World Rev Nutr Diet*. (2003)

Peres CM, Otton R, Curi R. Modulation of lymphocyte proliferation by macrophages and macrophages loaded with arachidonic acid. *Cell Biochem Funct*. (2005)

Pérez-Matute P, *et al.* Eicosapentaenoic acid actions on adiposity and insulin resistance in control and high-fat-fed rats: role of apoptosis, adiponectin and tumour necrosis factor- α . *Br J Nutr*. (2007)

Persaud SJ, *et al.* The role of arachidonic acid and its metabolites in insulin secretion from human islets of langerhans. *Diabetes*. (2007)

Phelan N, *et al.* Hormonal and metabolic effects of polyunsaturated fatty acids in young women with polycystic ovary syndrome: results from a cross-sectional analysis and a randomized, placebo-controlled, crossover trial. *Am J Clin Nutr*. (2011)

Pifferi F, *et al.* (n-3) polyunsaturated fatty acid deficiency reduces the expression of both isoforms of the brain glucose transporter GLUT1 in rats. *J Nutr*. (2005)

Pifferi F, *et al.* n-3 Fatty acids modulate brain glucose transport in endothelial cells of the blood-brain barrier. *Prostaglandins Leukot Essent Fatty Acids*. (2007)

Pifferi F, *et al.* n-3 long-chain fatty acids and regulation of glucose transport in two models of rat brain endothelial cells. *Neurochem Int*. (2010)

Placer ZA, Cushman LL, Johnson BC. Estimation of product of lipid peroxidation (malonyl dialdehyde) in biochemical systems. *Anal Biochem*. (1966)

Polavarapu R, *et al.* Increased lipid peroxidation and impaired antioxidant enzyme function is associated with pathological liver injury in experimental alcoholic liver disease in rats fed diets high in corn oil and fish oil. *Hepatology*. (1998)

Pooya Sh, *et al.* The efficacy of omega-3 fatty acid supplementation on plasma homocysteine and malondialdehyde levels of type 2 diabetic patients. *Nutr Metab Cardiovasc Dis*. (2010)

Poppitt SD, *et al.* Effects of moderate-dose omega-3 fish oil on cardiovascular risk factors and mood after ischemic stroke: a randomized, controlled trial. *Stroke*. (2009)

Pot GK, *et al.* No effect of fish oil supplementation on serum inflammatory markers and their interrelationships: a randomized controlled trial in healthy, middle-aged individuals. *Eur J Clin Nutr*. (2009)

Poudyal, H., *et al.*, *Omega-3 fatty acids and metabolic syndrome: effects and emerging mechanisms of action*. *Prog Lipid Res*, 2011. 50(4): p. 372-87.

Pryor WA, Porter NA. Suggested mechanisms for the production of 4-hydroxy-2-nonenal from the autoxidation of polyunsaturated fatty acids. *Free Radic Biol Med*. (1990)

Psota TL, Gebauer SK, Kris-Etherton P. Dietary omega-3 fatty acid intake and cardiovascular risk. *Am J Cardiol*. (2006)

Quinet E, *et al.* Plasma lipid transfer protein as a determinant of the atherogenicity of monkey plasma lipoproteins. *J Clin Invest*. (1991)

Quinn JF, *et al.* Docosahexaenoic acid supplementation and cognitive decline in Alzheimer disease: a randomized trial. *JAMA*. (2010)

Rahm J. J., Holman R. T. Effect of linoleic acid upon the metabolism of linolenic acid. *J. Nutr*. 1964; 84:15-19

Raine A1, *et al.* Reduction in behavior problems with omega-3 supplementation in children aged 8-16 years: a randomized, double-blind, placebo-controlled, stratified, parallel-group trial. *J Child Psychol Psychiatry*. (2014)

Ramel A, *et al.* Beneficial effects of long-chain n-3 fatty acids included in an energy-restricted diet on insulin resistance in overweight and obese European young adults. *Diabetologia*. (2008)

Rasmussen, B.B., *et al.*, *Insulin resistance of muscle protein metabolism in aging*. *FASEB J*, 2006. 20(6): p. 768-9.

Rees AM, Austin MP, Parker GB. Omega-3 fatty acids as a treatment for perinatal depression: randomized double-blind placebo-controlled trial. *Aust N Z J Psychiatry*. (2008)

Reinders I, *et al.* Association of serum n-3 polyunsaturated fatty acids with C-reactive protein in men. *Eur J Clin Nutr*. (2012)

Rennie, M.J., *et al.*, *Control of the size of the human muscle mass*. *Annu Rev Physiol*, 2004. 66: p. 799-828.

Rhodes LE, *et al.* Effect of eicosapentaenoic acid, an omega-3 polyunsaturated fatty acid, on UVR-related cancer risk in humans. An assessment of early genotoxic markers. *Carcinogenesis*. (2003)

Richardson AJ, Puri BK. A randomized double-blind, placebo-controlled study of the effects of supplementation with highly unsaturated fatty acids on ADHD-related symptoms in children with specific learning difficulties. *Prog Neuropsychopharmacol Biol Psychiatry*. (2002)

Rivellese AA, *et al.* Long-term effects of fish oil on insulin resistance and plasma lipoproteins in NIDDM patients with hypertriglyceridemia. *Diabetes Care*. (1996)

Rizos EC, Ntzani EE, Bika E, Kostapanos MS, Elisaf MS, Association between omega-3 fatty acid supplementation and risk of major cardiovascular disease events: a systematic review and meta-analysis in JAMA, vol. 308, n° 10, settembre 2012, pp. 1024–33

Rizza S, *et al.* Fish oil supplementation improves endothelial function in normoglycemic offspring of patients with type 2 diabetes. *Atherosclerosis*. (2009)

Robertson RP. Arachidonic acid metabolite regulation of insulin secretion. *Diabetes Metab Rev*. (1986)

Rockett BD, *et al.* Fish oil increases raft size and membrane order of B cells accompanied by differential effects on function. *J Lipid Res*. (2012)

Rockett BD, *et al.* n-3 PUFA improves fatty acid composition, prevents palmitate-induced apoptosis, and differentially modifies B cell cytokine secretion in vitro and ex vivo. *J Lipid Res*. (2010)

Rodacki, C.L., *et al.*, *Fish-oil supplementation enhances the effects of strength training in elderly women*. *Am J Clin Nutr*, 2012. 95(2): p. 428-36.

Roncaglioni MC, Tombesi M, Avanzini F, *et al.*, n-3 fatty acids in patients with multiple cardiovascular risk factors in N. Engl. J. Med., vol. 368, n° 19, maggio 2013, pp. 1800–8

Rooyackers, O.E. and K.S. Nair, *Hormonal regulation of human muscle protein metabolism*. *Annu Rev Nutr*, 1997. 17: p. 457-85.

Rosell MS, *et al.* Long-chain n-3 polyunsaturated fatty acids in plasma in British meat-eating, vegetarian, and vegan men. *Am J Clin Nutr*. (2005)

Rosen ED, *et al.* Transcriptional regulation of adipogenesis. *Genes Dev*. (2000)

Ross BM, *et al.* Phospholipid biosynthetic enzymes in human brain. *Lipids*. (1997)

Ross, J.A., A.G. Moses, and K.C. Fearon, *The anti-catabolic effects of n-3 fatty acids*. *Curr Opin Clin Nutr Metab Care*, 1999. 2(3): p. 219-26.

Rossi AS, *et al.* Dietary fish oil positively regulates plasma leptin and adiponectin levels in sucrose-fed, insulin-resistant rats. *Am J Physiol Regul Integr Comp Physiol*. (2005)

Rufer AC, Thoma R, Hennig M. Structural insight into function and regulation of carnitine palmitoyltransferase. *Cell Mol Life Sci*. (2009)

Ruzickova J, *et al.* Omega-3 PUFA of marine origin limit diet-induced obesity in mice by reducing cellularity of adipose tissue. *Lipids*. (2004)

Ryan AM, *et al.* Enteral nutrition enriched with eicosapentaenoic acid (EPA) preserves lean body mass following esophageal cancer surgery: results of a double-blinded randomized controlled trial. *Ann Surg*. (2009)

Salem N Jr, *et al.* Mechanisms of action of docosahexaenoic acid in the nervous system. *Lipids*. (2001)

Samieri C, *et al.* Plasma long-chain omega-3 fatty acids and atrophy of the medial temporal lobe. *Neurology*. (2012)

Sanders TA. Polyunsaturated fatty acids in the food chain in Europe. *Am J Clin Nutr*. (2000)

Sanderson P, Calder PC. Dietary fish oil diminishes lymphocyte adhesion to macrophage and endothelial cell monolayers. *Immunology*. (1998)

Santos VC, *et al.* Effects of DHA-Rich Fish Oil Supplementation on Lymphocyte Function Before and After a Marathon Race. *Int J Sport Nutr Exerc Metab*. (2013)

Sastry PS. Lipids of nervous tissue: composition and metabolism. *Prog Lipid Res*. (1985)

Satoh N, *et al.* Purified eicosapentaenoic acid reduces small dense LDL, remnant lipoprotein particles, and C-reactive protein in metabolic syndrome. *Diabetes Care*. (2007)

Sawada K, *et al.* Ameliorative effects of polyunsaturated fatty acids against palmitic acid-induced insulin resistance in L6 skeletal muscle cells. *Lipids Health Dis*. (2012)

Sawazaki S, *et al.* The effect of docosahexaenoic acid on plasma catecholamine concentrations and glucose tolerance during long-lasting psychological stress: a double-blind placebo-controlled study. *J Nutr Sci Vitaminol (Tokyo)*. (1999)

Schaefer EJ, *et al.* Plasma phosphatidylcholine docosahexaenoic acid content and risk of dementia and Alzheimer disease: the Framingham Heart Study. *Arch Neurol*. (2006)

Schectman G, Kaul S, Kissebah AH. Effect of fish oil concentrate on lipoprotein composition in NIDDM. *Diabetes*. (1988)

Schirmer SH, *et al.* Effects of omega-3 fatty acids on postprandial triglycerides and monocyte activation. *Atherosclerosis*. (2012)

Schmitt D, *et al.* Toxicologic evaluation of DHA-rich algal oil: Genotoxicity, acute and subchronic toxicity in rats. *Food Chem Toxicol.* (2012)

Schuchardt JP, *et al.* Incorporation of EPA and DHA into plasma phospholipids in response to different omega-3 fatty acid formulations--a comparative bioavailability study of fish oil vs. krill oil. *Lipids Health Dis.* (2011)

Schwerbrock NM, *et al.* Fish oil-fed mice have impaired resistance to influenza infection. *J Nutr.* (2009)

Seljeskog E, Hervig T, Mansoor MA. A novel HPLC method for the measurement of thiobarbituric acid reactive substances (TBARS). A comparison with a commercially available kit. *Clin Biochem.* (2006)

Selkoe DJ. Alzheimer's disease is a synaptic failure. *Science.* (2002)

Sen CK, *et al.* Fish oil and vitamin E supplementation in oxidative stress at rest and after physical exercise. *J Appl Physiol.* (1997)

Serhan, C.N., *et al.*, *Anti-microinflammatory lipid signals generated from dietary N-3 fatty acids via cyclooxygenase-2 and transcellular processing: a novel mechanism for NSAID and N-3 PUFA therapeutic actions.* *J Physiol Pharmacol*, 2000. 51(4 Pt 1): p. 643-54.

Serhan, C.N., *et al.*, *Novel functional sets of lipid-derived mediators with antiinflammatory actions generated from omega-3 fatty acids via cyclooxygenase 2-nonsteroidal antiinflammatory drugs and transcellular processing.* *J Exp Med*, 2000. 192(8): p. 1197-204.

Serhan, C.N., N. Chiang, and T.E. Van Dyke, *Resolving inflammation: dual anti-inflammatory and pro-resolution lipid mediators.* *Nat Rev Immunol*, 2008. 8(5): p. 349-61.

Shidfar F, *et al.* Effects of omega-3 fatty acid supplements on serum lipids, apolipoproteins and malondialdehyde in type 2 diabetes patients. *East Mediterr Health J.* (2008)

Shim KS, Lubec G. Drebrin, a dendritic spine protein, is manifold decreased in brains of patients with Alzheimer's disease and Down syndrome. *Neurosci Lett.* (2002)

Shirai N, Suzuki H. Effects of simultaneous intakes of fish oil and green tea extracts on plasma, glucose, insulin, C-peptide, and adiponectin and on liver lipid concentrations in mice fed low- and high-fat diets. *Ann Nutr Metab.* (2008)

Shoji H, *et al.* Effect of docosahexaenoic acid and eicosapentaenoic acid supplementation on oxidative stress levels during pregnancy. *Free Radic Res.* (2006)

Simopoulos AP. Omega-3 fatty acids in health and disease and in growth and development. *Am J Clin Nutr.* (1991)

Simopoulos AP. Overview of evolutionary aspects of omega 3 fatty acids in the diet. *World Rev Nutr Diet.* (1998)

Simopoulos AP. The importance of the omega-6/omega-3 fatty acid ratio in cardiovascular disease and other chronic diseases. *Exp Biol Med (Maywood).* (2008)

Singer P, *et al.* Benefit of an enteral diet enriched with eicosapentaenoic acid and gamma-linolenic acid in ventilated patients with acute lung injury. *Crit Care Med.* (2006)

Sinn N, Bryan J. Effect of supplementation with polyunsaturated fatty acids and micronutrients on learning and behavior problems associated with child ADHD. *J Dev Behav Pediatr.* (2007)

Sinn, N., *et al.*, *Effects of n-3 fatty acids, EPA v. DHA, on depressive symptoms, quality of life, memory and executive function in older adults with mild cognitive impairment: a 6-month randomised controlled trial.* *Br J Nutr*, 2012. 107(11): p. 1682-93.

Sivapirabu G, *et al.* Topical nicotinamide modulates cellular energy metabolism and provides broad-spectrum protection against ultraviolet radiation-induced immunosuppression in humans. *Br J Dermatol.* (2009)

Skulas-Ray AC, *et al.* Dose-response effects of omega-3 fatty acids on triglycerides, inflammation, and endothelial function in healthy persons with moderate hypertriglyceridemia. *Am J Clin Nutr.* (2011)

Smith BK, *et al.* A decreased n-6/n-3 ratio in the fat-1 mouse is associated with improved glucose tolerance. *Appl Physiol Nutr Metab.* (2010)

Smith GI, *et al.* Omega-3 polyunsaturated fatty acids augment the muscle protein anabolic response to hyperinsulinaemia-hyperaminoacidaemia in healthy young and middle-aged men and women. *Clin Sci (Lond).* (2011)

Smith, G.I., *et al.*, *Dietary omega-3 fatty acid supplementation increases the rate of muscle protein synthesis in older adults: a randomized controlled trial.* *Am J Clin Nutr*, 2011. 93(2): p. 402-12.

Smith, G.I., *et al.*, *Omega-3 polyunsaturated fatty acids augment the muscle protein anabolic response to hyperinsulinaemia-hyperaminoacidaemia in healthy young and middle-aged men and women.* *Clin Sci (Lond)*, 2011. 121(6): p. 267-78.

Smith, H.J. and M.J. Tisdale, *Induction of apoptosis by a cachectic-factor in murine myotubes and inhibition by eicosapentaenoic acid.* *Apoptosis*, 2003. 8(2): p. 161-9.

Smith, H.J., J. Khal, and M.J. Tisdale, *Downregulation of ubiquitin-dependent protein degradation in murine myotubes during hyperthermia by eicosapentaenoic acid.* *Biochem Biophys Res Commun*, 2005. 332(1): p. 83-8.

Smith, H.J., M.J. Lorite, and M.J. Tisdale, *Effect of a cancer cachectic factor on protein synthesis/degradation in murine C2C12 myoblasts: modulation by eicosapentaenoic acid.* *Cancer Res*, 1999. 59(21): p. 5507-13.

Smith, H.J., N.A. Greenberg, and M.J. Tisdale, *Effect of eicosapentaenoic acid, protein and amino acids on protein synthesis and degradation in skeletal muscle of cachectic mice.* *Br J Cancer*, 2004. 91(2): p. 408-12.

Smutna M, *et al.* Fish oil and cod liver as safe and healthy food supplements. *Neuro Endocrinol Lett.* (2009)

Song C, *et al.* Effects of dietary n-3 or n-6 fatty acids on interleukin-1beta-induced anxiety, stress, and inflammatory responses in rats. *J Lipid Res.* (2003)

Sparks DL, *et al.* Relationship between cholesteryl ester transfer activity and high density lipoprotein composition in hyperlipidemic patients. *Atherosclerosis*. (1989)

Stamey JA, *et al.* Use of algae or algal oil rich in n-3 fatty acids as a feed supplement for dairy cattle. *J Dairy Sci*. (2012)

Stanke-Labesque F, *et al.* Effect of dietary supplementation with increasing doses of docosahexaenoic acid on neutrophil lipid composition and leukotriene production in human healthy volunteers. *Br J Nutr*. (2008)

Stark KD, Holub BJ. Differential eicosapentaenoic acid elevations and altered cardiovascular disease risk factor responses after supplementation with docosahexaenoic acid in postmenopausal women receiving and not receiving hormone replacement therapy. *Am J Clin Nutr*. (2004)

Stark KD, *et al.* Comparison of bloodstream fatty acid composition from African-American women at gestation, delivery, and postpartum *J Lipid Res*. (2005)

Stevens L, *et al.* EPA supplementation in children with inattention, hyperactivity, and other disruptive behaviors. *Lipids*. (2003)

Stillwell, W. and S.R. Wassall, *Docosahexaenoic acid: membrane properties of a unique fatty acid*. *Chem Phys Lipids*, 2003. 126(1): p. 1-27.

Stillwell, W., *et al.*, *Docosahexaenoic acid affects cell signaling by altering lipid rafts*. *Reprod Nutr Dev*, 2005. 45(5): p. 559-79.

Stoll AL, *et al.* Omega 3 fatty acids in bipolar disorder: a preliminary double-blind, placebo-controlled trial. *Arch Gen Psychiatry*. (1999)

Stonehouse, W., *et al.*, *DHA supplementation improved both memory and reaction time in healthy young adults: a randomized controlled trial*. *Am J Clin Nutr*, 2013. 97(5): p. 1134-43.

Stonehouse, W., *Does consumption of LC omega-3 PUFA enhance cognitive performance in healthy school-aged children and throughout adulthood? Evidence from clinical trials*. *Nutrients*, 2014. 6(7): p. 2730-58.

Stough C, *et al.* The effects of 90-day supplementation with the omega-3 essential fatty acid docosahexaenoic acid (DHA) on cognitive function and visual acuity in a healthy aging population. *Neurobiol Aging*. (2012)

Stradling C, *et al.* The effects of dietary intervention on HIV dyslipidaemia: a systematic review and meta-analysis. *PLoS One*. (2012)

Su KP, *et al.* Omega-3 fatty acids for major depressive disorder during pregnancy: results from a randomized, double-blind, placebo-controlled trial. *J Clin Psychiatry*. (2008)

Su KP, *et al.* Omega-3 fatty acids in major depressive disorder. A preliminary double-blind, placebo-controlled trial. *Eur Neuropsychopharmacol*. (2003)

Sublette ME, *et al.* Meta-analysis of the effects of eicosapentaenoic acid (EPA) in clinical trials in depression. *J Clin Psychiatry*. (2011)

Sugano M, Hirahara F. Polyunsaturated fatty acids in the food chain in Japan. *Am J Clin Nutr*. (2000)

Sun GY, Hu ZY. Stimulation of phospholipase A2 expression in rat cultured astrocytes by LPS, TNF alpha and IL-1 beta. *Prog Brain Res*. (1995)

Sun GY, *et al.* Phospholipase A2 in the central nervous system: implications for neurodegenerative diseases. *J Lipid Res*. (2004)

Swanson, D., R. Block, and S.A. Mousa, *Omega-3 fatty acids EPA and DHA: health benefits throughout life*. *Adv Nutr*, 2012. 3(1): p. 1-7.

Takeuchi T, Iwanaga M, Harada E. Possible regulatory mechanism of DHA-induced anti-stress reaction in rats. *Brain Res*. (2003)

Tayyebi-Khosroshahi H, *et al.* Effect of treatment with omega-3 fatty acids on C-reactive protein and tumor necrosis factor-alfa in hemodialysis patients. *Saudi J Kidney Dis Transpl*. (2012)

Theobald HE, *et al.* LDL cholesterol-raising effect of low-dose docosahexaenoic acid in middle-aged men and women. *Am J Clin Nutr*. (2004)

Thienprasert A, *et al.* Fish oil n-3 polyunsaturated fatty acids selectively affect plasma cytokines and decrease illness in Thai schoolchildren: a randomized, double-blind, placebo-controlled intervention trial. *J Pediatr*. (2009)

Thies F, *et al.* Dietary supplementation with eicosapentaenoic acid, but not with other long-chain n-3 or n-6 polyunsaturated fatty acids, decreases natural killer cell activity in healthy subjects aged >55 y. *Am J Clin Nutr*. (2001)

Thies F, *et al.* Dietary supplementation with gamma-linolenic acid or fish oil decreases T lymphocyte proliferation in healthy older humans. *J Nutr*. (2001)

Tholstrup T, *et al.* A solid dietary fat containing fish oil redistributes lipoprotein subclasses without increasing oxidative stress in men. *J Nutr*. (2004)

Thorsdottir, I., *et al.*, *Randomized trial of weight-loss-diets for young adults varying in fish and fish oil content*. *Int J Obes (Lond)*, 2007. 31(10): p. 1560-6.

Tishinsky JM, Ma DW, Robinson LE. Eicosapentaenoic acid and rosiglitazone increase adiponectin in an additive and PPAR γ -dependent manner in human adipocytes. *Obesity (Silver Spring)*. (2011)

Tishinsky JM, *et al.* Fish oil prevents high saturated fat diet-induced impairments in adiponectin and insulin response in rodent soleus muscle. *Am J Physiol Regul Integr Comp Physiol*. (2011)

Titova, O.E., *et al.*, *Dietary intake of eicosapentaenoic and docosahexaenoic acids is linked to gray matter volume and cognitive function in elderly*. *Age (Dordr)*, 2013. 35(4): p. 1495-505.

Todoric J, *et al.* Adipose tissue inflammation induced by high-fat diet in obese diabetic mice is prevented by n-3 polyunsaturated fatty acids. *Diabetologia*. (2006)

Tofail F, *et al.* Supplementation of fish-oil and soy-oil during pregnancy and psychomotor development of infants. *J Health Popul Nutr*. (2006)

Tomiyama H, *et al.* Relationships among the serum omega fatty acid levels, serum C-reactive protein levels and arterial stiffness/wave reflection in Japanese men. *Atherosclerosis*. (2011)

Tran PO, Gleason CE, Robertson RP. Inhibition of interleukin-1beta-induced COX-2 and EP3 gene expression by sodium salicylate enhances pancreatic islet beta-cell function. *Diabetes*. (2002)

Tsitouras PD, *et al.* High omega-3 fat intake improves insulin sensitivity and reduces CRP and IL6, but does not affect other endocrine axes in healthy older adults. *Horm Metab Res*. (2008)

Tsuboyama-Kasaoka N, *et al.* Up-regulation of liver uncoupling protein-2 mRNA by either fish oil feeding or fibrates administration in mice. *Biochem Biophys Res Commun*. (1999)

Tsukada H, *et al.* Docosahexaenoic acid (DHA) improves the age-related impairment of the coupling mechanism between neuronal activation and functional cerebral blood flow response: a PET study in conscious monkeys. *Brain Res*. (2000)

Turner R, McLean CH, Silvers KM. Are the health benefits of fish oils limited by products of oxidation. *Nutr Res Rev*. (2006)

Tvrzicka E, *et al.* Fatty acids as biocompounds: their role in human metabolism, health and disease--a review. Part 1: classification, dietary sources and biological functions. *Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub*. (2011)

Ulven SM, *et al.* Metabolic effects of krill oil are essentially similar to those of fish oil but at lower dose of EPA and DHA, in healthy volunteers. *Lipids*. (2011)

Umegaki K, *et al.* Docosahexaenoic acid supplementation-increased oxidative damage in bone marrow DNA in aged rats and its relation to antioxidant vitamins. *Free Radic Res*. (2001)

Urwin HJ, *et al.* Salmon consumption during pregnancy alters fatty acid composition and secretory IgA concentration in human breast milk. *J Nutr*. (2012)

Valko M, *et al.* Free radicals, metals and antioxidants in oxidative stress-induced cancer. *Chem Biol Interact*. (2006)

van de Rest O, *et al.* Effect of fish oil on cognitive performance in older subjects: a randomized, controlled trial. *Neurology*. (2008)

van de Rest O, *et al.* Effect of fish oil supplementation on quality of life in a general population of older Dutch subjects: a randomized, double-blind, placebo-controlled trial. *J Am Geriatr Soc*. (2009)

van de Rest O, *et al.* Effect of fish-oil supplementation on mental well-being in older subjects: a randomized, double-blind, placebo-controlled trial. *Am J Clin Nutr*. (2008)

van Goor SA, *et al.* Supplementation of DHA but not DHA with arachidonic acid during pregnancy and lactation influences general movement quality in 12-week-old term infants. *Br J Nutr*. (2010)

Vargas ML, *et al.* Metabolic and endocrine effects of long-chain versus essential omega-3 polyunsaturated fatty acids in polycystic ovary syndrome. *Metabolism*. (2011)

Vecka M, *et al.* N-3 polyunsaturated fatty acids in the treatment of atherogenic dyslipidemia. *Neuro Endocrinol Lett*. (2012)

Vega-López S, *et al.* Supplementation with omega3 polyunsaturated fatty acids and all-rac alpha-tocopherol alone and in combination failed to exert an anti-inflammatory effect in human volunteers. *Metabolism*. (2004)

Ventadour, S. and D. Attaix, *Mechanisms of skeletal muscle atrophy*. Curr Opin Rheumatol, 2006. 18(6): p. 631-5.

Visioli, F. and C. Galli, *Antiatherogenic components of olive oil*. Curr Atheroscler Rep, 2001. 3(1): p. 64-7.

Voigt RG, *et al.* A randomized, double-blind, placebo-controlled trial of docosahexaenoic acid supplementation in children with attention-deficit/hyperactivity disorder. *J Pediatr*. (2001)

Von Schacky, C., *Omega-3 index and cardiovascular health*. Nutrients, 2014. 6(2): p. 799-814.

Vu-Dac N, *et al.* Fibrates increase human apolipoprotein A-II expression through activation of the peroxisome proliferator-activated receptor. *J Clin Invest*. (1995)

Wang Y, *et al.* Dietary variables and glucose tolerance in pregnancy. *Diabetes Care*. (2000)

Wang YX, *et al.* Peroxisome-proliferator-activated receptor delta activates fat metabolism to prevent obesity. *Cell*. (2003)

Warner JG Jr, *et al.* Combined effects of aerobic exercise and omega-3 fatty acids in hyperlipidemic persons. *Med Sci Sports Exerc*. (1989)

Warren G, McKendrick M, Peet M. The role of essential fatty acids in chronic fatigue syndrome. A case-controlled study of red-cell membrane essential fatty acids (EFA) and a placebo-controlled treatment study with high dose of EFA. *Acta Neurol Scand*. (1999)

Weaver JR, *et al.* Integration of pro-inflammatory cytokines, 12-lipoxygenase and NOX-1 in pancreatic islet beta cell dysfunction. *Mol Cell Endocrinol*. (2012)

Weaver KL, *et al.* Effect of dietary fatty acids on inflammatory gene expression in healthy humans. *J Biol Chem*. (2009)

Wei D, *et al.* Cellular production of n-3 PUFAs and reduction of n-6-to-n-3 ratios in the pancreatic beta-cells and islets enhance insulin secretion and confer protection against cytokine-induced cell death. *Diabetes*. (2010)

Wei MY, Jacobson TA. Effects of eicosapentaenoic acid versus docosahexaenoic acid on serum lipids: a systematic review and meta-analysis. *Curr Atheroscler Rep.* (2011)

Weisinger HS, *et al.* Retinal sensitivity loss in third-generation n-3 PUFA-deficient rats. *Lipids.* (2002)

Wheeler TG, Benolken RM, Anderson RE. Visual membranes: specificity of fatty acid precursors for the electrical response to illumination. *Science.* (1975)

Whitehouse, A.S. and M.J. Tisdale, *Downregulation of ubiquitin-dependent proteolysis by eicosapentaenoic acid in acute starvation.* *Biochem Biophys Res Commun*, 2001. 285(3): p. 598-602.

Whitehouse, A.S., *et al.*, *Mechanism of attenuation of skeletal muscle protein catabolism in cancer cachexia by eicosapentaenoic acid.* *Cancer Res*, 2001. 61(9): p. 3604-9.

Wittamer V, *et al.* Specific recruitment of antigen-presenting cells by chemerin, a novel processed ligand from human inflammatory fluids. *J Exp Med.* (2003)

Woodman RJ, *et al.* Effects of purified eicosapentaenoic and docosahexaenoic acids on glycemic control, blood pressure, and serum lipids in type 2 diabetic patients with treated hypertension. *Am J Clin Nutr.* (2002)

Wu A, Ying Z, Gomez-Pinilla F. Dietary curcumin counteracts the outcome of traumatic brain injury on oxidative stress, synaptic plasticity, and cognition. *Exp Neurol.* (2006)

Wu A, Ying Z, Gomez-Pinilla F. Docosahexaenoic acid dietary supplementation enhances the effects of exercise on synaptic plasticity and cognition. *Neuroscience.* (2008)

Wu WH, *et al.* Effects of docosahexaenoic acid supplementation on blood lipids, estrogen metabolism, and in vivo oxidative stress in postmenopausal vegetarian women. *Eur J Clin Nutr.* (2006)

Wu Y, *et al.* Activation of the AMP-activated protein kinase by eicosapentaenoic acid (EPA, 20:5 n-3) improves endothelial function in vivo. *PLoS One.* (2012)

Wurtman RJ. Synapse formation and cognitive brain development: effect of docosahexaenoic acid and other dietary constituents. *Metabolism.* (2008)

Xiang Z, *et al.* Cyclooxygenase-2 promotes amyloid plaque deposition in a mouse model of Alzheimer's disease neuropathology. *Gene Expr.* (2002)

Ximenes da Silva A, *et al.* Glucose transport and utilization are altered in the brain of rats deficient in n-3 polyunsaturated fatty acids. *J Neurochem.* (2002)

Xue B, *et al.* Omega-3 polyunsaturated fatty acids antagonize macrophage inflammation via activation of AMPK/SIRT1 pathway. *PLoS One.* (2012)

Yamada H, *et al.* In vivo and in vitro inhibition of monocyte adhesion to endothelial cells and endothelial adhesion molecules by eicosapentaenoic acid. *Arterioscler Thromb Vasc Biol.* (2008)

Yamazaki K, *et al.* Comparison of the conversion rates of alpha-linolenic acid (18:3(n - 3)) and stearidonic acid (18:4(n - 3)) to longer polyunsaturated fatty acids in rats. *Biochim Biophys Acta.* (1992)

Yamazaki RK, *et al.* Low fish oil intake improves insulin sensitivity, lipid profile and muscle metabolism on insulin resistant MSG-obese rats. *Lipids Health Dis.* (2011)

Yan XP, *et al.* Effects of n-3 polyunsaturated fatty acids on rat livers after partial hepatectomy via LKB1-AMPK signaling pathway. *Transplant Proc.* (2011)

Yeung F, *et al.* Modulation of NF-kappaB-dependent transcription and cell survival by the SIRT1 deacetylase. *EMBO J.* (2004)

Yin H, *et al.* Identification of novel autooxidation products of the omega-3 fatty acid eicosapentaenoic acid in vitro and in vivo. *J Biol Chem.* (2007)

You JS, Park MN, Lee YS. Dietary fish oil inhibits the early stage of recovery of atrophied soleus muscle in rats via Akt-p70s6k signaling and PGF2 α . *J Nutr Biochem.* (2010)

Youdim KA, Martin A, Joseph JA. Essential fatty acids and the brain: possible health implications. *Int J Dev Neurosci.* (2000)

Yu K, *et al.* Differential activation of peroxisome proliferator-activated receptors by eicosanoids. *J Biol Chem.* (1995)

Yurko-Mauro K, *et al.* Beneficial effects of docosahexaenoic acid on cognition in age-related cognitive decline. *Alzheimers Dement.* (2010)

Yurko-Mauro, K., *et al.*, *Beneficial effects of docosahexaenoic acid on cognition in age-related cognitive decline.* *Alzheimers Dement*, 2010. 6(6): p. 456-64.

Yurko-Mauro, K., *Cognitive and cardiovascular benefits of docosahexaenoic acid in aging and cognitive decline.* *Curr Alzheimer Res*, 2010. 7(3): p. 190-6.

Zanarini MC, Frankenburg FR. omega-3 Fatty acid treatment of women with borderline personality disorder: a double-blind, placebo-controlled pilot study. *Am J Psychiatry.* (2003)

Zhang, M.J. and M. Spite, *Resolvins: anti-inflammatory and proresolving mediators derived from omega-3 polyunsaturated fatty acids.* *Annu Rev Nutr*, 2012. 32: p. 203-27.

Zhou SJ, *et al.* Fish-oil supplementation in pregnancy does not reduce the risk of gestational diabetes or preeclampsia. *Am J Clin Nutr.* (2012)

Zulyniak MA, *et al.* Fish oil supplementation alters circulating eicosanoid concentrations in young healthy men. *Metabolism.* (2013)

ORNITINA

Bucci et al. *Ornithine ingestion and growth hormone release in bodybuilders*. Nutrition Research, Vol 10, Issue 3, March 1990, pp 239-245

Elam et al. *Effect of arginine and ornithine on strength, lean body mass and urinary hydroxyproline in adult males*. J Sport Med Phys Fitness. 1989 Mar; 29(1):52-6

Zajac et al. *Arginine and ornithine supplementation increases growth hormone and insulin-like growth factor-1 serum levels after heavy-resistance exercise in strength-trained athletes*. J Strength Cond Res. 2010 Apr; 24(4):1082-90

Elam RP. *Morphological changes in adult males from resistance exercise and amino acid supplementation*. J Sports Med Phys Fitness. 1988 Mar; 28(1):35-9

Eur J Clin Nutr. 2010 Oct; 64(10):1166-71. doi: 10.1038/ejcn.2010.149. Epub 2010 Aug 18.

PANAX GINSENG

Bach HV., et al., "Efficacy of Ginseng Supplements on Fatigue and Physical Performance: a Meta-analysis". J Korean Med Sci. 2016 Dec;31(12):1879-1886.

Effects of Korean ginseng berry extract on sexual function in men with erectile dysfunction: a multicenter, placebo-controlled, double-blind clinical study - Y D Choi, C W Park, J Jang, S H Kim, H Y Jeon, W G Kim, S J Lee and W S Chung

Effects of Panax ginseng supplementation on muscle damage and inflammation after uphill treadmill running in humans. - Jung HL1, Kwak HE, Kim SS, Kim YC, Lee CD, Byun HK, Kang HY.

Lin HF., et al., "Panax ginseng and salvia miltiorrhiza supplementation abolishes eccentric exercise-induced vascular stiffening: a double-blind randomized control trial". BMC Complement Altern Med. 2016 Jun 6;16:168.

Naghavi Moghadam AA., et al., "Effect of a session of intensive exercise with ginseng supplementation on histone H3 protein methylation of skeletal muscle of nonathlete men". Mol Genet Genomic Med. 2019 May;7(5):e651.

Saboori S., et al., "Effects of ginseng on C-reactive protein level: A systematic review and meta-analysis of clinical trials". Complement Ther Med. 2019 Aug;45:98-103.

Tsang D. et al. Ginseng saponins: influence on neurotransmitter uptake in rat brain synaptosomes. Planta Med. 221-224, 1985

Yoo HS., et al., "Modified Panax ginseng extract regulates autophagy by AMPK signaling in A549 human lung cancer cells". Oncol Rep. 2017 Jun;37(6):3287-3296.

PICNOGENOLO

Ackerman J, et al "The effect of an acute antioxidant supplementation compared with placebo on performance and hormonal response during a high volume resistance training session" in J Int Soc Sports Nutr. 11: 10. (2014).

Ansaria M.A., et al. "Protective effect of Pycnogenol in human neuroblastoma SH-SY5Y cells following acrolein-induced cytotoxicity", in Free Radical Biology and Medicine Volume 45, Issue 11, 1 December 2008, pp 1510–1519.

Aoki H, et al. Clinical assessment of a supplement of Pycnogenol® and L-arginine in Japanese patients with mild to moderate erectile dysfunction. In Phytother Res.;26(2): (2012 Feb) pp 204-7.

Araghi-Niknam, M., et al "Pine bark extract reduces platelet aggregation. Integrative" in Medicine, 2 (2/3). (1999) pp 73-77.

Araghi-Niknam, et al "Pine bark extract reduces platelet aggregation" in Integrative Medicine; 2(2): 04/2000 pp 73-77.

Arcangeli P." Pycnogenol in chronic venous insufficiency"; in Fitoterapia 71(3): (2000) Jun pp 236-44.

Belcaro G, et al "Prevention of venous thrombosis and thrombophlebitis in long-haul flights with pycnogenol". in Clin Appl Thromb Hemost. Oct;10(4): (2004) pp 373-7.

Belcaro G et al. Venous ulcers: microcirculatory improvement and faster healing with local use of Pycnogenol. Angiology.;56(6): 2005 Nov-Dec pp 699-705

Belcaro G, et al. "Treatment of osteoarthritis with Pycnogenol. The SVOS (San Valentino Osteo-arthritis Study). Evaluation of signs, symptoms, physical performance and vascular aspects". in Phytother Res. 22(4): (2008 Apr) pp 518-23

Belcaro G et al. "Pycnogenol® improvements in asthma management"; Panminerva Med. 53(3 Suppl 1): (2011 Sep) pp 57-64.

Belcaro G et al "Improvements of Venous Tone with Pycnogenol in Chronic Venous Insufficiency": An Ex Vivo Study on Venous Segments in Int J Angiol; 23(1): (2014 Mar) pp 47–52.

Belcaro G, "A Clinical Comparison of Pycnogenol, Antistax, and Stocking in Chronic Venous Insufficiency". in Journal of Angiol.;24(4): (Dec 2015) pp 268-74. Belcaro G., et al "COFU3 Study. Improvement in cognitive function, attention, mental performance with Pycnogenol® in healthy subjects (55-70) with high oxidative stress" in Journal of Neurosurgical Sciences;59(4): (2015 December) 437-46.

Bentley D., Coupland R., Broach J. A single dose of 'lactaway' reduces blood lactate appearance and improves endurance performance in trained athletes. J. Sci. Med. Sport. 2007;10:51.

Bentley DJ, Dank S, Coupland R, Midgley A, Spence I. Acute antioxidant supplementation improves endurance

performance in trained athletes. *Res in Sports Med: An Int Jour.* 2012;20:1–12.

Blazsó, G., Gabor, M., Sibbel, R. and Rohdewald, P. “Anti-inflammatory and superoxide radical scavenging activities of a procyanidins containing extract from the bark of *Pinus pinaster* sol. and its fractions”. in *Pharm.armacol. Lett.*, 3: (1994) pp 217-220.

Blazsó, G., Gabor, M., Schönla, F. and Rohdewald, P. “Pycnogenol accelerates wound healing and reduces scar formation” in *Phytotherapy Research*; 18(7): (07/2004) pp 579-81.

Buz'Zard AR, Peng Q, Lau BH “Kyolic and Pycnogenol increase human growth hormone secretion in genetically-engineered keratinocytes” . in *Growth Horm IGF Res.*;12(1): (2002 Feb) pp 34-40.

Cesarone. MR et al, Prevention of edema in long flights with Pycnogenol. *Clin Appl Thromb Hemost.* Jul;11(3): 2005 pp 289-94.

Cesarone MR, et al,. “Venous ulcers: microcirculatory improvement and faster healing with local use of Pycnogenol”. in *Angiology.* -Dec; 56 (6): (2005) Nov pp 699-705.

Cesarone MR et al “Comparison of Pycnogenol and Daflon in treating chronic venous insufficiency: a prospective, controlled study”; in *Clin Appl Thromb Hemost.* 12(2): (2006 Apr) pp 205-212.

Cesarone MR et al “Rapid relief of signs/symptoms in chronic venous microangiopathy with pycnogenol: a prospective, controlled study”. in *Angiology.* -Nov;57(5): (2006) Oct pp 569-76.

Cesarone MR, Steigerwalt RJ, Di Renzo A, Grossi MG, Ricci A, Stuard S, Ledda A, Dugall M, Cornelli U, Cacchio M. "Jet-lag: prevention with Pycnogenol. Preliminary report: evaluation in healthy individuals and in hypertensive patients". In *Minerva Cardioangiol.*;56 (5 Suppl): (2008 Oct) pp 3-9.

Cesarone MR, et al. “Improvement of signs and symptoms of chronic venous insufficiency and microangiopathy with Pycnogenol: a prospective, controlled study”. in *Phytomedicine.*;17(11): 2010 Sep pp 835-9.

Chida M, et al. "In vitro testing of antioxidants and biochemical end-points in bovine retinal tissue". in *Ophthalmic Res.*;31(6): (1999) pp 407-15

Chida, M., et al "In vitro testing of antioxidants and biochemical end-points in bovine retinal tissue" in *Ophthalmic Research*, 31: (1999) pp 407-415.

Cho, K-J., et al Effect of bioflavonoids extracted from the bark of *Pinus maritime* on proinflammatory cytokine interleukin-1 production in lipopolysaccharide-stimulated raw 264.7. in *Toxicology and Applied Pharmacology*, 168: (2000) pp 64-71.

Chovanová Z, et al “Effect of polyphenolic extract, Pycnogenol, on the level of 8-oxoguanine in children suffering from attention deficit/hyperactivity disorder”. In *Free Radic Res.* 40(9): (2006 Sep); pp 1003-10

Cisár P, et al ‘Effect of pine bark extract (Pycnogenol) on symptoms of knee osteoarthritis’. In *Phytother Res.*;22(8): (2008 Aug) pp 1087-92

Clifford, T et al The influence of different sources of polyphenols on submaximal cycling and time trial performance. *Journal of Athletic Enhancement*, 2 (6). (2013) S10

Cossins, E., Lee, R. and Packer, L. “ESR studies of vitamin C regeneration, order of reactivity of natural source phytochemical preparations”. in *Biochem Mol. Biol. Int.*, 45 (3): 1998 pp 583-597.

D'Andrea G “Pycnogenol: a blend of procyanidins with multifaceted therapeutic applications”? in *Fitoterapia.* Oct;81(7): (2010) pp724-361.

De Moraes Ramos, F.M. et al “Pycnogenol® protects against ionizing radiation as shown in the intestinal mucosa of rats exposed to X-rays. In *Phytother Res.* 8 (2006) Aug;20: pp 676-9.

Devaraj, S. et al “Supplementation with a pine bark extract rich in polyphenols increases plasma antioxidant capacity and alters plasma lipoprotein profile. in *Lipids* 37 (10): (2002) pp 931-934.

Durackova, Z., et al “Lipid metabolism and erectile function improvement by Pycnogenol®, extract from the bark of *Pinus pinaster* in patients suffering from erectile Dysfunction - a pilot study”. in *Nutrition Research*, 23: (2003) pp 1189-1198

Dvoráková M, et al. “The effect of polyphenolic extract from pine bark, Pycnogenol on the level of glutathione in children suffering from attention deficit hyperactivity disorder (ADHD)”. in *Redox Rep.* 11(4): (2006); pp 163-72.

Dvoráková, M, et al. “Urinary catecholamines in children with attention deficit hyperactivity disorder (ADHD): modulation by a polyphenolic extract from pine bark (pycnogenol)”. In *Nutr Neurosci.*;10(3-4): (2007 Jun-Aug) pp 151-7.

Elstner, E.F. and Kleber, E. (1990) “Radical scavenger properties of leucocyanidine”. in: Das NP, ed. *Flavonoids in Biology & Medicine III: Current issues in Flavonoid Research*: National University of Singapore Press (1990): pp 227-235.

Errichi BM, et al “Prevention of post thrombotic syndrome with Pycnogenol® in a twelve month study” . in *Panminerva Med.*;53(3 Suppl 1): (2011 Sep) pp 21-7.

Farid R, et al “Pycnogenol supplementation reduces pain and stiffness and improves physical function in adults with knee osteoarthritis. In *Nutr Res* 27:, (2007) pp 692-697

Fitzpatrick DF, Bing B, Rohdewald PJ “Endothelium-dependent vascular effects of Pycnogenol”. in *Cardiovasc Pharmacol.*; 32(4): (1998 Oct) pp 509-15.

Gabor, M., Engi, E. and Sonkodi, S. "Die Kapillarwandresistenz und ihre Beeinflussung durch wasserlösliche Flavonderivate bei spontan hypertensischen Ratten". in *Phlebologie*, 22: (1993) pp 178-182

Gliemann L et al. Nitric oxide and reactive oxygen species in limb vascular function: what is the effect of physical activity? *Free Radic Res.*;48(1): 2014 Jan pp 71-83.

Green D et al. Effect of lower limb exercise on forearm vascular function: contribution of nitric oxide. *Am J Physiol Heart Circ Physiol.*;283(3): 2002 Sep pp 899-907.

Grether-Beck S. et al French Maritime Pine Bark Extract (Pycnogenol®) Effects on Human Skin: Clinical and Molecular Evidence *Skin Pharmacol Physiol* 29: (2016) pp 13-17

Grimm T, et al “Single and multiple dose pharmacokinetics of maritime pine bark extract (pycnogenol) after oral administration to healthy volunteers”. in *BMC Clin Pharmacol* 6:4. 2006 Aug 3.

Gulati O.P. ”Pycnogenol: A nutraceutical for venous health” in *Biomedical Reviews*”; 19:(2008) pp 33–43.

Gulati O.P. “Pycnogenol® in Chronic Venous Insufficiency and Related Venous Disorders”, in *Phytotherapy Research*, Volume 28, Issue 3, March 2014, pp 348–362.

Hosseini, S., Lee, J., Sepulveda, R.T., Rohdewald, P., Watson, R.R., “A randomized, double-blind, placebo-controlled, prospective, 16 week crossover study to determine the role of Pycnogenol in modifying blood pressure in mildly hypertensive patients” in *Nutrition Research*; Volume 21, Issue 9, (2001 Sept) pp 1251–1260

Hosseini S, et al “Pycnogenol in the Management of Asthma”. In *J Med Food*. Winter;4(4): (2001) pp 201-209.

Hu S, et al “Effects of Pycnogenol® on endothelial dysfunction in borderline hypertensive, hyperlipidemic, and hyperglycemic individuals: the borderline study”. in *Int Angiol*. Feb; 34(1): (2015) pp 43-52

Iravani S. and Zolfaghari B., "Pharmaceutical and nutraceutical effects of Pinus pinaster bark extract" in *Res Pharm Sci.*; 6(1): (2011 Jan-Jun) pp 1–11.

Janisch, K., et al “Determination of the antioxidative potential of human plasma after supplementation with Pycnogenol® and whey” in *Food Research International*”, 35: (2002) pp 257-266.

Kim, J., Chehade, J., Pinnas, J.L., and Mooradian, A.D. Effect of select antioxidants on malondialdehyde modification of proteins” in *Nutrition*, 16: (2000) pp 1079-1081.

Kobori Y, et al Improvement of seminal quality and sexual function of men with oligoasthenoteratozoospermia syndrome following supplementation with L-arginine and Pycnogenol®. *Arch Ital Urol Androl*. 30;87(3): (2015 Sep) pp 190-3.

Koch R “Comparative study of Venostasin and Pycnogenol in chronic venous insufficiency”. in *Phytother Res*. Mar;16 Suppl 1: 2002 pp 1-5.

Kohama T, Suzuki N,”The treatment of gynaecological disorders with Pycnogenol” in *Eur Bull Drug Res* 7(2): (1999) pp 30-32

Kohama T, Suzuki N, Ohno S, Inoue M. “Analgesic efficacy of French maritime pine bark extract in dysmenorrhea: an open clinical trial”. in *J Reprod Med.*;49(10): (2004 Oct) pp 828-32

Kohama T. and Inoue M. “Pycnogenol® Alleviates Pain Associated with Pregnancy” in *Phytotherapy Research* 20: (2006) pp 232-234

Kohama T, Herai K, Inoue M. “Effect of French maritime pine bark extract on endometriosis as compared with Leuporelin ac- etate”. In *J Rep Med* 52(8). (2007 Aug); pp 703-8.

Kohama T, Negami M. “Effect of low-dose French maritime pine bark extract on climacteric syndrome in 170 perimenopausal women: a randomized, double-blind, placebo-controlled trial”. *J Reprod Med.*;58(1-2): (2013 Jan-Feb) pp 39-46

Lamm S, Couzens GS. “Prelox® for sexual satisfaction, a clinical trial”. in *Study Report*, 2002.

Lamm, S Schoenlau F, Rodhewald, P. “Prelox for improvement of erectile function: A review “ in *European Bulletin of Drug Research*, Volume 11, No. 3, (2003).

Lamprecht M, editor. “Antioxidants in sport nutrition” CRC Press/Taylor & Francis; Boca Raton (FL) 2015

Ledda A, et al “Investigation of a complex plant extract for mild to moderate erectile dysfunction in a randomized, double-blind, placebo-controlled, parallel-arm study”. *BJU Int*. 2010 Oct;106(7):1030-3.

Lau BH, et al. “Pycnogenol as an adjunct in the management of childhood asthma”. in *J Asthma*.;41(8): (2004) pp 825-32.

Li YY, Feng J, Zhang XL, Cui YY Pine Bark Extracts: Nutraceutical, Pharmacological and Toxicological Evaluation in *Journal of Pharmacology and Experimental Therapeutics* 353(1): (January 2015) pp 9-16

Liu, F.J., Zhang, Y.X. and Lau B.H.S. “Pycnogenol® enhances immune and haemopoietic functions in senescence-accelerated mice”. *CMLS, in Cell. Mol. Life. Sci.*, 54: (1998) pp 1168-1172.

Liu, F., Zhang, Y., and Lau, B.H.S. “Pycnogenol® improves learning impairment and memory deficit in senescence-accelerated mice”. In *Journal of Anti-aging Medicine*”, 2 (4): (1999) pp 349-355.

Liu, F., Lau, B.H.S., Peng, Q. and Shah, V. “Pycnogenol® protects vascular endothelial cells from β -amyloid-induced injury. *Biol*”. in *Pharm. Bull*, 23 (6): (2000) pp 735-737.

Liu, X., et al. “Pycnogenol®, French maritime pine bark extract, improves endothelial function of hypertensive patients” in *Life Sciences*.

Mach J, et al “The effect of antioxidant supplementation on fatigue during exercise: potential role for NAD⁺(H)”. in *Nutrients*. 2(3): (2010 Mar); pp 319-29.

Maia H Jr, Haddad C, Casoy J “The effect of pycnogenol on patients with dysmenorrhea using low-dose oral contraceptives”. in *Int J Womens Health*. 11;6: (2014 Dec) pp 1019-22

Maimoona A, Naeem I, Saddiqe Z, Jameel K. "A review on biological, nutraceutical and clinical aspects of French maritime pine bark extract" in *J Ethnopharmacol.* 27;133(2): (2011) Jan pp 261-77

Maritim, A., Dene, B.A., Sanders, R.A., Watkins, J.B. "Effect of Pycnogenol® treatment on oxidative stress in streptozotocin-induced diabetic rats." in *J. Biochem. Mol. Toxicol.*, 17(3): (2003) 193-199.

Muchova, J et al. "The effect of natural polyphenols (Extract from *Pinus pinaster* (Pycnogenol®) and *Ginkgo biloba* (EGB 761) on the oxidative stress and erectile function in patients suffering from erectile dysfunction". *Proceedings. (Abstract No L 61)4th International Conference Vitamins 2007 Targeted Nutritional Therapy*, (13-15.9.2007).

Nelson, A.B., Lau, B.H.S., Ide, N. and Rong, Y. "Pycnogenol® inhibits macrophage oxidative burst, lipoprotein oxidation and hydroxyl radical-induced DNA damage". in *Drug Development and Industrial Pharmacy*, 24 (2): (1998) pp 139-144.

Ni, Z, Mu, Y, Gulati, O. "Treatment of melasma with Pycnogenol". in *Phytother Res.* 16(6): (Sep 2002); pp 567-571

Nakanishi-Ueda T, et al "Inhibitory Effect of Lutein and Pycnogenol on Lipid Peroxidation in Porcine Retinal Homogenate" in *Journal of Clinical Biochemistry and Nutrition* Vol. 38 No. 3 (2006) pp 204-210

Nishioka K, et al "A review of the French maritime pine bark extract (Pycnogenol), a herbal medication with a diverse clinical pharmacology". in *Int J Clin Pharmacol Ther.* 40(4): (2002) Apr; pp 158-68.

Nishioka K, et al "Pycnogenol, French maritime pine bark extract, augments endothelium-dependent vasodilation in humans". in *Y. Hypertens Res.*;30(9): "2007 Sep" pp 775-80.

Nikolova V; et al "Sperm parameters in male idiopathic infertility after treatment with prelox". In *Akush Ginekol (Sofia)*; 46(5): (2007).pp 7-12.

Noda, Y et al "Hydroxyl and superoxide anion radical scavenging activities of natural source antioxidants using the computerized JES-FR30 ESR spectrometer system. In *Biochem Mol Biol Int.* Jun;42(1): (1997) pp 35-44.

Oliff ,H "Scientific and Clinical Monograph of Pycnogenol®,in American Botanical Council Jan 2010 pp 24

Packer L, Rimbach G, Virgili F. "Antioxidant activity and biologic properties of a procyanidin-rich extract from pine (*Pinus maritima*) bark, pycnogenol". In *Free Radic Biol Med.*;27(5-6): (1999 Sep) pp 704-24.

Pavlovic P. "Improved endurance by use of antioxidants". In *European Bulletin of Drug Research.* ;7: (1999) pp 26-9.

Peng, Q.L., Buz'Zard, A.R. and Lau, B.H.S. "Pycnogenol® protects neurones from amyloid β peptide-induced apoptosis". in *Molecular Brain Research*, 104: (2002) pp 55-65.

Peng, ARQ, Lau BH. "Kyolic and Pycnogenol increase human growth hormone secretion in genetically-engineered keratinocytes". in *Growth Horm IGF Res.* 12(1): (2002 Feb); pp 34-40

Petrassi C, Mastromarino A, Spartera C. "PYCNOGENOL in chronic venous insufficiency". in *Phytomedicine.*;7(5): (2000 Oct) pp 383-8.

Riccioni C, Sarcinella R, Izzo A, Palermo G, Liguori M. "Effectiveness of Troxerutin in association with Pycnogenol in the pharmacological treatment of venous insufficiency". in *Minerva Cardioangiol.* Feb;52(1): (2004) pp 43-8.

Rimbach G. "Effect of procyanidins from *Pinus maritima* on glutathione levels in endothelial cells challenged by 3-morpholininosydnonimine or activated macrophages". in *Redox Rep* (1999); 4(4): pp 171-7

Rohdewald P "A review of the French maritime pine bark extract (Pycnogenol), a herbal medication with a diverse clinical pharmacology". in *Int J Clin Pharmacol Ther.* 40(4): (2002 Apr); pp 158-68.

Rong Y., Li, L., Shah, V. and Lau, B.H.S. Pycnogenol® protects vascular endothelial cells from t-butyl hydroperoxide induced oxidant injury. *Biotechnology Therapeutics*, 5 (3 & 4): (1995) pp 117-126.

Roseff S J, Gulati R. "Improvement of sperm quality by pycnogenol". in *Eur Bull Drug Res*;7: (1999) pp 33-36.

Roseff, S. J. "Improvement in sperm quality and function with French maritime pine tree bark extract". in *The Journal of Reproductive Medicine* 47(10): (2002). pp 821-824

Ryan J, et al "An examination of the effects of the antioxidant Pycnogenol on cognitive performance, serum lipid profile, endocrinological and oxidative stress biomarkers in an elderly population". in *Psychopharmacol.* Jul; 22(5): (2008) pp 553-62

Sarikaki, V et al "In Vitro Percutaneous Absorption of Pine Bark Extract (Pycnogenol) in Human Skin" in *Journal of Toxicology: Cutaneous and Ocular Toxicology* Volume 23, Issue 3, (2005) pp 149-158

Schäfer, A et al "Inhibition of Cox-1 and Cox-2 activity by plasma of human volunteers after ingestion of French maritime pine bark extract (Pycnogenol)" in *Biomedicine & Pharmacotherapy*, 60: (2005) pp 5-9.

Schönlau, F. and Rohdewald, P. "Pycnogenol® for diabetic retinopathy: A review" in *International Ophthalmology*, 24: (2002) pp 161-171

Seki, M. "Treatment of adult acne with Pycnogenol" Manuscript in preparation 2006

Schönlau, F. "The cosmeceutical Pycnogenol®." in *Journal Applied Cosmetology*, 20: (2002) pp 241-246

Shin IS, et al "Inhibitory effects of Pycnogenol (French maritime pine bark extract) on airway inflammation in ovalbumin-induced allergic asthma". in *Food Chem Toxicol.*;62: (2013 Dec) pp 681-6

Sime S, Reeve VE. "Protection from inflammation, immunosuppression and carcinogenesis induced by UV radiation in mice by topical Pycnogenol". In *Photochem Photobiol.*;79(2): (2004 Feb) pp 193-8

Sivonová M, et al The effect of Pycnogenol on the erythrocyte membrane fluidity. In *Gen Physiol Biophys.*; 23(1): 2004 Mar pp 39-51.

Sivoňová M., et al "The Combined Effect of Pycnogenol with Ascorbic Acid and Trolox on the Oxidation of Lipids and Proteins" in *Gen. Physiol. Biophys.* 25, (2006), pp 379-396

Spadea, L. and Balestrazzi, E “Treatment of vascular retinopathies with Pycnogenol®”. In *Phytother. Res.*, 15: (2001) pp 219-223.

Stanislavov R, Nikolova V. Treatment of erectile dysfunction with pycnogenol and L-arginine. in *J Sex Marital Ther.* 29(3): (2003); pp 207-13.

Stanislavov R, Nikolova V, Rohdewald P. Improvement of erectile function with Prelox: a randomized, double-blind, placebo-controlled, crossover trial. *Int J Impot Res.*;20(2): (2008) pp 173-80

Stanislavov R, Rohdewald P Sperm quality in men is improved by supplementation with a combination of L-arginine, L-citrullin, roburins and Pycnogenol®. *Minerva Urol Nefrol.*;66(4): (Dec 2014) pp 217-23

Stanislavov R, Rohdewald P. “Improvement of erectile function by a combination of French maritime pine bark and roburins with aminoacids”. in *Minerva Urol Nefrol.* 67(1): (2015 Mar) pp 27-32.

Steigerwalt R, et al. Pycnogenol improves microcirculation, retinal edema, and visual acuity in early diabetic retinopathy. *Ocul Pharmacol Ther* 25(6):537-40. 2009 Dec;

Suzuki N, et al “French maritime pine bark extract significantly lowers the requirement for analgesic medication in dysmenorrhea: *J Reprod Med.*;53(5): 2008 May pp 338-46.

Torras MA, Faura CA, Schönlaui F, Rohdewald P «Antimicrobial activity of Pycnogenol”. in *PPhytother Res.*;19(7): (2005 Jul) pp 647-8.

Trebatická J et al “Treatment of ADHD with French maritime pine bark extract, Pycnogenol”. in *Eur Child Adolesc Psychiatry.* Sep;15(6): (2006) pp 329-35

Vinciguerra, M.G., et al “Prevention of edema in long flights with Pycnogenol®”. in *Clin. Appl. Thrombosis/Hemostasis* 11 (3): (2004) pp. 289-294

Vinciguerra MG et al. “Cramps and muscular pain: prevention with pycnogenol in normal subjects, venous patients, athletes, claudicants and in diabetic microangiopathy”. in *Angiology.*;57(3): (2006 May-Jun) pp 331-9.

Vinciguerra G, et al “Evaluation of the effects of supplementation with Pycnogenol® on fitness in normal subjects with the Army Physical Fitness Test and in performances of athletes in the 100-minute triathlon”. In *J Sports Med Phys Fitness.*; 53(6): (2013 Dec) pp 644-54

Virgili, F., Kobuchi, H. and Packer, L. “Procyranidins extracted from *Pinus maritima* (Pycnogenol®) scavengers of free radical species and modulators of nitrogen monoxide metabolism in activated murine raw 264.7 macrophages” in *Free Radical Biology & Medicine*, 24 (7/8): (1998) 1120-1129.

Watson, R.R. “Pycnogenol® and cardiovascular health”. in *Evidence Based Integrative Medicine*, 1(1): (2003) pp 27-32

Watson, R.R. “Nutraceutical Synergism: Pycnogenol® and Coenzyme Q10 Enhance Cardiovascular Health”.in *Evid. Based Integrative Med.* 2(2): (2005) pp 67-70.

Wei, Z. H., Peng, Q. L. and Lau, B.H. S. “Pycnogenol® enhances endothelial cell antioxidant defenses “ in *Redox Report*, 3(4): (1997) pp 219-224.

Yang HM, Liao MF, Zhu SY, Liao MN, Rohdewald P. “A randomised, double-blind, placebo-controlled trial on the effect of Pycnogenol on the climacteric syndrome in peri-menopausal women”. In *Acta Obstet Gynecol Scand.*;86(8): (2007) pp 978-85.

Zibadi S, Rohdewald PJ, Park D, Watson RR Reduction of cardiovascular risk factors in subjects with type 2 diabetes by Pycnogenol supplementation. in *International Nutr Res.* May;28(5): 2008 pp 315-20

Belcaro, G Cornelli, C: PS-supplements clinical use, Edizioni Minerva Medica, Torino, 2016

Elkins, Rita: Pycnogenol: the miracle antioxidant. Woodland Publishing, Salt Lake City USA, 1995

Lamm, S: The Hardness Factor: HarperCollins Publishing, New York, USA 2005

Meldrum, DR and Gambone GC: Survival of the Firmest, Createspace, 2011

Passwater, Richard “User’s guide to Pycnogenol: Nature’s Most Versatile Supplement. Basic Health Publication, Long Beach USA 2010

Walji, H: Live longer Live healthier: the power of pycnogenol. Hohm Press, Prescott, USA.

PROBIOTICI

A Ljungh e T Wadstrom (a cura di), *Lactobacillus Molecular Biology: From Genomics to Probiotics*, Caister Academic Press, 2009, ISBN 978-1-904455-41-7.

AAVV, *Libro Bianco sul Latte e i Prodotti Lattiero Caseari. Compendio per i medici. I Quaderni di Accademia (PDF)*, in *Il Sole 24 Ore Sanità*, 2007.

Alan Rankin, Ciara O’Donovan, “Microbes in sport’ – The potential role of the gut microbiota in athlete, health and performance”. *BJSM Online First*, published on January 25, 2017

B. Yaşar, E. Abut; H. Kayadibi; B. Toros; M. Sezikli; Z. Akkan; Ö. Keskin; O. Övünç Kurdaş, Efficacy of probiotics in *Helicobacter pylori* eradication therapy., in *Turk J Gastroenterol*, vol. 21, n° 3, settembre 2010, pp. 212-7, PMID 20931422.

Besselink MG, van Santvoort HC, Buskens E, et al., Probiotic prophylaxis in predicted severe acute pancreatitis: a randomised, double-blind, placebo-controlled trial, in *Lancet*, vol. 371, n° 9613, febbraio 2008, pp. 651–9, DOI:10.1016/S0140-6736(08)60207-X, PMID 18279948.

Boyle RJ, Bath-Hextall FJ, Leonardi-Bee J, Murrell DF, Tang ML, Probiotics for treating eczema, in *Cochrane Database Syst Rev*, n° 4, 2008, pp. CD006135, DOI:10.1002/14651858.CD006135.pub2, PMID 18843705.

Brady LJ, Gallaher DD, Busta FF, The role of probiotic cultures in the prevention of colon cancer, in *The Journal of Nutrition*, vol. 130, 2S Suppl, febbraio 2000, pp. 410S–414S, PMID 10721916.

CD. Davis, JA. Milner, Gastrointestinal microflora, food components and colon cancer prevention., in *J Nutr Biochem*, vol. 20, n° 10, ottobre 2009, pp. 743-52, DOI:10.1016/j.jnutbio.2009.06.001, PMID 19716282.

Clark and Mach, “Exercise-induced stress behavior, gut- microbiota-brain axis and diet: a systematic review for athletes”. *Journal of the International Society of Sports Nutrition* (2016) 13:43

Codella R., et al., “Exercise has the guts: How physical activity may positively modulate gut microbiota in chronic and immune-based diseases”. 2017

Cremonini F, Di Caro S, Nista EC, et al., Meta-analysis: the effect of probiotic administration on antibiotic-associated diarrhoea, in *Aliment. Pharmacol. Ther.*, vol. 16, n° 8, agosto 2002, pp. 1461–7, DOI:10.1046/j.1365-2036.2002.01318.x, PMID 12182746.

D. Bosscher, A. Breynaert; L. Pieters; N. Hermans, Food-based strategies to modulate the composition of the intestinal microbiota and their associated health effects., in *J Physiol Pharmacol*, 60 Suppl 6, dicembre 2009, pp. 5-11, PMID 20224145.

D. Lesbros-Pantoflickova, I. Corthésy-Theulaz; AL. Blum, *Helicobacter pylori* and probiotics., in *J Nutr*, vol. 137, 3 Suppl 2, marzo 2007, pp. 812S-8S, PMID 17311980.

difficile-associated diarrhea, and recurrent *Clostridium difficile*-associated diarrhea, in *J Clin Gastroenterol*, vol. 42, Suppl 2, luglio 2008, pp. S64–70, DOI:10.1097/MCG.0b013e3181646d09, PMID 18545161.

Dinnan TG., et al., “Psychobiotics: a novel class of psychotropic”. *Biol Psychiatry*. 2013

D'Souza AL, Rajkumar C, Cooke J, Bulpitt CJ, Probiotics in prevention of antibiotic associated diarrhoea: meta-analysis, in *BMJ*, vol. 324, n° 7350, giugno 2002, p. 1361, DOI:10.1136/bmj.324.7350.1361, PMC 115209, PMID 12052801.

Gilliland SE, Walker DK, Factors to consider when selecting a culture of *Lactobacillus acidophilus* as a dietary adjunct to produce a hypocholesterolemic effect in humans, in *Journal of Dairy Science*, vol. 73, n° 4, aprile 1990, pp. 905–11, DOI:10.3168/jds.S0022-0302(90)78747-4, PMID 2111831.

H Braat, et al., *Lactobacillus rhamnosus* induces peripheral hyporesponsiveness in stimulated CD4+ T cells via modulation of dendritic cell function., in *The American journal of clinical nutrition*, vol. 80, n° 6, 2004, pp. 1618–25, PMID 15585777.

Hamilton-Miller JM, The role of probiotics in the treatment and prevention of *Helicobacter pylori* infection, in *International Journal of Antimicrobial Agents*, vol. 22, n° 4, ottobre 2003, pp. 360–6, DOI:10.1016/S0924-8579(03)00153-5, PMID 14522098.

Hickson M, D'Souza AL, Muthu N, et al., Use of probiotic *Lactobacillus* preparation to prevent diarrhea associated with antibiotics: randomised double blind placebo controlled trial, in *BMJ*, vol. 335, n° 7610, 2007, p. 80, DOI:10.1136/bmj.39231.599815.55, PMC 1914504, PMID 17604300.

Howlett J (2008) *Functional Foods - From Science to Health and Claims*. ILSI EUROPE Concise Monograph Series.

Hsu YJ., Chiu CC., “Effect of intestinal microbiota on exercise performance in mice”. *J Strength Cond Res* 2015; 29:552–8

Huang WC., et al., “Effect of *Lactobacillus Plantarum* TWK10 on improving endurance performance in humans”. *Chin J Phys*. 2018.

Indrio, G. Riezzo; F. Raimondi; M. Bisceglia; L. Cavallo; R. Francavilla, Effects of probiotic and prebiotic on gastrointestinal motility in newborns., in *J Physiol Pharmacol*, 60 Suppl 6, dicembre 2009, pp. 27-31, PMID 20224148.

J.Elias, P. Bozzo; A. Einarson, Are probiotics safe for use during pregnancy and lactation?, in *Can Fam Physician*, vol. 57, n° 3, marzo 2011, pp. 299-301, PMID 21402964.

Jäger R., et al., “International Society of Sports Nutrition Position Stand: Probiotics”. *Journal of the International Society of Sports Nutrition* volume 16, Article number: 62 (2019)

KA. Head, Natural approaches to prevention and treatment of infections of the lower urinary tract., in *Altern Med Rev*, vol. 13, n° 3, settembre 2008, pp. 227-44, PMID 18950249.

Lamiki P, Tsuchiya J, Pathak S, Okura R, Solimene U, Jain S et al., Probiotics in diverticular disease of the colon: an open label study., in *J Gastrointest Liver Dis*, vol. 19, n° 1, 2010, pp. 31-6, PMID 20361072.

M. Gotteland, O. Brunser; S. Cruchet, Systematic review: are probiotics useful in controlling gastric colonization by *Helicobacter pylori*?, in *Aliment Pharmacol Ther*, vol. 23, n° 8, aprile 2006, pp. 1077-86, DOI:10.1111/j.1365-2036.2006.02868.x, PMID 16611267.

Mach T, Clinical usefulness of probiotics in inflammatory bowel diseases (PDF), in *Journal of Physiology and Pharmacology: an Official Journal of the Polish Physiological Society*, 57 Suppl 9, novembre 2006, pp. 23–33, PMID 17242485.

Marcos A et al, Yogurt cultures plus *Lactobacillus casei* DN-114 001 may act as an Immunomodulator agent, in *Eur J Nutr*, 2004.

Mekkes MC., et al., “The development of probiotic treatment in obesity: a review”. *Benefic Microbes*. 2014.

Metchnikoff, E. 1907. *Essais optimistes*. Paris. The prolongation of life. Optimistic studies. Translated and edited by P. Chalmers Mitchell. London: Heinemann, 1907.

Miranda Hitti, Probiotics May Help Stressed Gut, WebMD, 25 aprile 2006. URL consultato il 24 ottobre 2006.

Morelli L, Salari P, *Handbook dei Probiotici*. Mediserve Editoria & Formazione, 2007.

P. Marteau, [The clinical importance of intestinal microbiota], in *Gastroenterol Clin Biol*, 34 Suppl 1, settembre 2010, pp. S93-7, DOI:10.1016/S0399-8320(10)70026-9, PMID 20889011.

Professor J. M. T. Hamilton-Miller, G. R. Gibson, W. Bruck, Some insights into the derivation and early uses of the word 'probiotic', in *British Journal of Nutrition*, vol. 2003, n° 90, p. 845, DOI:10.1079/BJN2003954. URL consultato il 19 novembre 2009.

Quigley EM, The enteric microbiota in the pathogenesis and management of constipation., in *Best Pract Res Clin Gastroenterol*, vol. 25, n° 1, 2011, pp. 119-26, DOI:10.1016/j.bpg.2011.01.003, PMID 21382583.

R. Rastmanesh, High polyphenol, low probiotic diet for weight loss because of intestinal microbiota interaction., in *Chem Biol Interact*, vol. 189, 1-2, gennaio 2011, pp. 1-8, DOI:10.1016/j.cbi.2010.10.002, PMID 20955691.

Regulation (EC) No 1924/2006/EC of the European Parliament and of the Council of 20th December 2006 on nutrition and health claims made on foods.

Reid G, Probiotic Lactobacilli for urogenital health in women, in *J. Clin. Gastroenterol.*, vol. 42, Suppl 3 Pt 2, settembre 2008, pp. S234–6, DOI:10.1097/MCG.0b013e31817f1298, PMID 18685506.

Report of a Joint FAO/WHO Expert Consultation on Evaluation of Health and Nutritional Properties of Probiotics in Food Including Powder Milk with Live Lactic Acid Bacteria, Health and Nutritional Properties of Probiotics in Food including Powder Milk with Live Lactic Acid Bacteria (PDF), in Food and Agriculture Organization of the United Nations, World Health Organization, ottobre 2001. URL consultato il 4 novembre 2009.

S. Kondo, JZ. Xiao; T. Satoh; T. Odamaki; S. Takahashi; H. Sugahara; T. Yaeshima; K. Iwatsuki; A. Kamei; K. Abe, Antiobesity effects of Bifidobacterium breve strain B-3 supplementation in a mouse model with high-fat diet-induced obesity., in *Biosci Biotechnol Biochem*, vol. 74, n° 8, 2010, pp. 1656-61, PMID 20699581.

Sanders ME, Considerations for use of probiotic bacteria to modulate human health, in *The Journal of Nutrition*, vol. 130, 2S Suppl, febbraio 2000, pp. 384S–390S, PMID 10721912.

SJ. Allen, S. Jordan; M. Storey; CA. Thornton; M. Gravenor; I. Garaiova; SF. Plummer; D. Wang; G. Morgan, Dietary supplementation with lactobacilli and bifidobacteria is well tolerated and not associated with adverse events during late pregnancy and early infancy., in *J Nutr*, vol. 140, n° 3, marzo 2010, pp. 483-8, DOI:10.3945/jn.109.117093, PMID 20089774.

Tabbers MM, de Milliano I, Roseboom MG, Benninga MA, Is Bifidobacterium breve effective in the treatment of childhood constipation? Results from a pilot study., in *Nutr J*, vol. 10, 2011, p. 19, DOI:10.1186/1475-2891-10-19, PMC PMC3048518, PMID 21345213.

Toohy JC., et al., “Effects of probiotic (Bacillus subtilis) supplementation during offseason resistance training in female division I athletes”. *J Strength Cond Res*. 2018.

Vanderhoof JA, Probiotics in allergy management, in *Journal of Pediatric Gastroenterology and Nutrition*, 47 Suppl 2, novembre 2008, pp. S38–40, DOI:10.1097/01.mpg.0000338810.74933.c1, PMID 18931598.

W. Ziemniak, Efficacy of Helicobacter pylori eradication taking into account its resistance to antibiotics., in *J Physiol Pharmacol*, 57 Suppl 3, settembre 2006, pp. 123-41, PMID 17033111.

Wollowski I, Rechkemmer G, Pool-Zobel BL, Protective role of probiotics and prebiotics in colon cancer, in *The American Journal of Clinical Nutrition*, vol. 73, 2 Suppl, febbraio 2001, pp. 451S–455S, PMID 11157356.

PROTEINE

Areta JL., et al., “Reduced resting skeletal muscle protein synthesis is rescued by resistance exercise and protein ingestion following short-term energy deficit”. *American Journal of Physiology, Endocrinology and Metabolism*. 2014; 306(8): E989–997.

Atherton PJ and Smith.k, “Muscle protein synthesis in response to nutrition and exercise”, *J Physiol* 590,5, 2012;

Atherton PJ, Etheridge T, et al. “Muscle full effect after oral protein: time-dependent concordance and discordance between human muscle protein synthesis and mTOC1 signaling. *Am J Clin Nutri* 92, 2010

Bello A.E., Oesser S. “Collagen hydrolysate for the treatment of osteoarthritis and other joint disorders: A review of the literature”. *Curr. Med. Res. Opin.* 2006;22:2221–2232.

Bigard AX Effects of protein supplementation during prolonged exercise at moderate altitude on performance and amino acid pattern. *Eur J Appl Physiol* 66: 5 -10 (1993)

Brooks Mobley C., Carlton D.Fox et al. “Comparative effect of whey protein versus L-leucine on skeletal muscle protein synthesis and markers of ribosome biogenesis following resistance exercise”. *Amino Acids* 2015.

Brosnan JT. & Brosnan ME. “Creatine: endogenous metabolite, dietary, and therapeutic supplement”. *Annu Rev Nutr* 27, 241–261. 2007

Clark K.L., et al., “24-Week study on the use of collagen hydrolysate as a dietary supplement in athletes with activity-related joint pain”. *Curr. Med. Res. Opin.* 2008;24:1485–1496.

Clifford T., et al., "The effects of collagen peptides on muscle damage, inflammation and bone turnover following exercise: A randomized, controlled trial". *Amino Acids*. 2019;1–14.

Cribb PJ and Hayes A. "Effects of supplement timing and resistance exercise on skeletal muscle hypertrophy". *Med Sci Sports Exerc* 38, 2006

Dar Q.-A., et al., "Daily oral consumption of hydrolyzed type 1 collagen is chondroprotective and anti-inflammatory in murine posttraumatic osteoarthritis". *PLoS ONE*. 2017;12:e0174705.

Douglas PJ and Blake. "Dietary protein recommendations and the prevention of sarcopenia" *Curr Opin Clin Nutr Metab Care*. 2009;

Forup J et al. "Whey protein supplementation accelerates satellite cell proliferation during recovery from eccentric exercise". *Amino Acids* 46, 2014.

García-Coronado J.M., et al., "Effect of collagen supplementation on osteoarthritis symptoms: A meta-analysis of randomized placebo-controlled trials". *Int. Orthop*. 2018;43:531–538.

Guadagni and Biolo. "Effects of inflammation and/or inactivity on the need for dietary protein". *Curr Opin Nutr Metab Care* 6, 2009;

Hays NP., et al., "Effects of whey and fortified collagen hydrolysate protein supplements on nitrogen balance and body composition in older women". *J Am Diet Assoc* 109, 1082–1087. 2009

Hoffman JR, Nicholas AR et al. "Effect of protein-supplementat timing on strength, power and body-composition changes in resistance-trained men". *Int J Sport Nutr Excer Metab*, 19, 2009;

Jendricke P., et al., "Specific Collagen Peptides in Combination with Resistance Training Improve Body Composition and Regional Muscle Strength in Premenopausal Women: A Randomized Controlled Trial". *Nutrients*. 2019;11:892.

Kirmse M., et al., "Prolonged collagen peptide supplementation and resistance exercise training affects body composition in recreationally active men". *Nutrients*. 2019

Mojtahedi M. C., et al., "The effects of a higher protein intake during energy restriction on changes in body composition and physical function in older women". *J. Gerontol A Biol. Sci. Med. Sci*. 66, 1218–1225. 2011.

Paul Flakoll, Tom Judy, Kim Flinn, Christopher Carr, and Scott Flinn Post exercise protein supplementation improves health and muscle soreness during basic military training in marine recruits *J Appl Physiol* 96: 951-956

Peter Lemon "Is increased dietary protein necessary or beneficial for individuals with a physically active lifestyle" *Nutr Rev* (1996) 54: S169-S175

Tahavorgar A., et al., "Whey protein preloads are more beneficial than soy protein preloads in regulating appetite, calorie intake, anthropometry, and body composition of overweight and obese men". *Nutr. Res*. 2014, 34, 856–861.

Zdzieblik D., et al., "Collagen peptide supplementation in combination with resistance training improves body composition and increases muscle strength in elderly sarcopenic men: A randomised controlled trial". *Br. J. Nutr*. 2015;114:1237–1245.

Zdzieblik D., et al., "Corrigendum: Improvement of activity-related knee joint discomfort following supplementation of specific collagen peptides". *Appl. Physiol. Nutr. Metab*. 2017;42:1237.

REISHI

Andrew L. Loyd et al. Identifying the "Mushroom of Immortality": Assessing the *Ganoderma* Species Composition in Commercial Reishi Products. *Front Microbiol*. 2018; 9: 1557.

Collado Mateo D., et al., *Ganoderma lucidum* improves physical fitness in women with fibromyalgia *Nutr Hosp*. 2015 Nov 1;32(5):2126-35. Doi: 10.3305/Nh.2015.32.5.9601.

HuaShuai Li, et al., Effects of *Ganoderma lucidum* and 'Essence of Chicken' on Physical Fatigue Recovery and Exercise Performance Improvement. 2018 Dec 31 PMID: **30580507** DOI: 10.4077/CJP.2018.BAH646

Jin X., et al., *Ganoderma lucidum* (Reishi mushroom) for cancer treatment. *Cochrane Database Syst Rev*. 2012 Jun 13;(6):CD007731. doi: 10.1002/14651858.CD007731.pub2.

Nerida L. Klupp, et al. *Ganoderma lucidum* mushroom for the treatment of cardiovascular risk factors. *Cochrane Database Syst Rev*. 2015 Feb; 2015(2): CD007259.

Paola Rossi, et al., Improving Training Condition Assessment In Endurance Cyclists: Effects Of *Ganoderma lucidum* And *Ophiocordyceps Sinensis* Dietary Supplementation. Published 1 April 2014.

Pengjiao Zeng, et al., Chemical, biochemical, preclinical and clinical studies of *Ganoderma lucidum* polysaccharide as an approved drug for treating myopathy and other diseases in China. *J Cell Mol Med*. 2018 Jul; 22(7): 3278–3297.

Xing Guoqing, et al., Effect Of *Ganoderma* Polysaccharide On Superoxide Dismutase Of Old-Mice. *Journal Of Taishan Medical College*, 1999 (Dept.of Pharmacology,Taishan Medical College 271000;The People's Hospital of Feicheng City 271600)

Y Zhang, et al., Effect of *Ganoderma lucidum* Capsules on T Lymphocyte Subsets in Football Players on "Living High-Training Low" *Br J Sports Med*. 2009 Apr;43(4):310-1

RHODIOLA ROSEA

- Anghelescu IG., et al., "Stress Management and the Role of Rhodiola rosea: A Review". *Int J Psych Clin Prac.* 2018
- Anti-Fatigue Effects of Fermented Rhodiola rosea Extract in Mice Dong-Zhou Kang¹ , Hee-Do Hong, Kyung-Im Kim, Sang Yoon Choi. *Nutr. Food Sci.* 2015.
- Christopher G. Ballmann, et al., "Effects of Short-Term Rhodiola Rosea (Golden Root Extract) Supplementation on Anaerobic Exercise Performance". *J Sport Sci.* 2019
- Does Rhodiola rosea possess ergogenic properties? Walker TB , Robergs RA Exercise Physiology Laboratory, University of New Mexico, *International Journal of Sport Nutrition and Exercise Metabolism*, 2006.
- Effects of chronic Rhodiola Rosea supplementation on sport performance and antioxidant capacity in trained male: preliminary results. Parisi A, Tranchita E, Duranti G, Ciminelli E, Quaranta F, Ceci R, Cerulli C, Borriore P, Sabatini S. *J Sports Med Phys Fitness.* 2010.
- Effects of chronic rhodiola rosea supplementation on sport performance and antioxidant capacity in trained male: preliminary results Parisi, A; Tranchita, E; Duranti, G; Ciminelli, E; Quaranta, F; e altri. *Journal of Sports Medicine and Physical Fitness*, 2010
- Effetti della Rhodiola Rosea sulla prestazione negli sport aerobici: studio pilota. Parisi A., Ciminelli E., Cerulli C., Quaranta F., Tranchita E. Sports Medicine Laboratory, Unit of Internal Medicine, Department of Health Sciences, Motor Sciences Faculty, University of Rome "Foro Italico", Rome, Italy.
- Jówko E., et al., "Effects of Rhodiola rosea Supplementation on Mental Performance, Physical Capacity, and Oxidative Stress Biomarkers in Healthy Men". *J Sport Health Sci.* 2018
- Rhodiola rosea for physical and mental fatigue: a systematic review. Ishaque S, Shamseer L, Bukutu C, Vohra S. *BMC Complement Altern Med.* 2012.
- The authenticity and quality of Rhodiola rosea products. Booker A , Jalil B , Frommenwiler D , Reich E , Zhai L , Kulic Z , Heinrich M. Research Cluster Biodiversity and Medicines/Centre for Pharmacognosy and Phytotherapy, UCL School of Pharmacy, Brunswick Square, London, UK. *International Journal of Phytotherapy and Phytopharmacology*, 2015
- Tyrosinase Inhibitory Effect and Antioxidative Activities of Fermented and Ethanol Extracts of Rhodiola rosea and Lonicera japonica Yuh-Shuen Chen, Hua-Chian Liou, and Chin-Feng Chan, *The Scientific World Journal* Volume 2013.

RIBOSIO

- Berardi J., Ziegenfuss T., Hall B., "Effect of ribose supplementation on sprint performance: a pilot study". *Med Sci Sports Exerc.* 2000;32(5):S260.
- Berardi JM, Ziegenfuss TN. Effects of ribose supplementation on repeated sprint performance in men. *J Med Food.* 2009 Jun;12(3):690-3.
- Berardi JM¹, Ziegenfuss TN. Effects of ribose supplementation on repeated sprint performance in men. *J Strength Cond Res.* 2003 Feb;17(1):47-52.
- Cramer JT, Housh TJ. Effects of a carbohydrate-, protein-, and ribose-containing repletion drink during 8 weeks of endurance training on aerobic capacity, endurance performance, and body composition. *J Strength Cond Res.* 2012 Aug;26(8):2234-42. doi: 10.1519/JSC.0b013e3182606cec.
- Dhanoa TS, Housner JA. Ribose: more than a simple sugar? *Curr Sports Med Rep.* 2007 Jul;6(4):254-7.
- Dunne L, Worley S. Ribose versus dextrose supplementation, association with rowing performance: a double-blind study. *Clin J Sport Med.* 2006 Jan;16(1):68-71.
- Falk DJ, Heelan KA. Effects of effervescent creatine, ribose, and glutamine supplementation on muscular strength, muscular endurance, and body composition. *J Strength Cond Res.* 2003 Nov;17(4):810-6.
- Hellsten Y, Skadhaug L. Effect of ribose supplementation on resynthesis of adenine nucleotides after intense intermittent training in humans. *Am J Physiol Regul Integr Comp Physiol.* 2004 Jan;286(1):R182-8.
- Kavazis AN, Kivipalto J. Effects of ribose supplementation on selected metabolic measurements and performance in maximally exercising Thoroughbreds. *J Anim Sci.* 2004 Feb;82(2):619-25.
- Kerksick C, Rasmussen C. Effects of ribose supplementation prior to and during intense exercise on anaerobic capacity and metabolic markers. *Int J Sport Nutr Exerc Metab.* 2003 Mar;13(1):76-86.
- Kerksick C, Rasmussen C. Effects of ribose supplementation prior to and during intense exercise on anaerobic capacity and metabolic markers. *Int J Sport Nutr Exerc Metab.* 2005 Dec;15(6):653-64.
- Kreider RB, Melton C. Effects of oral D-ribose supplementation on anaerobic capacity and selected metabolic markers in healthy males. *Int J Sport Nutr Exerc Metab.* 2003 Mar;13(1):76-86.
- Kreider RB, Melton C. Effects of oral D-ribose supplementation on anaerobic capacity and selected metabolic markers in healthy males. *J Strength Cond Res.* 2003 Feb;17(1):47-52.
- Omran H, Illien S, MacCarter D. D-Ribose improves diastolic function and quality of life in congestive heart failure patients: a prospective feasibility study. *Eur J Heart Fail.* 2003 Oct;5(5):615-9.

Pauly DF, Pepine CJ. D-Ribose as a supplement for cardiac energy metabolism. *J Cardiovasc Pharmacol Ther.* 2000 Oct;5(4):249-58. Review.

Pauly DF, Pepine CJ. D-Ribose as a supplement for cardiac energy metabolism. *J Cardiovasc Pharmacol Ther.* 2000 Oct;5(4):249-58.

Peveler WW, Bishop PA. Effects of ribose as an ergogenic aid. *Int J Sport Nutr Exerc Metab.* 2005 Dec;15(6):653-64.

Raue U., et al., "Effects of ribose supplementation on performance during repeated high-intensity cycle sprints". *Med Sci Sport Exerc.* 2001;33(5):S44.

Seifert JG, Subudhi AW. The role of ribose on oxidative stress during hypoxic exercise: a pilot study. *J Med Food.* 2009 Jun;12(3):690-3. doi: 10.1089/jmf.2008.0065.

Seifert JG, Subudhi AW. The role of ribose on oxidative stress during hypoxic exercise: a pilot study. *J Med Food.* 2009 Jun;12(3):690-3. doi: 10.1089/jmf.2008.0065.

Seifert JG., et al., "The influence of D-ribose ingestion and fitness level on performance and recovery". *J Int Soc Sports Nutr.* 2017; 14: 47.

Seifert JG., et al., "The role of ribose on oxidative stress during hypoxic exercise: a pilot study". *J Med Food.* 2009 Jun;12(3):690-3.

Shechterle LM, Terry KR. The patented uses of D-ribose in cardiovascular diseases. *Recent Pat Cardiovasc Drug Discov.* 2010 Jun;5(2):138-42. Review.

Sinatra ST, Caiazzo C. (D)-Ribose supplementation in the equine: lack of effect on glycated plasma proteins suggesting safety in humans. *J Am Coll Nutr.* 2015;34(2):108-12. doi: 10.1080/07315724.2015.1022459. Epub 2015 Mar 19

Teitelbaum JE1, Johnson C, St Cyr J. The use of D-ribose in chronic fatigue syndrome and fibromyalgia: a pilot study. *J Altern Complement Med.* 2006 Nov;12(9):857-62.

Van Gammeren D., Falk D., Antonio J., "The effects of four weeks of ribose supplementation on body composition and exercise performance in healthy, young, male recreational bodybuilders: a double blind, placebo controlled trial". *Curr Ther Res.* 2002;63(8):486-95.

Zarzecznny R, Brault J. Purine salvage is not reduced during recovery following intense contractions (Abstract). *Med Sci Sports Exerc* (2000) 32:S73.

SAME

Chiang P, Gordon R, Tal J, Zeng G, Doctor B, Pardhasaradhi K, McCann P, *S-Adenosylmethionine and methylation*, in *FASEB J*, vol. 10, n° 4, 1996, pp. 471-80, PMID 8647346.

Finkelstein J, Martin J, *Homocysteine*, in *Int J Biochem Cell Biol*, vol. 32, n° 4, 2000, pp. 385-9, DOI:10.1016/S1357-2725(99)00138-7, PMID 10762063.

Födinger M, Hörl W, Sunder-Plassmann G, Molecular biology of 5,10-methylenetetrahydrofolate reductase, in *J Nephrol*, vol. 13, n° 1, pp. 20-33, PMID 10720211.

Kensuke Ishiguro, et al., "Depletion of S-adenosylmethionine impacts on ribosome biogenesis through hypomodification of a single rRNA methylation". *Nucleic Acids Res.* 2019 May 7; 47(8): 4226-4239.

Loenen W, S-adenosylmethionine: jack of all trades and master of everything?, in *Biochem Soc Trans*, vol. 34, Pt 2, 2006, pp. 330-3, DOI:10.1042/BST20060330, PMID 16545107.

Roje S, S-Adenosyl-L-methionine: beyond the universal methyl group donor, in *Phytochemistry*, vol. 67, n° 15, 2006, pp. 1686-98, DOI:10.1016/j.phytochem.2006.04.019, PMID 16766004

S-adenosylmethionine treatment of depression: a controlled clinical trial. Bell KM1, Plon L, Bunney WE Jr, Potkin SG. *Am J Psychiatry.* 1988 Sep;145(9):1110-4.

Sun-Young Yoon, et al., "S-adenosylmethionine reduces airway inflammation and fibrosis in a murine model of chronic severe asthma via suppression of oxidative stress". *Exp Mol Med.* 2016 Jun; 48(6): e236.

Wei Ding, et al., "Stress-responsive and metabolic gene regulation are altered in low S-adenosylmethionine". *PLoS Genet.* 2018 Nov; 14(11): e1007812.

SUPERAMIDO

A Technological Breakthrough in Sports Nutrition Innovation: a white paper by Professor Jeff Volek. March, 2009

Bhattacharya K, Orton RC, Qi X, Mundy H, Morley DW, Champion MP, et al. A novel starch for the treatment of glycogen storage diseases. *J Inher Metab Dis* 2007; 30:350-7.

Correia CE, Bhattacharya K, Lee PJ, Shuster JJ, Theriaque DW, Shankar MN, et al. Use of modified cornstarch therapy to extend fasting in glycogen storage disease types Ia and Ib. *Am J Clin Nutr* 20 08; 88: 1272-6

Leiper JB., et al., "Improved gastric emptying rate in humans of a unique glucose polymer with gel-forming properties". *Scand J Gastroenterol.* 2000 Nov;35(11):1143-9.

Pannoni N., "The Effect Of Various Carbohydrate Supplements On Postprandial Blood Glucose Response In Female Soccer Players". 2011, University of South Florida

Piehl Aulin K., et al., "Muscle glycogen resynthesis rate in humans after supplementation of drinks containing carbohydrates with low and high molecular masses". *Eur J Appl Physiol.* 2000 Mar;81(4):346-51.

Roberts MD, et al. Ingestion of high molecular weight hydrothermally modified waxy maize starch alters.... Nutrition (2010), doi:10.1016/j.nut.2010.07.008

TAURINA

- Acharya M, Lau-Cam CA. Comparison of the protective actions of N-acetylcysteine, hypotaurine and taurine against acetaminophen-induced hepatotoxicity in the rat. *J Biomed Sci.* (2010)
- Aruoma OI, et al. The antioxidant action of taurine, hypotaurine and their metabolic precursors. *Biochem J.* (1988)
- Balshaw TG, et al. The effect of acute taurine ingestion on 3-km running performance in trained middle-distance runners. *Amino Acids.* (2012)
- Banerjee SP, et al. Neuropsychopharmacological actions of taurine. *Adv Exp Med Biol.* (2013)
- Barbeau A, et al. The neuropharmacology of taurine. *Life Sci.* (1975)
- Beyranvand MR, et al. Effect of taurine supplementation on exercise capacity of patients with heart failure. *J Cardiol.* (2011)
- Bouckennooghe T, Remacle C, Reusens B. Is taurine a functional nutrient. *Curr Opin Clin Nutr Metab Care.* (2006)
- Catena C, et al. Cellular mechanisms of insulin resistance in rats with fructose-induced hypertension *Am J Hypertens.* (2003)
- Chapman RA, Suleiman MS, Earm YE. Taurine and the heart. *Cardiovasc Res.* (1993)
- Chesney RW. Taurine: its biological role and clinical implications. *Adv Pediatr.* (1985)
- Cuisinier C, et al. Effects of guandinoethane sulfonate on contraction of skeletal muscle. *Adv Exp Med Biol.* (2000)
- Das J, et al. Taurine protects rat testes against doxorubicin-induced oxidative stress as well as p53, Fas and caspase 12-mediated apoptosis. *Amino Acids.* (2012)
- Das J, et al. Taurine protects rat testes against NaAsO₂-induced oxidative stress and apoptosis via mitochondrial dependent and independent pathways. *Toxicol Lett.* (2009)
- Devamanoharan PS, Ali AH, Varma SD. Oxidative stress to rat lens in vitro: protection by taurine *Free Radic Res.* (1998)
- Gondo Y, et al. Effect of taurine on mRNA expression of thioredoxin interacting protein in Caco-2 cells. *Biochem Biophys Res Commun.* (2012)
- Guz G, et al. The effect of taurine on renal ischemia/reperfusion injury. *Amino Acids.* (2007)
- Hanna J, et al. Protective effect of taurine against free radicals damage in the rat myocardium. *Exp Toxicol Pathol.* (2004)
- Hayes KC, Carey RE, Schmidt SY. Retinal degeneration associated with taurine deficiency in the cat. *Science.* (1975)
- Higuchi M, et al. Taurine plays an important role in the protection of spermatogonia from oxidative stress. *Amino Acids.* (2012)
- Huxtable RJ. Physiological actions of taurine. *Physiol Rev.* (1992)
- Iio W, et al. Effects of chronic social defeat stress on MAP kinase cascade. *Neurosci Lett.* (2011)
- Iio W, et al. The effects of oral taurine administration on behavior and hippocampal signal transduction in rats. *Amino Acids.* (2012)
- Ito T, et al. Cardiac and skeletal muscle abnormality in taurine transporter-knockout mice. *J Biomed Sci.* (2010)
- Ito T, et al. Taurine depletion caused by knocking out the taurine transporter gene leads to cardiomyopathy with cardiac atrophy. *J Mol Cell Cardiol.* (2008)
- Jacobsen JG, Smith LH. Biochemistry and physiology of taurine and taurine derivatives. *Physiol Rev.* (1968)
- Jana K, Samanta PK, De DK. Nicotine diminishes testicular gametogenesis, steroidogenesis, and steroidogenic acute regulatory protein expression in adult albino rats: possible influence on pituitary gonadotropins and alteration of testicular antioxidant status. *Toxicol Sci.* (2010)
- Jong CJ, Azuma J, Schaffer S. Mechanism underlying the antioxidant activity of taurine: prevention of mitochondrial oxidant production. *Amino Acids.* (2012)
- Jong CJ, et al. Effect of beta-alanine treatment on mitochondrial taurine level and 5-taurinomethyluridine content. *J Biomed Sci.* (2010)
- Kingston R, Kelly CJ, Murray P. The therapeutic role of taurine in ischaemia-reperfusion injury. *Curr Pharm Des.* (2004)
- Kuriyama K, Hashimoto T. Interrelationship between taurine and GABA. *Adv Exp Med Biol.* (1998)
- Lake N. Loss of cardiac myofibrils: mechanism of contractile deficits induced by taurine deficiency. *Am J Physiol.* (1993)
- Lobo MV, Alonso FJ, del Rio RM. Immunohistochemical localization of taurine in the male reproductive organs of the rat. *J Histochem Cytochem.* (2000)
- Manna P, Sinha M, Sil PC. Cadmium induced testicular pathophysiology: prophylactic role of taurine. *Reprod Toxicol.* (2008)
- Manna P, Sinha M, Sil PC. Taurine plays a beneficial role against cadmium-induced oxidative renal dysfunction. *Amino Acids.* (2009)

Miyazaki T., et al., "Optimal and Effective Oral Dose of Taurine to Prolong Exercise Performance in Rat". *Amino Acids*. 2004.

Moloney MA, et al. Two weeks taurine supplementation reverses endothelial dysfunction in young male type 1 diabetics *Diab Vasc Dis Res*. (2010)

Nakashima T, et al. Taurine in the liver. The function of taurine conjugated with bile acids. *Adv Exp Med Biol*. (1996)

Nandhini AT, Anuradha CV. Taurine modulates kallikrein activity and glucose metabolism in insulin resistant rats. *Amino Acids*. (2002)

Nandhini AT, Thirunavukkarasu V, Anuradha CV. Taurine modifies insulin signaling enzymes in the fructose-fed insulin resistant rats. *Diabetes Metab*. (2005)

Pansani MC, et al. Atrophic cardiac remodeling induced by taurine deficiency in Wistar rats *PLoS One*. (2012)

Pasantes-Morales H, et al. Effects of the taurine transport antagonist, guanidinoethane sulfonate, and beta-alanine on the morphology of rat retina. *J Neurosci Res*. (1983)

Perićić D, Manev H, Bujas M. Gonadal hormones and picrotoxin-induced convulsions in male and female rats. *Brain Res*. (1996)

Petrosian AM, Haroutounian JE, Zueva LV. Tauret. A taurine-related endogenous substance in the retina and its role in vision. *Adv Exp Med Biol*. (1996)

Petrosian AM, Haroutounian JE. Taurine as a universal carrier of lipid soluble vitamins: a hypothesis. *Amino Acids*. (2000)

Pion PD, et al. Myocardial failure in cats associated with low plasma taurine: a reversible cardiomyopathy. *Science*. (1987)

Purchas RW, Busboom JR, Wilkinson BH. Changes in the forms of iron and in concentrations of taurine, carnosine, coenzyme Q(10), and creatine in beef longissimus muscle with cooking and simulated stomach and duodenal digestion. *Meat Sci*. (2006)

Ra SG, et al. Additional effects of taurine on the benefits of BCAA intake for the delayed-onset muscle soreness and muscle damage induced by high-intensity eccentric exercise. *Adv Exp Med Biol*. (2013)

Ratamess NA, et al. Effects of an amino acid/creatine energy supplement on the acute hormonal response to resistance exercise. *Int J Sport Nutr Exerc Metab*. (2007)

Ricci C, et al. Mitochondrial DNA damage triggers mitochondrial-superoxide generation and apoptosis. *Am J Physiol Cell Physiol*. (2008)

Rutherford JA, Spriet LL, Stellingwerff T. The effect of acute taurine ingestion on endurance performance and metabolism in well-trained cyclists. *Int J Sport Nutr Exerc Metab*. (2010)

Schaffer SW, Azuma J, Mozaffari M. Role of antioxidant activity of taurine in diabetes. *Can J Physiol Pharmacol*. (2009)

Schaffer SW, et al. Physiological roles of taurine in heart and muscle. *J Biomed Sci*. (2010)

Schmidt SY, Berson EL, Hayes KC. Retinal degeneration in cats fed casein. I. Taurine deficiency. *Invest Ophthalmol*. (1976)

Schuller-Levis G, et al. Taurine protects against oxidant-induced lung injury: possible mechanism(s) of action. *Adv Exp Med Biol*. (1994)

Shao A, Hathcock JN. Risk assessment for the amino acids taurine, L-glutamine and L-arginine *Regul Toxicol Pharmacol*. (2008)

Shrilatha B, Muralidhara. Early oxidative stress in testis and epididymal sperm in streptozotocin-induced diabetic mice: its progression and genotoxic consequences. *Reprod Toxicol*. (2007)

Smith SS, Li J, Son HY, Kim H, H Kwon Y. Taurine prevents oxidative damage of high glucose-induced cataractogenesis in isolated rat lenses. *J Nutr Sci Vitaminol (Tokyo)*. (2007)

Sturman JA. Dietary taurine and feline reproduction and development. *J Nutr*. (1991)

Taurine improves insulin sensitivity in the Otsuka Long-Evans Tokushima Fatty rat, a model of spontaneous type 2 diabetes^{1,2}. Yutaka Nakaya, Asako Minami, Nagakatsu Harada, Sadaichi Sakamoto, Yasuharu Niwa, and Masaharu OhnakaTabassum H, et al. Nephrotoxicity and its prevention by taurine in tamoxifen induced oxidative stress in mice. *Hum Exp Toxicol*. (2007)

Toyoda A, Iio W. Antidepressant-like effect of chronic taurine administration and its hippocampal signal transduction in rats. *Adv Exp Med Biol*. (2013)

Trachtman H, et al. Taurine attenuates renal disease in chronic puromycin aminonucleoside nephropathy. *Am J Physiol*. (1992)

Tsounapi P, et al. Antioxidant treatment with edaravone or taurine ameliorates diabetes-induced testicular dysfunction in the rat. *Mol Cell Biochem*. (2012)

Waldron M., et al., "Oral taurine improves critical power and severe-intensity exercise tolerance". *Aminoacids*. 2019

Waldron M., et al., "The Effects of an Oral Taurine Dose and Supplementation Period on Endurance Exercise Performance in Humans: A Meta-Analysis". *Sports Med*. 2018

Warskulat U, et al. Taurine transporter knockout depletes muscle taurine levels and results in severe skeletal muscle impairment but leaves cardiac function uncompromised. *FASEB J*. (2004)

Wu QD, et al. Taurine prevents high-glucose-induced human vascular endothelial cell apoptosis. *Am J Physiol*. (1999)

Yakimova K, *et al.* Effects of GABA agonists and antagonists on temperature-sensitive neurones in the rat hypothalamus. *J Physiol.* (1996)

Yang J, *et al.* CSD mRNA expression in rat testis and the effect of taurine on testosterone secretion. *Amino Acids.* (2010)

Yang J, *et al.* Effects of taurine on male reproduction in rats of different ages. *J Biomed Sci.* (2010)

Yatabe Y., *et al.*, “Effects of Taurine Administration in Rat Skeletal Muscles on Exercise” *J Orthop Sci.* 2003

Yatabe Y., *et al.*, “Effects of Taurine Administration on Exercise”. *Adv Exp Med Biol.* 2009

Zhang CG, Kim SJ. Taurine induces anti-anxiety by activating strychnine-sensitive glycine receptor in vivo. *Ann Nutr Metab.* (2007)

TÈ VERDE

Acute effectiveness of a "fat-loss" product on substrate utilization, perception of hunger, mood state and rate of perceived exertion at rest and during exercise. Alkhatib A1, Seijo M2, Larumbe E3, Naclerio F2. *J Int Soc Sports Nutr.* 2015 Nov 25;12:44. doi: 10.1186/s12970-015-0105-8.

Da Silva W., *et al.*, “Effect of green tea extract supplementation on exercise-induced delayed onset muscle soreness and muscular damage”. *Physiol Behav.* 2018 Oct 1;194:77-82.

Joseph M Bulmer, *et al.*, “High-intensity interval walking in combination with acute green tea extract supplementation reduces postprandial blood glucose concentrations in physically inactive participants”. First Published September 3, 2018 . <https://doi.org/10.1177/0260106018793049>

Lin-Huang Huang, *et al.*, “Effects of green tea extract on overweight and obese women with high levels of low density-lipoprotein-cholesterol (LDL-C): a randomised, double-blind, and cross-over placebo-controlled clinical trial”. *BMC Complement Altern Med.* 2018 Nov 6;18(1):294.

L-theanine, a Component of Green Tea Prevents 3-Nitropropionic Acid (3-NP)-Induced Striatal Toxicity by Modulating Nitric Oxide Pathway. Jamwal S1,2, Kumar P3. *Mol Neurobiol.* 2016 Mar 9.

Microneedle-mediated intradermal delivery of epigallocatechin-3-gallate. Puri A1, Nguyen HX1, Banga AK1. *Int J Cosmet Sci.* 2016 Mar 24. doi: 10.1111/ics.12320.

Monallisa Alves Ferreira, *et al.*, “Green tea extract outperforms metformin in lipid profile and glycaemic control in overweight women: A double-blind, placebo-controlled, randomized trial”. Clinical and Sports Nutrition Research Laboratory (Labince), Faculty of Nutrition, Federal University of Goias. *Clin Nutr ESPEN.* 2017 Dec;22:1-6.

Nutraceuticals for body-weight management: The role of green tea catechins. Janssens PL1, Hursel R1, Westerterp-Plantenga MS2. *Physiol Behav.* 2016 Feb 1. pii: S0031-9384(16)30039-7. doi: 10.1016/j.physbeh.2016.01.044.

Reduction of body fat and improved lipid profile associated with daily consumption of a Puer tea extract in a hyperlipidemic population: a randomized placebo-controlled trial. Jensen GS1, Beaman JL1, He Y2, Guo Z2, Sun H3. *Clin Interv Aging.* 2016 Mar 24;11:367-76. doi: 10.2147/CIA.S94881. eCollection 2016.

Sadowska-Krępa E, *et al.*, “Effects of medium-term green tea extract supplementation combined with CrossFit workout on blood antioxidant status and serum brain-derived neurotrophic factor in young men: a pilot study”. *J Int Soc Sports Nutr.* 2019 Mar 21;16(1):13.

Tsai TW., *et al.*, “Effect of green tea extract supplementation on glycogen replenishment in exercised human skeletal muscle”. *Br J Nutr.* 2017 May;117(10):1343-1350.

Weight Loss from Green Tea Extracts. Hoofnagle JH1, Wright EC2. *Clin Nutr.* 2016 Feb;35(1):238. doi: 10.1016/j.clnu.2015.09.013. Epub 2015 Oct 19.

TIROSINA

Alonso, Raf. Elevation of urinary catecholamines and their metabolites following tyrosine administration in humans. Andrea G, *et al* Pathogenesis of migraine: role of neuromodulators . *Headache.* (2012)

Baker LB., *et al.*, “Acute effects of dietary constituents on motor skill and cognitive performance in athletes”. *Nutr rev.* 2014

Banderet LE, Lieberman HR Treatment with tyrosine, a neurotransmitter precursor, reduces environmental stress in humans . *Brain Res Bull.* (1989)

Biblioteca Salute Online, 2013; EBSCO CAM Review Board, 2012.

Biological Psychiatry 1982;17(7):781-790

Colzato LS., *et al.*, “Effects of l-Tyrosine on working memory and inhibitory control are determined by DRD2 genotypes: A randomized controlled trial”. *Cortex.* 2016

Colzato LS., *et al.*, “Food for Creativity: Tyrosine Promotes Deep Thinking”. *Psychol Res.* 2015

Deijen JB, *et al* Tyrosine improves cognitive performance and reduces blood pressure in cadets after one week of a combat training course . *Brain Res Bull.* (1999)

Deijen, Wientjes, Vullings, Cloin, e Langefeld, 1999; Neri *et al*, 1995; Sutton, Coill, e Deuster, 2005; svedese

Frings C., et al., "Food for Your Mind? The Effect of Tyrosine on Selective Attention". *J Cogn Enhanc*. 2019

Hase A., et al., "Behavioral and Cognitive Effects of Tyrosine Intake in Healthy Human Adults". *Pharmacol Biochem Behav*. 2015

Jongkee BJ., et al., "Effect of Tyrosine Supplementation on Clinical and Healthy Populations Under Stress or Cognitive demands-A Review". *J Psychiatr rev*. 2015

Jongkee BJ., et al., "People are different: tyrosine's modulating effect on cognitive control in healthy humans may depend on individual differences related to dopamine function". *Front Psych*. 2014

Lehnert H, *et al* Neurochemical and behavioral consequences of acute, uncontrollable stress: effects of dietary tyrosine . *Brain Res*. (1984)

Naef, Moquin, Gratton, e Walker, 2013; Mora-Rodriguez & Coyle, 2000.

Neri DF, *et al* The effects of tyrosine on cognitive performance during extended wakefulness . *Aviat Space Environ Med*. (1995)

Takashi Matsumura, et al., "N-acetyl-L-tyrosine is an intrinsic triggering factor of mitohormesis in stressed animals". *Rep*. 2020

Tumilty L., et al., "Oral tyrosine supplementation improves exercise capacity in the heat". *Arbeitsphysiologie*. 2011

Tyrosine and Stress: Human and Animal Studies

Tyrosine Pretreatment Reverses Hypothermia-Induced Behavioral Depression

Yeghiayan SK, *et al* Tyrosine improves behavioral and neurochemical deficits caused by cold exposure . *Physiol Behav*. (2001)

TRIBULUS TERRESTRIS

Adaikan PG, Gauthaman K, Prasad RN, Ng SC. Proerectile pharmacological effects of Tribulus terrestris extract on the Adimoelja A. Phytochemicals and the breakthrough of traditional herbs in the management of sexual dysfunctions. *Int J* 10:340-59, 2000.

Adimoelja A. Phytochemicals and the breakthrough of traditional herbs in the management of sexual dysfunctions. *Int J* Antonio J, Uelmen J, Rodriguez R, Earnest C. The effects of Tribulus terrestris on body composition and exercise

Arcasoy HB, Erenmemisoglu A, Tekol Y, Kurucu S, Kartal M. Effect of Tribulus terrestris L. saponin mixture on some Aust Vet J. 69:163–165, 1992.

Bourke CA, Stevens GR, Carrigan MJ. Locomotor effects in sheep of alkaloids identified in Australian Tribulus terrestris.

Bourke CA. Staggers in sheep associated with the ingestion of Tribulus terrestris. *Aust Vet J*. 61:360–363, 1984.

Brown GA, Vukovich MD, Reifenrath TA, Uhl NL, Parsons KA, Sharp RL, King DS. Effects of anabolic precursors on Bucci LR. Selected herbals and human exercise performance. *Am J Clin Nutr*. 72:624S-36S, 2000.

Dimitrov M, Georgiev P, Vitanov S. Use of tribestan on rams with sexual disorders. *Vet Med Nauki*. 24:102-110, 1987.

Gamal El Din SF., et al., "Tribulus terrestris versus placebo in the treatment of erectile dysfunction and lower urinary tract symptoms in patients with late-onset hypogonadism: A placebo-controlled study". *Urologia*. 2019

Gendjeiv, Z. Studies on Tribestan carcinogenicity. Scientific-technical report, 1981.

Koumanov, F., E. Bozadjieva, M. Andreeva, E. Platonova, V. Ankov. Clinical trial of Tribestan. *Exper. Med*. 1982, 2.

Ma Y., et al., "Tribulus terrestris extracts alleviate muscle damage and promote anaerobic performance of trained male boxers and its mechanisms: Roles of androgen, IGF-1, and IGF binding protein-3". *J Sport Health Sci*. 2017

Milanov, S., E. Maleeva, M. Tashkov. Tribestan effect on the concentration of some hormones in the serum of healthy subjects (Company documentation)(1981).

Nikolov, R. Neuropharmacological Study on Tribestan. Scientific-technical report, 1981.

performance in resistance-trained males. *Int J Sport Nutr Exerc Metab* 10:208-15, 2000.

Protich, M., D. Tsvetkov, B. Nalbanski, R. Stanislavov, M. Katsarova. Clinical trial of Tribestan in infertile males. Scientific-technical Report, 1981.

rabbit corpus cavernosum. *Ann Acad Med Singapore*. 29(1):22-6, 2000.

serum testosterone concentrations and adaptations to resistance training in young men. *Int J Sport Nutr Exerc Metab*. smooth muscle preparations: a preliminary study. *Boll Chim Farm*. 137:473-5, 1998.

Tanev, G., S. Zarkova, Toxicological studies on Tribestan. Scientific-technical Report, 1981.

Tomova, M., R. Gyulemetova, S. Zarkova - License (11) 27584 AGIR 35/1978.

Tomova, M., R. Gyulemetova, S. Zarkova at al., License 68428/18.I.1985.

Tomova, M., R. Gyulemetova, S. Zarkova. An agent for stimulation of sexual function. Patent (11) 27584 A61K35/1978.

Vankov, S. Apropos of Tribestan pharmacology. Scientific-technical Report, 1980.

Viktorov, Iv., D. Kaloyanov, Al. Lilov, L. Zlatanova, Vl., Kasabov. Clinical investigation on Tribestan in males with disorders in the sexual function MBI, 1982 (in print).

Wang B, Ma L, Liu T. 406 cases of angina pectoris in coronary heart disease treated with saponin of Tribulus terrestris.

Wu Y., et al, "The function of androgen/androgen receptor and insulin growth factor-1/insulin growth factor-1 receptor on the effects of Tribulus terrestris extracts in rats undergoing high intensity exercise". *Mol Med Rep*. 2017

Zhong Xi Yi Jie He Za Zhi. 10:85-7, 1990.

VITAMINA C

- Berger MM., et al., "Vitamin C supplementation in the critically ill patient". *Current Opinion in Clinical Nutrition & Metabolic Care*: March 2015 - Volume 18 - Issue 2 - p 193-201
- Dutra MT., et al., "Review Article. The Effects of Strength Training Combined with Vitamin C and E Supplementation on Skeletal Muscle Mass and Strength: A Systematic Review and Meta-Analysis". *Hindawi Journal of Sports Medicine* Volume 2020, Article ID 3505209, 9 pages
- F. Bobeuf, et al., "Effects of resistance training combined with antioxidant supplementation on fat-free mass and insulin sensitivity in healthy elderly subjects," *Diabetes Research and Clinical Practice*, vol. 87, no. 1, pp. 2009–2011, 2010.
- Gombart, et al., "A Review of Micronutrients and the Immune System—Working in Harmony to Reduce the Risk of Infection". *Review. Nutrients* 2020, 12, 236.
- Righi NC., et al., "Effects of vitamin C on oxidative stress, inflammation, muscle soreness, and strength following acute exercise: meta-analyses of randomized clinical trials". *European Journal of Nutrition*. 2020 Mar 11
- Wang Y., et al., "Effects of different ascorbic acid doses on the mortality of critically ill patients: a meta-analysis". *Ann. Intensive Care*. 2019 May 20;9(1):58.

VITAMINA D

- Antoniak Ae., Greig Ca., "The effect of combined resistance exercise training and vitamin D supplementation on musculoskeletal health and function in older adults: a systematic review", *BMJ Open*, 2017;7(7):e014619
- Arash Hossein-nezhad, MD, PhD and Michael F. Holick, PhD, MD. Vitamin D for Health: A Global Perspective. *Mayo Clin Proc*. 2013 Jul; 88(7): 720–755.
- B Hamilton. Vitamin D and Human Skeletal Muscle. *Scand J Med Sci Sports*. 2010 Apr; 20(2): 182–190.
- Barker T., et al., "Supplemental vitamin D enhances the recovery in peak isometric force shortly after intense exercise", *Nutr Metab*, 2013;6;10(1):69
- Belenchia AM, Tosh AK, Hillman LS, Peterson CA. Correcting vitamin D insufficiency improves insulin sensitivity in obese adolescents: a randomized controlled trial. *American Journal of Clinical Nutrition*. 2013;97(4):774–781.
- Blum M., Dolnikowski G., Seyoum E., Harris S., Booth S., Peterson J., Saltzman E., Dawson-Hughes B. Vitamin D3 in fat tissue. *Endocrine*. 2008;33:90–94.
- Chanet A., et al., "Supplementing Breakfast with a vitamin D and Leucine enriched whey protein medical nutrition drink enhances postprandial muscle protein synthesis and muscle mass in healthy older men", *J Nutr*, 2017;147(12):2262-2271
- Christian M. Girgis, Roderick J. Clifton-Bligh. The Roles of Vitamin D in Skeletal Muscle: Form, Function, and Metabolism. *Endocrine Reviews*, Volume 34, Issue 1
- Cigolini M, Iagulli MP, Miconi V, Galiotto M, Lombardi S, Targher G. Serum 25-hydroxyvitamin D3 concentrations and prevalence of cardiovascular disease among type 2 diabetic patients. *Diabetes Care*. 2006;29(3):722–724.
- D. Sukumar, S.A. Shapses. Vitamin D supplementation during short-term caloric restriction in healthy overweight/obese older women: Effect on glycemic indices and serum osteocalcin levels. *Mol Cell Endocrinol*. 2015 July 15; 410: 73–77.
- Ding C., Gao D., Wilding J., Trayhurn P., Bing C. Vitamin D signalling in adipose tissue. *Br. J. Nutr*. 2012;108:1915–1923.
- Drincic A.T., Armas L.A.G., van Diest E.E., Heaney R.P. Volumetric dilution, rather than sequestration best explains the low vitamin D status of obesity. *Obesity*. 2012;20:1444–1448. doi: 10.1038/oby.2011.404.
- Earthman CP, Beckman LM, Masodkar K, Sibley SD. The link between obesity and low circulating 25-hydroxyvitamin D concentrations: considerations and implications. *International Journal of Obesity*. 2012;36(3):387–396.
- Forman JP, Giovannucci E, Holmes MD, et al. Plasma 25-hydroxyvitamin D levels and risk of incident hypertension. *Hypertension*. 2007;49(5):1063–1069.
- Gangloff A, Bergeron J. Effect of adipose tissue volume loss on circulating 25-hydroxyvitamin D levels: results from a 1-year lifestyle intervention in viscerally obese men. *Int J Obes (Lond)*. 2015 Jun 22. doi: 10.1038/ijo.2015.118.
- Geiker NRW., et al., "Vitamin D status and muscle function among adolescent and young swimmers", *Int J Sport Nutr Exerc Metab*, 2017;27(5):399-407
- Holick MF, Binkley NC, Bischoff-Ferrari HA, et al. Evaluation, treatment, and prevention of vitamin D deficiency: an endocrine society clinical practice guideline. *Journal of Clinical Endocrinology and Metabolism*. 2011;96(7):1911–1930.
- J. Wortsman, L.Y. Matsuoka, T.C. Chen, et al. Decreased bioavailability of vitamin D in obesity
- Jorde R, Sneve M, Torjesen P, Figenschau Y. No improvement in cardiovascular risk factors in overweight and obese subjects after supplementation with vitamin D3 for 1 year: original Article. *Journal of Internal Medicine*. 2010;267(5):462–472.
- Kong J., Li Y.C. Molecular mechanism of 1,25-dihydroxyvitamin D3 inhibition of adipogenesis in 3T3-L1 cells. *Am. J. Physiol. Endocrinol. Metab*. 2006;290:E916–E924. doi: 10.1152/ajpendo.00410.2005.

Ku YC, Liu ME, Ku CS, Liu TY, Lin SL. Relationship between vitamin D deficiency and cardiovascular disease. *World Journal of Cardiology*. 2013;5(9):337–346.

Mitri J, Muraru MD, Pittas AG. Vitamin D and type 2 diabetes: a systematic review. *European Journal of Clinical Nutrition*. 2011;65(9):1005–1015.

Peng L, Malloy P, Feldman D. Identification of a functional vitamin d response element in the human insulin-like growth factor binding protein-3 promoter. *Mol Endocrinol*. 2004;18:1109–1119.

Qingming Song, Igor N. Sergeev. Calcium and vitamin D in obesity. *Nutrition Research Reviews / Volume 25 / Issue 01 / June 2012*, pp 130-141.

Rock C.L., Emond J.A., Flatt S.W., Heath D.D., Karanja N., Pakiz B., Sherwood N.E., Thomson C.A. Weight loss is associated with increased serum 25-hydroxyvitamin D in overweight or obese women. *Obesity*. 2012;20:2296–2301.

Rosen CJ, Adams JS. The nonskeletal effects of vitamin D: an Endocrine Society scientific statement. *Endocr Rev*. 2012 Jun;33(3):456-92. doi: 10.1210/er.2012-1000. Epub 2012 May 17.

Rosenstreich S., Rich C., Volwiler W. Deposition in and release of vitamin D3 from body fat: Evidence for a storage site in the rat. *J. Clin. Invest*. 1971;50:679–687.

Sergeev I. 1,25-dihydroxyvitamin D3 induces Ca²⁺-mediated apoptosis in adipocytes via activation of calpain and caspase-12. *Biochem. Biophys. Res. Commun*. 2009;384:18–21.

Shanely Ra., et al., “Influence of vitamin D mushroom supplementation on exercise induced muscle damage in vitamin D insufficient high school athletes”, *J Sports Sci*, 2014;32(7):670-9

Shara R. Bialo, M.D. Catherine M. Gordon, M.D., M.Sc. The Weight of Vitamin D on Obesity Outcomes: What Do We Know? *Journal of Adolescent Health*. Volume 57, Issue 1, July 2015, Pages 1–2.

Song Q., Sergeev I.N. Calcium and vitamin D in obesity. *Nutr. Res. Rev*. 2012;25:130–141.

Tsogzolmaa Dorjgochoo et al. Genetic variants in vitamin D metabolism-related genes and body mass index: Analysis of genome-wide scan data of ≈7 000 Chinese women. *Int J Obes (Lond)*. 2012 Sep; 36(9): 1252–1255.

Verreijen AM, Verlaan S. A high whey protein-, leucine-, and vitamin D-enriched supplement preserves muscle mass during intentional weight loss in obese older adults: a double-blind randomized controlled trial. *Am J Clin Nutr*. 2015 Feb;101(2):279-86. doi: 10.3945/ajcn.114.090290. Epub 2014 Nov 26.

Wamberg L, Christiansen T. Expression of vitamin D-metabolizing enzymes in human adipose tissue -- the effect of obesity and diet-induced weight loss. *Int J Obes (Lond)*. 2013 May;37(5):651-7. doi: 10.1038/ijo.2012.112. Epub 2012 Jul 17.

Wortsman J., Matsuoka L.Y., Chen T.C., Lu Z., Holick M.F. Decreased bioavailability of vitamin D in obesity. *Am. J. Clin. Nutr*. 2000;72:690–693.

Zhu W., Cai D., Wang Y., Ning L., Hu Q., Qi Y., Ma S., Amarasekara S. Calcium plus vitamin D3 supplementation facilitated fat loss in overweight and obese college students with very-low calcium consumption: A randomized controlled trial. *Nutr. J*. 2013;12:8–12.

Zittermann A, Frisch S, Berthold HK, et al. Vitamin D supplementation enhances the beneficial effects of weight loss on cardiovascular disease risk markers. *American Journal of Clinical Nutrition*. 2009;89(5):1321–1327.

VITARGO

Anderson GH, Catherine NL, Woodend DM, Wolever TM. Inverse association between the effect of carbohydrates on blood glucose and subsequent short-term food intake in young men. *Am J Clin Nutr*. 2002 Nov;76(5):1023-30.

Anderson GH, Catherine NL, Woodend DM, Wolever TM. Inverse association between the effect of carbohydrates on blood glucose and subsequent short-term food intake in young men. *Am J Clin Nutr*. 2002 Nov;76(5):1023-30.

Bosch AN, Dennis SC, Noakes TD. Influence of carbohydrate ingestion on fuel substrate turnover and oxidation during pro- longed exercise. *J Appl Physiol* 1994; 76: 2364-72

Burelle Y, Péronnet F, Charpentier S, et al. Oxidation of an oral [13C]glucose load at rest and prolonged exercise in trained and sedentary subjects. *J Appl Physiol* 1999; 86: 52-60

Casey A, Mann R, Banister K, et al. Effect of carbohydrate ingestion on glycogen resynthesis in human liver and skeletal muscle, measured by (13)C MRS. *Am J Physiol Endocrinol Metab* 2000; 278 (1): E65-75

Coggan AR, Raguso CA, Williams BD, et al. Glucose kinetics during high-intensity exercise in endurance-trained and un- trained humans. *J Appl Physiol* 1995; 78: 1203-7

Costill DL, Bennett A, Branam G, et al. Glucose ingestion at rest and during prolonged exercise. *J Appl Physiol* 1973; 34: 764-9

Friedlander AL, Casazza GA, Horning MA, et al. Training-induced alterations of glucose flux in men. *J Appl Physiol* 1997; 82: 1360-9

Goodpaster BH, Costill DL, Fink WJ, Trappe TA, Jozsi AC, Starling RD, Trappe SW. The effects of pre-exercise starch ingestion on endurance performance. *Int J Sports Med*. 1996 Jul;17(5):366-72.

Goodpaster BH, Costill DL, Fink WJ, Trappe TA, Jozsi AC, Starling RD, Trappe SW. The effects of pre-exercise starch ingestion on endurance performance. *Int J Sports Med*. 1996 Jul;17(5):366-72.

Hawley JA, Dennis SC, Nowitz A, et al. Exogenous carbohydrate oxidation from maltose and glucose ingested during prolonged exercise. *Eur J Appl Physiol* 1992; 64: 523-7

Jeukendrup AE, Borghouts L, Saris WHM, et al. Reduced oxidation rates of orally ingested glucose during exercise after low CHO intake and low muscle glycogen. *J Appl Physiol* 1996; 81: 1952-7

Jeukendrup AE, Raben A, Gijzen A, et al. Glucose kinetics during prolonged exercise in highly trained human subjects: effect of glucose ingestion. *J Physiol (Lond)* 1999; 515: 579-89

Jeukendrup AE, Wagenmakers AJ, Stegen JH, et al. Carbohydrate ingestion can completely suppress endogenous glucose production during exercise. *Am J Physiol* 1999; 276: E672-83

Jeukendrup AE, Wagenmakers AJM, Brouns F, et al. Effects of carbohydrate (CHO) and fat supplementation on CHO metabolism during prolonged exercise. *Metabolism* 1996; 45: 915-21

Krzentowski G, Jandrain B, Pirnay F, et al. Availability of glucose given orally during exercise. *J Appl Physiol* 1984; 56: 315-20

Leiper JB, Aulin KP, Söderlund K. Improved gastric emptying rate in humans of a unique glucose polymer with gel-forming properties. *Scand J Gastroenterol.* 2000 Nov;35(11):1143-9.

Leiper JB., et al., "Improved gastric emptying rate in humans of a unique glucose polymer with gel-forming properties". *Scand J Gastroenterol* 2000;35:1143-1149.

Massicotte D, Péronnet F, Brisson G, et al. Oxidation of exogenous carbohydrate during prolonged exercise in fed and fasted conditions. *Int J Sport Med.* 1990

Massicotte D, Péronnet F, Brisson G, et al. Oxidation of a glucose polymer during exercise: comparison with glucose and fructose. *McArdle, Katch, Katch Exercise Physiology: Nutrition, Energy, and Human Performance.* Lippincott Williams & Wilkins, 2009. p. 102. ISBN 0781797810

McConnell G, Fabris S, Proietto J, et al. Effect of carbohydrate ingestion on glucose kinetics during exercise. *J Appl Physiol* 1994; 77 (3): 1537-41

Moodley D, Noakes TD, Bosch AN, et al. Oxidation of exogenous carbohydrate during prolonged exercise: the effects of the carbohydrate type and its concentration. *Eur J Appl Physiol* 1992; 64: 328-34

Neufer et al. Effects of exercise and carbohydrate composition on gastric emptying. *Med Sci Sports Exerc.* 1986 Dec;18(6):658-62.

Nina Pannoni. The Effect Of Various Carbohydrate Supplements On Postprandial Blood Glucose Response In Female Soccer Players. 2011, University of South Florida

Noakes TD, Rehrer NJ, Maughan RJ. The importance of volume in regulating gastric emptying. *Med Sci Sports Exerc* 1991; 23: 307-13

O'Brien WJ, Rowlands DS. Fructose-maltodextrin ratio in a carbohydrate-electrolyte solution differentially affects exogenous carbohydrate oxidation rate, gut comfort, and performance. *Am J Physiol Gastrointest Liver Physiol.* 2011 Jan;300(1):G181-9. doi: 10.1152/ajpgi.00419.2010. Epub 2010 Nov 11.

Piehl Aulin K, Söderlund K, Hultman E. Muscle glycogen resynthesis rate in humans after supplementation of drinks containing carbohydrates with low and high molecular masses. *Eur J Appl Physiol.* 2000 Mar;81(4):346-51.

Piehl Aulin K., et al., "Muscle glycogen resynthesis rate in humans after supplementation of drinks containing carbohydrates with low and high molecular masses". *Eur J Appl Physiol.* 2000 Mar;81(4):346-51.

Pirnay F, Lacroix M, Mosora F, et al. Effect of glucose ingestion on energy substrate utilization during prolonged exercise in

Rehrer NJ, Brouns F, Beckers EJ, et al. Gastric emptying with repeated drinking during running and bicycling. *Int J Sports Med* 1990; 11: 238-43

Rehrer NJ, Wagenmakers AJM, Beckers EJ, et al. Gastric emptying, absorption and carbohydrate oxidation during prolonged exercise. *J Appl Physiol* 1992; 72: 468-75

Romijn JA, Coyle EF, Sidossis LS, et al. Regulation of endogenous fat and carbohydrate metabolism in relation to exercise intensity. *Am J Physiol* 1993; 265: E380-91

Sands AL, Leidy HJ, Hamaker BR, Maguire P, Campbell WW. Consumption of the slow digesting starch waxy maize leads to blunted and sustained carbohydrate utilization but does not influence energy expenditure or appetite. *FASEB J.* 2008;22:1089.2

Saris WHM, Goodpaster BH, Jeukendrup AE, et al. Exogenous carbohydrate oxidation from different carbohydrate sources during exercise. *J Appl Physiol* 1993; 75: 2168-72

Shi X, Gisolfi CV. Fluid and carbohydrate replacement during intermittent exercise. *Sports Med* 1998; 25: 157-72

Stephens et al. Post-exercise ingestion of a unique, high molecular weight glucose polymer solution improves performance during a subsequent bout of cycling exercise. *Journal of Sports Sciences.* Volume 26, Issue 2, 2008. p 149-154

Stephens FB., et al., "Post-exercise ingestion of a unique, high molecular weight glucose polymer solution improves performance during a subsequent bout of cycling exercise". *Journal of Sports Sciences,* January 15th 2008; 26(2): 149 – 154

Tsintzas K, Williams C. Human muscle glycogen metabolism during exercise: effect of carbohydrate supplementation. *Sports Med* 1998; 25: 7-23

VanLoon LJ, Jeukendrup AE, Saris WH, et al. Effect of training status on fuel selection during submaximal exercise with glucose ingestion. *J Appl Physiol* 1999; 87: 1413-20

Wagenmakers AJM, Brouns F, Saris WHM, et al. Oxidation rates of orally ingested carbohydrates during prolonged exercise in man. *J Appl Physiol* 1993; 75: 2774-80

WAXY MAIZE

Anderson GH., et al., "Inverse association between the effect of carbohydrates on blood glucose and subsequent short-term food intake in young men". *Am J Clin Nutr.* 2002 Nov;76(5):1023-30.

Clinical sport nutrition - Louise Burke

Goodpaster BH., et al., "The effects of pre-exercise starch ingestion on endurance performance". *Int J Sports Med.* 1996 Jul;17(5):366-72.

Pannoni, Nina. "The Effect of Various Carbohydrate Supplements on Postprandial Blood Glucose Response in Female Soccer Players". 2011

Sands AL., et al., "Consumption of the slow-digesting waxy maize starch leads to blunted plasma glucose and insulin response but does not influence energy expenditure or appetite in humans". *Nutr Res.* 2009 Jun;29(6):383-90. doi: 10.1016/j.nutres.2009.05.009.

YOHIMBINA

Berlan M., Le verge R., et al., "Alpha 2-adrenoceptor antagonist potencies of two hydroxylated metabolites of yohimbine". *British Journal of Pharmacology*, 108(4):927-932

Filippi S., Luconi M., et al., "Endothelium-dependency of yohimbe-induced corpus cavernosum relaxation". *International journal of impotence research*, 2002, 14:295-307.

Ostojic SM. "Yohimbine: the effects on body composition and exercise performance in soccer players". *Sports Medicine*, 2006 14(4):289-99

ZMA

Brandão-Neto, J., et al. Zinc acutely and temporarily inhibits adrenal cortisol secretion in humans. A preliminary report. *Biol Trace Elem Res.* 1990 Jan;24(1):83-9.

Brilla LR, Conte, V. A novel zinc and magnesium formulation (ZMA) increases anabolic hormones and strength in athletes. *Sports Med Train and Rehab* (in press). Abstract presented November 14, 1998 at the 18th Annual Meeting of the S.W. Chapter of the ACSM.

Brilla LR, Conte, V. Effects of zinc-magnesium (ZMA) supplementation on muscle attributes of football players. *Med and Sci in Sports and Exercise*, Vol. 31, No. 5, May 1999

Cinar, V., et al. Effects of magnesium supplementation on blood parameters of athletes at rest and after exercise. *Biol Trace Elem Res.* 2007 Mar;115(3):205-12.

Cinar, V., et al. The effects of magnesium supplementation on thyroid hormones of sedentary and Tae-Kwon-Do sportsperson at resting and exhaustion. *Neuro Endocrinol Lett.* 2007 Oct;28(5):708-12.

Haralambie G, et al. *Int J Sports Med*, 1981, 2:135-138

Kilic, M., et al. Effect of fatiguing bicycle exercise on thyroid hormone and testosterone levels in sedentary males supplemented with oral zinc. *Neuro Endocrinol Lett.* 2007 Oct;28(5):681-5.

Kilic, M., et al. Effect of zinc supplementation on hematological parameters in athletes. *Biol Trace Elem Res.* 2004 Jul;100(1):31-8.

Kilic, M., et al. The effect of exhaustion exercise on thyroid hormones and testosterone levels of elite athletes receiving oral zinc. *Neuro Endocrinol Lett.* 2006 Feb-Apr;27(1-2):247-52.

Konig, D., et al. Zinc, iron, and magnesium status in athletes— influence on the regulation of exercise-induced stress and immune function. *Exerc Immunol Rev* 1998;4:2-21

Kwun, I. S., et al. Marginal zinc deficiency in rats decreases leptin expression independently of food intake and corticotrophin-releasing hormone in relation to food intake. *Br J Nutr.* 2007 98(3):485-9

Sazawal, S., et al. Zinc supplementation reduces the incidence of acute lower respiratory infections in infants and pre-school children: a double-blind, controlled trial. *Pediatrics* 102:1–5, 1998.

Shankar, A.H., et al. Zinc and immune function: The biological basis of altered resistance to infection. *Am J Clin Nutr* 68: 447S–463S, 1998.

Singh A, et al. Magnesium, zinc, and copper status of US navy Seal trainees. *Am J Clin Nutr*, 1989 Apr, 49:695:700

Capitoli

ALIMENTAZIONE E ATTIVITÀ FISICA PER LA DONNA IN GRAVIDANZA

B. Sandler R., Slemenda C.W. et al., "Postmenopausal bone density and milk consumption in childhood and adolescence." *Am J Clin Nutr* 1985.

C. Fassler A.L., Bonjour J.P., "Osteoporosis as a pediatric problem." *Pediatric Clin North America* 1995;

CARE Study Group. "Maternal caffeine intake during pregnancy and risk of fetal growth restriction: a large prospective observational study." *BMJ.* 337, 4-8, 2008 - *BMJ.* 337, 6, 2008.

Celotti F., Bignamini A., "Dietary calcium and mineral/vitamin supplementation: a controversial problem." *J. Int. Med. Res.* 27:1-14, 1999.

Consigli speciali per persone speciali 2003 Società Italiana di Nutrizione Umana (SINU). LARN. Livelli di Assunzione di Riferimento di Nutrienti ed energia per la popolazione italiana 2012

Di Sibio Hilary. "Alimentazione in gravidanza", appunti di lezione, corso di formazione ECM SIFA "Allenamento e alimentazione in gravidanza e nel post parto", anno 2019.

Gray R., Henderson J., "Review of the fetal effects of prenatal alcohol exposure." *National Perinatal Epidemiology Unit* 2006.

Heaney R.P., "Thinking straight about calcium." *N Engl J Med* 1993.

Istituto Nazionale di Ricerca per gli Alimenti e la Nutrizione (INRAN). Linee guida per una sana alimentazione.

Jahanfar S., Jaafar S.H., "Plain Language Summaries. Effects of restricted caffeine intake by mother on fetal, neonatal and pregnancy outcome." *Cochrane library* 2013;2.

Johnston C.C. Jr, Miller J.Z., Slemenda C.W. et al., "Calcium supplementation and increase in bone mineral density in children." *N Engl J Med* 1992.

Mancinelli R., Laviola, "Disturbi da esposizione ad alcol in gravidanza: il problema che non c'era" *Rapporti ISTISAN* 08/37. Istituto superiore di sanità, Roma 2008.

Matkovic V., Kostial K., Simonovic I. et al., "Bone status and fracture rates in two regions of Yugoslavia." *Am J Clin Nutr* 1979.

Riggs B.L., Wahner H.W., Melton I. 111 et al., "Dietary calcium intake and rates of bone loss in women." *J Clin Invest* 1987

Sistema Nazionale Linee Guida (SNLG). "Gravidanza Fisiologica." L

Sunda Francesca. "Fitness in gravidanza", appunti di lezione, corso di formazione ECM SIFA "Allenamento e alimentazione in gravidanza e nel post parto", anno 2019.

Waterson E., Murray-Lyon I.M., "Preventing fetal alcohol effects: a trial of three methods of giving information in the antenatal clinic." *Health Educ Res* 1990.

ALIMENTAZIONE E DANZA

Bonbright J.M. "The nutritional status of female ballet dancers 15-18 years old". *Dance Research journal*, Vol.21, no. 20, 9-14 (Autumn 1989).

Bone health and female dancers: physical and nutritional guidelines. International association of dance medicine and science.

Burckhardt P., et al., "The effects of nutrition puberty and dancing on bone density in adolescent ballet dancers". (June 2011). *J. Dance Medicine Sci.*, 15(2), 51-60.

Civil R., et al., "Assessment of dietary intake, energy status, and factors associated with RED-s in vocational female ballet students". (2019). *Frontiers in nutrition*, Vol. 5.

De Paolis S. "Eating for energy and optimal performance". *Healthy Dancer Canada: the Dance Health Alliance of Canada.* (2011).

Elliott-Sale K.J., et al., "Endocrine effects of relative Energy deficiency in sport". *International journal of relative energy deficiency in sport nutrition and exercise metabolism*, 28, 335-349. (2018.)

Hamilton H.L., et al., "The impact of thinness and dieting on the professional ballet dancer". *Medical problems of performing artists.*, 117-122. (Dec. 1989).

Keuneman M.R. "Risk factors for bone mineral degradation in a young female dancers". *J. Dance Medicine and Science*, 11(4), 124-128. (2007).

Strinberg N., et al., "Growth and development of female dancers aged 8.16 years". *Am.J.Hum.biol.*, 20(3), 299-307. (2008).

ALIMENTAZIONE E INTEGRAZIONE PER IL WEIGHTLIFTING

Bird, S. "Strength nutrition: maximizing your anabolic potential". *Strength & Conditioning Journal*, 32(4), 80-86. 2010.

Buford T. W., et al., "International Society of Sports Nutrition position stand: creatine supplementation and exercise". *Journal of the International Society of Sports Nutrition*, 4(1), 6. 2007.

Burke L. M., et al., "Relative energy deficiency in sport in male athletes: A commentary on its presentation among selected groups of male athletes". *International journal of sport nutrition and exercise metabolism*, 28(4), 364-374. 2018.

Cooper R., et al., "Creatine supplementation with specific view to exercise/sports performance: an update". *Journal of the International Society of Sports Nutrition*, 9(1), 33. 2012.

Gil J. H., & Kim, C. K. "Effects of different doses of leucine ingestion following eight weeks of resistance exercise on protein synthesis and hypertrophy of skeletal muscle in rats". *Journal of exercise nutrition & biochemistry*, 19(1), 31. 2015.

Goldstein E. R., et al., "International society of sports nutrition position stand: caffeine and performance". *Journal of the International Society of Sports Nutrition*, 7(1), 5. 2010.

Grgic J., et al., "Effects of caffeine intake on muscle strength and power: a systematic review and meta-analysis". *Journal of the International Society of Sports Nutrition*, 15(1), 11. 2018.

Helms E. R., et al., "A systematic review of dietary protein during caloric restriction in resistance trained lean athletes: a case for higher intakes". *International journal of sport nutrition and exercise metabolism*, 24(2), 127-138. 2014.

Hoffman J. R., et al., "Effect of protein intake on strength, body composition and endocrine changes in strength/power athletes". *Journal of the International Society of Sports Nutrition*, 3(2), 12. 2006.

Jakubowski J. S., et al., "Equivalent Hypertrophy and Strength Gains in β -Hydroxy- β -Methylbutyrate-or Leucine-supplemented Men". *Medicine and science in sports and exercise*, 51(1), 65. 2019.

Jouris K. B., et al., "The effect of omega-3 fatty acid supplementation on the inflammatory response to eccentric strength exercise". *Journal of sports science & medicine*, 10(3), 432. 2011.

Kirmse M., et al., "Prolonged collagen peptide supplementation and resistance exercise training affects body composition in recreationally active men". *Nutrients*, 11(5), 1154. 2019.

Leveritt M., & Abernthy P. J. "Effects of carbohydrate restriction on strength performance". *The Journal of Strength & Conditioning Research*, 13(1), 52-57. 1999.

Loucks A. B., et al., "Energy availability in athletes". In *Food, Nutrition and Sports Performance III* (pp. 15-24). Routledge. 2013.

Loucks AB, et al., Energy availability in athletes. *J Sports Sci*. 2011; 29 Suppl 1:S7-15.

Macnaughton L. S., et al., "The response of muscle protein synthesis following whole-body resistance exercise is greater following 40 g than 20 g of ingested whey protein". *Physiological reports*, 4(15). 2016.

Maughan R. J., et al., "IOC consensus statement: dietary supplements and the high-performance athlete". *International journal of sport nutrition and exercise metabolism*, 28(2), 104-125. 2018.

Mountjoy M., et al., "IOC consensus statement on relative energy deficiency in sport (RED-S): 2018 update". *British Journal of Sports Medicine*. 2018.

Murray B., & Rosenbloom C. "Fundamentals of glycogen metabolism for coaches and athletes". *Nutrition reviews*, 76(4), 243-259. 2018.

Sallinen J., et al., "Relationship between diet and serum anabolic hormone responses to heavy-resistance exercise in men". *International journal of sports medicine*, 25(08), 627-633. 2004.

Schoenfeld B. J., et al., "The effect of protein timing on muscle strength and hypertrophy: a meta-analysis". *Journal of the International Society of Sports Nutrition*, 10(1), 53. 2013.

Slater G., & Phillips S. M. "Nutrition guidelines for strength sports: sprinting, weightlifting, throwing events, and bodybuilding". In *Food, Nutrition and Sports Performance III* (pp. 75-86). Routledge. 2013.

Stark M., et al., "Protein timing and its effects on muscular hypertrophy and strength in individuals engaged in weight-training". *Journal of the International Society of Sports Nutrition*, 9(1), 54. 2012.

Sygo J., et al., "Fueling for the field: Nutrition for jumps, throws, and combined events". *International journal of sport nutrition and exercise metabolism*, 29(2), 95-105. 2019.

Thomas D. T., et al., "Position of the Academy of Nutrition and Dietetics, Dietitians of Canada, and the American College of Sports Medicine: nutrition and athletic performance". *Journal of the Academy of Nutrition and Dietetics*, 116(3), 501-528. 2016.

Thomas D. T., et al., American College of Sports Medicine Joint Position Statement. Nutrition and Athletic Performance. *Medicine and science in sports and exercise*, 48(3), 543-568. 2016.

Trexler E. T., et al., "International society of sports nutrition position stand: Beta-Alanine". *Journal of the International Society of Sports Nutrition*, 12(1), 30. 2015.

Volek J. S., et al., "Testosterone and cortisol in relationship to dietary nutrients and resistance exercise". *Journal of Applied Physiology*, 82(1), 49-54. 1997.

ALIMENTAZIONE E INTEGRAZIONE PER LA CELLULITE

Alberto Massirone. "Trattato di medicina estetica" (ed. Piccin) Aprile 2010

Basheer, Mohamed Khadeer Ahamed, Majid, Amin Malik Shah Abdul., "Medicinal potentials of *Orthosiphon stamineus* Benth." January 2010

Denis M.C., Furtos A., Dudonné S., Montoudis A., Garofalo C., Desjardins Y., Delvin E., Levy E., "Apple peel polyphenols and their beneficial actions on oxidative stress and inflammation." *PLoS One*. 2013;8(1):e53725. Epub 2013 Jan 23.

Domenico Amoruso. "La cellulite. L'alzheimer della pelle" OM Edizioni anno edizione 2018

Eugenio Luigi Iorio., "La modulazione fisiologica di ossigeno on demand. L'ultima sfida della nutraceutica. Basi scientifiche ed esperienze cliniche." Editore: Edra 2015

Mathew S., Abraham T.E., “In vitro antioxidant activity and scavenging effects of Cinnamomum verum leaf extract assayed by different methodologies.” *Food Chem Toxicol.* 2006 Feb;44(2):198-206. Epub 2005 Aug 8.

MBell D. R., & Gochenaur K., “Direct vasoactive and vasoprotective properties of anthocyanin-rich extracts.” *Journal of Applied Physiology*, 100(4), 1164-1170. (2006).

R. Colombo, E. Olmo “*Biologia dei tessuti* “ 2007 Edi-Ermes

Skarpańska-Stejnborn Anna, et al., “Effects of cranberry (*Vaccinium macrocarpon*) supplementation on iron status and inflammatory markers in rowers.” *Journal of the International Society of Sports Nutrition*, 2017, 14.1: 7.

Stallknecht B., Dela F., Helge J.W., “Are blood flow and lipolysis in subcutaneous adipose tissue influenced by contractions in adjacent muscles in humans?” *Am J Physiol Endocrinol Metab.* 2007 Feb;292(2):E394-9. Epub 2006 Sep 19.

ALIMENTAZIONE E INTEGRAZIONE PER L'ATLETA SENIOR

Kouw I.W., Holwerda, et al. (2017). Protein Ingestion Before Sleep Increases Overnight Muscle Protein Synthesis Rates in Healthy Older Men: A Randomized Controlled Trial. *The Journal of Nutrition*.

ALIMENTAZIONE E RITMI CIRCADIANI

Andrew W.McHill, Andrew JK.Phillips et al., “Later circadian timing of food intake is associated with increased body fat”. *Am J Clin Nutr.* 2017

Antonio Paoli, Grant Tinsley, et al., “The Influence of Meal Frequency and Timing on Health in Humans: The Role of Fasting” (2019)

Baokun He, Kazunari Nohara, et al., “The Small Molecule Nobiletin Targets the Molecular Oscillator to Enhance Circadian Rhythms and Protect against Metabolic Syndrome”. *Cell Metabolism* 23, 610–621 April 12, 2016

Etienne Challet “The circadian regulation of food intake”. (2019) <https://doi.org/10.1038/s41574-019-0210-x>

Katarzyna Patrycja Dzik, Wojciech Skrobot, et al., “Vitamin D Deficiency Is Associated with Muscle Atrophy and Reduced Mitochondrial Function in Patients with Chronic Low Back Pain”. *Hindawi Oxidative Medicine and Cellular Longevity* Volume 2019

Kul S., Savas E., Öztürk ZA., et al., “Does Ramadan fasting alter body weight and blood lipids and fasting blood glucose in a healthy population? A meta-analysis”. *J Relig Health.* 2014;53:929–42.

Mohammad Hossein Rouhani, Leila Azadbakht, et al., “Is Ramadan fasting related to health outcomes? A review on the related evidence”. *Res Med Sci.* 2014 Oct; 19(10): 987–992.

Poggiogalle E., Jamshed H., et al., “Circadian regulation of glucose, lipid, and energy metabolism in humans”. *Metabolism.* 2018 Jul;84:11-27.

Romon M., Edme JL., et al., “Circadian variation of diet-induced thermogenesis”. *Am J Clin Nutr.* 1993 Apr;57(4):476-80

Sutton EF., Beyl R. “Early Time-Restricted Feeding Improves Insulin Sensitivity, Blood Pressure, and Oxidative Stress Even without Weight Loss in Men with Prediabetes”. *Cell Metab.* 2018

Tiinamaija Tuomi, Cecilia L.F. Nagorny et al. Increased Melatonin Signaling Is a Risk Factor for Type 2 Diabetes Tuomi et al., 2016, *Cell Metabolism* 23, 1067–1077

Wen Cai, Juliette Rambaud, et al., “Expression Levels of Estrogen Receptor Are Modulated by Components of the Molecular Clock”. *MOLECULAR AND CELLULAR BIOLOGY*, Jan. 2008, p. 784–793

Yukie Tsuchida, Sawa Hata, et al., “Effects of a late supper on digestion and the absorption of dietary carbohydrates in the following morning”. *Journal of Physiological Anthropology* volume 32, Article number: 9 (2013)

Ziv Zwihaft, Rona Aviram, et al., “Circadian Clock Control by Polyamine Levels through a Mechanism that Declines with Age”. 2015, *Cell Metabolism* 22, 874–885 November 3, 2015 a2015 Elsevier Inc.

ALIMENTAZIONE NEL BODYBUILDING

Antonio J., Ellerbroek A., Silver T., et al., “A high protein diet (3.4 g/Kg/d) combined with a heavy resistance training program improves body composition in healthy trained men and women – a follow-up investigation”. *J Int Soc Sports Nutr* 12, 39 (2015) doi:10.1186/s12970-015-0100-0

Arciero PJ., et al., “Increased protein intake and meal frequency reduces abdominal fat during energy balance and energy deficit”. (Silver Spring). 2013 Jul;21(7):1357-66. Epub 2013 May 23.

Elia M., Stubbs RJ., Henry CJ., “Differences in fat, carbohydrate, and protein metabolism between lean and obese subjects undergoing total starvation”. *Obes Res.* 1999 Nov;7(6):597-604.

N. Ruderman, et al., “The metabolically obese, normal-weight individual revisited”. *Diabetes* 1998 May; 47(5): 699-713.

ALIMENTAZIONE PER LA MASSA

Bandegan A., et al., Indicator Amino Acid- Derived Estimate of Dietary Protein Requirement for Male Bodybuilders on a Nontraining Day is Several- Fold Greater Than The Current Recommended Dietary Allowance. *The Journal of Nutrition*, 2017.

ALIMENTAZIONE, INTEGRAZIONE E ALLENAMENTO DURANTE IL CICLO MESTRUALE

C. L. Ogden, et al., "Prevalence of childhood and adult obesity in the United States, 2011-2012," *The Journal of the American Medical Association*, vol. 311, no. 8, pp. 806–814, 2014

Després, et al., "Physical training and changes in regional adipose tissue distribution". *Acta Med Scand Suppl.* 1988;723:205-12.

E. Falaschetti, et al., "Adiposity and cardiovascular risk factors in a large contemporary population of pre-pubertal children," *European Heart Journal*, vol. 31, no. 24, pp. 3063–3072, 2010.

Haugaard, et al., "Intramycocellular triglyceride content in man, influence of sex, obesity and glycaemic control". *Eur J Endocrinol.* 2009 Jul;161(1):57-64.

M. M. Kelsey, et al., "Age-related consequences of childhood obesity," *Gerontology*, vol. 60, no. 3, pp. 222–228, 2014.

Massimo Spattini "La Dieta COM e il Dimagrimento Localizzato" *Tecniche Nuove* 2012.

R. Weiss, "Impaired glucose tolerance and risk factors for progression to type 2 diabetes in youth," *Pediatric Diabetes*, vol. 8, supplement 9, pp. 70–75, 2007.

T. H. Inge, et al., "The effect of obesity in adolescence on adult health status," *Pediatrics*, vol. 132, no. 6, pp. 1098–1104, 2013.

T. Okura, Y. Nakata, K. Yamabuki, and K. Tanaka, "Regional body composition changes exhibit opposing effects on coronary heart disease risk factors," *Arteriosclerosis, Thrombosis, and Vascular Biology*, vol. 24, no. 5, pp. 923–929,

Van Aggel-Leijssen, et al., "The effect of low-intensity exercise training on fat metabolism of obese women". *Obes Res.* 2001 Feb;9(2):86-96.

DIGIUNO INTERMITTENTE

Anton SD., et al., "Flipping the metabolic switch: understanding and applying health benefits of fasting". *Obesity (Silver Spring)*. 2018;26(2):254-268.

Aon MA., et al., "Mitochondrial health, the epigenome and healthspan". *Clin Sci (Lond)*. 2016;130(15):1285-1305.

Besse-Patin A., et al., "PGC1A regulates the IRS1:IRS2 ratio during fasting to influence hepatic metabolism downstream of insulin". *Proc Natl Acad Sci U S A*. 2019;116(10):4285-4290.

Brandhorst S., et al., "A periodic diet that mimics fasting promotes multi-system regeneration, enhanced cognitive performance, and healthspan". *Cell Metab.* 2015;22(1):86-99.

Carter S., Clifton PM., Keogh JB. "Effect of intermittent compared with continuous energy restricted diet on glycemic control in patients with type 2 diabetes: a randomized noninferiority trial". *JAMA Netw Open*. 2018;1(3):e180756.

Conley M., et al., "Is two days of intermittent energy restriction per week a feasible weight loss approach in obese males? A randomized pilot study". *Nutri Diet.* 2018;75(1):65-72.

Gill, S.; Panda, S. "A Smartphone App Reveals Erratic Diurnal Eating Patterns in Humans that Can Be Modulated for Health Benefits". *Cell Metab.* 2015, 22, 789–798.

Glazier JD., Hayes DJL., Hussain S. "The effect of Ramadan fasting during pregnancy on perinatal outcomes: a systemic review and meta-analysis". *BMC Pregnancy Childbirth*. 2018;18:421.

Hoddy KK, et al. "Meal timing during alternate day fasting: Impact on body weight and cardiovascular disease risk in obese adults". *Obesity (Silver Spring)* 2014;22(12):2524–31.

Intermittent fasting has benefits beyond weight loss. *Cleveland Clinic*. <https://health.clevelandclinic.org/interested-fasting-health-get-facts-first/>. Published October 23, 2015.

Jakubowicz D, et al., "High-energy breakfast with low-energy dinner decreases overall daily hyperglycaemia in type 2 diabetic patients: a randomised clinical trial". *Diabetologia*. 2015;58:912–919.

Kanikarla-Marie P., Jain SK., "Hyperketonemia and ketosis increase risk of complications in type 1 diabetes. *Free Radic Biol Med*. 2016;95:268-277.

Kovac S., et al., "Nrf2 regulates ROS production by mitochondria and NADPH oxidase". *Biochim Biophys Acta*. 2015;1850(4):794-801.

Lettieri-Barbato D., et al., "Time-controlled fasting prevents aging-like mitochondrial changes induced by persistent dietary fat overload in skeletal muscle". *PLoS One*. 2018;13(5):e0195912.

Lopez-Jimenez F. "Fasting diet: can it improve my heart health?" *Mayo Clinic*. <https://www.mayoclinic.org/diseases-conditions/heart-disease/expert-answers/fasting-diet/faq-20058334>. Published January 9, 2019. Accessed February 10, 2020.

Madkour MI., et al., "Ramadan diurnal intermittent fasting modulates SOD2, TFAM, Nrf2, and sirtuins (SIRT 1, SIRT3) gene expressions in subjects with overweight and obesity". *Diabetes Res Clin Pract*. 2019;155:107801.

Mattson MP., Longo VD., Harvie M., “Impact of intermittent fasting on health and disease processes”. *Ageing Res Rev.* 2017;39:56-58.

Moro T, et al., “Effects of eight weeks of time-restricted feeding (16/8) on basal metabolism, maximal strength, body composition, inflammation, and cardiovascular risk factors in resistance-trained males”. *J Transl Med.* 2016;14:290.

Moro, T. et al., “Effects of eight weeks of time-restricted feeding (16/8) on basal metabolism, maximal strength, body composition, inflammation, and cardiovascular risk factors in resistance-trained males”. *J. Transl. Med.* 2016, 14, 290.

Morris CJ, et al., “The Human Circadian System Has a Dominating Role in Causing the Morning/Evening Difference in Diet-Induced Thermogenesis”. *Obesity (Silver Spring)* 2015a;23:2053–2058.

National Institute on Aging. “Calorie restriction and fasting diets: what do we know?” US Department of Health and Human Services. <https://www.nia.nih.gov/health/calorie-restriction-and-fasting-diets-what-do-we-know>. Published August 14, 2018. Accessed February 10, 2020.

Poggiogalle E, Jamshed H, Peterson CM. “Circadian regulation of glucose, lipid, and energy metabolism in humans”. *Metabolism* 2018a.

Polak J., et al., “Acute Exposure to Long-Chain Fatty Acids Impairs α 2-adrenergic Receptor-Mediated Antilipolysis in Human Adipose Tissue”. *J Lipid Res.* 2007 Oct;48(10):2236-46.

Ruiz-Lozano T, et al., “Timing of food intake is associated with weight loss evolution in severe obese patients after bariatric surgery”. *Clin Nutr.* 2016;35:1308–1314.

Ryoo IG., Kwak MK., “Regulatory crosstalk between the oxidative stress-related transcription factor Nfe2I2/Nrf2 and mitochondria”. *Toxicol Appl Pharmacol.* 2018;359:24-33.

Serasinghe MN., Chipuk JE., “Mitochondrial fission in human diseases”. *Handb Exp Pharmacol.* 2017;240:159-188.

Sutton et al. “Early Time-Restricted Feeding Improves Insulin Sensitivity, Blood Pressure, and Oxidative Stress Even Without Weight Loss in Men With Prediabetes”. *Controlled Clinical Trial. Cell Metab.* 2018 Jun 5;27(6):1212-1221.e3.

Tinsley GM, et al., “Time-restricted feeding in young men performing resistance training: A randomized controlled trial”. *Eur J Sport Sci.* 2017;17:200–207.

Villena JA. “New insights into PGC-1 coactivators: redefining their role in the regulation of mitochondrial function and beyond”. *FEBS J.* 2015;282(4):647-672.

Wei M., et al., “Fasting-mimicking diet and markers/risk factors for aging, diabetes, cancer, and cardiovascular disease”. *Sci Transl Med.* 2017;9(377):pii:eaai8700.

Weir HJ., et al., “Dietary restriction and AMPK increase lifespan via mitochondrial network and peroxisome remodeling”. *Cell Metab.* 2017;26(6):884-896.e5.

Zubrzycki A., et al., “The role of low-calorie diets and intermittent fasting in the treatment of obesity and type-2 diabetes”. *J Physiol Pharmacol.* 2018;69(5).

INTEGRAZIONE PER IL SISTEMA IMMUNITARIO

6 rimedi casalinghi per alleviare il mal di gola. Penn Medicine. Pubblicato l'8 gennaio 2018. <https://www.pennmedicine.org/updates/blogs/health-and-wellness/2018/february/sore-throat>

Abitudini sane per aiutare a prevenire l'influenza. Centri per il controllo e la prevenzione delle malattie. Recensito il 7 novembre 2019. <https://www.cdc.gov/flu/prevent/actions-prevent-flu.htm>

Bergman P., et al., “Infezioni da vitamina D e vie respiratorie: una revisione sistematica e una meta-analisi di studi randomizzati controllati”. *PLoS One* . 2013; 8 (6): e65835. doi: 10.1371 / journal.pone.0065835

Besedovsky L., Lange T., Born J., “Sonno e funzione immunitaria”. *Pflugers Arch* . 2011; 463 (1): 121-137. doi: 10.1007 / s00424-011-1044-0

Biesalski HK., Nohr D., “Importanza della vitamina A per la funzione polmonare e lo sviluppo”. *Mol Aspects Med* . 2003; 24 (6): 431-440. doi: 10.1016 / s0098-2997 (03) 00039-6

Cannell JJ., Vieth R., Umhau JC., et al., “Influenza epidemica e vitamina D”. *Epidemiol Infect* . 2006; 134 (6): 1129-1140. doi: 10.1017 / S0950268806007175

Clinton CC. “Preparati per la stagione influenzale naturalmente. Associazione americana dei medici naturopati”. Pubblicato il 29 ottobre 2012. http://aanpsite.qa.membershipsoftware.org/article_content.asp?article=779

Cosa succede quando il tuo sistema immunitario viene stressato? Clinica Cleveland. Pubblicato il 1 marzo 2017. <https://health.clevelandclinic.org/what-happens-when-your-immune-system-gets-stressed-out/>

Davis JM., et al., “La quercetina riduce la suscettibilità alle infezioni influenzali a seguito di esercizi stressanti”. *Am J Physiol Regul Integr Comp Physiol* . 2008; 295 (2): R505-R509. doi: 10.1152 / ajpregu.90319.2008

Esercizio fisico e immunità. MedlinePlus. Aggiornato il 4 marzo 2020. <https://medlineplus.gov/ency/article/007165.htm>

Fitonutrienti. Valori nutrizionali. <https://nutritionfacts.org/topics/phytonutrients/>

Gleeson M. “Effetti dell'esercizio fisico sulla funzione immunitaria e rischio di infezione”. Mysportscience. Pubblicato il 26 settembre 2016. <http://www.mysportscience.com/single-post/2016/09/25/Strategies-to-reduce-illness-risk-in-athletes-Part-1- Behavioral-stile di vita-e-medici-strategie>

Goggin R., et al., "Argento colloidale: un nuovo trattamento per i biofilm di *Staphylococcus aureus* ?" *Int Forum Allergy Rhinol* . 2014; 4 (3): 171-175. doi: 10.1002 / alr.21259

Goldman RD. Canadian Pediatric Society, Drug Therapy and Hazardous Substances Committee. Curare la tosse e il raffreddore: guida per gli operatori sanitari di bambini e giovani. *Paediatr Child Health* . 2011; 16 (9): 564-569. doi: 10.1093 / pch / 16.9.564

Griffin J., Akpan N., "Per quanto tempo i virus del raffreddore e dell'influenza rimangono contagiosi sulle superfici pubbliche?" *PBS NewsHour*. Pubblicato il 17 dicembre 2018. <https://www.pbs.org/newshour/science/how-long-do-cold-and-flu-viruses-stay-contagious-on-public-surfaces>

Hao Q., Dong BR., Wu T., "Probiotici per prevenire le infezioni acute del tratto respiratorio superiore". *Database Cochrane Syst Rev*. 2015; (2): CD006895. doi: 10.1002 / 14651858.CD006895.pub3

Hemilä H. "Vitamina C e infezioni". *Nutrienti* . 2017; 9 (4): E339. doi: 10.3390 / nu9040339

Higdon J., et al., "Vitamin A". *Linus Pauling Institute*. Recensione del marzo 2015.. <https://lpi.oregonstate.edu/mic/vitamins/vitamin-A>

Higdon J., et al., "Vitamina C". *Linus Pauling Institute*. Recensione del dicembre 2018. <https://lpi.oregonstate.edu/mic/vitamins/vitamin-C>

Hojdak L., et al., "Lactobacillus GG nella prevenzione delle infezioni nosocomiali del tratto gastrointestinale e respiratorio". *Pediatrics* 2010; 125 (5): E1171-e1177. doi: 10.1542 / peds.2009-2568

Hulisz D. "Efficacia dello zinco contro i comuni virus del raffreddore: una panoramica". *J Am Pharm Assoc* (2003) . 2004; 44 (5): 594-603. doi: 10.1331 / 1544-3191.44.5.594.hulisz

Josling P. "Prevenire il raffreddore comune con un supplemento di aglio: un sondaggio in doppio cieco, controllato con placebo". *Adv Ther* . 2001; 18 (4): 189-193. doi: 10.1007 / bf02850113

Liquirizia. *Michigan Medicine*. Pubblicato il 22 ottobre 2014. <https://www.uofmhealth.org/health-library/d04424a1-d04424a1-Header>

Martineau AR., et al., "Supplemento di vitamina D per prevenire le infezioni acute del tratto respiratorio: revisione sistematica e meta-analisi dei dati dei singoli partecipanti". *BMJ* . 2017; 356: i6583. doi: 10.1136 / bmj.i6583

Mijnendonckx K., et al., "Argento antimicrobico: usi, tossicità e potenziale resistenza". *Biometals* . 2013; 26 (4): 609-621. doi: 10.1007 / s10534-013-9645-z

Nantz MP., et al., "L'integrazione con estratto di aglio invecchiato migliora sia la funzione delle cellule NK che quelle T e riduce la gravità dei sintomi del raffreddore e dell'influenza: un intervento nutrizionale randomizzato, in doppio cieco, controllato con placebo". *Clin Nutr* . 2012; 31 (3): 337-344. doi: 10.1016 / j.clnu.2011.11.019

Olson EJ. "Mancanza di sonno: può farti star male?" *Mayo Clinic*. Pubblicato il 28 novembre 2018. <https://www.mayoclinic.org/diseases-conditions/insomnia/expert-answers/lack-of-sleep/faq-20057757>

Ooi ML., et al. "Argento colloidale topico per il trattamento della rinosinusite cronica recalcitrante". *Microbiol anteriore* . 2018; 9: 720. doi: 10.3389 / fmicb.2018.00720

Percival SS. "L'estratto di aglio invecchiato modifica l'immunità umana". *J Nutr* . 2016; 146 (2): 433S-436S. doi: 10.3945 / jn.115.210427

Perry KA., et al., "Persistenza del virus dell'influenza A (H1N1) su superfici in acciaio inossidabile". *Appl Environ Microbiol* . 2016; 82 (11): 3239-3245. doi: 10.1128 / AEM.04046-15

Porter RS., Bode RF., "Una revisione delle proprietà antivirali dei prodotti di sambuco nero (*Sambucus nigra* L.)". *Phytother Res* . 2017; 31 (4): 533-554. doi: 10.1002 / ptr.5782

Prasad AS. "Lo zinco è un agente antiossidante e antinfiammatorio: il suo ruolo nella salute umana". *Front Nutr* . 2014; 1: 14. doi: 10.3389 / fnut.2014.00014

Raffreddori comuni: proteggiti te stesso e gli altri. Centri per il controllo e la prevenzione delle malattie. Recensito l'11 febbraio 2019. <https://www.cdc.gov/features/rhinoviruses/index.html>

Rondanelli M., et al., "Cura di sé per i raffreddori comuni: il ruolo chiave di vitamina D, vitamina C, zinco ed echinacea in tre principali cluster interattivi immunitari (barriere fisiche, immunità innata e adattativa) coinvolti durante un episodio di raffreddori comuni: consigli pratici su dosaggi e il tempo di assumere questi nutrienti / vegetali per prevenire o curare i raffreddori comuni". *Evid Based Complement Alternat Med* . 2018; 5:813.095. doi: 10.1155 / 2018/5813095

Schapowal A., et al., "L'echinacea riduce il rischio di infezioni e complicanze ricorrenti del tratto respiratorio: una meta-analisi di studi randomizzati controllati". *Adv Ther* . 2015; 32 (3): 187-200. doi: 10.1007 / s12325-015-0194-4

Sibley C. "Sambuco: un potente rimedio contro il raffreddore e l'influenza?" *Tempi di farmacia* . Pubblicato 19 ottobre 2017. <https://www.pharmacytimes.com/contributor/cate-sibley-pharmd/2017/10/elderberries-a-potent-cold-and-flu-remedy>

Steinbrenner H., et al., "Selenio dietetico nella terapia adiuvante delle infezioni virali e batteriche". *Adv Nutr* . 2015; 6 (1): 73-82. doi: 10.3945 / an.114.007575

Tiralongo E., Wee SS., Lea RA. "L'integrazione di sambuco riduce la durata e i sintomi del raffreddore nei viaggiatori aerei: uno studio clinico randomizzato, in doppio cieco, controllato con placebo". *Nutrienti* . 2016; 8 (4): 182. doi: 10.3390 / nu8040182

Wang Y., et al., "Probiotici per la prevenzione e il trattamento delle infezioni del tratto respiratorio nei bambini: una revisione sistematica e una meta-analisi di studi randomizzati controllati". *Medicina (Baltimora)* . 2016; 95 (31): e4509. doi: 10.1097 / MD.0000000000004509

Yaribeygi H., et al., “L’impatto dello stress sulla funzione del corpo: una revisione”. EXCLI J. 2017; 16: 1057-1072. doi: 10.17179 / exclj2017-480

Zakay-Rones Z., et al., “Studio randomizzato sull’efficacia e la sicurezza dell’estratto di sambuco orale nel trattamento delle infezioni da virus A e B”. J Int Med Res . 2004; 32 (2): 132-140. doi: 10.1177 / 147323000403200205

Zhang XF., et al., “Nanoparticelle di argento: sintesi, caratterizzazione, proprietà, applicazioni e approcci terapeutici”. Int J Mol Sci . 2016; 17 (9): E1534. doi: 10.3390 / ijms17091534

INTEGRAZIONE E INFIAMMAZIONE

Arablou T., et al., “The effect of ginger consumption on glycemic status, lipid profile and some inflammatory markers in patients with type 2 diabetes mellitus”. Int J Food Sci Nutr. 2014 Jun;65(4):515-20.

Beata Skibska and Anna Goraca “The Protective Effect of Lipoic Acid on Selected Cardiovascular Diseases Caused by Age-Related Oxidative Stress”. Oxidative Medicine and Cellular Longevity Volume 2015 (2015)

Betul Catalgol, et al., “Resveratrol: French Paradox Revisited”. Front Pharmacol 2012; 3: 141. Circulation. 2005 Jan 25;111(3):343-8. Epub 2005 Jan 17.

Culpitt SV., et al., “Inhibition by red wine extract, resveratrol, of cytokine release by alveolar macrophages in COPD”. Thorax. 2003 Nov;58(11):942-6.

Fassett RG., Coombes JS., “Astaxanthin, oxidative stress, inflammation and cardiovascular disease”. Future Cardiol. 2009 Jul;5(4):333-42.

Gutiérrez-Rebolledo GA., et al., “Antioxidant Effect of Spirulina (Arthrospira) maxima on Chronic Inflammation Induced by Freund’s Complete Adjuvant in Rats”. J Med Food. 2015 Aug;18(8):865-71.

Joseph C. Maroon, Jeffrey W. Bost and Adara Maroon. “Natural anti-inflammatory agents for pain relief”. Surg Neurol Int. 2010; 1: 80

Lee EH., et al., “A randomized study to establish the effects of spirulina in type 2 diabetes mellitus patients”. Nutr Res Pract. 2008 Winter;2(4):295-300.

Mahluji S., et al., “Effects of ginger (Zingiber officinale) on plasma glucose level, HbA1c and insulin sensitivity in type 2 diabetic patients”. Int J Food Sci Nutr. 2013 Sep;64(6):682-6.

Maroon JC, Bost JW, Borden MK, Lorenz KM, Ross NA. Natural antiinflammatory agents for pain relief in athletes. Neurosurg Focus. 2006 Oct 15;21(4):E11.

Maroon JC., Bost JW. “Omega-3 fatty acids (fish oil) as an anti-inflammatory: an alternative to nonsteroidal anti-inflammatory drugs for discogenic pain”. Surg Neurol. 2006 Apr;65(4):326-31.

Moon HS. “Chemopreventive Effects of Alpha Lipoic Acid on Obesity-Related Cancers”. Ann Nutr metab. 2016;68(2):137-44.

Moura FA., et al., “Lipoic Acid: its antioxidant and anti-inflammatory role and clinical applications”. Curr Top Med Chem. 2015;15(5):458-83.

Nøhr MK., et al., “LPS-Enhanced Glucose-Stimulated Insulin Secretion Is Normalized by Resveratrol”. PLoS One. 2016 Jan 11;11(1):e0146840.

Pabon MM., et al., “A spirulina-enhanced diet provides neuroprotection in an α -synuclein model of Parkinson’s disease”. PLoS One. 2012;7(9):e45256.

Samsami-Kor M., et al., “Anti-Inflammatory Effects of Resveratrol in Patients with Ulcerative Colitis: A Randomized, Double-Blind, Placebo-controlled Pilot Study”. Arch Med Res. 2015 May;46(4):280-5.

Shih CM., et al., “Antiinflammatory and antihyperalgesic activity of C-phycoerythrin”. Anesth Analg. 2009 Apr;108(4):1303-10.

Takaichi S., et al., “Fatty acids of astaxanthin esters in krill determined by mild mass spectrometry”. Comp Biochem Physiol B Biochem Mol Biol 2003;136:317-322

Yuan JP., et al., “Potential health-promoting effects of astaxanthin: a high-value carotenoid mostly from microalgae”. Mol Nutr Food Res 2011;55:150-165.

Zhang X., et al., “Resveratrol Protects against Helicobacter pylori-Associated Gastritis by Combating Oxidative Stress”. Int J Mol Sci. 2015 Nov 20;16(11):27757-69.

INTEGRAZIONE PER IL CUORE

• CARNITINA

S. Iliceto, et al., “Effects of L-carnitine administration on left ventricular remodeling after acute anterior myocardial infarction: the L-Carnitine Ecocardiografia Digitalizzata Infarto Miocardico (CEDIM) Trial”, J. Am. Coll. Cardiol. 26 (1995) 380–387.

X. Song, et al., “Efficacy and safety of L-carnitine treatment for chronic heart failure: a meta-analysis of randomized controlled trials”, Biomed. Res. Int. 2017 (2017) 6274854.

Zhong-Yu Wang, et al., “Review article. L-Carnitine and heart disease”. Life Sciences 194 (2018) 88–97

• CoQ10

Landmesser U., et al., "Vascular oxidative stress and endothelial dysfunction in patients with chronic heart failure: Role of xanthine-oxidase and extracellular superoxide dismutase". *Circulation*. 2002;106:3073–8

Lee BJ., et al., "Coenzyme Q10 supplementation reduces oxidative stress and increases antioxidant enzyme activity in patients with coronary artery disease". *Nutrition*. 2012;28:250–5.

Mortensen SA., et al., "The effect of coenzyme Q10 on morbidity and mortality in chronic heart failure: Results from Q-SYMBIO: A randomized double-blind trial". *JACC Heart Fail*. 2014;2:641–9

- *OMEGA 3*

J. R. Nelson, et al., "The eicosapentaenoic acid/arachidonic acid ratio and its clinical utility in cardiovascular disease". *Postgraduate Medicine*, 2019. 131:4, 268-277, DOI: 10.1080/00325481.2019.1607414

Malhotra, et al., "Saturated fat does not clog the arteries: coronary heart disease is a chronic inflammatory condition, the risk of which can be effectively reduced from healthy lifestyle interventions". *British Journal of Sports Medicine* 2017;51:1111-1112.

Thies F., et al., "Association of n-3 polyunsaturated fatty acids with stability of atherosclerotic plaques: a randomised controlled trial". *Lancet*. 2003 Feb 8;361(9356):477-85.

Virmani, et al., "Lessons From Sudden Coronary Death. A Comprehensive Morphological Classification Scheme for Atherosclerotic Lesions". *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2000;20:1262–1275.

William S. Harris, et al., "The omega-3 index as a risk factor for coronary heart disease". *The American Journal of Clinical Nutrition*, Volume 87, Issue 6, June 2008, Pages 1997S–2002S

- *PROBIOTICS*

A. Sandek, et al., "Intestinal blood flow in patients with chronic heart failure: a link with bacterial growth, gastrointestinal symptoms, and cachexia". *Journal of the American College of Cardiology*, vol. 64, no. 11, pp. 1092–1102, 2014.

K. Nakajima, et al., "Antihypertensive effect of extracts of *Lactobacillus casei* in patients with hypertension". *Journal of Clinical Biochemistry and Nutrition*, vol. 18, no. 3, pp. 181– 187, 1995.

M. Malik, et al., "Lactobacillus plantarum 299v supplementation improves vascular endothelial function and reduces inflammatory biomarkers in men with stable coronary artery disease," *Circulation Research*, vol. 123, no. 9, pp. 1091–1102, 2018.

M. Naruszewicz, et al., "Effect of *Lactobacillus plantarum* 299v on cardiovascular disease risk factors in smokers". *The American Journal of Clinical Nutrition*, vol. 76, no. 6, pp. 1249–1255, 2002.

M.K. Raizada, et al., "Report of the National Heart, Lung, and Blood Institute Working Group on the role of microbiota in blood pressure regulation: current status and future directions". *Hypertension*, vol. 70, no. 3, pp. 479– 485, 2017.

N.Kassaiian, et al., "The effects of probiotic and synbiotic supplementation on metabolic syndrome indices in adults at risk of type 2 diabetes: study protocol for a randomized controlled trial". *Trials*, vol. 18, no. 1, p. 148, 2017.

S.Khalesi, et al., "Effect of probiotics on blood pressure: a systematic review and meta-analysis of randomized, controlled trials". *Hypertension*, vol. 64, no. 4, pp. 897–903, 2014.

Vasquez, et al., (Review Article). "Probiotics as Beneficial Dietary Supplements to Prevent and Treat Cardiovascular Diseases: Uncovering Their Impact on Oxidative Stress". *Hindawi Oxidative Medicine and Cellular Longevity* Volume 2019, Article ID 3086270.

- *SUCCO DI BARBABIETOLA E NO-BOOSTERS*

Domínguez, et al., "Effects of beetroot juice supplementation on intermittent high-intensity exercise efforts". *Journal of the International Society of Sports Nutrition* (2018) 15:2

Lundberg JO., et al., "NO-synthase independent NO generation in mammals". *Biochem Biophys Res Commun*. 2010;396:39–45.

McNally, et al., "REVIEW - Dietary inorganic nitrate: From villain to hero in metabolic disease?" *Mol. Nutr. Food Res*. 2016, 60, 67–78

Olsson, et al., "Physiological Effects of Beetroot in Athletes and Patients (2019). DOI: 10.7759/cureus.6355

Puype J., et al., "No effect of dietary nitrate supplementation on endurance training in hypoxia". *Scand J Med Sci Sports*. 2015;25:234–41.

- *TAURINA*

Ahmadian, et al., "Taurine supplementation improves functional capacity, myocardial oxygen consumption and electrical activity in heart failure. *J. Diet. Suppl*. 2017. 14, 422-432.

Jeejeebhoy, et al., "Nutritional supplementation with MyoVive repletes essential cardiac myocyte nutrients and reduces left ventricular size in patients with left ventricular dysfunction". *Am. Heart J*. 2002. 143, 1092-1100.

Katakawa, et al., "Taurine and magnesium supplementation enhances the function of endothelial progenitor cells through antioxidation in healthy men and spontaneously hypertensive rats". *Hypertens Res*. 2016. 39, 848-856.

Ogawa M., et al., "Decrease of plasma sulfur amino acids in essential hypertension". *Jpn. Circ. J*. 1985. 49, 1217-1224.

Rosa, et al., "Oxidative stress and inflammation in obesity after taurine supplementation: a double-blind placebo-controlled study". *Eur. J. Nutr*. 2014. 53, 823-830.

Schaffer, et al., "Effects and Mechanisms of Taurine as a Therapeutic Agent. Invited Review". *Biomol Ther* 26(3), 225-241 (2018).

Sun, et al., "Taurine supplementation lowers blood pressure and improves vascular function in prehypertension: randomized, double-blind, placebo controlled study". *Hypertension* 2016. 67, 541-549.

Yamori, et al., "Distribution of Twenty-Four Hour Urinary Taurine Excretion and Association with Ischemic Heart Disease Mortality in 24 Populations of 16 Countries: Results from the WHO-CARDIAC Study". *Hypertension Res* Vol.24, No. 4 (2001).

Yamori, et al., "Fish and life- style-related disease prevention: experimental and epidemiological evidence for anti-atherogenic potential of taurine". *Clin. Expt. Pharmacol. Physiol.* 2004. 31, S20-S23.

- *VITAMINE*

Sofia Bronzato, et al., "Dietary Supplements and Cardiovascular Diseases". *Int J Prev Med.* 2018; 9: 80.

INTEGRAZIONE PER LA PERFORMANCE SESSUALE

- *CAPITOLO IN GENERALE*

Chauhan,SG et al: A Review on Plants Used for Improvement of Sexual Performance and Virility. 2014, Biomedical Research International, 2014.

Comhaire, F & Mahmoud, F: The andrologist's contribution to a better life for ageing men: part 2. 2016, *Andrologia*, 48 (1).

Drewes, SE et al: Recent findings on natural products with erectile-dysfunction activity. 2003, *Phytochemistry*, 62 (7).

Ho, CCK , Tan, HM: Rise of herbal and traditional medicine in erectile dysfunction management . 2011 *Curr Urol Rep*, ;12(6):470-8.

- *CITRULLINA/ARGININA/PICNOGENOLO*

Aoki, H et al: Clinical Assessment of a Supplement of Pycnogenol® and L-arginine in Japanese Patients with Mild to Moderate Erectile Dysfunction. February 2012 *Phytotherapy Research*

Barassi, A et al: Levels of L-arginine and L-citrulline in patients with erectile dysfunction of different etiology. 2017 *Andrology* Mar;5(2):256-261

Bode-Böger, SA et al: The-L-arginine-paradox-Importance-of-the-L-arginine-asymmetrical-dimethylarginine-ratio. 2007, *Pharmacology & Therapeutics* 114 295–3

Chen, J et al: Effect of oral administration of high-dose nitric oxide donor L-arginine in men with organic erectile dysfunction: results of a double-blind, randomized, placebo-controlled study 1999 *BJU Int* Feb;83(3):269-73.

Cormio, L et al: Oral L-citrulline supplementation improves erection hardness in men with mild erectile dysfunction 2011 *Jan, Urology* ;77(1):119-22

De Tejada Saenz, I: Therapeutic strategies for optimizing PDE-5 inhibitor therapy in patients with erectile dysfunction considered difficult or challenging to treat. 2005, *Intn J of Impotence research*

Durackova, Z., Trebaticky, B., Novotny, V., Zitnanova, I. and Breza, J. "Lipid metabolism and erectile function improvement by Pycnogenol®, extract from the bark of Pinus pinaster in patients suffering from erectile Dysfunction - a pilot study". 2003, *Nutrition Research*, 23: pp 1189-1198

Enseleit, F et al: Effects of Pycnogenol on endothelial function in patients with stable coronary artery disease: a double-blind, randomized, placebo-controlled, cross-over study. 2012, *Heart J* Jul;33(13):1589-97.

Hayashi, T et al: L-Citrulline and L-arginine supplementation retards the progression of high-cholesterol-diet-induced atherosclerosis in rabbits. 2005, *Proc Natl Acad Sci U S A*, Sep 20;102(38)

Hotta, Y et al: Oral L-citrulline supplementation improves erectile function and penile structure in castrated rats. 2014 *Jun Int J Urol* ;21(6):608-12.

Klotz, T et al: Effectiveness of Oral L-Arginine in First-Line Treatment of Erectile Dysfunction in a Controlled Crossover Study. *Urol Int.* 1999;63(4):220-3

Koolwal, A et al: L-arginine and Erectile Dysfunction: January 2019, *Journal of Psychosexual Health* 1(1):37-43

Lamm, S et al: Prelox for improvement of erectile dysfunction. 2003. *European Bulletin of Drug Research* Volume 11, N° 3

Ledda, A et al: Investigation of a complex plant extract for mild to moderate erectile dysfunction in a randomized, double-blind, placebo-controlled, parallel-arm study. February 2010, *BJU International*

Moody, BJ et al: Effects of long-term oral administration of L-arginine on the rat erectile response . *J urol* 1997; 158:942-7.

Mozaffari-Khosravi, et al: Effect of Oral Supplementation of L-arginine on Sexual Function in Men with Type 2 Diabetes: A Double-blind Clinical Trial. *Journal of Nutrition and Food Security (JNFS)*, 2017; 2 (2): 165-172.

Ochiai, M et al: Short-term effects of L-citrulline supplementation on arterial stiffness in middle-aged men. 2012, *Int J Cardiology* 155

Rhim HC, Kim MS, Park Y-J, et al. The Potential Role of *Arginine* Supplements on Erectile Dysfunction: A Systemic Review and Meta-Analysis. *J Sex Med* 2019

Shiota, A, et al: Oral L-citrulline supplementation improves erectile function in rats with acute arteriogenic erectile dysfunction. 2013 Oct;10(10):2423-9.

Stanislavov, R: Improvement of erectile function with Prelox: a randomized, double-blind, placebo-controlled, crossover trial. *Int J Impot Res.* Mar-Apr 2008;20(2):173-80.

Tsuboi, T et al: Administration of L-arginine plus L-citrulline or L-citrulline alone successfully retarded endothelial senescence. PLOS ONE, 2018

Zorgniotti, AW, Lizza, EF. Effect of large doses of the nitric oxide precursor *l-arginine*, on erectile dysfunction. Int J Impot Res. 1994;6:33–35.

- *CORDYCEPS*

HSU, CC et al: In Vivo and in Vitro Stimulatory Effects of Cordyceps Sinensis on Testosterone Production in Mouse Leydig Cells Life Sci . 2003 Sep 5;73(16):

Huang BM, Hsu.,CC: Effects of Cordyceps sinensis on testosterone production in normal mouse Leydig cells. 2001, Life Sci.

Rossi P et al: Improving Training Condition Assessment in Endurance Cyclists: Effects of Ganoderma lucidum and Ophiocordyceps sinensis Dietary Supplementation, Evidence-based Complementary and Alternative Medicine 2014(1)

- *DHEA*

Lee, SY et al. :The Effects of Dehydroepiandrosterone (DHEA)/DHEA-Sulfate (DHEAS) on the Contraction Responses of the Clitoral Cavernous Smooth Muscle from Female rabbit, 2009, Journal of Sexual Medicine 6(10):2653-60

Liu et al: Effect of acute DHEA administration on free testosterone in middle-aged and young men following high-intensity interval training, Eur J Appl Physiol. 2013 Jul;113(7):1783-92.

Reiter, WJ et al: Dehydroepiandrosterone in the Treatment of Erectile Dysfunction in Patients With Different Organic Etiologies, 2001/9 - Urological Research 29(4):278-81

- *GINKGO*

Ashton, Ak et al Antidepressant-induced sexual dysfunction and Ginkgo Biloba American Journal of Psychiatry 2000;157(5):836-7

Cohen, A.(1996) "Treatment of Antidepressant- Induced Sexual Dysfunction with Ginkgo Biloba Extract" New Research Report from The Proceedings of The American Psychiatric Association Annual Meeting Abstract #716 .

Cohen, A., Bartlik, B. (1997) " Treatment of Sexual Dysfunction with Ginkgo Biloba Extract" Scientific Reports -Paper Session from The Proceedings of The APA Annual Meeting .

Cohen, A: Brief Report: Long Term Safety and Efficacy of Ginkgo Biloba Extract in the Treatment of Anti-Depressant-Induced Sexual Dysfunction <http://www.priory.com/pharmacol/ginkgo.htm>

El Sakka, EI: Dehydroepiandrosterone and Erectile Function: A Review. World J Mens Health. 2018 Sep;36(3):183-191.

Ito TY, Polan ML, Whipple B, Trant AS. The enhancement of female sexual function with ArginMax, a nutritional supplement, among women differing in menopausal status. J Sex Marital Ther. 2006;32(5):369–78.

Kang, LJ et al: A placebo-controlled, double-blind trial of ginkgo biloba for antidepressant-induced sexual dysfunction, Human Psychopharmacology, 2002

Lee SY, et al. The effects of dehydroepiandrosterone (DHEA)/DHEA-sulfate (DHEAS) on the contraction responses of the clitoral cavernous smooth muscle from female rabbits. J Sex Med. 2009; 6: 2653–2660.

Liu, TC et al: Effect of Acute DHEA Administration on Free Testosterone in Middle-Aged and Young Men Following High-Intensity Interval Training

Oshio, TM: Effect of Ginkgo biloba extract on sperm quality, serum testosterone concentration and histometric analysis of testes from adult Wistar rats, 2015. Journal of medicinal plant research 9(5)

Palacios, S., Soler, E., Ramírez, M. et al. Effect of a multi-ingredient based food supplement on sexual function in women with low sexual desire. BMC Women's Health 19, 58 (2019)

Sikora R, Sohn MH, Engelke B, et al. (1998) Randomized placebo-controlled study on the effects of oral treatment with Ginkgo biloba extract in patients with .erctile deficit J Urol 157

Sohn MHm, Sikora R, Ginkgo biloba Extract in the Therapy of Erectile Dysfunction Journal of Sex Education and Therapy, Volume 17, 1991 - Issue 1

Wheatley, David Triple-blind, placebo-controlled trial of Ginkgo biloba in sexual dysfunction due to antidepressant drugs Human Psychopharmacology 2004 Voume 19, Issue8

Wu et al Ginkgo biloba extract enhances testosterone synthesis of Leydig cells in type 2 diabetic rats. National journal of andrology 2008, 14(4)

Yeh KY, et al: Ginkgo biloba extract enhances male copulatory behavior and reduces serum prolactin levels in rats. Horm Behav. 2008 Jan;53(1):225-31

Yeh KY, et al: Ginkgo biloba extract treatment increases noncontact erections and central dopamine levels in rats: role of the bed nucleus of the stria terminalis and the medial preoptic area. . Psychopharmacology (Berl). 2010 Jul;210(4

Yeh KY, et al: Noncontact erection is enhanced by Ginkgo biloba treatment in rats: role of neuronal NOS in the paraventricular nucleus and sacral spinal cord. . Psychopharmacology (Berl). 2012 Aug;222(3):439-46.

- *GINSENG*

Choi, J:Ginseng for health care: a systematic review of randomized controlled trials in Korean literature. 2013, PlosOne

De Andrade, E et al: Study of the efficacy of Korean Red Ginseng in the treatment of erectile dysfunction. 2007, Asian J Androl;9(2):241-4.

Jang, DJ et al: Red ginseng for treating erectile dysfunction: a systematic review. 1998, BJCP 66 (5)

Kim SW, Paick JS: Clinical efficacy of Korean red ginseng on vasculogenic impotent patients. 1999, Korean J Androl;17:23-8.

Kim, HT: Effects of tissue-cultured mountain ginseng (*Panax ginseng* CA Meyer) extract on male patients with erectile dysfunction. 2009, Asian J Androl May;11(3):356-61.

Lee, HW et al: Ginseng for erectile dysfunction. 2017Cochrane Database Syst Rev. May; 2017(5):

Li, H et al: *Panax notoginseng* Saponins Improve Erectile Function through Attenuation of Oxidative Stress, Restoration of Akt Activity and Protection of Endothelial and Smooth Muscle Cells in Diabetic Rats with Erectile Dysfunction. 2014, Urol Int;93:92-99

Lin, F et al: *Panax notoginseng* saponins improve the erectile dysfunction in diabetic rats by protecting the endothelial function of the penile corpus cavernosum. 2013, International Journal of Impotence Research volume 25, pages206–211

Tode, T: Effect of Korean red ginseng on psychological functions in patients with severe climacteric syndromes. 1999, Int J Gynaecol Obstet, Dec;67(3):169-74.

Wiklund, IK et al: Effects of a standardized ginseng extract on quality of life and physiological parameters in symptomatic postmenopausal women: a double-blind, placebo-controlled trial. Swedish Alternative Medicine Group. 1999. Int J Clin Pharmacol Res .;19(3):89-99.

- *ICARINA*

Dell'Agli et al: Potent inhibition of human phosphodiesterase-5 by icariin derivatives". 2008 J. Nat. Prod.71.

Jiang, et al. Effect of icariin on cyclic GMP and cGMP-specific phosphodiesterase (PDE5) in penile cavernosum". 2006. J. Huazhong Univ. Sci. Technol. Med. Sci. 26

Liu, Wj et al: Effects of icariin on erectile function and expression of nitric oxide synthase isoforms in castrated rats. 2005, Asian J Androl Dec;7(4):381-8.

Liu, WJ et al: Effects of icariin on improving erectile function in diabetic rats. 2011, J Sex Med

Makarova, MN et al: Effect of lipid-based suspension of *Epimedium koreanum* Nakai extract on sexual behavior in rats. 2007, J Ethnopharmacol.;114:412–6

Ning, H et al: Effects of icariin on phosphodiesterase-5 activity in vitro. 2006; Urology 68,).

Shindel, AW et al: Erectogenic and Neurotrophic Effects of Icariin, a Purified Extract of Horny Goat Weed (*Epimedium* spp.) In Vitro and In Vivo. 2010, JSM 7 (4)

Tian, Z, Xin, Z et al: Icariin on relaxation effect of corpus cavernosum smooth muscle. 2001, Chinese Science Bulletin 46(14):1186-1190

Xin, Z et al: Effects of icariin on cGMP-specific PDE5 and cAMP-specific PDE4 activities. 2003, Asian Journal of Andrology 5(1):15-8

Zhang, QT et al: The testosterone mimetic properties of icariin. 2006, Asian J Androl; 8 (5): 601-605

- *MACA*

Azadzo KM: Oxidative stress in arteriogenic erectile dysfunction: prophylactic role of antioxidants. 2005. J Urol 174(1):386–93.

Brooks, N et al: Beneficial effects of *Lepidium meyenii* (Maca) on psychological symptoms and measures of sexual dysfunction in postmenopausal women are not related to estrogen or androgen content. 2008, Menopause. 15(6):1157-1162

Cicero, GAF et al: Hexanic Maca extract improves rat sexual performance more effectively than methanolic and chloroformic Maca extracts. 2002, Andrologia 34(3):177-9

Dording, C et al: A Double-Blind Placebo-Controlled Trial of Maca Root as Treatment for Antidepressant-Induced Sexual Dysfunction in Women. 2015, Evid Based Complement Alternat Med. 2015;

Forest CP *et al.*: Efficacy and safety of pomegranate juice on improvement of erectile dysfunction in male patients with mild to moderate erectile dysfunction: a randomized, placebo-controlled, double-blind crossover study. 2007, Int J Impot Res 19(6):564–7.

Gonzales, GF et al: Effect of *Lepidium meyenii* (MACA) on sexual desire and its absent relationship with serum testosterone levels in adult healthy men. 2004, Andrologia; 34 (6).

Ignarro, LJ et al: Pomegranate juice protects nitric oxide against oxidative destruction and enhances the biological actions of nitric oxide 2006, Nitric Oxide ;15(2):93-102.

Lee MS et al. Maca (*Lepidium meyenii*) for treatment of menopausal symptoms: A systematic review. Maturitas. 2011 Nov;70(3):227-33.

Lee MS et al: Determination of sildenafil citrate in plasma by high-performance liquid chromatography and a case for the potential interaction of grapefruit juice with sildenafil citrate. 2001, Ther Drug Monit;23:21-6. [↑](#)

Meissner HO et al: Hormone-Balancing Effect of Pre-Gelatinized Organic Maca (*Lepidium peruvianum* Chacon) . 2006 Int J Biomed Sci;2(4):375-94

Senthilkumara, S et al: Priapism, pomegranate juice, and sildenafil: Is there a connection? 2012, Urology Annals, 4 (2)

Shin, BC et al: Maca (*L. meyenii*) for improving sexual function: a systematic review 2010, BMC Complement Altern Med 10 (44).

Zenico, T et al: Subjective effects of *Lepidium meyenii* (Maca) extract on well-being and sexual performances in patients with mild erectile dysfunction: a randomised, double-blind clinical trial. 2009, *Andrologia*, 41(2):95-9

Zheng BL, et al: Effect of a lipidic extract from *Lepidium meyenii* on sexual behavior in mice and rats. 2000. *Urology*, 55 (4)

- *OSSIDO NITRICO*

Gunnels, TA and Bloomer, RJ: Increasing Circulating Testosterone: Impact of Herbal Dietary Supplements *J Plant Biochem Physiol* 2014, 2:2

Toda N et al: Nitric oxide and penile erectile function. 2005. *Pharmacol Ther*;106(2):233-66.

Zvara, P et al: Nitric oxide mediated erectile activity is a testosterone dependent event: a rat erection model 1995 *Int J Impot Res*;7(4):209-19.

- *TRIBULUS TERRESTRIS*

De Souza Dias, KZ et al: Efficacy of *Tribulus terrestris* for the treatment of hypoactive sexual desire disorder in postmenopausal women: a randomized, double-blinded, placebo-controlled trial. 2016, *Menopause* 23(11):1

Gamal ElDin, SF et al: *Tribulus terrestris* versus placebo in the treatment of erectile dysfunction and lower urinary tract symptoms in patients with late-onset hypogonadism: A placebo-controlled study. 2019 *Urologia*;86(2):74-78.

Gauthaman, K et al: Aphrodisiac properties of *Tribulus Terrestris* extract (Protodioscin) in normal and castrated rats 2002 *Life Sci*, 9;71(12):1385-96

Kamenov, Z et al: Evaluation of the efficacy and safety of *Tribulus terrestris* in male sexual dysfunction-A prospective, randomized, double-blind, placebo-controlled clinical trial 2017, *Maturitas*;99:20-26.

Palacios, S et al: Effect of a multi-ingredient based food supplement on sexual function in women with low sexual desire. 2019, *BMC Women's Health* 19(1)

Roaiha, MF et al: Pilot Study on the Effect of Botanical Medicine (*Tribulus terrestris*) on Serum Testosterone Level and Erectile Function in Aging Males With Partial Androgen Deficiency (PADAM). 2016, *J Sex Marital Therapy* 18;42(4):297-301.

Santos, CA et al: *Tribulus terrestris* versus placebo in the treatment of erectile dysfunction: A prospective, randomized, double blind study 2014, *Actas Urol Esp*;38(4):244-8

Vale F.B.C et al: Efficacy of *Tribulus Terrestris* for the treatment of premenopausal women with hypoactive sexual desire disorder: A randomized double-blinded, placebo-controlled trial. 2018, *Gynecol. Endocrinol.*;34:442–445.

Zhang H et al: Gross saponin of *Tribulus terrestris* improves erectile dysfunction in type 2 diabetic rats by repairing the endothelial function of the penile corpus cavernosum. 2019, *Diabetes, Metab. Syndr. Obes. Targets Ther*;12:1705–1716.

- *YOHIMBINA*

Akhondzadeh, S et al: Efficacy and Safety of Oral Combination of Yohimbine and L-arginine (SX) for the Treatment of Erectile Dysfunction: a multicenter, randomized, double blind, placebo-controlled clinical trial. 2010; 5 *Iran J Psychiatry*

Carey, MP et al: Effectiveness of yohimbine in the treatment of erectile disorder: Four meta-analytic integrations. 1996 *Archives of Sexual Behavior* volume 25, pages341–360

Guay, At et al: Yohimbine treatment of organic erectile dysfunction in a dose-escalation trial. 2002 *Int J Impot Res*. Feb;14(1):25-31

Kernohan, AFB et al: An oral yohimbine/L-arginine combination (NMI 861) for the treatment of male erectile dysfunction: A pharmacokinetic, pharmacodynamic and interaction study with intravenous nitroglycerine in healthy male subjects. 2005, *British Journal of Clinical Pharmacology* 59(1):85-93

Lebret, T et al: Efficacy and Safety of a Novel Combination of L-Arginine Glutamate and Yohimbine Hydrochloride: A New Oral Therapy for Erectile Dysfunction. 2002, *European Urology* 41(6):608-13;

Morales, A: Yohimbine in erectile dysfunction: The facts. 2002, *International Journal of Impotence Research*

Morales, A: Yohimbine in erectile dysfunction: Would an orphan drug ever be properly assessed? September 2001, *World Journal of Urology*

Pittler, EE. Yohimbe for erectile dysfunction: a systematic review and meta-analysis of randomized clinical trials. *J Urol*. 1998;159:433–436.

Pushkar, D: Yohimbine in the treatment of erectile dysfunction]. *Urologia*. 2002 Nov-Dec suppl 1(1):S70-74

Sonda, L et al: The role of yohimbine for the treatment of erectile impotence. 1990, *J Sex Marital Ther* Spring;16(1):15-21.

Susset, JG et al: Effect of yohimbine hydrochloride on erectile impotence: a double-blind study 1989, *J Urol*;141(6):1360-3.

Tam, SW et al: Yohimbine: a clinical review 2001. *Pharmacol Ther* Sep;91(3):215-43.

Vogt et al: Double-blind, placebo-controlled safety and efficacy trial with yohimbine hydrochloride in the treatment of nonorganic erectile dysfunction. 1997 *Int J Impot Res*. 9

INTEGRAZIONE PER LA CONCENTRAZIONE

- Abidov M et al Effect of extracts from *Rhodiola rosea* and *Rhodiola crenulata* (Crassulaceae) roots on ATP content in mitochondria of skeletal muscles. *Bull Exp Biol Med*. 2003 Dec;136(6):585-7.
- Adamchuk LB. Effects of *Rhodiola* on the process of energetic recovery of rat under intense muscular workload [dissertation]. Tomsk, Russia: Tomsk State Medical Institute; 1969.
- Ahlemeyer B et al Pharmacological studies supporting the therapeutic use of *Ginkgo biloba* extract for Alzheimer's disease. *Pharmacopsychiatry*. 2003 Jun;36 Suppl 1:S8-14.
- and concepts on their mode of action, *Phytomedicine*, Vol. 6(4), pp. 287–300 1999
- Anselme F, et al Caffeine increases maximal anaerobic power and blood lactate concentration. *Eur J Appl Physiol Occup Physiol*. 1992;65(2):188-91.
- Astorino TA Effect of two doses of caffeine on muscular function during isokinetic exercise. *Med Sci Sports Exerc*. 2010b Dec;42(12):2205-10.
- Astorino TA Efficacy of acute caffeine ingestion for short-term high-intensity exercise performance: a systematic review. *J Strength Cond Res*. 2010 Jan;24(1):257-65.
- Baker L et al Acute effects of dietary constituents on motor skill and cognitive performance in athletes. *Nutr Rev*. 2014 Dec;72(12):790-802. doi: 10.1111/nure.12157. Epub 2014 Nov 14.
- Balestreri R et al A double-blind placebo controlled evaluation of the safety and efficacy of vinpocetine in the treatment of patients with chronic vascular senile cerebral dysfunction. *J Am Geriatr Soc*. 1987 May;35(5):425-30.
- Basile A et al Antibacterial and antifungal activities of acetonic extract from *Paullinia cupana* Mart. seeds. *Nat Prod Res*. 2013;27(22):2084-90
- Basile A et al Antibacterial and antioxidant activities of ethanol extract from *Paullinia cupana* Mart. *J Ethnopharmacol*. 2005 Oct 31;102(1):32-6.
- Beck TW The acute effects of a caffeine-containing supplement on strength, muscular endurance, and anaerobic capabilities. *J Strength Cond Res*. 2006 Aug;20(3):506-10.
- Bérubé-Parent S et al Effects of encapsulated green tea and Guarana extracts containing a mixture of epigallocatechin-3-gallate and caffeine on 24 h energy expenditure and fat oxidation in men. *Br J Nutr*. 2005 Sep;94(3):432-6.
- Bishop D Repeated-sprint ability - part II: recommendations for training. *Sports Med*. 2011 Sep 1;41(9):741-56.
- Bliss, MV, et al The effect of caffeine supplementation on performance in the standing shot put throw. 2008 *Med Sci Sports Exercise* 40(5): 362-368.
- Blomstrand E Amino acids and central fatigue. *Amino Acids*. 2001;20(1):25-34.
- Blomstrand E. A role for branched-chain amino acids in reducing central fatigue. *J Nutr*. 2006 Feb;136(2):544S-547S.
- Bönöczk P et al Vinpocetine increases cerebral blood flow and oxygenation in stroke patients: a near infrared spectroscopy and transcranial Doppler study. *Eur J Ultrasound*. 2002 Jun;15(1-2):85-91.
- Burke LM Caffeine and sports performance. *Appl Physiol Nutr Metab*. 2008 Dec;33(6):1319-34.
- Bydlowski S et al A novel property of an aqueous guarana extract (*Paullinia cupana*): inhibition of platelet aggregation *Brazilian Journal of Medical and Biological Research* 21(3):535-8 February 1988
- Caille E.-J. Study concerning the bisorcate deanol effects upon quantified EEG, cortical vigilance and mood. Comparative double-blind, cross-over balanced design versus pirisudanol. *Psychol Med*. 1986;18:2069-2086
- Campos AR et al Acute effects of guarana (*Paullinia cupana* Mart.) on mouse behaviour in forced swimming and open field tests. *Phytother Res*. 2005 May;19(5):441-3.
- Carfagna N, Trunzo F. Brain catecholamine content and turnover in aging rats. *Exp Gerontol*. 1985;20(5):265-9.
- Ceder G et al Deanol Affects Choline Metabolism in Peripheral Tissues of Mice *Journal of Neurochemistry* 37(2):476-82 · September 1981
- Chandrasekaran K et al Bilobalide, a component of the *Ginkgo biloba* extract (EGb 761), protects against neuronal death in global brain ischemia and in glutamate-induced excitotoxicity. *Cell Mol Biol (Noisy-le-grand)*. 2002 Sep;48(6):663-9
- Chandrasekaran K et al Neuroprotective effects of bilobalide, a component of the *Ginkgo biloba* extract (EGb 761), in gerbil global brain ischemia. *Brain Res*. 2001 Dec 20;922(2):282-92.
- Chandrasekaran Neuroprotective effects of bilobalide, a component of *Ginkgo biloba* extract (EGb 761) in global brain ischemia and in excitotoxicity-induced neuronal death. *Pharmacopsychiatry*. 2003 Jun;36 Suppl 1:S89-94.
- Chen HY et al Effects of Gender Difference and Caffeine Supplementation on Anaerobic Muscle Performance. *Int J Sports Med*. 2015 Nov;36(12):974-8.
- Clostre F.[*Ginkgo biloba* extract (EGb 761). State of knowledge in the dawn of the year 2000]. *Ann Pharm Fr*. 1999 Jul;57 Suppl 1:S8-88
- Coleman N et al Deanol in the treatment of hyperkinetic children *Psychosomatics*. 1976;17(2):68-72
- Collomp K, et al. Benefits of caffeine ingestion on sprint performance in trained and untrained swimmers. *Eur J Appl Physiol Occup Physiol*. 1992;64(4):377-80
- Colzato LS et al Food for creativity: tyrosine promotes deep thinking. *Psychol Res*. 2015 Sep;79(5):709-14.

Colzato LS et al Working memory reloaded: tyrosine repletes updating in the N-back task. *Front Behav Neurosci.* 2013 Dec

Costill DL Effects of caffeine ingestion on metabolism and exercise performance. *Med Sci Sports.* 1978 Fall;10(3):155-8.

Danbueva EA. Effect of stimulators of the central nervous system on lipid metabolism at different muscular workloads [dissertation]. Tomsk, Russia: Tomsk State Medical Institute; 1968

Danysz et al The influence of 2-dimethylaminethanol (DMAE) on the mental and physical efficiency in man. *Act Nerv Super (Praha).* 1967 Nov;9(4):417.

Davis JK, Green JM Caffeine and anaerobic performance: ergogenic value and mechanisms of action. *Sports Med.* 2009;39(10):813-32

Davis JM Carbohydrates, branched-chain amino acids, and endurance: the central fatigue hypothesis. ... *Int J Sport Nutr.* 1995 Jun;5 Suppl:S29-38.

Davis JM et al Serotonin and central nervous system fatigue: nutritional considerations. *Am J Clin Nutr.* 2000 Aug;72(2 Suppl):S73S-8S.

Davis JM et al Effects of carbohydrate feedings on plasma free tryptophan and branched-chain amino acids during prolonged cycling. *Eur J Appl Physiol Occup Physiol.* 1992;65(6):513-9.

Davis JM1. Central and peripheral factors in fatigue. *J Sports Sci.* 1995 Summer;13 Spec No:S49-53.

De Bock K et al «Acute Rhodiola rosea intake can improve endurance exercise performance». *Int J Sport Nutr Exerc Metab.* 2004 Jun;14(3): 298-307.

de Oliveira Cruz, R et al Caffeine Affects Time to Exhaustion and Substrate Oxidation during Cycling at Maximal Lactate Steady State Nutrients. 2015 Jul; 7(7): 5254–5264

Dean W et al Smart Drugs II—smart publisher 1993

DeFeudis FV, Drieu K. Ginkgo biloba extract (EGb 761) and CNS functions: basic studies and clinical applications. *Curr Drug Targets.* 2000 Jul;1(1):25-58.

Deijen JB et al Tyrosine improves cognitive performance and reduces blood pressure in cadets after one week of a combat training course. *Brain Res Bull.* 1999 Jan 15;48(2):203-9.

Deijen JB, Orlebeke JF. Effect of tyrosine on cognitive function and blood pressure under stress. *Brain Res Bull.* 1994;33(3):319-23.

Desbrow B, et al The effects of different doses of caffeine on endurance cycling time trial performance. *J Sports Sci.* 2012;30(2):115-20.

Diamond BJ et al Ginkgo biloba extract: mechanisms and clinical indications *Arch Phys Med Rehabil.* 2000 May;81(5):668-78.

Diamond BJ et al. Ginkgo biloba: indications, mechanisms, and safety. *Psychiatr Clin North Am.* 2013 Mar;36(1):73-83

Dimpfel W et al Efficacy of dimethylaminoethanol (DMAE) containing vitamin-mineral drug combination on EEG patterns in the presence of different emotional states. *Eur J Med Res.* 2003

Doherty M et al Caffeine lowers perceptual response and increases power output during high-intensity cycling. *J Sports Sci.* 2004 Jul;22(7):637-43.

Doherty M, Smith PM. Effects of caffeine ingestion on rating of perceived exertion during and after exercise: a meta-analysis. *Scand J Med Sci Sports.* 2005 Apr;15(2):69-78

Duncan MJ et al Effect of caffeine ingestion on torque and muscle activity during resistance exercise in men. *Muscle Nerve.* 2014 Oct;50(4):523-7

Durlac PJ et al *Nutr Neurosci.* A rapid effect of caffeinated beverages on two choice reaction time tasks. 2002 Dec;5(6):433-42

Elsabagh S et al, Differential cognitive effects of Ginkgo biloba after acute and chronic treatment in healthy young volunteers *Psychopharmacology (Berl).* 2005 May;179(2):437-46.

Espinola E et al Pharmacological activity of Guarana (*Paullinia cupana*) in laboratory animals. *J. Ethnopharmacol.* 1997;55:223–229.

Fernstrom JD, Wurtman RJ. Brain serotonin content: physiological dependence on plasma tryptophan levels. *Science.* 1971 Jul 9;173(3992):149-52

Ganio MS Effect of caffeine on sport-specific endurance performance: a systematic review. *J Strength Cond Res.* 2009 Jan;23(1):315-24.

Geller, SJ Comparison of a Tranquilizer and a Psychic Energizer Used in Treatment of Children with Behavioral Disorders *JAMA.* 1960;174(5):481-484

Girard O Repeated-sprint ability - part I: factors contributing to fatigue. *Sports Med.* 2011 Aug 1;41(8):673-94.

Glaister M, et al Caffeine and sprinting performance: dose responses and efficacy. *J Strength Cond Res.* 2012

Glaister M, et al Caffeine supplementation and peak anaerobic power output. *Eur J Sport Sci.* 2015;15(5):400-6

Goldstein, L Electroencephalographic analysis of the effect of 2-dimethylaminoethanol, choline and atropine on the rabbit brain. *J Pharmacol Exp Ther.* 1960 Apr;128:392-6.

Green JM et al Effects of caffeine on repetitions to failure and ratings of perceived exertion during resistance training. *Int J Sports Physiol Perform.* 2007 Sep;2(3):250-9.

Green JM Stimulating effect of adaptogens: an overview with particular reference to their efficacy following single dose administration *Phytother Res.* 2005 Oct;19(10):819-38.

Haskell C. F., A double-blind, placebo-controlled, multi-dose evaluation of the acute behavioural effects of guaraná in humans. *Journal of Psychopharmacology* 21(1) (2007) 65–70

Haskell CF Behavioural effects of compounds co-consumed in dietary forms of caffeinated plants. *J Psychiatr Res.* 2015 Nov;70:50-7.

Haubrich DR et al Increase in rat brain acetylcholine induced by choline or deanol. *Life Sci.* 1975 Sep 15;17(6):975-80

Haubrich, DR et al “Effects of 2-dimethylaminoethanol (Deanol) on the metabolism of choline in plasma” in *Journal of Neurochemistry* 30(6): July 1978: 1293-6

Hindmarch I, et al The effects of black tea and other beverages on aspects of cognition and psychomotor performance. *Psychopharmacology (Berl).* 1998 Oct;139(3):230-8.

Horvat S The use of vinpocetine in chronic disorders caused by cerebral hypoperfusion *Orvosi Hetilap* [2001, 142(8):383-389]

Huang SC et al Attenuation of long-term *Rhodiola rosea* supplementation on exhaustive swimming-evoked oxidative stress in the rat. *Chin J Physiol.* 2009 Oct 31;52(5):316-24.

Hursel R et al The effects of catechin rich teas and caffeine on energy expenditure and fat oxidation: a meta-analysis. *Obes Rev.* 2011 Jul;12(7):e573-81.

intermittent-sprint ability in team-sport athletes. *Med Sci Sports Exerc.* 2006;38:578–585

Irwin C et al Caffeine withdrawal and high-intensity endurance cycling performance. *Int J Sport Nutr* 2011 Mar;29(5):509-15.

Ishaque S et al *Rhodiola rosea* for physical and mental fatigue: a systematic review. *BMC Complement Altern Med.* 2012; 12: 70

Jenkins NT Ergogenic effects of low doses of caffeine on cycling performance. *J Sports Sci. Exerc Metab.* 2008 Jun;18(3):328-42

Jongkees BJ et al Effect of tyrosine supplementation on clinical and healthy populations under stress or cognitive demands--A review. *J Psychiatr Res.* 2015 Nov;70:50-7

Jongkees BJ People are different: tyrosine's modulating effect on cognitive control in healthy humans may depend on individual differences related to dopamine function. *Front Psychol.* 2014

Jope RS, Dimethylaminoethanol (deanol) metabolism in rat brain and its effect on acetylcholine synthesis. *J Pharmacol Exp Ther.* 1979 Dec;211(3): 472-9.

Kalmar MJ Effects of caffeine on neuromuscular function. *Appl Physiol* (1985). 1999 Aug;87(2):801-8.

Kang DZ et al Anti-Fatigue Effects of Fermented *Rhodiola rosea* Extract in Mice. *Prev Nutr Food Sci.* 2015 Mar;20(1):38-42. doi: 10.3746/pnf.2015.20.1.38. Epub 2015 Mar 31.

Kapoor, V.K et al Synthetic drugs with antiageing effects. *Drug Discov. Today*, 2009, 14, 899-904.

Kaschel R Ginkgo biloba: specificity of neuropsychological improvement--a selective review in search of differential effects. *Hum Psychopharmacol.* 2009 Jul;24(5):345-70.

Kennedy DO et al Modulation of cognition and mood following administration of single doses of Ginkgo biloba, ginseng, and a ginkgo/ginseng combination to healthy young adults. *Physiol Behav.* 2002 Apr 15;75(5):739-51.

Kennedy DO et al, The dose-dependent cognitive effects of acute administration of Ginkgo biloba to healthy young volunteers. *Psychopharmacology (Berl).* 2000 Sep;151(4):416-23.

Kucinskaite A et al [Experimental analysis of therapeutic properties of *Rhodiola rosea* L. and its possible application in medicine]. *Medicina (Kaunas).* 2004;40(7):614-9.

Kugel R.B. and Alexander T., The effect of a central nervous system stimulant (deanol) on behavior. *Pediatrics*, 31:651-655, 1963.

Lee FT et al Chronic *Rhodiola rosea* extract supplementation enforces exhaustive swimming tolerance. *Am J Chin Med.* 2009;37(3):557-72

Lewis JA, Young R. Deanol and methylphenidate in minimal brain dysfunction. *Clin Pharmacol Ther.* 1975 May;17(5):534-40.

Lima WP et al Lipid metabolism in trained rats: effect of guarana (*Paullinia cupana* Mart.) supplementation. *Clin Nutr.* 2005 Dec;24(6):1019-28. Epub 2005 Sep 22.

London E.D., Coyle J.T. Pharmacological augmentation of acetylcholine levels in kainate lesioned rat striatum. *Biochem Pharmacol* 1978, 27: 2962-2965.

Malanga G et al New insights on dimethylaminoethanol (DMAE) features as a free radical scavenger. *Drug Metab Lett.* 2012 Mar;6(1):54-9.

Meyers Caffeine increases time to fatigue by maintaining force and not by altering firing rates during submaximal isometric contractions. *J Appl Physiol* (1985). 2005 Sep;99(3):1056-63.

Millington WR et al Deanol acetamidobenzoate inhibits the blood-brain barrier transport of choline. *Ann Neurol* 1978 Oct;4(4):302-6.

Miura, T et al, Effect of Guarana on Exercise in Normal and Epinephrine-Induced ... *Biological & Pharmaceutical Bulletin* (Impact Factor: 1.83). 06/1998; 21(6):646-8.

Moustakas D et al Guarana provides additional stimulation over caffeine alone in the planarian model. *PLoS One.* 2015; 10(4):

Nehlig A Caffeine and the central nervous system: mechanisms of action, biochemical, metabolic and psychostimulant effects. *Brain Res Brain Res Rev.* 1992 May-Aug;17(2):139-70.

Neri DF et al The effects of tyrosine on cognitive performance during extended wakefulness. *Aviat Space Environ Med*. 1995 Apr;66(4):313-9.

Newsholme EA, Blomstrand E, Ekblom B. Physical and mental fatigue: metabolic mechanisms and importance of plasma amino acids. *Br Med Bull*. 1992 Jul;48(3):477-95.

Newsholme EA, Blomstrand E. Branched-chain amino acids and central fatigue. *J Nutr*. 2006 Jan;136(1 Suppl):274S-6S.

Newsholme EA, Blomstrand E. The plasma level of some amino acids and physical and mental fatigue. *Experientia*. 1996 May 15;52(5):413-5.

Noreen EE, et al "The effects of an acute dose of *Rhodiola rosea* on endurance exercise performance". *J Strength Cond Res*. 2013 Mar;27(3): 839-47

Oettinger L Jr. A review with special reference to deanol *Pediatric psychopharmacology*.. *Dis Nerv Syst* 1977;38:25-31.

Otobone FJ et al Effect of lyophilized extracts from guaraná seeds [*Paullinia cupana* var. *sorbilis* (Mart.) Ducke] on behavioral profiles in rats. *Nutr Res Rev*. 2013 Jun;26(1):49-70.

Owasoyo, JO Tyrosine and its potential use as a countermeasure to performance decrement in military sustained operations. *Aviat Space Environ Med*. 1992 May;63(5):364-9.

Panossian A et al Plant adaptogens III.* Earlier and more recent aspects

Panossian A et al. Evidence-based efficacy of adaptogens in fatigue, and molecular mechanisms related to their stress-protective activity. *Curr Clin Pharmacol*. 2009 Sep;4(3):198-219.

Panossian A Mechanism of action of *Rhodiola*, salidroside, tyrosol and triandrin in isolated neuroglial cells: an interactive pathway analysis of the downstream effects using RNA microarray data *Phytomedicine*. 2014 Sep 25;21(11):1325-48.

Panossian A Rosenroot (*Rhodiola rosea*): traditional use, chemical composition, pharmacology and clinical efficacy. *Phytomedicine*. 2010 Jun;17(7):481-93.

Patyar S et al Role of vinpocetine in cerebrovascular diseases. *Pharmacol Rep*. 2011;63(3):618-28.

Perfumi M, Mattioli L. Adaptogenic and central nervous system effects of single doses of 3% rosavin and 1% salidroside *Rhodiola rosea* L. extract in mice. *Phytother Res*. 2007 Jan;21(1):37-43.

Pfeiffer CC. Parasympathetic neurohumors. Possible precursors and effect on behavior. *Int Rev Neurobiol*. 1959;1:195-244.

Pfeiffer, C. C et al (1957). "Stimulant effect of 2-dimethylaminoethanol; possible precursor of brain acetylcholine". *Science* (New York, N.Y.) 126 (3274): 610–1

Pieralisi G et al, Effects of a standardized ginseng extract combined with dimethylaminoethanol bitartrate, vitamins, minerals, and trace elements on physical performance during exercise. *Clin Ther*. 1991 May-Jun;13(3):373-82.

Pontifex KJ, Wallman KE, Dawson BT, et al. Effects of caffeine on repeated sprint ability, reactive agility time, sleep and next day performance. *J Sports Med Phys Fitness*. 2010;50:455–464.

Portella, RDL, et al Guaraná (*Paullinia cupana* Kunth) effects on LDL oxidation in elderly people: an in vitro and in vivo study. *Lipids Health Dis*. 2013; 12: 12.

Re O. 2-Dimethylaminoethanol (deanol): a brief review of its clinical efficacy and postulated mechanism of action. *Curr Ther Res Clin Exp* 1974;16:1238-42.

Revina TA. Effect of stimulators of the central nervous system on carbohydrate and high energy phosphorylated compound metabolism in the brain during intense muscular workload [dissertation] Tomsk, Russia: Tomsk State Medical Institute; 1969.

Ryu, SH et al Effects of *Rhodiola Rosea* on Anti-Fatigue and Hypothalamic IEGs Expressions of Forced Swimming Rats, *The Korea Journal of Herbology* v23n4 2008. 9-19

Salnik BU. Effect of several stimulators on central nervous system energy metabolism during muscular workload [dissertation]. Tomsk, Russia: Tomsk State Medical Institute; 1970.

Salter, CA. "Dietary tyrosine as an aid to stress resistance among troops". *Military Medicine* 1989;154(3):144-146.

Saratikov AS, Krasnov EA. Chapter III: Stimulative properties of *Rhodiola rosea*. In: Saratikov AS, Krasnov EA, editors. *Rhodiola rosea* is a valuable medicinal plant (Golden Root). Tomsk, Russia: Tomsk State University; 1987. p. 69-90.

Schimpl FC et al Guarana: revisiting a highly caffeinated plant from the Amazon. *J Ethnopharmacol*. 2013 Oct 28;150(1):14-31.

Schneiker KT, Bishop D, Dawson B, et al. Effects of caffeine on prolonged

Shevtsov VA et al, A randomized trial of two different doses of a SHR-5 *Rhodiola rosea* extract versus placebo and control of capacity for mental work. *Phytomedicine*. 2003 Mar;10(2-3):95-105

Smith N, Atroch AL. Guarana's Journey from Regional Tonic to Aphrodisiac and Global Energy Drink. Review. *Evid Based Complement Alternat Med*. 2007 Dec

Spasov AA et al, A double-blind, placebo-controlled pilot study of the stimulating and adaptogenic effect of *Rhodiola rosea* SHR-5 extract *Phytomedicine*. 2000 Apr;7(2):85-9.

Spriet LLExercise and sport performance with low doses of caffeine. *Sports Med*. 2014 Nov;44 Suppl 2:S175-84.

Subhan Z et al The psychopharmacological effects of Ginkgo biloba extract in normal healthy volunteers *Int J Clin Pharmacol Res*. 1984;4(2):89-93.

Subhan Z et al, Psychopharmacological effects of vinpocetine in normal healthy volunteers European Journal of Clinical Pharmacology September 1985, Volume 28, 15, pp 567-571

Szapáry L [Vinpocetin in neurological diseases]. Ideggyogy Sz. 2012 Nov 30;65(11-12):387-93

Tarnopolsky M et al Caffeine potentiates low frequency skeletal muscle force in habitual and nonhabitual caffeine consumers. J Appl Physiol (1985). 2000 Nov;89(5):1719-24.

Thomas, J.R., et al. Tyrosine Improves working memory in a multitasking environment. Pharmacol. Biochem. Behav. 64, (1999) 495–500

Timmins TD et al Effect of caffeine ingestion on maximal voluntary contraction strength in upper- and lower-body muscle groups. J Strength Cond Res. 2014 Nov;28(11):3239-44.

Trexler ET et al Effects of coffee and caffeine anhydrous on strength and sprint performance. Eur J Sport Sci. 2015 Sep 22:1-9.

Valikovics A [Investigation of the effect of vinpocetine on cerebral blood flow and cognitive functions]. Ideggyogy Sz. 2007 Jul 30;60(7-8):301-10.

Valikovics A et al. [Study of the effects of vinpocetin on cognitive functions]. Ideggyogy Sz. 2012 Mar 30;65(3-4):115-20.

Van Soeren MH, Graham TE Effect of caffeine on metabolism, exercise endurance, and catecholamine responses after withdrawal.

Veasey RC et al The Effects of Supplementation with a Vitamin and Mineral Complex with Guaraná Prior to Fasted Exercise on Affect, Exertion, Cognitive Performance, and Substrate Metabolism: A Randomized Controlled Trial Nutrients. 2015 Aug; 7(8): 6109–6127

Warren GL et al Effect of caffeine ingestion on muscular strength and endurance: a meta-analysis. Med Sci Sports Exerc. 2010 Jul;42(7):1375-87.

Weckerle CS, et al Phytochemistry Purine alkaloids in Paullinia. Phytochemistry. 2003 Oct; 64(3): 735-422

Woods DJ Guarana: Paullinia cupana, P. sorbilis; also known as Brazilian cocoa and 'zoom'. J Prim Health Care. 2012 Jun 1;4(2):163-4.

Woolf K, Bidwell WK, Carlson AG: The effect of caffeine as an ergogenic aid in anaerobic exercise. Int J Sport Nutr Exerc Metab. 2008, 18: 412-429.

Wurtman RJ, Fernstrom JD. Control of brain monoamine synthesis by diet and plasma amino acids. Am J Clin Nutr. 1975 Jun;28(6):638-47.

Yang G et al Ginkgo Biloba for Mild Cognitive Impairment and Alzheimer's Disease: A Systematic Review and Meta-Analysis of Randomized Controlled Trials Curr Top Med Chem. 2016;16(5):520-8.

Zahniser, NR et al Is di-methylaminoethanol (Deanol) indeed a precursor of brain acetylcholine? A gas chromatographic evaluation in Journal of Pharmacology and Experimental Therapeutics 200(3):545-59 · April 1977

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Al-Khalifa A, Mathew TC, Al-Zaid NS, Mathew E, Dashti HM. Therapeutic role of low-carbohydrate ketogenic diet in diabetes. Nutrition (Burbank, Los Angeles County, Calif). 2009;25(11-12):1177-85.

Amen-Ra N. Humans are evolutionarily adapted to caloric restriction resulting from ecologically dictated dietary deprivation imposed during the Plio-Pleistocene period. Med Hypotheses. 2006;66(5):978-84.

Atkins RC. Dr. Atkins' diet revolution; the high calorie way to stay thin forever. New York: D. McKay Co.; 1972.

Avenell A, Brown TJ, McGee MA, Campbell MK, Grant AM, Broom J, et al. What are the long-term benefits of weight reducing diets in adults? A systematic review of randomized controlled trials. Journal of human nutrition and dietetics : the official journal of the British Dietetic Association. 2004;17(4):317-35.

Beckett TL, Studzinski CM, Keller JN, Paul Murphy M, Niedowicz DM. A ketogenic diet improves motor performance but does not affect beta-amyloid levels in a mouse model of Alzheimer's disease. Brain Res. 2013;1505:61-7.

Bistrian BR, Blackburn GL, Flatt JP,Sizer J, Scrimshaw NS, Sherman M. Nitrogen metabolism and insulin requirements in obese diabetic adults on a protein-sparing modified fast. Diabetes. 1976;25(6):494-504.

Bortz WM, Paul P, Haff AC, Holmes WL. Glycerol turnover and oxidation in man. J Clin Invest. 1972;51(6):1537-46.

Bray GA, Smith SR, de Jonge L, Xie H, Rood J, Martin CK, et al. Effect of dietary protein content on weight gain, energy expenditure, and body composition during overeating: a randomized controlled trial. JAMA. 2012;307(1):47-55.

Broom GM, Shaw IC, Rucklidge JJ. The ketogenic diet as a potential treatment and prevention strategy for Alzheimer's disease. Nutrition. 2019;60:118-21.

Brownlow ML, Benner L, D'Agostino D, Gordon MN, Morgan D. Ketogenic diet improves motor performance but not cognition in two mouse models of Alzheimer's pathology. PLoS One. 2013;8(9):e75713.

Bueno NB, de Melo IS, de Oliveira SL, da Rocha Ataide T. Very-low-carbohydrate ketogenic diet v. low-fat diet for long-term weight loss: a meta-analysis of randomised controlled trials. Br J Nutr. 2013;110(7):1178-87.

Burke LM, Ross ML, Garvican-Lewis LA, Welvaert M, Heikura IA, Forbes SG, et al. Low carbohydrate, high fat diet impairs exercise economy and negates the performance benefit from intensified training in elite race walkers. J Physiol. 2017;595(9):2785-807.

Cadwallader AB, de la Torre X, Tieri A, Botre F. The abuse of diuretics as performance-enhancing drugs and masking agents in sport doping: pharmacology, toxicology and analysis. *Br J Pharmacol*. 2010;161(1):1-16.

Cahill GF, Jr. Fuel metabolism in starvation. *Annu Rev Nutr*. 2006;26:1-22.

Caldwell JE, Ahonen E, Nousiainen U. Differential effects of sauna-, diuretic-, and exercise-induced hypohydration. *Journal of applied physiology: respiratory, environmental and exercise physiology*. 1984;57(4):1018-23.

Canto C, Auwerx J. Calorie restriction: is AMPK a key sensor and effector? *Physiology (Bethesda)*. 2011;26(4):214-24.

Caprio M, Infante M, Moriconi E, Armani A, Fabbri A, Mantovani G, et al. Very-low-calorie ketogenic diet (VLCKD) in the management of metabolic diseases: systematic review and consensus statement from the Italian Society of Endocrinology (SIE). *J Endocrinol Invest*. 2019;42(11):1365-86.

Cavaleri F, Bashar E. Potential Synergies of beta-Hydroxybutyrate and Butyrate on the Modulation of Metabolism, Inflammation, Cognition, and General Health. *Journal of nutrition and metabolism*. 2018;2018:7195760.

Cervenka MC, Patton K, Eloyan A, Henry B, Kossoff EH. The impact of the modified Atkins diet on lipid profiles in adults with epilepsy. *Nutr Neurosci*. 2016;19(3):131-7.

Cipryan L, Plews DJ, Ferretti A, Maffetone PB, Laursen PB. Effects of a 4-Week Very Low-Carbohydrate Diet on High-Intensity Interval Training Responses. *J Sports Sci Med*. 2018;17(2):259-68.

Croteau E, Castellano CA, Richard MA, Fortier M, Nugent S, Lepage M, et al. Ketogenic Medium Chain Triglycerides Increase Brain Energy Metabolism in Alzheimer's Disease. *J Alzheimers Dis*. 2018;64(2):551-61.

Devries MC, Sithamparapillai A, Brimble KS, Banfield L, Morton RW, Phillips SM. Changes in Kidney Function Do Not Differ between Healthy Adults Consuming Higher- Compared with Lower- or Normal-Protein Diets: A Systematic Review and Meta-Analysis. *J Nutr*. 2018;148(11):1760-75.

Draznin B, Wang C, Adochio R, Leitner JW, Cornier MA. Effect of dietary macronutrient composition on AMPK and SIRT1 expression and activity in human skeletal muscle. *Horm Metab Res*. 2012;44(9):650-5.

Ebbeling CB, Feldman HA, Klein GL, Wong JMW, Bielak L, Steltz SK, et al. Effects of a low carbohydrate diet on energy expenditure during weight loss maintenance: randomized trial. *BMJ*. 2018;363:k4583.

Felig P, Owen OE, Wahren J, Cahill GF, Jr. Amino acid metabolism during prolonged starvation. *J Clin Invest*. 1969;48(3):584-94.

Fine EJ, Feinman RD. Thermodynamics of weight loss diets. *Nutr Metab*. 2004;1(1):15.

Finsterer J. Treatment of mitochondrial disorders. *European journal of paediatric neurology : EJPN : official journal of the European Paediatric Neurology Society*. 2010;14(1):29-44.

Fredrickson DS, Gordon Jr RS. Transport of fatty acids. *Physiol Rev*. 1958;38(4):585-630.

Gentles JA, Phillips SM. Discrepancies in publications related to HMB-FA and ATP supplementation. *Nutr Metab (Lond)*. 2017;14:42.

Greene DA, Varley BJ, Hartwig TB, Chapman P, Rigney M. A Low-Carbohydrate Ketogenic Diet Reduces Body Mass Without Compromising Performance in Powerlifting and Olympic Weightlifting Athletes. *J Strength Cond Res*. 2018;32(12):3373-82.

Haces ML, Hernandez-Fonseca K, Medina-Campos ON, Montiel T, Pedraza-Chaverri J, Massieu L. Antioxidant capacity contributes to protection of ketone bodies against oxidative damage induced during hypoglycemic conditions. *Exp Neurol*. 2008;211(1):85-96.

Hall KD, Bemis T, Brychta R, Chen KY, Courville A, Crayner EJ, et al. Calorie for Calorie, Dietary Fat Restriction Results in More Body Fat Loss than Carbohydrate Restriction in People with Obesity. *Cell metabolism*. 2015;22(3):427-36.

Hall KD, Chen KY, Guo J, Lam YY, Leibel RL, Mayer LE, et al. Energy expenditure and body composition changes after an isocaloric ketogenic diet in overweight and obese men. *Am J Clin Nutr*. 2016;104(2):324-33.

Hall KD. A review of the carbohydrate-insulin model of obesity. *Eur J Clin Nutr*. 2017.

Hall KD. Mechanisms of metabolic fuel selection: modeling human metabolism and body-weight change. *IEEE Eng Med Biol Mag*. 2010;29(1):36-41.

Hall KD. Prescribing low-fat diets: useless for long-term weight loss? *Lancet Diabetes Endocrinol*. 2015;3(12):920-1.

Hashim SA, Vanitallie TB. Ketone Body Therapy: From ketogenic diet to oral administration of ketone ester. *J Lipid Res*. 2014.

Howell S, Kones R. "Calories in, calories out" and macronutrient intake: the hope, hype, and science of calories. *Am J Physiol Endocrinol Metab*. 2017;313(5):E608-E12.

Hu T, Mills KT, Yao L, Demanelis K, Eloustaz M, Yancy WS, Jr., et al. Effects of low-carbohydrate diets versus low-fat diets on metabolic risk factors: a meta-analysis of randomized controlled clinical trials. *Am J Epidemiol*. 2012;176 Suppl 7:S44-54.

Hussain TA, Mathew TC, Dashti AA, Asfar S, Al-Zaid N, Dashti HM. Effect of low-calorie versus low-carbohydrate ketogenic diet in type 2 diabetes. *Nutrition (Burbank, Los Angeles County, Calif)*. 2012;28(10):1016-21.

Jarrett SG, Milder JB, Liang LP, Patel M. The ketogenic diet increases mitochondrial glutathione levels. *J Neurochem*. 2008;106(3):1044-51.

Jequier E. Pathways to obesity. *Int J Obes (Lond)*. 2002;26 Suppl 2:S12-7.

Jia Y, Hwang SY, House JD, Ogborn MR, Weiler HA, O K, et al. Long-term high intake of whole proteins results in renal damage in pigs. *J Nutr*. 2010;140(9):1646-52.

Jitrapakdee S, Vidal-Puig A, Wallace JC. Anaplerotic roles of pyruvate carboxylase in mammalian tissues. *Cellular and molecular life sciences : CMLS*. 2006;63(7-8):843-54.

Kang CM, Yun B, Kim M, Song M, Kim YH, Lee SH, et al. Postoperative serum metabolites of patients on a low carbohydrate ketogenic diet after pancreatectomy for pancreatobiliary cancer: a nontargeted metabolomics pilot study. *Sci Rep*. 2019;9(1):16820.

Kashiwaya Y, Sato K, Tsuchiya N, Thomas S, Fell DA, Veech RL, et al. Control of glucose utilization in working perfused rat heart. *The Journal of biological chemistry*. 1994;269(41):25502-14.

Klement RJ, Fink MK. Dietary and pharmacological modification of the insulin/IGF-1 system: exploiting the full repertoire against cancer. *Oncogenesis*. 2016;5:e193.

Klement RJ, Kammerer U. Is there a role for carbohydrate restriction in the treatment and prevention of cancer? *Nutr Metab*. 2011;8:75.

Klement RJ. The emerging role of ketogenic diets in cancer treatment. *Curr Opin Clin Nutr Metab Care*. 2019;22(2):129-34.

Koutnik AP, D'Agostino DP, Egan B. Anticatabolic Effects of Ketone Bodies in Skeletal Muscle. *Trends Endocrinol Metab*. 2019;30(4):227-9.

Krebs HA. The regulation of the release of ketone bodies by the liver. *Adv Enzyme Regul*. 1966;4:339-54.

Kreider RB, Rasmussen C, Kerksick CM, Wilborn C, Taylor Lt, Campbell B, et al. A carbohydrate-restricted diet during resistance training promotes more favorable changes in body composition and markers of health in obese women with and without insulin resistance. *Phys Sportsmed*. 2011;39(2):27-40.

Lejeune MP, Kovacs EM, Westerterp-Plantenga MS. Additional protein intake limits weight regain after weight loss in humans. *Br J Nutr*. 2005;93(2):281-9.

Levy RG, Cooper PN, Giri P. Ketogenic diet and other dietary treatments for epilepsy. *Cochrane database of systematic reviews (Online)*. 2012;3:CD001903.

Lowery RP, Joy JM, Rathmacher JA, Baier SM, Fuller JC, Jr., Shelley MC, 2nd, et al. Interaction of Beta-Hydroxy-Beta-Methylbutyrate Free Acid and Adenosine Triphosphate on Muscle Mass, Strength, and Power in Resistance Trained Individuals. *J Strength Cond Res*. 2016;30(7):1843-54.

Ludwig DS, Ebbeling CB. Raising the bar on the low-carbohydrate diet. *Am J Clin Nutr*. 2016;104(5):1487-8.

Ludwig DS, Ebbeling CB. The Carbohydrate-Insulin Model of Obesity: Beyond "Calories In, Calories Out". *JAMA Intern Med*. 2018;178(8):1098-103.

Lund TM, Obel LF, Risa O, Sonnewald U. beta-Hydroxybutyrate is the preferred substrate for GABA and glutamate synthesis while glucose is indispensable during depolarization in cultured GABAergic neurons. *Neurochem Int*. 2011;59(2):309-18.

Ma S, Suzuki K. Keto-Adaptation and Endurance Exercise Capacity, Fatigue Recovery, and Exercise-Induced Muscle and Organ Damage Prevention: A Narrative Review. *Sports (Basel)*. 2019;7(2).

Maalouf M, Sullivan PG, Davis L, Kim DY, Rho JM. Ketones inhibit mitochondrial production of reactive oxygen species production following glutamate excitotoxicity by increasing NADH oxidation. *Neuroscience*. 2007;145(1):256-64.

Martin WF, Armstrong LE, Rodriguez NR. Dietary protein intake and renal function. *Nutr Metab*. 2005;2:25.

Mukherjee P, Augur ZM, Li M, Hill C, Greenwood B, Domin MA, et al. Therapeutic benefit of combining calorie-restricted ketogenic diet and glutamine targeting in late-stage experimental glioblastoma. *Commun Biol*. 2019;2:200.

Muscogiuri G, Barrea L, Laudisio D, Pugliese G, Salzano C, Savastano S, et al. The management of very low-calorie ketogenic diet in obesity outpatient clinic: a practical guide. *J Transl Med*. 2019;17(1):356.

Nakamura K, Tonouchi H, Sasayama A, Ashida K. A Ketogenic Formula Prevents Tumor Progression and Cancer Cachexia by Attenuating Systemic Inflammation in Colon 26 Tumor-Bearing Mice. *Nutrients*. 2018;10(2).

Newman JC, Verdin E. Ketone bodies as signaling metabolites. *Trends Endocrinol Metab*. 2013.

Olson CA, Vuong HE, Yano JM, Liang QY, Nusbaum DJ, Hsiao EY. The Gut Microbiota Mediates the Anti-Seizure Effects of the Ketogenic Diet. *Cell*. 2018;174(2):497.

Oppliger RA, Case HS, Horswill CA, Landry GL, Shelter AC. American College of Sports Medicine position stand. Weight loss in wrestlers. *Med Sci Sports Exerc*. 1996;28(6):ix-xii.

Oppliger RA, Steen SA, Scott JR. Weight loss practices of college wrestlers. *Int J Sport Nutr Exerc Metab*. 2003;13(1):29-46.

Ota M, Matsuo J, Ishida I, Takano H, Yokoi Y, Hori H, et al. Effects of a medium-chain triglyceride-based ketogenic formula on cognitive function in patients with mild-to-moderate Alzheimer's disease. *Neurosci Lett*. 2019;690:232-6.

Owen OE, Felig P, Morgan AP, Wahren J, Cahill GF, Jr. Liver and kidney metabolism during prolonged starvation. *J Clin Invest*. 1969;48(3):574-83.

Owen OE, Morgan AP, Kemp HG, Sullivan JM, Herrera MG, Cahill GF, Jr. Brain metabolism during fasting. *J Clin Invest*. 1967;46(10):1589-95.

Paoli A, Bianco A, Damiani E, Bosco G. Ketogenic Diet in Neuromuscular and Neurodegenerative Diseases. *BioMed research international*. 2014;2014:474296.

Paoli A, Bianco A, Grimaldi KA, Lodi A, Bosco G. Long term successful weight loss with a combination biphasic ketogenic mediterranean diet and mediterranean diet maintenance protocol. *Nutrients*. 2013;5(12):5205-17.

Paoli A, Bianco A, Grimaldi KA. The Ketogenic Diet and Sport: A Possible Marriage? *Exerc Sport Sci Rev*. 2015;43(3):153-62.

Paoli A, Canato M, Toniolo L, Bargossi AM, Neri M, Mediatì M, et al. The ketogenic diet: an underappreciated therapeutic option? *Clin Ter*. 2011;162(5):e145-e53.

Paoli A, Cancellara P, Pompei P, Moro T. Ketogenic Diet and Skeletal Muscle Hypertrophy: A Frenemy Relationship? *Journal of human kinetics*. 2019;68:233-47.

Paoli A, Cenci L, Fancelli M, Parmagnani A, Fratter A, Cucchi A, et al. Ketogenic diet and phytoextracts Comparison of the efficacy of Mediterranean, zone and tisanoreica diet on some health risk factors. *Agro Food Industry Hi-Tech*. 2010;21(4):24-9.

Paoli A, Cenci L, Grimaldi KA. Effect of Ketogenic Mediterranean diet with phytoextracts and low carbohydrates/high-protein meals on weight, cardiovascular risk factors, body composition and diet compliance in Italian council employees. *Nutr J*. 2011;10(1):112.

Paoli A, Grimaldi K, Bianco A, Lodi A, Cenci L, Parmagnani A. Medium term effects of a ketogenic diet and a Mediterranean diet on resting energy expenditure and respiratory ratio. *BMC Proc*. 2012;6:P37.

Paoli A, Grimaldi K, D'Agostino D, Cenci L, Moro T, Bianco A, et al. Ketogenic diet does not affect strength performance in elite artistic gymnasts. *J Int Soc Sports Nutr*. 2012;9(1):34.

Paoli A, Grimaldi K, Toniolo L, Canato M, Bianco A, Fratter A. Nutrition and Acne: Therapeutic Potential of Ketogenic Diets. *Skin Pharmacol Physiol*. 2012;25(3):111-7.

Paoli A, Mancin L, Bianco A, Thomas E, Mota JF, Piccini F. Ketogenic Diet and Microbiota: Friends or Enemies? *Genes (Basel)*. 2019;10(7).

Paoli A, Moro T, Bosco G, Bianco A, Grimaldi KA, Camporesi E, et al. Effects of n-3 polyunsaturated fatty acids (omega-3) supplementation on some cardiovascular risk factors with a ketogenic Mediterranean diet. *Mar Drugs*. 2015;13(2):996-1009.

Paoli A, Rubini A, Volek JS, Grimaldi KA. Beyond weight loss: a review of the therapeutic uses of very-low-carbohydrate (ketogenic) diets. *European journal of clinical nutrition*. 2013.

Paoli A, Rubini A, Volek JS, Grimaldi KA. Beyond weight loss: a review of the therapeutic uses of very-low-carbohydrate (ketogenic) diets. *Eur J Clin Nutr*. 2013;67(8):789-96.

Paoli A. Ketogenic diet for obesity: friend or foe? *Int J Environ Res Public Health*. 2014;11(2):2092-107.

Perez-Guisado J, Munoz-Serrano A, Alonso-Moraga A. Spanish Ketogenic Mediterranean Diet: a healthy cardiovascular diet for weight loss. *Nutr J*. 2008;7:30.

Perez-Guisado J, Munoz-Serrano A. A pilot study of the Spanish Ketogenic Mediterranean Diet: an effective therapy for the metabolic syndrome. *J Med Food*. 2011;14(7-8):681-7.

Perez-Guisado J, Munoz-Serrano A. The effect of the Spanish Ketogenic Mediterranean Diet on nonalcoholic fatty liver disease: a pilot study. *J Med Food*. 2011;14(7-8):677-80.

Phillips SM, Aragon AA, Arciero PJ, Arent SM, Close GL, Hamilton DL, et al. Changes in body composition and performance with supplemental HMB-FA+ATP. *J Strength Cond Res*. 2017;31(5):e71-e2.

Phinney SD, Bistrian BR, Evans WJ, Gervino E, Blackburn GL. The human metabolic response to chronic ketosis without caloric restriction: preservation of submaximal exercise capability with reduced carbohydrate oxidation. *Metabolism*. 1983;32(8):769-76.

Phinney SD, Horton ES, Sims EA, Hanson JS, Danforth E, Jr., LaGrange BM. Capacity for moderate exercise in obese subjects after adaptation to a hypocaloric, ketogenic diet. *J Clin Invest*. 1980;66(5):1152-61.

Pierre K, Pellerin L. Monocarboxylate transporters in the central nervous system: distribution, regulation and function. *J Neurochem*. 2005;94(1):1-14.

Pijls LT, de Vries H, Donker AJ, van Eijk JT. The effect of protein restriction on albuminuria in patients with type 2 diabetes mellitus: a randomized trial. *Nephrology, dialysis, transplantation : official publication of the European Dialysis and Transplant Association - European Renal Association*. 1999;14(6):1445-53.

Pijls LT, de Vries H, van Eijk JT, Donker AJ. Protein restriction, glomerular filtration rate and albuminuria in patients with type 2 diabetes mellitus: a randomized trial. *Eur J Clin Nutr*. 2002;56(12):1200-7.

Pinto A, Bonucci A, Maggi E, Corsi M, Businaro R. Anti-Oxidant and Anti-Inflammatory Activity of Ketogenic Diet: New Perspectives for Neuroprotection in Alzheimer's Disease. *Antioxidants (Basel)*. 2018;7(5).

Poplawski MM, Mastaitis JW, Isoda F, Grosjean F, Zheng F, Mobbs CV. Reversal of diabetic nephropathy by a ketogenic diet. *PLoS One*. 2011;6(4):e18604.

Puchalska P, Crawford PA. Multi-dimensional Roles of Ketone Bodies in Fuel Metabolism, Signaling, and Therapeutics. *Cell metabolism*. 2017;25(2):262-84.

Rauchenzauner M, Klepper J, Leiendecker B, Luef G, Rostasy K, Ebenbichler C. The ketogenic diet in children with Glut1 deficiency syndrome and epilepsy. *The Journal of pediatrics*. 2008;153(5):716-8.

Rinninella E, Fagotti A, Cintoni M, Raoul P, Scaletta G, Quagliozzi L, et al. Nutritional Interventions to Improve Clinical Outcomes in Ovarian Cancer: A Systematic Review of Randomized Controlled Trials. *Nutrients*. 2019;11(6).

Robey RB, Hay N. Is Akt the "Warburg kinase"?-Akt-energy metabolism interactions and oncogenesis. *Semin Cancer Biol*. 2009;19(1):25-31.

Robinson AM, Williamson DH. Physiological roles of ketone bodies as substrates and signals in mammalian tissues. *Physiol Rev*. 1980;60(1):143-87.

Ruderman NB, Xu XJ, Nelson L, Cacicedo JM, Saha AK, Lan F, et al. AMPK and SIRT1: a long-standing partnership? *Am J Physiol Endocrinol Metab.* 2010;298(4):E751-60.

Sato K, Kashiwaya Y, Keon CA, Tsuchiya N, King MT, Radda GK, et al. Insulin, ketone bodies, and mitochondrial energy transduction. *The FASEB journal : official publication of the Federation of American Societies for Experimental Biology.* 1995;9(8):651-8.

Schwartz KA, Noel M, Nikolai M, Chang HT. Investigating the Ketogenic Diet As Treatment for Primary Aggressive Brain Cancer: Challenges and Lessons Learned. *Front Nutr.* 2018;5:11.

Sengupta S, Peterson TR, Sabatini DM. Regulation of the mTOR complex 1 pathway by nutrients, growth factors, and stress. *Mol Cell.* 2010;40(2):310-22.

Sharman MJ, Kraemer WJ, Love DM, Avery NG, Gomez AL, Scheett TP, et al. A ketogenic diet favorably affects serum biomarkers for cardiovascular disease in normal-weight men. *J Nutr.* 2002;132(7):1879-85.

Shaw DM, Merien F, Braakhuis A, Maunder ED, Dulson DK. Effect of a Ketogenic Diet on Submaximal Exercise Capacity and Efficiency in Runners. *Med Sci Sports Exerc.* 2019;51(10):2135-46.

Shimazu T, Hirschey MD, Newman J, He W, Shirakawa K, Le Moan N, et al. Suppression of oxidative stress by beta-hydroxybutyrate, an endogenous histone deacetylase inhibitor. *Science.* 2013;339(6116):211-4.

Siliprandi N, Tettamanti G. *Biochimica medica: strutturale, metabolica e funzionale.* Padova: Piccin; 2005.

Skov AR, Haulrik N, Toubro S, Molgaard C, Astrup A. Effect of protein intake on bone mineralization during weight loss: a 6-month trial. *Obes Res.* 2002;10(6):432-8.

Stafstrom CE, Rho JM. The ketogenic diet as a treatment paradigm for diverse neurological disorders. *Front Pharmacol.* 2012;3:59.

Sumithran P, Prendergast LA, Delbridge E, Purcell K, Shulkes A, Kriketos A, et al. Ketosis and appetite-mediating nutrients and hormones after weight loss. *Eur J Clin Nutr.* 2013.

Sumithran P, Prendergast LA, Delbridge E, Purcell K, Shulkes A, Kriketos A, et al. Long-term persistence of hormonal adaptations to weight loss. *New Engl J Med.* 2011;365(17):1597-604.

Sutton EF, Bray GA, Burton JH, Smith SR, Redman LM. No evidence for metabolic adaptation in thermic effect of food by dietary protein. *Obesity.* 2016;24(8):1639-42.

Szypowska A, Regulska-Ilow B. Significance of low-carbohydrate diets and fasting in patients with cancer. *Rocz Panstw Zakl Hig.* 2019;70(4):325-36.

Tagliabue A, Bertoli S, Trentani C, Borrelli P, Veggiotti P. Effects of the ketogenic diet on nutritional status, resting energy expenditure, and substrate oxidation in patients with medically refractory epilepsy: a 6-month prospective observational study. *Clin Nutr.* 2012;31(2):246-9.

Talib WH. A ketogenic diet combined with melatonin overcomes cisplatin and vincristine drug resistance in breast carcinoma syngraft. *Nutrition.* 2019;72:110659.

Taylor MK, Swerdlow RH, Burns JM, Sullivan DK. An Experimental Ketogenic Diet for Alzheimer Disease Was Nutritionally Dense and Rich in Vegetables and Avocado. *Curr Dev Nutr.* 2019;3(4):nzz003.

Torosyan N, Sethanandha C, Grill JD, Dilley ML, Lee J, Cummings JL, et al. Changes in regional cerebral blood flow associated with a 45day course of the ketogenic agent, caprylidene, in patients with mild to moderate Alzheimer's disease: Results of a randomized, double-blinded, pilot study. *Exp Gerontol.* 2018;111:118-21.

Turocy PS, DePalma BF, Horswill CA, Laquale KM, Martin TJ, Perry AC, et al. National Athletic Trainers' Association position statement: safe weight loss and maintenance practices in sport and exercise. *Journal of athletic training.* 2011;46(3):322-36.

van der Louw E, Reddingius RE, Olieman JF, Neuteboom RF, Catsman-Berrevoets CE. Ketogenic diet treatment in recurrent diffuse intrinsic pontine glioma in children: A safety and feasibility study. *Pediatr Blood Cancer.* 2019;66(3):e27561.

Vanitallie TB, Nonas C, Di Rocco A, Boyar K, Hyams K, Heymsfield SB. Treatment of Parkinson disease with diet-induced hyperketonemia: a feasibility study. *Neurology.* 2005;64(4):728-30.

VanItallie TB, Nufert TH. Ketones: metabolism's ugly duckling. *Nutr Rev.* 2003;61(10):327-41.

Vargas S, Romance R, Petro JL, Bonilla DA, Galancho I, Espinar S, et al. Efficacy of ketogenic diet on body composition during resistance training in trained men: a randomized controlled trial. *J Int Soc Sports Nutr.* 2018;15(1):31.

Vazquez JA, Kazi U. Lipolysis and gluconeogenesis from glycerol during weight reduction with very-low-calorie diets. *Metabolism.* 1994;43(10):1293-9.

Veech RL. The therapeutic implications of ketone bodies: the effects of ketone bodies in pathological conditions: ketosis, ketogenic diet, redox states, insulin resistance, and mitochondrial metabolism. *Prostaglandins Leukot Essent Fatty Acids.* 2004;70(3):309-19.

Veggiotti P, Burlina A, Coppola G, Cusmai R, De Giorgis V, Guerrini R, et al. The ketogenic diet for Dravet syndrome and other epileptic encephalopathies: an Italian consensus. *Epilepsia.* 2011;52 Suppl 2:83-9.

Veldhorst MA, Westerterp-Plantenga MS, Westerterp KR. Gluconeogenesis and energy expenditure after a high-protein, carbohydrate-free diet. *Am J Clin Nutr.* 2009;90(3):519-26.

Volek JS, Freidenreich DJ, Saenz C, Kunces LJ, Creighton BC, Bartley JM, et al. Metabolic characteristics of keto-adapted ultra-endurance runners. *Metabolism.* 2016;65(3):100-10.

Volek JS, Phinney SD, Forsythe CE, Quann EE, Wood RJ, Puglisi MJ, et al. Carbohydrate restriction has a more favorable impact on the metabolic syndrome than a low fat diet. *Lipids*. 2009;44(4):297-309.

Volek JS, Sharman MJ, Forsythe CE. Modification of lipoproteins by very low-carbohydrate diets. *J Nutr*. 2005;135(6):1339-42.

Wakefield AP, House JD, Ogborn MR, Weiler HA, Aukema HM. A diet with 35 % of energy from protein leads to kidney damage in female Sprague-Dawley rats. *Br J Nutr*. 2011:1-8.

Warburg O. On respiratory impairment in cancer cells. *Science (New York, NY)*. 1956;124(3215):269-70.

Webster CC, Noakes TD, Chacko SK, Swart J, Kohn TA, Smith JA. Gluconeogenesis during endurance exercise in cyclists habituated to a long-term low carbohydrate high-fat diet. *J Physiol*. 2016;594(15):4389-405.

Westerterp-Plantenga MS, Lejeune MP. Protein intake and body-weight regulation. *Appetite*. 2005;45(2):187-90.

Westerterp-Plantenga MS, Nieuwenhuizen A, Tome D, Soenen S, Westerterp KR. Dietary protein, weight loss, and weight maintenance. *Annu Rev Nutr*. 2009;29:21-41.

Westerterp-Plantenga MS. How are normal, high- or low-protein diets defined? *Br J Nutr*. 2007;97(2):217-8.

Westerterp-Plantenga MS. Protein intake and energy balance. *Regul Pept*. 2008;149(1-3):67-9.

Wilson JM, Lowery RP, Roberts MD, Sharp MH, Joy JM, Shields KA, et al. The Effects of Ketogenic Dieting on Body Composition, Strength, Power, and Hormonal Profiles in Resistance Training Males. *J Strength Cond Res*. 2017.

Wilson JM. Response to discrepancies in publications related to HMB-FA and ATP supplementation. *Nutr Metab (Lond)*. 2017;14:74.

Wlodarek D. Role of Ketogenic Diets in Neurodegenerative Diseases (Alzheimer's Disease and Parkinson's Disease). *Nutrients*. 2019;11(1).

Yarrows SA. Weight loss through dehydration in amateur wrestling. *J Am Diet Assoc*. 1988;88(4):491-3.

Youm YH, Nguyen KY, Grant RW, Goldberg EL, Bodogai M, Kim D, et al. The ketone metabolite beta-hydroxybutyrate blocks NLRP3 inflammasome-mediated inflammatory disease. *Nat Med*. 2015;21(3):263-9.

Zajac A, Poprzecki S, Maszczyk A, Czuba M, Michalczyk M, Zydek G. The effects of a ketogenic diet on exercise metabolism and physical performance in off-road cyclists. *Nutrients*. 2014;6(7):2493-508.

RICARICA DEI CARBOIDRATI

Baugh ME., et al., "Postprandial skeletal muscle metabolism following a high fat diet in sedentary and endurance trained males". *J Appl Physiol* (1985). 2020 Mar 12. doi: 10.1152/jappphysiol.00576.2019. [Epub ahead of print] PubMed PMID: 32163335

Bergström J., Hultman E. (1966) "Muscle glycogen synthesis after exercise: an enhancing factor localized to the muscle cells in man". *Nature* 210:309–310

Cheung KK., et al., "Life-threatening hypokalemic paralysis in a young bodybuilder". *Case Rep Endocrinol*. 2014; 2014:483835. doi: 10.1155/2014/483835. Epub 2014 Feb 11.

Francart AL., et al., "Influence of the Scandinavian dissociated diet regime on the structure of sleep in athletes". *C R Seances Soc Biol Fil*. 1989;183(5):467-73. French. PubMed PMID: 2534747

Friedman DL., Larner J. (1963) "Studies on UDPG-alpha-glucan transglucosylase. III. Interconversion of two forms of muscle UDPG-alpha-glucan transglucosylase by a phosphorylation-dephosphorylation reaction sequence". *Biochemistry* 2:669–675

Galfano V., Donini L.M. "Carico di glicogeno e supercompensazione nel bodybuilding: aspetti endocrino-metabolici". *L'Endocrinologo* 20, 206–211 (2019). <https://doi.org/10.1007/s40619-019-00599-w>

Galliven EA., Singh A., Michelson D., Bina S. (1997) "Hormonal and metabolic responses to exercise across time of day and menstrual cycle phase". *J Appl Physiol* 83:1822–1831

Hawley JA., et al., (1997) "Carbohydrate-loading and exercise performance: an update". *Sports Med* 24:73–81

Hawley JA., Schabort EJ., Noakes TD., Dennis SC. (1997) "Carbohydrate-loading and exercise performance: an update". *Sports Med* 24:73–81

J Environ Pathol Toxicol Oncol. 1996;15(2-4):65-73. "Potassium, sodium, and cancer: a review". Jansson B., Department of Biomathematics, University of Texas M.D. Anderson Cancer Center, Houston 77030, USA

James AP., et al., (2001) "Muscle glycogen supercompensation: absence of a gender-related difference". *Eur J Appl Physiol* 85:533–538

Kjøbsted R., Pedersen AJ., Hingst JR., et al., (2016) "Intact regulation of the AMPK signaling network in response to exercise and insulin in skeletal muscle of male patients with type 2 diabetes: illumination of AMPK activation in recovery from exercise". *Diabetes* 65(5):1219–1230

Liamis G., et al., "Hyponatremia-Inducing Drugs". *Front Horm Res*. 2019; 52:167-177. doi: 10.1159/000493246. Epub 2019 Jan 15. PubMed PMID: 32097944

Liu D., et al., "The visualisation and quantification of human gastrointestinal fat distribution with MRI: a randomised study in healthy subjects". *Br J Nutr*. (2016) 115:903–12. 10.1017/S0007114515005188

Nygren AT., et al., (2001) "Effect of glycogen loading on skeletal muscle cross-sectional area and T2 relaxation time". *Acta Physiol Scand* 173:385–390

Nygren AT., Karlsson M., Norman B., Kaijser L. (2001) "Effect of glycogen loading on skeletal muscle cross-sectional area and T2 relaxation time". *Acta Physiol Scand* 173:385–390

Ortenblad N., Nielsen J. (2015) "Muscle glycogen and cell function: location, location, location". *Scand J Med Sci Sports* 25(Suppl 4):34–40

Scott JH., Dunn RJ. (2018) "StatPearls". StatPearls Publishing, Treasure Island

Softic S., et al., "Fructose and hepatic insulin resistance". *Crit Rev Clin Lab Sci*. 2020 Jan 14:1-15. doi: 10.1080/10408363.2019.1711360. [Epub ahead of print] PubMed PMID: 31935149

Tarnopolsky MA., et al., (2001) "Gender differences in carbohydrate loading are related to energy intake". *J Appl Physiol* 91:225–230

Walker JL., et al., (2000) "Dietary carbohydrate, muscle glycogen content, and endurance performance in well-trained women". *J Appl Physiol* 88:2151–2158

Wojtaszewski JF., Jørgensen SB. Hellsten Y., et al., (2002) "Glycogendependent effects of 5-aminoimidazole-4-carboxamide (AICA)-riboside on AMP-activated protein kinase and glycogen synthase activities in rat skeletal muscle". *Diabetes* 51:284–292