

OSA 1  
Luku 1

Barefoot JC, Gronbaek M, Feaganes JR, McPherson RS, Williams RB, Siegler IC. Alcoholic beverage preference, diet, and health habits in the UNC Alumni Heart Study. *Am J Clin Nutr.* 2002 Aug;76(2):466-72.

Becker W, Lyhne N, Pedersen AN y.m. Nordic Nutrition Recommendations 2004- Integrating nutrition and physical activity. *Nord 2004:13*, Nordic Council of Ministers, Copenhagen.

Johansen D, Friis K, Skovenborg E, Gronbaek M. Food buying habits of people who buy wine or beer: cross sectional study. *BMJ.* 2006 Jan 20;

Laatikainen T, Tapanainen H, Alfthan G, Salminen I, Sundvall J, Leiviskä J, ym. FINRISKI 2002. Kansanterveyslaitoksen julkaisuja B7/2003. Hakapaino Oy: Helsinki 2003.

Lahti-Koski M. Body mass index and obesity among adults in Finland. Publications of the National Public Health Institute A12/2001. Kansanterveyslaitos, Helsinki 2001 (väitöskirja)

Lääkintöhallitus. Urheilijoiden ravitsemussuositukset - työryhmän mietintö. Valtion painatuskeskus, Helsinki 1990.

Männistö S, Ovaskainen M, Valsta L, toim. Finravinto 2002 -tutkimus. Kansanterveyslaitoksen julkaisuja B3/2003. Helsinki: Kansanterveyslaitos, 2003.

Pöllänen K, Tiilikainen R. Suomen Olympiakomitea: Urheilijan ravitsemussuositus 2. painos. Jyväskylä, 2001.

Raulio S, Mukala K, Ovaskainen M-L, Lahti-Koski M, Sirén M, Prättälä R. Työaikainen ruokailu Suomessa. Kolmen valtakunnallisen seurantatutkimuksen tuloksia. Kansanterveyslaitoksen julkaisuja B3/2004

Tiilikainen R, Pöllänen K, Lahti-Koski M, Borg P. Suomalaisten nuorten urheilijoiden ravinnonsaanti. *Urheilijan ravinto* 2001/1:45-49

Valtion ravitsemusneuvottelukunta. Suomalaiset ravitsemussuositukset-ravinto ja liikunta tasapainoon. Helsinki: Edita 2005.

Whitney EN, Rolfes SR. An overview of nutrition. Kirjassa: Whitney EN, Rolfes SR (toim.). *Understanding Nutrition* 7th ed. West Publishing Company, USA, 1996

Luku 2

Adlercreutz H. Phytoestrogens and breast cancer. *J Steroid Biochem Mol Biol.* 2002 Dec;83(1-5):113-8.

Armstrong LE, Pumerantz AC, Roti MW, Judelson DA, Watson G, Dias JC, Sokmen B, Casa DJ ym. Fluid, electrolyte, and renal indices of hydration during 11 days of controlled caffeine consumption. *Int J Sport Nutr Exerc Metab.* 2005 Jun;15(3):252-65.

Bylund A, Lundin E, Zhang JX, Nordin A, Kaaks R, Stenman UH, Aman P, Adlercreutz H, Nilsson TK, Hallmans G ym. Randomised controlled short-term intervention pilot study on rye bran bread in prostate cancer. *Eur J Cancer Prev.* 2003 Oct;12(5):407-15.

Franco OH, Bonneux L, de Laet C, Peeters A, Steyerberg EW, Mackenbach JP. The Polymeal: a more natural, safer, and probably tastier (than the Polypill) strategy to reduce cardiovascular disease by more than 75 %. *BMJ.* 2004 Dec 18;329(7480):1447-50

Happonen P, Voutilainen S, Salonen JT. Coffee drinking is dose-dependently related to the risk of acute coronary events in middle-aged men. *J Nutr.* 2004 Sep;134(9):2381-6.

Hu FB, Stampfer MJ. Nut consumption and risk of coronary heart disease: a review of epidemiologic evidence. *Curr Atheroscler Rep.* 1999 Nov;1(3):204-9.

Kleemola P, Jousilahti P, Pietinen P, Vartiainen E, Tuomilehto J. Coffee consumption and the risk of coronary heart disease and death. *Arch Intern Med.* 2000 Dec 11-25;160(22):3393-400.

Laitinen K, Valimaki M. Bone and the 'comforts of life'. *Ann Med.* 1993 Aug;25(4):413-25.

Lakenbrink C, Lapczynski S, Maiwald B, Engelhardt UH. Flavonoids and other polyphenols in consumer brews of tea and other caffeinated beverages. *J Agric Food Chem.* 2000 Jul;48(7):2848-52.

Rietveld A, Wiseman S. Antioxidant effects of tea: evidence from human clinical trials. *J Nutr.* 2003 Oct;133(10):3285S-3292S.

Ruhl CE, Everhart JE. Coffee and tea consumption are associated with a lower incidence of chronic liver disease in the United States. *Gastroenterology.* 2005 Dec;129(6):1928-36.

Svilaas A, Sakhi AK, Andersen LF, Svilaas T, Strom EC, Jacobs DR Jr, Ose L, Blomhoff R. Intakes of antioxidants in coffee, wine, and vegetables are correlated with plasma carotenoids in humans. *J Nutr.* 2004 Mar;134(3):562-7.

Valtion ravitsemusneuvottelukunta. *Suomalaiset ravitsemussuosituks* 2005. Helsinki: Edita, 2005.

van Dam RM, Hu FB. Coffee consumption and risk of type 2 diabetes: a systematic review. *JAMA.* 2005 Jul 6;294(1):97-104.

Vanharanta M, Voutilainen S, Rissanen TH, Adlercreutz H, Salonen JT. Risk of cardiovascular disease-related and all-cause death according to serum concentrations of enterolactone: Kuopio Ischaemic Heart Disease Risk Factor Study. *Arch Intern Med.* 2003 May 12;163(9):1099-104.

Whitney EN, Rolfes SR. *Planning a healthy diet.* Kirjassa: Whitney EN, Rolfes SR. *Understanding nutrition* 7th ed. West Publishing Company, USA, 1996.

### Luku 3

Acheson KJ. Influence of autonomic nervous system on nutrient-induced thermogenesis in humans. *Nutrition.* 1993 Jul-Aug;9(4):373-80

Ainsworth BE, Haskell WL, Leon AS, Jacobs DR Jr, Montoye HJ, Sallis JF, Paffenbarger RS Jr. Compendium of physical activities: classification of energy costs of human physical activities. *Med Sci Sports Exerc* 1993;25:71-80

Ahmaidi S, Granier P, Taoutaou Z, Mercier J, Dubouchaud H, Prefaut C. Effects of active recovery on plasma lactate and anaerobic power following repeated intensive exercise. *Med Sci Sports Exerc.* 1996 Apr;28(4):450-6.

Bizeau ME, Willis WT, Hazel JR. Differential responses to endurance training in subsarcolemmal and intermyofibrillar mitochondria. *J Appl Physiol.* 1998 Oct;85(4):1279-84.

Bray GA, Whipp BJ, Koyal SN. The acute effects of food intake on energy expenditure during cycle ergometry. *Am J Clin Nutr.* 1974 Mar;27(3):254-9.

Broeder CE, Burrhus KA, Svanevik LS, Wilmore JH. The effects of aerobic fitness on resting metabolic rate. *Am J Clin Nutr.* 1992 Apr;55(4):795-801.

Burstein R, Coward AW, Askew WE, Carmel K, Irving C, Shpilberg O, Moran D, Pikarsky A ym. Energy expenditure variations in soldiers performing military activities under cold and hot climate conditions. *Mil Med.* 1996 Dec;161(12):750-4.

Cunningham JJ. A reanalysis of the factors influencing basal metabolic rate in normal adults. *Am J Clin Nutr.* 1980 Nov;33(11):2372-4.

Cunningham JJ. Body composition and resting metabolic rate: the myth of feminine metabolism. *Am J Clin Nutr.* 1982 Oct;36(4):721-6.

Denzer CM, Young JC. The effect of resistance exercise on the thermic effect of food. *Int J Sport Nutr Exerc Metab.* 2003 Sep;13(3):396-402.

de Jonge L, Bray GA. The thermic effect of food is reduced in obesity. *Nutr Rev.* 2002 Sep;60(9):295-7; author reply 299-300

Donovan CM, Pagliassotti MJ. Enhanced efficiency of lactate removal after endurance training. *J Appl Physiol*. 1990 Mar;68(3):1053-8.

Duffield R, Dawson B, Goodman C. Energy system contribution to 100-m and 200-m track running events. *J Sci Med Sport*. 2004 Sep;7(3):302-13.

Duffield R, Dawson B, Goodman C. Energy system contribution to 1 500- and 3000-metre track running. *J Sports Sci*. 2005a Oct;23(10):993-1002.

Duffield R, Dawson B, Goodman C. Energy system contribution to 400-metre and 800-metre track running. *J Sports Sci*. 2005 Mar;23(3):299-307.

Ferraro R, Lillioja S, Fontvieille AM, Rising R, Bogardus C, Ravussin E. Lower sedentary metabolic rate in women compared with men. *J Clin Invest*. 1992 Sep;90(3):780-4.

Fitts RH. Effects of regular exercise training on skeletal muscle contractile function. *Am J Phys Med Rehabil*. 2003 Apr;82(4):320-31

Fogelholm M. Energiäkulutus ja tarve. Kirjassa: Borg P, Fogelholm M, Hiilloskorpi H. Liikkujan ravitsemus - teoriasta käytäntöön. Edita, Helsinki, 2004.

Gladden LB. Lactate metabolism: a new paradigm for the third millennium. *J Physiol*. 2004 Jul 1;558(Pt 1):5-30.

Gollnick PD, Armstrong RB, Saltin B, Saubert CW 4th, Sembrowich WL, Shepherd RE. Effect of training on enzyme activity and fiber composition of human skeletal muscle. *J Appl Physiol*. 1973 Jan;34(1):107-11.

Hickson RC. Skeletal muscle cytochrome c and myoglobin, endurance, and frequency of training. *J Appl Physiol*. 1981 Sep;51(3):746-9.

Hirvonen J, Nummela A, Rusko H, Rehunen S, Harkonen M. Fatigue and changes of ATP, creatine phosphate, and lactate during the 400-m sprint. *Can J Sport Sci*. 1992 Jun;17(2):141-4.

Hirvonen J, Rehunen S, Rusko H, Harkonen M. Breakdown of high-energy phosphate compounds and lactate accumulation during short supramaximal exercise. *Eur J Appl Physiol Occup Physiol*. 1987;56(3):253-9.

Holloszy JO, Coyle EF. Adaptations of skeletal muscle to endurance exercise and their metabolic consequences. *J Appl Physiol*. 1984 Apr;56(4):831-8.

Jacobs I, Esbjornsson M, Sylven C, Holm I, Jansson E. Sprint training effects on muscle myoglobin, enzymes, fiber types, and blood lactate. *Med Sci Sports Exerc*. 1987 Aug;19(4):368-74.

Jamurtas AZ, Koutedakis Y, Paschalis V, Tofas T, Yfanti C, Tsiokanos A, Koukoulis G, Kouretas D, Loupos D. The effects of a single bout of exercise on resting energy expenditure and respiratory exchange ratio. *Eur J Appl Physiol*. 2004 Aug;92(4-5):393-8.

Jequier E. Energy expenditure in obesity. *Clin Endocrinol Metab*. 1984 Nov;13(3):563-80.

Jones PP, Van Pelt RE, Johnson DG, Seals DR. Role of sympathetic neural activation in age- and habitual exercise-related differences in the thermic effect of food. *J Clin Endocrinol Metab*. 2004 Oct;89(10):5138-44.

Katz A, Sahlin K. Role of oxygen in regulation of glycolysis and lactate production in human skeletal muscle. *Exerc Sport Sci Rev*. 1990;18:1-28.

Kayser B. Exercise starts and ends in the brain. *Eur J Appl Physiol*. 2003 Oct;90(3-4):411-9

Laforgia J, Withers RT, Shipp NJ, Gore CJ. Comparison of energy expenditure elevations after submaximal and supramaximal running. *J Appl Physiol*. 1997 Feb;82(2):661-6.

Leonard WR, Sorensen MV, Galloway VA, Spencer GJ, Mosher MJ, Osipova L, Spitsyn VA. Climatic influences on basal metabolic rates among circumpolar populations. *Am J Hum Biol*. 2002 Sep-Oct;14(5):609-20.

Manore M, Thompson J. Energy requirements of the athlete: assessment and evidence for energy efficiency. Kirjassa: Burke L, Deakin V (toim). *Clinical sports nutrition* 2nd ed. McGraw-Hill, Australia, 2002.

Martin WH 3rd, Dalsky GP, Hurley BF, Matthews DE, Bier DM, Hagberg JM, Rogers MA, King DS ym. Effect of endurance training on plasma free fatty acid turnover and oxidation during exercise. *Am J Physiol*. 1993 Nov;265(5 Pt 1):E708-14.

McArdle WD, Katch FI, Katch VL. *Exercise Physiology. Energy, Nutrition, and Human Performance* 5th ed. Lippincott Williams & Wilkins, USA 2001

McArdle WD, Katch FI, Katch VL. *Sports & exercise nutrition* 2nd ed. Lippincott Williams & Wilkins, USA, 2005.

Melanson EL, Sharp TA, Seagle HM, Donahoo WT, Grunwald GK, Peters JC, Hamilton JT, Hill JO. Twenty-four-hour metabolic responses to resistance exercise in women. *J Strength Cond Res*. 2005 Feb;19(1):61-6.

Murray SJ, Shephard RJ, Greaves S, Allen C, Radomski M. Effects of cold stress and exercise on fat loss in females. *Eur J Appl Physiol Occup Physiol*. 1986;55(6):610-8.

Noakes T. The central governor model of exercise. Suunto coach seminar, Helsinki 30.8.2005. <http://194.100.179.98/wip/presentation.do?presid=68033&cmID=C15482223231442735L3036U875931X1577813>

Osterberg KL, Melby CL. Effect of acute resistance exercise on postexercise oxygen consumption and resting metabolic rate in young women. *Int J Sport Nutr Exerc Metab*. 2000 Mar;10(1):71-81.

Poehlman ET, Melby CL, Badylak SF. Resting metabolic rate and postprandial thermogenesis in highly trained and untrained males. *Am J Clin Nutr*. 1988 May;47(5):793-8.

Poehlman ET, McAuliffe TL, Van Houten DR, Danforth E Jr. Influence of age and endurance training on metabolic rate and hormones in healthy men. *Am J Physiol*. 1990 Jul;259(1 Pt 1):E66-72.

Ravussin E, Lillioja S, Anderson TE, Christin L, Bogardus C. Determinants of 24-hour energy expenditure in man. Methods and results using a respiratory chamber. *J Clin Invest*. 1986 Dec;78(6):1568-78.

Romijn JA, Coyle EF, Sidossis LS, Zhang XJ, Wolfe RR. Relationship between fatty acid delivery and fatty acid oxidation during strenuous exercise. *J Appl Physiol*. 1995 Dec;79(6):1939-45.

Rontoyannis GP, Skoulis T, Pavlou KN. Energy balance in ultramarathon running. *Am J Clin Nutr*. 1989 May;49(5 Suppl):976-9

Sahlin K. Metabolic factors in fatigue. *Sports Med*. 1992 Feb;13(2):99-107

Saltin B, Wahren J, Pernow B. Phosphagen and carbohydrate metabolism during exercise in trained middle-aged men. *Scand J Clin Lab Invest*. 1974 Feb;33(1):71-7

Schoeller DA. The importance of clinical research: the role of thermogenesis in human obesity. *Am J Clin Nutr*. 2001 Mar;73(3):511-6.

Segal KR, Gutin B. Thermic effects of food and exercise in lean and obese women. *Metabolism*. 1983 Jun;32(6):581-9.

Sheldahl LM, Buskirk ER, Loomis JL, Hodgson JL, Mendez J. Effects of exercise in cool water on body weight loss. *Int J Obes*. 1982;6(1):29-42.

Shephard RJ. Adaptation to exercise in the cold. *Sports Med*. 1985 Jan-Feb;2(1):59-71.

Short KR, Sedlock DA. Excess postexercise oxygen consumption and recovery rate in trained and untrained subjects. *J Appl Physiol*. 1997 Jul;83(1):153-9.

Speakman JR, Selman C. Physical activity and resting metabolic rate. *Proc Nutr Soc*. 2003 Aug;62(3):621-34.

Thompson J, Manore MM, Skinner JS. Resting metabolic rate and thermic effect of a meal in low- and adequate-energy intake male endurance athletes. *Int J Sport Nutr*. 1993 Jun;3(2):194-206.

Thompson J, Manore MM. Predicted and measured resting metabolic rate of male and female endurance athletes. *J Am Diet Assoc*. 1996 Jan;96(1):30-4.

Tremblay A, Cote J, LeBlanc J. Diminished dietary thermogenesis in exercise-trained human subjects. *Eur J Appl Physiol Occup Physiol*. 1983;52(1):1-4

Westerblad H, Allen DG, Lannergren J. Muscle fatigue: lactic acid or inorganic phosphate the major cause? *News Physiol Sci*. 2002 Feb;17:17-21.

Westerterp KR. Diet induced thermogenesis. *Nutr Metab (Lond)*. 2004 Aug 18;1(1):5

Westerterp KR, Wilson SA, Rolland V. Diet induced thermogenesis measured over 24h in a respiration chamber: effect of diet composition. *Int J Obes Relat Metab Disord*.

Westerterp-Plantenga MS, Lejeune MP. Protein intake and body-weight regulation. *Appetite*. 2005 Oct;45(2):187-90.

White LJ, Dressendorfer RH, Holland E, McCoy SC, Ferguson MA. Increased caloric intake soon after exercise in cold water. *Int J Sport Nutr Exerc Metab*. 2005 Feb;15(1):38-47.

Wolfe RR. Fat metabolism in exercise. *Adv Exp Med Biol*. 1998;441:147-56.

#### Luku 4

Bachmann OP, Dahl DB, Brechtel K, Machann J, Haap M, Maier T, Loviscach M, Stumvoll M, Claussen CD, Schick F ym. Effects of intravenous and dietary lipid challenge on intramyocellular lipid content and the relation with insulin sensitivity in humans. *Diabetes*. 2001 Nov;50(11):2579-84.

Bantle JP, Raatz SK, Thomas W, Georgopoulos A. Effects of dietary fructose on plasma lipids in healthy subjects. *Am J Clin Nutr*. 2000 Nov;72(5):1128-34.

Becker W, Lyhne N, Pedersen AN ym. Nordic Nutrition Recommendations 2004- Integrating nutrition and physical activity. *Nord 2004*:13, Nordic Council of Ministers, Copenhagen.

Biesalski HK. Diabetes preventive components in the Mediterranean diet. *Eur J Nutr*. 2004 Mar;43 Suppl 1:I/26-30.

Bruce CR, Hawley JA. Improvements in insulin resistance with aerobic exercise training: a lipocentric approach. *Med Sci Sports Exerc*. 2004 Jul;36(7):1196-201. Review.

Burke LM, Cox GR, Culmings NK, Desbrow B. Guidelines for daily carbohydrate intake: do athletes achieve them? *Sports Med*. 2001;31(4):267-99

Costacou T, Mayer-Davis EJ. Nutrition and prevention of type 2 diabetes. *Annu Rev Nutr*. 2003;23:147-70. Epub 2003 Feb 21

Decombaz J, Schmitt B, Ith M, Decarli B, Diem P, Kreis R, Hoppeler H, Boesch C. Postexercise fat intake repletes intramyocellular lipids but no faster in trained than in sedentary subjects. *Am J Physiol Regul Integr Comp Physiol*. 2001 Sep;281(3):R760-9.

Dengel DR, Pratley RE, Hagberg JM, Rogus EM, Goldberg AP. Distinct effects of aerobic exercise training and weight loss on glucose homeostasis in obese sedentary men. *J Appl Physiol*. 1996 Jul;81(1):318-25.

Ekelund U, Brage S, Franks PW, Hennings S, Emms S, Wareham NJ. Physical activity energy expenditure predicts progression toward the metabolic syndrome independently of aerobic fitness in middle-aged healthy Caucasians: the medical research council ely study. *Diabetes Care*. 2005 May;28(5):1195-200.

Hargreaves M. Exercise physiology and metabolism. In: Burke L, Deakin V. *Clinical Sports Nutrition*, The McGraw-Hill Companies, Inc. 2003.

Helakorpi S, Patja K, Prättälä R, Aro AR, Uutela A. Finriski 2004. Suomalaisen aikuisväestön terveyskäyttäytyminen ja terveys. *Kansanterveyslaitoksen julkaisuja B13/2004*. Helsinki 2005.

Hodge AM, English DR, O'Dea K, Giles GG. Glycemic index and dietary fiber and the risk of type 2 diabetes. *Diabetes Care*. 2004 Nov;27(11):2701-6.

Janket SJ, Manson JE, Sesso H, Buring JE, Liu S A prospective study of sugar intake and risk of type 2 diabetes in women. *Diabetes Care*. 2003 Apr;26(4):1008-15.

Jenkins DJ, Kendall CW, Augustin LS, Franceschi S, Hamidi M, Marchie A, Jenkins AL, Axelsen M. Glycemic index: overview of implications in health and disease. *Am J Clin Nutr.* 2002 Jul;76(1):266S-73S.

Laaksonen DE, Lakka HM, Salonen JT, Niskanen LK, Rauramaa R, Lakka TA. Low levels of leisure-time physical activity and cardiorespiratory fitness predict development of the metabolic syndrome. *Diabetes Care.* 2002 Sep;25(9):1612-8.

Laaksonen D, Fogelholm M. Liikunta, energiankulutus ja ravitsemus. Kirjassa: Vuori I, Taimela S, Kujala U, toim. Liikuntalääketiede. Helsinki, Duodecim, 2005.

Martin WH 3rd, Dalsky GP, Hurley BF, Matthews DE, Bier DM, Hagberg JM, Rogers MA, King DS, Holloszy JO. Effect of endurance training on plasma free fatty acid turnover and oxidation during exercise. *Am J Physiol.* 1993 Nov;265(5 Pt 1):E708-14.

McDevitt RM, Bott SJ, Harding M, Coward WA, Bluck LJ, Prentice AM. De novo lipogenesis during controlled overfeeding with sucrose or glucose in lean and obese women. *Am J Clin Nutr.* 2001 Dec;74(6):737-46

Mutanen M, Voutilainen E. Energiaravintoaineet, ravintokuitu ja alkoholi. Kirjassa: Aro A, Mutanen M, Uusitupa M, toim. Ravitsemustiede. Helsinki, Duodecim, 2005.

Männistö S, Ovaskainen M, Valsta L, toim. Finravinto 2002 -tutkimus. Kansanterveyslaitoksen julkaisu B3/2003. Helsinki: Kansanterveyslaitos, 2003.

Oshida Y, Yamanouchi K, Hayamizu S, Nagasawa J, Ohsawa I, Sato Y. Effects of training and training cessation on insulin action. *Int J Sports Med.* 1991 Oct;12(5):484-6.

Perez-Jimenez F, Lopez-Miranda J, Pinillos MD, Gomez P, Paz-Rojas E, Montilla P, Marin C, Velasco MJ ym. A Mediterranean and a high-carbohydrate diet improve glucose metabolism in healthy young persons. *Diabetologia.* 2001 Nov;44(11):2038-43

Rattigan S, Wheatley C, Richards SM, Barrett EJ, Clark MG. Exercise and insulin-mediated capillary recruitment in muscle. *Exerc Sport Sci Rev.* 2005 Jan;33(1):43-8.

Rosenbaum M, Hirsch J, Murphy E, Leibel RL. Effects of changes in body weight on carbohydrate metabolism, catecholamine excretion, and thyroid function. *Am J Clin Nutr.* 2000 Jun;71(6):1421-32.

Sato Y, Nagasaki M, Nakai N, Fushimi T. Physical exercise improves glucose metabolism in lifestyle-related diseases. *Exp Biol Med (Maywood).* 2003 Nov;228(10):1208-12.

Stannard SR, Johnson NA. Insulin resistance and elevated triglyceride in muscle: more important for survival than "thrifty" genes? *J Physiol.* 2004 Feb 1;554(Pt 3):595-607.

Thamer C, Machann J, Bachmann O, Haap M, Dahl D, Wietek B, Tschratter O, Niess A, Brechtel K, Fritsche A ym. Intramyocellular lipids: anthropometric determinants and relationships with maximal aerobic capacity and insulin sensitivity. *J Clin Endocrinol Metab.* 2003 Apr;88(4):1785-91

Thanopoulou AC, Karamanos BG, Angelico FV, Assaad-Khalil SH, Barbato AF, Del Ben MP, Djordjevic PB ym. Dietary fat intake as risk factor for the development of diabetes: multinational, multicenter study of the Mediterranean Group for the Study of Diabetes (MGSD). *Diabetes Care.* 2003 Feb;26(2):302-7.

Thompson PD, Crouse SF, Goodpaster B, Kelley D, Moyna N, Pescatello L. The acute versus the chronic response to exercise. *Med Sci Sports Exerc.* 2001 Jun;33(6 Suppl):S438-45; discussion S452-3.

Tortora GJ, Grabowski SR. Principles of Anatomy and Physiology. New York: Harper Collins Collage Publications, 1996.

Valtion Ravitsemusneuvottelukunta. Suomalaiset Ravitsemussuosituksset. Komiteamietintö 2005. Helsinki: Edita, 2005.

Virkkamäki A, Korshennikova E, Seppälä-Lindroos A, Vehkavaara S, Goto T, Halavaara J, Hakkinen AM ym. Intramyocellular lipid is associated with

resistance to in vivo insulin actions on glucose uptake, antilipolysis, and early insulin signaling pathways in human skeletal muscle. *Diabetes*. 2001 Oct;50(10):2337-43.

Whitney EN, Rolfes SR. *The carbohydrates: Sugars, starch and fibers*. Kirjassa: Whitney EN, Rolfes SR (toim.). *Understanding Nutrition 7th ed*. West Publishing Company, USA, 1996

Willett W, Manson J, Liu S. Glycemic index, glycemic load, and risk of type 2 diabetes. *Am J Clin Nutr*. 2002 Jul;76(1):274S-80S.

Wolever TM, Jenkins DJ, Jenkins AL, Josse RG. The glycemic index: methodology and clinical implications. *Am J Clin Nutr*. 1991 Nov;54(5):846-54.

Yamanouchi K, Shinozaki T, Chikada K, Nishikawa T, Ito K, Shimizu S, Ozawa N ym. Daily walking combined with diet therapy is a useful means for obese NIDDM patients not only to reduce body weight but also to improve insulin sensitivity. *Diabetes Care*. 1995 Jun;18(6):775-8.

## Luku 5

Arnal MA, Mosoni L, Boirie Y, Houlier ML, Morin L, Verdier E, Ritz P, Antoine JM, Prugnaud J ym. Protein pulse feeding improves protein retention in elderly women. *Am J Clin Nutr*. 1999 Jun;69(6):1202-8.

Arnal MA, Mosoni L, Boirie Y, Houlier ML, Morin L, Verdier E, Ritz P, Antoine JM ym. Protein feeding pattern does not affect protein retention in young women. *J Nutr*. 2000 Jul;130(7):1 700-4.

Bujko J, Schreurs VV, Koopmanschap PE, Furstenberg E, Keller JS. Benefit of more but smaller meals at a fixed daily protein intake. *Z Ernährungswiss*. 1997 Dec;36(4):347-9.

Boirie Y, Dangin M, Gachon P, Vasson MP, Maubois JL, Beaufriere B. Slow and fast dietary proteins differently modulate postprandial protein accretion. *Proc Natl Acad Sci U S A*. 1997 Dec 23;94(26):14930-5.

Friedman AN. High-protein diets: potential effects on the kidney in renal health and disease. *Am J Kidney Dis*. 2004 Dec;44(6):950-62.

Halton TL, Hu FB. The effects of high protein diets on thermogenesis, satiety and weight loss: a critical review. *J Am Coll Nutr*. 2004 Oct;23(5):373-85.

Mock DM, Henrich CL, Carnell N, Mock NI. Indicators of marginal biotin deficiency and repletion in humans: validation of 3-hydroxyisovaleric acid excretion and a leucine challenge. *Am J Clin Nutr*. 2002 Nov;76(5):1061-8.

Mosoni L, Mirand PP. Type and timing of protein feeding to optimize anabolism. *Curr Opin Clin Nutr Metab Care*. 2003 May;6(3):301-6

Mullins NM, Sinning WE. Effects of resistance training and protein supplementation on bone turnover in young adult women. *Nutr Metab (Lond)*. 2005 Aug 17;2:19.

Männistö S, Ovaskainen M-L, Valsta L toim. *Finravinto 2002 -tutkimus. The National Findiet 2002 Study*. Kansanterveyslaitoksen julkaisuja B3/2003. Helsinki: Kansanterveyslaitos, 2003.

Pitkänen H. Amino acid metabolism in athletes and non-athletes with special reference to amino acid concentrations and protein balance in exercise, training and aging. *Studies in sport, physical education and health*, no. 89, Jyväskylä 2002.

Rand WM, Pellett PL, Young VR. Meta-analysis of nitrogen balance studies for estimating protein requirements in healthy adults. *Am J Clin Nutr*. 2003 Jan;77(1):109-27.

Tarnopolsky M. *Protein and amino acid needs for training and bulking up*. Kirjassa: *Clinical sports nutrition 2nd ed*. Burke L, Deakin V (toim.) McGraw-Hill Hong Kong 2002.

Tiilikainen R, Pöllänen K, Lahti-Koski M, Borg P. *Suomalaisten nuorten urheilijoiden ravinnonsaanti*. *Urheilijan ravinto* 2001/1:45-49

Valtion ravitsemusneuvottelukunta. Suomalaiset ravitsemussuositukset - ravinto ja liikunta tasapainoon. Helsinki: Edita 2005.

van Erp-Baart AM, Saris WH, Binkhorst RA, Vos JA, Elvers JW. Nationwide survey on nutritional habits in elite athletes. Part I. Energy, carbohydrate, protein, and fat intake. *Int J Sports Med.* 1989 May;10 Suppl 1:S3-10.

Westerterp-Plantenga MS. The significance of protein in food intake and body weight regulation. *Curr Opin Clin Nutr Metab Care.* 2003 Nov;6(6):635-8.

Whitney EN, Rolfes SR. *Protein: Amino Acids.* Kirjassa: Whitney EN, Rolfes SR. *Understanding Nutrition 7th ed.* West publishing company, USA, 1996.

## Luku 6

Allessandri JM, Guesnet P, VAncassel S, Astorg P, Denis I, Langelier B, Aid S, Poumes-Ballihaut C, Champeil-Potokar G ym. Polyunsaturated fatty acids in the central nervous system: evolution of concepts and nutritional implications throughout life. *Reproduction, Nutrition, Development.* 44(6):509-38, 2004.

Aro A. Ravitsemus, dyslipidemia ja ateroskleroosi. Kirjassa: Aro A, Mutanen M, Uusitupa M, toim. Ravitsemustiede. Helsinki, Duodecim, 2005:425-449.

Atalay M, Laaksonen DE, Khanna S, Kaliste-Korhonen E, Hanninen O, Sen CK. Vitamin E regulates changes in tissue antioxidants induced by fish oil and acute exercise. *Med Sci Sports Exerc.* 2000 Mar;32(3):601-7.

Becker W, Lyhne N, Pedersen AN y.m. Nordic Nutrition Recommendations 2004- Integrating nutrition and physical activity. *Nord 2004:13*, Nordic Council of Ministers, Copenhagen.

Bourre JM; Bonneil M, Clement M, Dumont O, Durand G, Lafont H, Nalbone G, Piciotti M. Function of dietary polyunsaturated acids in the nervous system. *Prostaglandins leukotrienes & Essential Fatty Acids.* 1993,48(1):5-15.

Burke L, Desbrow B, Minehan M. Dietary supplement and nutritional ergogenic acids in sport. In: Burke L, Deakin V, ed. *Clinical Sports Nutrition.* The McGraw-Hill Companies, Inc.2003.

Enkovaara A-L, Koski S. Kalaöljy ja kalanmaksaöljy. *TABU 1.*2005.

Fogelholm M, Kaukua J. Lihavuus. Kirjassa: Kirjassa: Vuori I, Taimela S, Kujala U, toim. Liikuntalääketiede. Helsinki, Duodecim, 2005:

Fontani G, Corradeschi F, Felici A, Alfatti F, Migliorini S, Lodi L. Cognitive and physiological effects of Omega-3 polyunsaturated fatty acid supplementation in healthy subjects. *Eur J Clin Invest.* 2005 Nov;35(11):691-9.

German JB, Dillard CJ. Saturated fats: what dietary intake? *Am J Clin Nutr* 2004;80:550-9.

Hargreaves M. Exercise physiology and metabolism. In: Burke L, Deakin V, ed. *Clinical Sports Nutrition.* The McGraw-Hill Companies, Inc.2003.

Hawley J. Nutritional strategies to enhance fat oxidation during aerobic exercise. In: Burke L, Deakin V. ed. *Clinical Sports Nutrition..* The McGraw-Hill Companies, Inc.2003.

Heinonen OJ. Liikunnan vaikutukset kliiniskemiallisiin suureisiin. Kirjassa: Vuori I, Taimela S, Kujala U, toim. Liikuntalääketiede. Helsinki, Duodecim, 2005.

Helakorpi S, Patja K, Prättälä R, Aro AR, Uutela A. Finriski 2004. Suomalaisen aikuisväestön terveyskäyttäytyminen ja terveys. Kansanterveyslaitoksen julkaisuja B13/2004. Helsinki 2005.

Helland IB, Smith L, Saarem K, Saugstad OD, Drevon CA. Maternal supplementation with very-long-chain n-3 fatty acids during pregnancy and lactation augments children's IQ at 4 years of age. *Pediatrics.* 2003 Jan;111(1):e39-44.

Howard BV, Van Horn L, Hsia J, Manson JE, Stefanick ML, Wassertheil-Smoller S, Kuller LH ym. Low-fat dietary pattern and risk of cardiovascular disease: the Women's Health Initiative Randomized Controlled Dietary Modification Trial. *JAMA.* 2006 Feb 8;295(6):655-66.



Jeukendrup AE, Aldred S. Fat supplementation, health, and endurance performance. *Nutrition*. 2004 Jul-Aug;20(7-8):678-88

Kalmijn S. Fatty acid intake and the risk of dementia and cognitive decline: a review of clinical and epidemiological studies. *J Nutr Health Aging*. 2000;4(4):202-7

Kalmijn S, van Boxtel MP, Ocke M, Verschuren WM, Kromhout D, Launer LJ. Dietary intake of fatty acids and fish in relation to cognitive performance at middle age. *Neurology*. 2004 Jan 27;62(2):275-80.

Kitajka K, Sinclair AJ, Weisinger RS, Weisinger HS, Mathai M, Jayasooriya AP, Halver JE, Puskàs LG. Effects of dietary omega-3 polyunsaturated fatty acids on brain gene expression. *Proceedings of the National Academy of Sciences of the United States of America*, 2004, 101(30:10931-6).

Konig D, Berg A, Weinstock C, Keul J, Northoff H. Essential fatty acids, immune function, and exercise. *Exerc Immunol Rev*. 1997;3:1-31

Laaksonen D, Fogelholm M. Liikunta, energiäankutus ja ravitsemus. Kirjassa: Vuori I, Taimela S, Kujala U, toim. Liikuntalääketiede. Helsinki, Duodecim, 2005:

Laurin D, Verreault R, Lindsay J, Dewailly E, Holub BJ. Omega-3 fatty acids and risk of cognitive impairment and dementia. *J Alzheimers Dis*. 2003 Aug;5(4):315-22.

Manore M, Thompson J. Energy requirements of the athlete: assessment and evidence of energy efficiency. In: Burke L, Deakin V, ed. *Clinical Sports Nutrition*. The McGraw-Hill Companies, Inc.2003.

McArdle WD, Katch FI, Katch VL. Carbohydrates, lipids and proteins. Kirjassa: McArdle WD, Katch FI, Katch VL (toim). *Exercise Physiology 5th ed*. Lippincott Williams & Wilkins, USA, 2001.

Mickleborough T, Gotshall R. Dietary components with demonstrated effectiveness in decreasing the severity of exercise-induced asthma. *Sports Med*. 2003;33(9):671-81.

Mickleborough TD, Murray RL, Ionescu AA, Lindley MR. Fish oil supplementation reduces severity of exercise-induced bronchoconstriction in elite athletes. *Am J Respir Crit Care Med*. 2003 Nov 15;168(10):1181-9

Mutanen M, Voutilainen E. Energiaravintoaineet, ravintokuitu ja alkoholi. Kirjassa: Aro A, Mutanen M, Uusitupa M, toim. Ravitsemustiede. Helsinki, Duodecim, 2005a.

Mutanen M, Voutilainen E. Energia-aineenvaihdunta. Kirjassa: Aro A, Mutanen M, Uusitupa M, toim. Ravitsemustiede. Helsinki, Duodecim, 2005b.

Männistö S, Ovaskainen M, Valsta L, toim. Finravinto 2002 -tutkimus. Kansanterveyslaitoksen julkaisu B3/2003. Helsinki: Kansanterveyslaitos, 2003.

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 Mar;159(3):477-9.

O'Connor H, Sullivan T, Catterson I. Weight loss and the athlete. In: Burke L, Deakin V, ed. *Clinical Sports Nutrition*. The McGraw-Hill Companies, Inc.2003.

Pedersen BK, Bruunsgaard H, Jensen M, Toft AD, Hansen H, Ostrowski K. Exercise and the immune system--influence of nutrition and ageing. *J Sci Med Sport*. 1999 Oct;2(3):234-52.

Raastad T, Hostmark AT, Stromme SB. Omega-3 fatty acid supplementation does not improve maximal aerobic power, anaerobic threshold and running performance in well-trained soccer players. *Scand J Med Sci Sports*. 1997 Feb;7(1):25-31.

Solfrizzi V, D'Introno A, Colacicco AM, Capurso C, Del Parigi A, Capurso S, Gadaleta A, Capurso A, Panza F. Dietary fatty acids intake: possible role in cognitive decline and dementia. *Exp Gerontol*. 2005 Apr;40(4):257-70.

Steinhart H, Rickert R, Winkler K. Trans fatty acids (TFA): analysis, occurrence, intake and clinical relevance. *Eur J Med Res*. 2003 Aug 20;8(8):358-62.

Stender S, Dyerberg J. Influence of trans fatty acids on health. *Ann Nutr Metab.* 2004;48(2):61-6.

Stephensen CB. Fish oil and inflammatory disease: is asthma the next target for n-3 fatty acid supplements? *Nutr Rev.* 2004 Dec;62(12):486-9.

Suomen sisätautilääkäreiden yhdistys. Käypä Hoito- suositus. *Dyslipidemia.* Duodecim 2004;120(14):1794-816

Tahvonen RL, Schwab US, Linderborg KM, Mykkanen HM, Kallio HP. Black currant seed oil and fish oil supplements differ in their effects on fatty acid profiles of plasma lipids, and concentrations of serum total and lipoprotein lipids, plasma glucose and insulin. *J Nutr Biochem.* 2005 Jun;16(6):353-9.

Tiilikainen R, Pöllänen K, Lahti-Koski M, Borg P. Suomalaisten nuorten urheilijoiden ravinnonsaanti. *Urheilijan ravinto* 2001/1:45-49

Tortora GJ, Grabowski SR. *Principles of Anatomy and Physiology.* New York: Harper Collins Collage Publications, 1996.

Uusitupa M. Lihavuus. Kirjassa: Aro A, Mutanen M, Uusitupa M, toim. Ravitsemustiede. Helsinki, Duodecim, 2005.

Valk EE, Hornstra G. Relationship between vitamin E requirement and polyunsaturated fatty acid intake in man: a review. *Int J Vitam Nutr Res.* 2000 Mar;70(2):31-42.

Valtion ravitsemusneuvottelukunta. *Suomalaiset ravitsemussuositukset 2005.* Helsinki: Edita, 2005.

Venkatraman JT, Leddy J, Pendergast D. Dietary fats and immune status in athletes: clinical implications. *Med Sci Sports Exerc.* 2000 Jul;32(7 Suppl):S389-95

Volek JS. The Effect of Macronutrient Manipulation on Hormones. Kirjassa: Antonio J, Stout JR (toim.) *Sports Supplements.* Lippincott Williams & Wilkins 2001.

Wadlaw GM, Insel PM. *Lipids.* Kirjassa: Wadlaw GM, Insel PM. *Perspectives in Nutrition,* 3rd edition, Mosby 1995 USA

Wainwright PE. Dietary essential fatty acids and brain function: a developmental perspective on mechanisms. *Proc Nutr Soc* 2002;61:1;61-69.

Weber P, Bendich A, Machlin LJ. Vitamin E and human health: rationale for determining recommended intake levels. *Nutrition.* 1997 May;13(5):450-60

Whalley LJ, Fox HC, Wahle KW, Starr JM, Deary IJ. Cognitive aging, childhood intelligence, and the use of food supplements: possible involvement of n-3 fatty acids. *Am J Clin Nutr.* 2004 Dec;80(6):1650-7.

Whitney EN, Rolfes SR. *The lipids: Triglycerides, phospholipids and sterols.* Kirjassa: Whitney EN, Rolfes SR. *Understanding nutrition* 7th ed. West Publishing Company, USA, 1996.

Willatts P. Long chain polyunsaturated fatty acids improve cognitive development. *J Fam Health Care.* 2002;12(6 Suppl):5.

Wilson TA, McIntyre M, Nicolosi RJ. Trans fatty acids and cardiovascular risk. *J Nutr Health Aging.* 2001;5(3):184-7

Wu D, Meydani M, Leka LS, Nightingale Z, Handelman GJ, Blumberg JB, Meydani SN. Effect of dietary supplementation with black currant seed oil on the immune response of healthy elderly subjects. *Am J Clin Nutr.* 1999 Oct;70(4):536-43.

Wu D. Modulation of immune and inflammatory responses by dietary lipids. *Curr Opin Lipidol.* 2004 Feb;15(1):43-7.

Young G, Conquer J. Omega-3 fatty acids and neuropsychiatric disorders. *Reprod Nutr Dev.* 2005 Jan-Feb;45(1):1-28.

## Luku 7

Alfthan G, Laurinen M, Valsta L, Pastinen T, Aro A. Plasman folaatti- ja homokysteiinipitoisuudet sekä folaattien saanti suomalaisilla aikuisilla. *Suomen lääkärilehti* 2002;57(17):1895-99

Aro A. Foolihapon saanti, synnynnäiset epämuodostumat ja verisuonitautivaara. Suomen lääkäri-lehti 1996;51:1573-4

Bazzarre TL, Scarpino A, Sigmon R, Marquart LF, Wu SM, Izurieta M. Vitamin-mineral supplement use and nutritional status of athletes. J Am Coll Nutr. 1993 Apr;12(2):162-9.

Beals KA. Eating behaviors, nutritional status, and menstrual function in elite female adolescent volleyball players. J Am Diet Assoc. 2002 Sep;102(9):1293-6.

Becker W, Lyhne N, Pedersen AN y.m. Nordic Nutrition Recommendations 2004-Integrating nutrition and physical activity. Nord 2004:13, Nordic Council of Ministers, Copenhagen.

Beitz R, Mensink GB, Henschel Y, Fischer B, Erbersdobler HF. Dietary behaviour of German adults differing in levels of sport activity. Public Health Nutr. 2004 Feb;7(1):45-52.

Beltz SD, Doering PL. Efficacy of nutritional supplements used by athletes. Clin Pharm. 1993 Dec;12(12):900-8.

Bonke D, Nickel B. Improvement of fine motoric movement control by elevated dosages of vitamin B1, B6, and B12 in target shooting. Int J Vitam Nutr Res Suppl. 1989;30:198-204

Clark M, Reed DB, Crouse SF, Armstrong RB. Pre- and post-season dietary intake, body composition, and performance indices of NCAA division I female soccer players. Int J Sport Nutr Exerc Metab. 2003 Sep;13(3):303-19.

Cooper JR, Pincus JH. The role of thiamine in nervous tissue. Neurochem Res. 1979 Apr;4(2):223-39.

Czeizel AE. Primary prevention of neural-tube defects and some other major congenital abnormalities: recommendations for the appropriate use of folic acid during pregnancy. Paediatr Drugs. 2000 Nov-Dec;2(6):437-49.

Dam BV. Vitamins and sport. Br J Sports Med. 1978 Jun;12(2):74-9.

Faber M, Benade AJ. Mineral and vitamin intake in field athletes (discus-, hammer-, javelin-throwers and shotputters). Int J Sports Med. 1991 Jun;12(3):324-7.

Fogelholm M, Tikkanen H, Naveri H, Harkonen M. High-carbohydrate diet for long distance runners--a practical view-point. Br J Sports Med. 1989 Jun;23(2):94-6.

Fogelholm GM, Koskinen R, Laakso J, Rankinen T, Ruokonen I. Gradual and rapid weight loss: effects on nutrition and performance in male athletes. Med Sci Sports Exerc. 1993a Mar;25(3):371-7.

Fogelholm M, Ruokonen I, Laakso JT, Vuorimaa T, Himberg JJ. Lack of association between indices of vitamin B1, B2, and B6 status and exercise-induced blood lactate in young adults. Int J Sport Nutr. 1993b Jun;3(2):165-76.

Frank T, Kuhl M, Makowski B, Bitsch R, Jahreis G, Hubscher J. Does a 100-km walking affect indicators of vitamin status? Int J Vitam Nutr Res. 2000 Sep;70(5):238-50.

Gollnick PD, Armstrong RB, Saltin B, Saubert CW 4th, Sembrowich WL, Shepherd RE. Effect of training on enzyme activity and fiber composition of human skeletal muscle. J Appl Physiol. 1973 Jan;34(1):107-11.

Guilland JC, Penaranda T, Gallet C, Boggio V, Fuchs F, Klepping J. Vitamin status of young athletes including the effects of supplementation. Med Sci Sports Exerc. 1989 Aug;21(4):441-9.

Haymes EM. Vitamin and mineral supplementation to athletes. Int J Sport Nutr. 1991 Jun;1(2):146-69.

Hickson RC. Skeletal muscle cytochrome c and myoglobin, endurance, and frequency of training. J Appl Physiol. 1981 Sep;51(3):746-9.

Howlett KF, Spriet LL, Hargreaves M. Carbohydrate metabolism during exercise in females: effect of reduced fat availability. Metabolism. 2001 Apr;50(4):481-7.

Jonnalagadda SS, Ziegler PJ, Nelson JA. Food preferences, dieting behaviors, and body image perceptions of elite figure skaters. Int J Sport Nutr Exerc Metab. 2004 Oct;14(5):594-606.

Knippel M, Mauri L, Bellushi R, Bana G. The action of thiamine on the production of lactic acid in cyclists. *Med Sports* 1986; 39(1):11.

Leonard SW, Leklem JE. Plasma B-6 vitamere changes following a 50-km ultra-marathon. *Int J Sport Nutr Exerc Metab.* 2000 Sep;10(3):302-14.

Litoff D, Scherzer H, Harrison J. Effects of pantothenic acid supplementation on human exercise. *Med Sci Sports Exerc* 1985; 17:287.

Lukaski HC. Vitamin and mineral status: effects on physical performance. *Nutrition.* 2004 Jul-Aug;20(7-8):632-44.

Manore MM. Vitamin B6 and exercise. *Int J Sport Nutr.* 1994 Jun;4(2):89-103.

Manore MM. Effect of physical activity on thiamine, riboflavin, and vitamin B-6 requirements. *Am J Clin Nutr.* 2000 Aug;72(2 Suppl):598S-606S

Manore MM, Leklem JE. Effect of carbohydrate and vitamin B6 on fuel substrates during exercise in women. *Med Sci Sports Exerc.* 1988 Jun;20(3):233-41.

Matter M, Stittfall T, Graves J, Myburgh K, Adams B, Jacobs P, Noakes TD. The effect of iron and folate therapy on maximal exercise performance in female marathon runners with iron and folate deficiency. *Clin Sci (Lond).* 1987 Apr;72(4):415-22.

Moretti C, Fabbri A, Gnessi L, Bonifacio V, Fraioli F, Isidori A. Pyridoxine (B6) suppresses the rise in prolactin and increases the rise in growth hormone induced by exercise. *N Engl J Med.* 1982 Aug 12;307(7):444-5.

Moyano D, Vilaseca MA, Artuch R, Valls C, Lambruschini N. Plasma total-homocysteine in anorexia nervosa. *Eur J Clin Nutr.* 1998 Mar;52(3):172-5.

MRC Vitamin Study Research Group. Prevention of neural tube defects: results of the Medical Research Council Vitamin Study. *Lancet.* 1991 Jul 20;338(8760):131-7.

Männistö S, Ovaskainen M-L, Valsta L toim. *Finravinto 2002 -tutkimus. The National Findiet 2002 Study. Kansanterveyslaitoksen julkaisu B3/2003.* Helsinki: Kansanterveyslaitos, 2003.

Nieman DC, Butler JV, Pollett LM, Dietrich SJ, Lutz RD. Nutrient intake of marathon runners. *J Am Diet Assoc.* 1989 Sep;89(9):1273-8.

Rankinen T, Lyytikäinen S, Vanninen E, Penttilä I, Rauramaa R, Uusitupa M. Nutritional status of the Finnish elite ski jumpers. *Med Sci Sports Exerc.* 1998 Nov;30(11):1592-7.

Rokitzki L, Berg A, Keul J. Blood and serum status of water- and fat-soluble vitamins in athletes and non-athletes. *Int J Vitam Nutr Res Suppl.* 1989;30:192-7.

Rokitzki L, Sagredos AN, Reuss F, Buchner M, Keul J. Acute changes in vitamin B6 status in endurance athletes before and after a marathon. *Int J Sport Nutr.* 1994a Jun;4(2):154-65.

Rokitzki L, Sagredos AN, Reuss F, Cufi D, Keul J. Assessment of vitamin B6 status of strength and speedpower athletes. *J Am Coll Nutr.* 1994b Feb;13(1):87-94.

Rokitzki L, Sagredos A, Keck E, Sauer B, Keul J. Assessment of vitamin B2 status in performance athletes of various types of sports. *J Nutr Sci Vitaminol (Tokyo).* 1994c Feb;40(1):11-22

Smithells RW, Sheppard S, Schorah CJ. Vitamin deficiencies and neural tube defects. *Arch Dis Child.* 1976 Dec;51(12):944-50.

Sosiaali- ja terveystieteiden tutkimuskeskus. Foolihappo ja hermostoputken sulkeutumishäiriö. *Asiantuntijasuositus 29.9.1995. Dno 33/623/95, 16.10.1995. 4 s.*

Steen SN, Mayer K, Brownell KD, Wadden TA. Dietary intake of female collegiate heavyweight rowers. *Int J Sport Nutr.* 1995 Sep;5(3):225-31.

Tiilikainen R, Pöllänen K, Lahti-Koski M, Borg P. Suomalaisten nuorten urheilijoiden ravinnonsaanti. *Urheilijan ravinto 2001/1:45-49*

van der Beek EJ. Vitamins and endurance training. Food for running or faddish claims? *Sports Med.* 1985 May-Jun;2(3):175-97.

Valtion ravitsemusneuvottelukunta. *Suomalaiset ravitsemussuosituksset 1998.* Helsinki: Edita, 1998.

Valtion ravitsemusneuvottelukunta. Suomalaiset ravitsemussuositukset 2005. Helsinki: Edita, 2005.

van der Beek EJ. Vitamin supplementation and physical exercise performance. *J Sports Sci.* 1991 Summer;9 Spec No:77-90

van der Beek EJ, van Dokkum W, Wedel M, Schrijver J, van den Berg H. Thiamin, riboflavin and vitamin B6: impact of restricted intake on physical performance in man. *J Am Coll Nutr.* 1994 Dec;13(6):629-40.

Webster MJ. Physiological and performance responses to supplementation with thiamin and pantothenic acid derivatives. *Eur J Appl Physiol Occup Physiol.* 1998 May;77(6):486-91.

Webster MJ, Scheett TP, Doyle MR, Branz M. The effect of a thiamin derivative on exercise performance. *Eur J Appl Physiol Occup Physiol.* 1997;75(6):520-4.

Whitney EN, Rolfes SR. *The Water Soluble Vitamins: B Vitamins and Vitamin C.* Kirjassa: Whitney EN, Rolfes SR. *Understanding Nutrition* 7th ed. West Publishing Company, USA, 1996.

Ziegler P, Sharp R, Hughes V, Evans W, Khoo CS. Nutritional status of teenage female competitive figure skaters. *J Am Diet Assoc.* 2002 Mar;102(3):374-9.

## Luku 8

Aguilo A, Tauler P, Fuentespina E, Villa G, Cordova A, Tur JA, Pons A. Antioxidant diet supplementation influences blood iron status in endurance athletes. *Int J Sport Nutr Exerc Metab.* 2004 Apr;14(2):147-60.

Alessio HM. Exercise-induced oxidative stress. *Med Sci Sports Exerc.* 1993 Feb;25(2):218-24.

Alessio HM, Goldfarb AH, Cao G. Exercise-induced oxidative stress before and after vitamin C supplementation. *Int J Sport Nutr.* 1997 Mar;7(1):1-9.

Alissa EM, Bahijri SM, Ferns GA. The controversy surrounding selenium and cardiovascular disease: a review of the evidence. *Med Sci Monit.* 2003 Jan;9(1):RA9-18

Aoi W, Naito Y, Takanami Y, Kawai Y, Sakuma K, Ichikawa H, Yoshida N, Yoshikawa T. Oxidative stress and delayed-onset muscle damage after exercise. *Free Radic Biol Med.* 2004 Aug 15;37(4):480-7.

Aruoma OI. Nutrition and health aspects of free radicals and antioxidants. *Food Chem Toxicol.* 1994 Jul;32(7):671-83.

Ashton T, Young IS, Peters JR, Jones E, Jackson SK, Davies B, Rowlands CC. Electron spin resonance spectroscopy, exercise, and oxidative stress: an ascorbic acid intervention study. *J Appl Physiol.* 1999 Dec;87(6):2032-6.

Atalay M, Laaksonen DE, Khanna S, Kaliste-Korhonen E, Hanninen O, Sen CK. Vitamin E regulates changes in tissue antioxidants induced by fish oil and acute exercise. *Med Sci Sports Exerc.* 2000 Mar;32(3):601-7.

Bailey DM, Davies B. Acute mountain sickness; prophylactic benefits of antioxidant vitamin supplementation at high altitude. *High Alt Med Biol.* 2001 Spring;2(1):21-9.

Bendich A, Cohen M. Ascorbic acid safety: analysis of factors affecting iron absorption. *Toxicol Lett.* 1990 Apr;51(2):189-201.

Bergström L. Nutrient losses and gains in the preparation of foods. Uppsala: Livsmedelsverket, 1994;32

Bhaskaram P. Immunobiology of mild micronutrient deficiencies. *Br J Nutr.* 2001 May;85 Suppl 2:S75-80

Bloomer RJ, Goldfarb AH, McKenzie MJ, You T, Nguyen L. Effects of antioxidant therapy in women exposed to eccentric exercise. *Int J Sport Nutr Exerc Metab.* 2004 Aug;14(4):377-88.

Blumberg J, Block G. The Alpha-Tocopherol, Beta-Carotene Cancer Prevention Study in Finland. *Nutr Rev.* 1994 Jul;52(7):242-5.

Borg P. Antioksidantit - onko enemmän aina parempi? Kirjassa: Borg P, Fogelholm M, Hiilloskorpi H (toim). Liikkujan ravitsemus - teoriasta käytäntöön Helsinki: Edita 2004:S89-90

Brenneisen P, Steinbrenner H, Sies H. Selenium, oxidative stress, and health aspects. *Mol Aspects Med.* 2005 Aug-Oct;26(4-5):256-67

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 Sep;13(3):294-302.

Carr A, Frei B. Does vitamin C act as a pro-oxidant under physiological conditions? *FASEB J.* 1999 Jun;13(9):1007-24.

Chandler JV & Hawkins JD. The effect of bee pollen on physiological performance: Ann Meeting of the American College of Sports Medicine, Nashville, TN, May 26-29. *Med Sci Sports Exerc* 1985; 17: 287.

Childs A, Jacobs C, Kaminski T, Halliwell B, Leeuwenburgh C. Supplementation with vitamin C and N-acetyl-cysteine increases oxidative stress in humans after an acute muscle injury induced by eccentric exercise. *Free Radic Biol Med.* 2001 Sep 15;31(6):745-53.

Clark LC, Combs GF Jr, Turnbull BW, Slate EH, Chalker DK, Chow J, Davis LS ym. Effects of selenium supplementation for cancer prevention in patients with carcinoma of the skin. A randomized controlled trial. Nutritional Prevention of Cancer Study Group. *JAMA.* 1996 Dec 25;276(24):1957-63

Clarkson PM. Micronutrients and exercise: anti-oxidants and minerals. *J Sports Sci.* 1995 Summer;13 Spec No:S11-24

Clarkson PM, Haymes EM. Trace mineral requirements for athletes. *Int J Sport Nutr.* 1994 Jun;4(2):104-19.

Clarkson PM, Newham DJ. Associations between muscle soreness, damage, and fatigue. *Adv Exp Med Biol.* 1995;384:457-69.

Clarkson PM, Thompson HS. Antioxidants: what role do they play in physical activity and health? *Am J Clin Nutr.* 2000 Aug;72(2 Suppl):637S-46S

Crinnion JN, Homer-Vanniasinkam S, Gough MJ. Skeletal muscle reperfusion injury: pathophysiology and clinical considerations. *Cardiovasc Surg.* 1993 Aug;1(4):317-24.

Davies KJ, Quintanilha AT, Brooks GA, Packer L. Free radicals and tissue damage produced by exercise. *Biochem Biophys Res Commun.* 1982 Aug 31;107(4):1198-205

Dillard CJ, Litov RE, Savin WM, Dumelin EE, Tappel AL. Effects of exercise, vitamin E, and ozone on pulmonary function and lipid peroxidation. *J Appl Physiol.* 1978 Dec;45(6):927-32.

Dodig S, Cepelak I. The facts and controversies about selenium. *Acta Pharm.* 2004 Dec;54(4):261-76.

Douglas RM, Hemila H, D'Souza R, Chalker EB, Treacy B. Vitamin C for preventing and treating the common cold. *Cochrane Database Syst Rev.* 2004 Oct 18; (4):CD000980.

Douglas RM, Hemilä H. Vitamin C for preventing and treating the common cold. *PLoS Med.* 2005 Jun;2(6):e168; quiz e217. Epub 2005 Jun 28.

Dragan I, Dinu V, Mohora M, Cristea E, Ploesteanu E, Stroescu V. Studies regarding the antioxidant effects of selenium on top swimmers. *Rev Roum Physiol.* 1990 Jan-Mar;27(1):15-20.

El Midaoui A, de Champlain J. Prevention of hypertension, insulin resistance, and oxidative stress by alpha-lipoic acid. *Hypertension.* 2002 Feb;39(2):303-7.

Euroola M, Alfthan G, Aro A, Ekholm P, Hietaniemi V, Rainio H, Rankanen R, Venäläinen E-R. Results of the Finnish selenium monitoring program 2000-2001. *Agrifood Research Reports* 36 (2003).

Finravinto 1997 -tutkimus. Kansanterveyslaitoksen julkaisuja B8 Helsinki: Kansanterveyslaitos 1998.

Fisher AE, Naughton DP. Iron supplements: the quick fix with long-term consequences. *Nutr J.* 2004 Jan 16;3:2.

Food and Nutrition Board and Institute of Medicine. 2000. Dietary reference intakes for vitamin C, vitamin E, selenium and carotenoids. Washington DC: National Academy Press 506 p. ISBN 0-309-06935-1

Francis KT, Hoobler T. Failure of vitamin E and delayed muscle soreness. *Ala Med.* 1986 Mar;55(9):15-8

Gaziano JM. Vitamin E and cardiovascular disease: observational studies. *Ann N Y Acad Sci.* 2004 Dec;1031:280-91.

Gohil K, Packer L, de Lumen B, Brooks GA, Terblanche SE. Vitamin E deficiency and vitamin C supplements: exercise and mitochondrial oxidation. *J Appl Physiol.* 1986 Jun;60(6):1986-91.

Goldfarb AH, Bloomer RJ, McKenzie MJ. Combined antioxidant treatment effects on blood oxidative stress after eccentric exercise. *Med Sci Sports Exerc.* 2005 Feb;37(2):234-9.

Grievink L, Jansen SM, van't Veer P, Brunekreef B. Acute effects of ozone on pulmonary function of cyclists receiving antioxidant supplements. *Occup Environ Med.* 1998 Jan;55(1):13-7.

Grievink L, Zijlstra AG, Ke X, Brunekreef B. Double-blind intervention trial on modulation of ozone effects on pulmonary function by antioxidant supplements. *Am J Epidemiol.* 1999 Feb 15;149(4):306-14.

Griffiths HR, Lunec J. Ascorbic acid in the 21st century - more than a simple antioxidant. *Environ Toxicol Pharmacol* 2001, 10:173-82

Handelman GJ, Machlin LJ, Fitch K, Weiter JJ, Dratz EA. Oral alpha-tocopherol supplements decrease plasma gamma-tocopherol levels in humans. *J Nutr.* 1985 Jun;115(6):807-13.

Hemilä H. Vitamin C and common cold incidence: a review of studies with subjects under heavy physical stress. *Int J Sports Med.* 1996 Jul;17(5):379-83.

Hemila H, Virtamo J, Albanes D, Kaprio J. Physical activity and the common cold in men administered vitamin E and beta-carotene. *Med Sci Sports Exerc.* 2003 Nov;35(11):1815-20

Hennekens CH, Buring JE, Manson JE, Stampfer M, Rosner B, Cook NR, Belanger C, LaMotte F, Gaziano JM ym. Lack of effect of long-term supplementation with beta carotene on the incidence of malignant neoplasms and cardiovascular disease. *N Engl J Med.* 1996 May 2;334(18):1145-9.

Hughes DA, Wright AJ, Finglas PM, Peerless AC, Bailey AL, Astley SB, Pinder AC, Southon S. The effect of beta-carotene supplementation on the immune function of blood monocytes from healthy male nonsmokers. *J Lab Clin Med.* 1997 Mar;129(3):309-17.

Ito Y, Wakai K, Suzuki K, Ozasa K, Watanabe Y, Seki N, Ando M, Nishino Y, Kondo T, Ohno Y, Tamakoshi A. Lung Cancer Mortality and Serum Levels of Carotenoids, Retinol, Tocopherols, and Folic Acid in Men and Women: a Case-Control Study Nested in the JACC Study. *J Epidemiol.* 2005;15 Suppl 2:S140-9.

Jakeman P, Maxwell S. Effect of antioxidant vitamin supplementation on muscle function after eccentric exercise. *Eur J Appl Physiol Occup Physiol.* 1993;67(5):426-30.

Jiang Q, Elson-Schwab I, Courtemanche C, Ames BN. gamma-tocopherol and its major metabolite, in contrast to alpha-tocopherol, inhibit cyclooxygenase activity in macrophages and epithelial cells. *Proc Natl Acad Sci U S A.* 2000 Oct 10;97(21):11494-9.

Kaminski M, Boal R. An effect of ascorbic acid on delayed-onset muscle soreness. *Pain.* 1992 Sep;50(3):317-21.

Kanter MM, Nolte LA, Holloszy JO. Effects of an antioxidant vitamin mixture on lipid peroxidation at rest and postexercise. *J Appl Physiol.* 1993 Feb;74(2):965-9.

Khanna S, Atalay M, Laaksonen DE, Gul M, Roy S, Sen CK. Alpha-lipoic acid supplementation: tissue glutathione homeostasis at rest and after exercise. *J Appl Physiol.* 1999 Apr;86(4):1191-6.

Knekt P, Kumpulainen J, Jarvinen R, Rissanen H, Heliovaara M, Reunanen A, Hakulinen T, Aromaa A. Flavonoid intake and risk of chronic diseases. *Am J Clin Nutr.* 2002 Sep;76(3):560-8.

Kritchevsky SB. beta-Carotene, carotenoids and the prevention of coronary heart disease. *J Nutr.* 1999 Jan;129(1):5-8.

Krotkiewski M ym. Prevention of muscle soreness by pre-treatment with antioxidants. *Scand J Med Sci Sports* 1994;4:191-199

Lachili B, Hininger I, Faure H, Arnaud J, Richard MJ, Favier A, Roussel AM. Increased lipid peroxidation in pregnant women after iron and vitamin C supplementation. *Biol Trace Elem Res.* 2001 Nov;83(2):103-10.

Lands LC, Grey VL, Smountas AA. Effect of supplementation with a cysteine donor on muscular performance. *J Appl Physiol.* 1999 Oct;87(4):1381-5.

Lehmann J, Martin HL, Lashley EL, Marshall MW, Judd JT. Vitamin E in foods from high and low linoleic acid diets. *J Am Diet Assoc.* 1986 Sep;86(9):1208-16.

Lodge JK. Vitamin E bioavailability in humans. *J Plant Physiol.* 2005 Jul;162(7):790-6.

Machlin LJ, Bendich A. Free radical tissue damage: protective role of antioxidant nutrients. *FASEB J.* 1987 Dec;1(6):441-5.

Margaritis I, Tessier F, Prou E, Marconnet P, Marini JF. Effects of endurance training on skeletal muscle oxidative capacities with and without selenium supplementation. *J Trace Elem Med Biol.* 1997 Apr;11(1):37-43.

Margaritis I, Rousseau AS, Hininger I, Palazzetti S, Arnaud J, Roussel AM. Increase in selenium requirements with physical activity loads in well-trained athletes is not linear. *Biofactors.* 2005;23(1):45-55.

Mashour S, Turner JF Jr, Merrell R. Acute renal failure, oxalosis, and vitamin C supplementation: a case report and review of the literature. *Chest.* 2000 Aug;118(2):561-3.

Maughan RJ, Evans SP. Effects of pollen extract upon adolescent swimmers. *Br J Sports Med.* 1982 Sep;16(3):142-5.

Massey LK, Liebman M, Kynast-Gales SA. Ascorbate increases human oxaluria and kidney stone risk. *J Nutr.* 2005 Jul;135(7):1673-7.

Maxwell SR, Jakeman P, Thomason H, Leguen C, Thorpe GH. Changes in plasma antioxidant status during eccentric exercise and the effect of vitamin supplementation. *Free Radic Res Commun.* 1993;19(3):191-202.

McBride JM, Kraemer WJ, Triplett-McBride T, Sebastianelli W. Effect of resistance exercise on free radical production. *Med Sci Sports Exerc.* 1998 Jan;30(1):67-72.

Meydani M. Vitamin E. *Lancet.* 1995 Jan 21;345(8943):170-5.

Meydani M, Evans WJ, Handelman G, Biddle L, Fielding RA, Meydani SN, Burrill J, Fiatarone MA, Blumberg JB, Cannon JG. Protective effect of vitamin E on exercise-induced oxidative damage in young and older adults. *Am J Physiol.* 1993 May;264(5 Pt 2):R992-8.

Meydani M, ym. Muscle uptake of vitamin E and its association with muscle fiber type. *J Nutr Biochem* 1997;8(2):74-78.

Micke P, Beeh KM, Schlaak JF, Buhl R. Oral supplementation with whey proteins increases plasma glutathione levels of HIV-infected patients. *Eur J Clin Invest.* 2001 Feb;31(2):171-8.

Moini H, Packer L, Saris NE. Antioxidant and prooxidant activities of alpha-lipoic acid and dihydrolipoic acid. *Toxicol Appl Pharmacol.* 2002 Jul 1;182(1):84-90.

Mutanen M. Dietary intake and sources of selenium in young Finnish women. *Hum Nutr Appl Nutr.* 1984 Aug;38(4):265-9.

Mutanen M, Voutilainen E. Vitamiinit ja kivennäisaineet. Kirjassa: Ravitsemustiede. Aro A, Mutanen M, Uusitupa M (toim). Helsinki: Duodecim 1999:S138-207



Männistö S, Ovaskainen M-L, Valsta L toim. Finravinto 2002 -tutkimus. The National Findiet 2002 Study. Kansanterveyslaitoksen julkaisuja B3/2003. Helsinki: Kansanterveyslaitos, 2003.

Nuuttila S. Kotimainen selvitys tukee Nylanderin väitteitä. Valmentaja 2001/4.

Ohno H, Yahata T, Sato Y, Yamamura K, Taniguchi noin Physical training and fasting erythrocyte activities of free radical scavenging enzyme systems in sedentary men. *Eur J Appl Physiol Occup Physiol*. 1988;57(2):173-6.

Paolini M, Pozzetti L, Pedulli GF, Marchesi E, Cantelli-Forti G. The nature of prooxidant activity of vitamin C. *Life Sci*. 1999;64(23):PL 273-8.

Peters EM, Cambell A, Pawley L. Vitamin A fails to increase resistance to upper respiratory tract infection in distance runners. *S Afr J Sports Med* 1992;7:3-7

Peters EM, Goetzsche JM, Grobbelaar B, Noakes TD. Vitamin C supplementation reduces the incidence of postrace symptoms of upper-respiratory-tract infection in ultramarathon runners. *Am J Clin Nutr*. 1993 Feb;57(2):170-4.

Petersen EW, Ostrowski K, Ibfelt T, Richelle M, Offord E, Halkjaer-Kristensen J, Pedersen BK. Effect of vitamin supplementation on cytokine response and on muscle damage after strenuous exercise. *Am J Physiol Cell Physiol*. 2001 Jun;280(6):C1570-5.

Podmore ID, Griffiths HR, Herbert KE, Mistry N, Mistry P, Lunec J. Vitamin C exhibits pro-oxidant properties. *Nature*. 1998 Apr 9;392(6676):559.

Powers SK, Ji LL, Leeuwenburgh C. Exercise training-induced alterations in skeletal muscle antioxidant capacity: a brief review. *Med Sci Sports Exerc*. 1999 Jul;31(7):987-97.

Proteggente AR, Rehman A, Halliwell B, Rice-Evans CA. Potential problems of ascorbate and iron supplementation: pro-oxidant effect in vivo? *Biochem Biophys Res Commun*. 2000 Nov 2;277(3):535-40.

Proteggente AR, England TG, Rice-Evans CA, Halliwell B. Iron supplementation and oxidative damage to DNA in healthy individuals with high plasma ascorbate. *Biochem Biophys Res Commun*. 2001 Oct 19;288(1):245-51.

Reid MB, Stokic DS, Koch SM, Khawli FA, Leis AA. N-acetylcysteine inhibits muscle fatigue in humans. *J Clin Invest*. 1994 Dec;94(6):2468-74.

Reimers KJ. The many faces of vitamin E. Kirjassa: Antonio J, Stout JR (toim.). *Sports Supplements*. Lippincott Williams & Wilkins USA, 2001.

Rimm EB, Stampfer MJ, Ascherio A, Giovannucci E, Colditz GA, Willett WC. Vitamin E consumption and the risk of coronary heart disease in men. *N Engl J Med*. 1993 May 20;328(20):1450-6.

Robertson JD, Maughan RJ, Duthie GG, Morrice PC. Increased blood antioxidant systems of runners in response to training load. *Clin Sci (Lond)*. 1991 Jun;80(6):611-8.

Rokitzki L, Logemann E, Sagredos AN, Murphy M, Wetzel-Roth W, Keul J. Lipid peroxidation and antioxidative vitamins under extreme endurance stress. *Acta Physiol Scand*. 1994 Jun;151(2):149-58.

Schrauzer GN. Nutritional selenium supplements: product types, quality, and safety. *J Am Coll Nutr*. 2001 Feb;20(1):1-4.

Schroder H, Navarro E, Mora J, Galiano D, Tramullas A. Effects of alpha-tocopherol, beta-carotene and ascorbic acid on oxidative, hormonal and enzymatic exercise stress markers in habitual training activity of professional basketball players. *Eur J Nutr*. 2001 Aug;40(4):178-84.

Sen CK. Glutathione homeostasis in response to exercise training and nutritional supplements. *Mol Cell Biochem*. 1999 Jun;196(1-2):31-42.

Sen CK. Antioxidants in exercise nutrition. *Sports Med*. 2001;31(13):891-908

Sen CK, Packer L. Thiol homeostasis and supplements in physical exercise. *Am J Clin Nutr*. 2000 Aug;72(2 Suppl):653S-69S.

Sen CK, Rankinen T, Vaisanen S, Rauramaa R. Oxidative stress after human exercise: effect of N-acetylcysteine supplementation. *J Appl Physiol*. 1994 Jun;76(6):2570-7.

Sen CK, Atalay M, Agren J, Laaksonen DE, Roy S, Hanninen O. Fish oil and vitamin E supplementation in oxidative stress at rest and after physical exercise. *J Appl Physiol*. 1997 Jul;83(1):189-95.

Sen CK, Tirosh O, Roy S, Kobayashi MS, Packer L. A positively charged alpha-lipoic acid analogue with increased cellular uptake and more potent immunomodulatory activity. *Biochem Biophys Res Commun*. 1998 Jun 18;247(2):223-8.

Shafat A, Butler P, Jensen RL, Donnelly AE. Effects of dietary supplementation with vitamins C and E on muscle function during and after eccentric contractions in humans. *Eur J Appl Physiol*. 2004 Oct;93(1-2):196-202

Shils ME, Olson JA, Shike M (toim.). *Kirjassa: Modern nutrition in health and disease* 8th ed. Williams & Wilkins, USA, 1994.

Simon-Schnass IM. Nutrition at high altitude. *J Nutr*. 1992 Mar;122(3 Suppl):778-81

Smith JA, Gray AB, Pyne DB, Baker MS, Telford RD, Weidemann MJ. Moderate exercise triggers both priming and activation of neutrophil subpopulations. *Am J Physiol*. 1996 Apr;270(4 Pt 2):R838-45.

Smith JK, Grisham MB, Granger DN, Korhuis RJ. Free radical defense mechanisms and neutrophil infiltration in postischemic skeletal muscle. *Am J Physiol*. 1989 Mar;256(3 Pt 2):H789-93.

Snow RJ, Murphy RM. Factors influencing creatine loading into human skeletal muscle. *Exerc Sport Sci Rev*. 2003 Jul;31(3):154-8

Staton WM. The influence of ascorbic acid on minimizing post-exercise muscle soreness in young men. *Res Q* 1952;23:356-60

Suh J, Zhu BZ, Frei B. Ascorbate does not act as a pro-oxidant towards lipids and proteins in human plasma exposed to redox-active transition metal ions and hydrogen peroxide.

Sun J, Chu YF, Wu X, Liu RH. Antioxidant and antiproliferative activities of common fruits. *J Agric Food Chem*. 2002 Dec 4;50(25):7449-54

Svilaas A, Sakhi AK, Andersen LF, Svilaas T, Strom EC, Jacobs DR Jr, Ose L, Blomhoff R. Intakes of antioxidants in coffee, wine, and vegetables are correlated with plasma carotenoids in humans. *J Nutr*. 2004 Mar;134(3):562-7.

Takatsuka N, Kawakami N, Ohwaki A, Ito Y, Matsushita Y, Ido M, Shimizu H. Frequent hard physical activity lowered serum beta-carotene level in a population study of a rural city of Japan. *Tohoku J Exp Med*. 1995 Jul;176(3):131-5.

Tessier F, Margaritis I, Richard MJ, Moynot C, Marconnet P. Selenium and training effects on the glutathione system and aerobic performance. *Med Sci Sports Exerc*. 1995 Mar;27(3):390-6.

Therriault A, Chao JT, Wang Q, Gapor A, Adeli K. Tocotrienol: a review of its therapeutic potential. *Clin Biochem*. 1999 Jul;32(5):309-19.

Thompson D, Williams C, Kingsley M, Nicholas CW, Lakomy HK, McArdle F, Jackson MJ. Muscle soreness and damage parameters after prolonged intermittent shuttle-running following acute vitamin C supplementation. *Int J Sports Med*. 2001a Jan;22(1):68-75.

Thompson D, Williams C, McGregor SJ, Nicholas CW, McArdle F, Jackson MJ, Powell JR. Prolonged vitamin C supplementation and recovery from demanding exercise. *Int J Sport Nutr Exerc Metab*. 2001b Dec;11(4):466-81.

Thompson D, Williams C, Garcia-Roves P, McGregor SJ, McArdle F, Jackson MJ. Post-exercise vitamin C supplementation and recovery from demanding exercise. *Eur J Appl Physiol*. 2003 May;89(3-4):393-400.

Thompson D, Bailey DM, Hill J, Hurst T, Powell JR, Williams C. Prolonged vitamin C supplementation and recovery from eccentric exercise. *Eur J Appl Physiol*. 2004 Jun;92(1-2):133-8.

Tiilikainen R, Pöllänen K, Lahti-Koski M, Borg P. Suomalaisten nuorten urheilijoiden ravinnonsaanti. *Urheilijan ravinto* 2001/1:45-49

Tuomainen TP, Punnonen K, Nyyssonen K, Salonen JT. Association between body iron stores and the risk of acute myocardial infarction in men. *Circulation*. 1998 Apr 21;97(15):1461-6.

Valk EE, Hornstra G. Relationship between vitamin E requirement and polyunsaturated fatty acid intake in man: a review. *Int J Vitam Nutr Res*. 2000 Mar;70(2):31-42.

Valko M, Morris H, Cronin MT. Metals, toxicity and oxidative stress. *Curr Med Chem*. 2005;12(10):1161-208

Valtion ravitsemusneuvottelukunta. Suomalaiset ravitsemussuosituksset 1998. Helsinki: Edita, 1998.

Valtion ravitsemusneuvottelukunta. Suomalaiset ravitsemussuosituksset 2005. Helsinki: Edita, 2005.

van der Beek EJ. Vitamins and endurance training. Food for running or faddish claims? *Sports Med*. 1985 May-Jun;2(3):175-97.

van der Beek EJ, van Dokkum W, Schrijver J, Wesstra A, Kistemaker C, Hermus RJ. Controlled vitamin C restriction and physical performance in volunteers. *J Am Coll Nutr*. 1990 Aug;9(4):332-9.

Venditti P, Di Meo S. Antioxidants, tissue damage, and endurance in trained and untrained young male rats. *Arch Biochem Biophys*. 1996 Jul 1;331(1):63-8.

Viitala P, Newhouse IJ. Vitamin E supplementation, exercise and lipid peroxidation in human participants. *Eur J Appl Physiol*. 2004 Oct;93(1-2):108-15.

Warhol MJ, Siegel AJ, Evans WJ, Silverman LM. Skeletal muscle injury and repair in marathon runners after competition. *Am J Pathol*. 1985 Feb;118(2):331-9.

Watson TA, Blake RJ, Callister R, Garg ML. Antioxidant-restricted diet reduces plasma nonesterified fatty acids in trained athletes. *Lipids*. 2005 Apr;40(4):433-5.

Watson TA, MacDonald-Wicks LK, Garg ML. Oxidative stress and antioxidants in athletes undertaking regular exercise training. *Int J Sport Nutr Exerc Metab*. 2005 Apr;15(2):131-46.

Weber P, Bendich A, Machlin LJ. Vitamin E and human health: rationale for determining recommended intake levels. *Nutrition*. 1997 May;13(5):450-60

WHO. Safe vitamin A dosage during pregnancy and lactation. Recommendations and report from a consultation. Micronutrient series. Geneva: World Health Organization, 1998. (WHO.NUT/98.4.)

Wise JA, Morin R, Sanderson R, Blum K. Changes in plasma carotenoid, alpha-tocopherol, and lipid peroxide levels in response to supplementation with concentrated fruit and vegetable extracts: A pilote study. *Current Therapeutic Research* 1996 Jun;57(6)

Witschi A, Reddy S, Stofer B, Lauterburg BH. The systemic availability of oral glutathione. *Eur J Clin Pharmacol*. 1992;43(6):667-9.

Woodhouse, ML, Williams, MH and Jackson, CW. The effects of varying doses of orally ingested bee pollen extract upon selected performance variables. *Athletic Training* 1987;22:26-28

Yang M, Collis CS, Kelly M, Diplock AT, Rice-Evans C. Do iron and vitamin C co-supplementation influence platelet function or LDL oxidizability in healthy volunteers? *Eur J Clin Nutr*. 1999 May;53(5):367-74.

## Luku 9

Affinito P, Tommaselli GA, DiCarlo C, Guida F, Nappi C. Changes in bone mineral density and calcium metabolism in breastfeeding women: A one year follow-up study. *J Clin Endocrinol Metab* 1996;81:2314-8.

Allender PS, Cutler JA, Follmann D, Cappuccio FP, Pryer J, Elliott P. Dietary calcium and blood pressure: a meta-analysis of randomized clinical trials. *Ann Intern Med*. 1996;124(9):825-31.

Andersen A, Barlow L, Engeland A, Kjaerheim K, Lynge E, Pukkala E. Work-related cancer in the Nordic countries. *Scand J Work Environ Health* 1999;25(S2):40.

Anderson JB. The important role of physical activity in skeletal development: how exercise may counter low calcium intake. *Am J Clin Nutr* 2000;71:1384-6.

Appel LJ, Moore TJ, Obarzanek E, Vollmer WM, Svetkey LP, Sacks FM, Bray GA, Vogt TM, Cutler JA, Windhauser MM, Lin PH ym. A clinical trial of the effects of dietary patterns on blood pressure. DASH Collaborative Research Group. *N Engl J Med*. 1997 Apr 17;336(16):1117-24.

Ashe JR, Schofield FA, Gram MR. The retention of calcium, iron, phosphorus, and magnesium during pregnancy; the adequacy of prenatal diets with and without supplementation. *Am J Clin Nutr* 1979;32:286-91.

Bell N, Epstein S, Shary J, Greene V, Oexman MJ, Shaw S. Evidence of probable role for 25-hydroxyvitamin D in the regulations of human calcium metabolism. *J Bone Miner Res* 1988;3:489-495.

Black PN, Scragg R. Relationship between serum 25-hydroxyvitamin d and pulmonary function in the third national health and nutrition examination survey. *Chest*. 2005 Dec;128(6):3792-8.

Borghi L, Schianchi T, Meschi T, Guerra A, Allegri F, Maggiore U, Novarini A. Comparison of two diets for the prevention of recurrent stones in idiopathic hypercalciuria. *New Engl J Med* 2002;346:77-84.

Bouillon RA, Auwerx JH, Lissens WD, Pelemans WK. Vitamin D status in the elderly: season substrate deficiency causes 1,25-dihydroxycholecalciferol deficiency. *Am J Clin Nutr* 1987;45:755-63.

Cappuccio FP, Elliott P, Allender PS, Pryer J, Follman DA, Cutler JA. Epidemiologic association between dietary calcium intake and blood pressure: a meta-analysis of published data. *Am J Epidemiol*. 1995;142:935-45.

Chapuy MC, Arlot ME, Duboeuf F ym. Vitamin D3 and calcium to prevent hip fracture in the elderly women. *N Engl J Med* 1992;327:1637-1642.

Dietrich T, Nunn M, Dawson-Hughes B, Bischoff-Ferrari HA. Association between serum concentrations of 25-hydroxyvitamin D and gingival inflammation. *Am J Clin Nutr*. 2005 Sep;82(3):575-80.

Doetsch AM, Faber J, Lynnerup N, Wätjen I, Bliddal H, Danneskiold-Samsøe. The effects of calcium and vitamin D3 supplementation on the healing of proximal humerus fracture: a randomized placebo-controlled study. *Calcif Tissue Int* 2004; 75:183-188.

Donaldsson CL, Hullet SB, Vogel JM, Hattner RS, Bayers JH, McMillan DE. Effect of prolonged bed rest on bone mineral. *Metabolism* 1970;19:1071-84

Ebeling PR, Sandgren ME, DiMaggio EP, Lane AW, DeLuca HF, Riggs BL. Evidence of an age-related decrease in intestinal responsiveness to vitamin D: relationship between serum 1,25 dihydroxyvitamin D3 and intestinal vitamin D receptor concentrations in normal women. *J Clin Endocrinol Metab* 1992;75:176-82.

Geleijnse JM, Grobbee DE. Calcium intake and blood pressure: an update. *J Cardiovasc Risk* 2000; 7:23-9.

Griffith LE, Guyatt GH, Cook RJ, Bucher HC, Cook DJ. The influence of dietary and nondietary calcium supplementation on blood pressure; an updated meta-analysis of randomized controlled trials. *Am J Hypertens* 1999; 12:84-92.

Hagmar L, Linden K, Nilsson A, Norrving B, Åkesson B, Schutz A, Möller T. Cancer incidence and mortality among Swedish Baltic Sea fishermen. *Scand J Work Environ Health* 1992;18:217-24.

Hallberg L, Rossander-Hulten L, Brune M, Gleerup A. Calcium and iron absorption: mechanism of action and nutritional importance. *Eur J Clin Nutr*. 1992 May;46(5):317-27.

Hatton DC, McCarron DA. Dietary calcium and blood pressure in experimental models of hypertension. A review. *Hypertension* 1994; 23:513-30.

Hatton DC, Yue Q, McCarron DA. Mechanisms of calcium's effects on blood pressure. *Semin Nephrol* 1995;15:593-602.

Heaney RP. Normalizing calcium intake; projected population effects for body weight. *J Nutr* 2003;13:268S-70S.

Heaney RP, Abrams S, Dawson-Hughes B, Looker A, Marcus R, Matkovic V, Weaver C. Peak bone mass. *Osteoporosis Int* 2000;11:985-1009.

Heaney RP, Davies KM, Bargar-Lux MJ. Calcium and weight: clinical studies. *J Am Coll Nutr* 2002;21:152S-5S.

Hirvonen T, Pietinen P, Virtanen M, Albanes D, Virtamo J. Nutrient intake and use of beverages and the risk of kidney stones among male smokers. *Am J Epidemiol* 1999;150:187-194.

Holick MF. Environmental factors that affect the cutaneous production of vitamin D. *Am J Clin Nutr* 1995;61:638S-45S.

Holick MF. Sunlight and vitamin D. Both good for cardiovascular health. *J Gen Intern Med* 2002;17:733-735.

Holick MF. Vitamin D: importance in the prevention of cancers, type I diabetes, heart disease, and osteoporosis. *Am J Clin Nutr* 2004;79:362-371.

Holick MF, Matsuoka LY, Wortsman J. Age, vitamin D, and solar ultraviolet. *Lancet* 1989;2:1104-1105.

Jacobsen R, Lorenzen JK, Toubro S, Krog-Mikkelsen I, Astrup A. Effect of short-term high dietary calcium intake on 24-h energy expenditure, fat oxidation, and fecal fat excretion. *Int J Obes* 2005;29: 292-301.

Jauhiainen T, Vapaatalo H, Poussa T, Kyrönpalo S, Rasmussen M, Korpela R. *Lactobacillus helveticus* fermented milk lowers blood pressure in hypertensive subjects in 24-h ambulatory blood pressure measurement. *AJH* 2005;18:1 600-1605.

Kalkwarf HJ, Specker BL, Henbi JE, Vieira NE, Yergey AL. Intestinal calcium absorption of women during lactation. *Am J Clin Nutr* 1996;63:526-31.

Kalkwarf HJ, Specker BL, Bianchi DC, Ranz J, Ho M. The effect of calcium supplementation on bone density during lactation and after weaning. *N Engl J Med* 1997;337:523-8.

Kauppinen-Mäkelin R, Tähtelä R, Löyttyniemi E, Kärkkäinen J, Välimäki MJ. A high prevalence of hypovitaminosis D in Finnish medical in- and outpatients. *J Intern Med*. 2001 Jun;249(6):559-63.

Kiviranta H, Vartiainen T, Verta M, Tuomisto JT, Tuomisto J. High fish-specific dioxin concentrations in Finland. *Lancet* 2000;355:1883-5.

Krebs J, Schneider V, Smith J, Le Blanc A, Thornton W, Leach C. Sweat calcium loss during running. *FASEB* 1988;32:1699-1702.

Lamberg-Allardt CJ, Outila TA, Kärkkäinen MU, Rita HJ, Valsta LM. Vitamin D deficiency and bone health in healthy adults in Finland: could this be a concern in other parts of Europe? *J Bone Miner Res*. 2001;16:2066-73.

LeBlanc A, Schneider W, Evans H, Engelbretson D, Krebs J. Bone mineral loss and recovery after 17 weeks of bed rest. *J Bone Miner Res* 1990;5:843-50.

Lehtonen-Veromaa M, Möttönen T, Irjala K ym. Vitamin D intake is low and hypovitaminosis D common in healthy peripubertal girls. *Eur J Clin Nutr* 1999;53:746-51

Loud KJ, Gordon CNM, Micheli LJ, Field AE. Correlates of stress fractures among preadolescent and adolescent girls. *Pediatrics* 2005;115:399-406.

Lynch SR. The potential impact of iron supplementation during adolescence on iron status in pregnancy. *J Nutr*. 2000;130:448S-451S.

Mac Laughlin J, Holick MF. Aging decreases the capacity of human skin to produce vitamin D3. *J Clin Invest* 1985;76:1536-8.

Malabanan A, Veronikis IE, Holick MF. Redefining vitamin D insufficiency. *Lancet* 1998;351:805-806.

Mattila PH, Piironen VI, Uusi-Rauva EJ, Koivistoinen PE. Vitamin D contents in edible mushrooms. *J Agric Food Chem* 1994;42:2449-53.

Maughan RJ. Fundamentals of sports nutrition: Application to sports drinks. Kirjassa: Maughan RJ, Murray R (toim.) *Sports Drinks. Basic science and practical aspects*. CRC Press LLC, Boca Raton, USA, 2001.

Morris RC, Sebastian A, Forman A, Tanaka M, Schmidlin O. Normotensive salt-sensitivity: effects of race and dietary potassium. *Hypertension* 1999;33:18-23.

Murphy NM, Carroll P. The effect of physical activity and its interaction with nutrition on bone health. *Proceedings of the Nutrition* 2003;62:829-838.

Männistö S, Ovaskainen ML, Valsta L, toim. *Finravinto 2002 -tutkimus. The National FINDIET 2002 Study. Kansanterveyslaitoksen julkaisu B3/2003. Kansanterveyslaitos, Ravitsemusyksikkö. Helsinki 2003.*

Osteoporoosin hoitosuositusryhmä. Osteoporoosin Käypä hoito-suositus. *Duodecim* 2000;116:1772-1788.

Outila TA, Kärkkäinen MU, Seppänen RH, Lamberg-Allardt CJ. Dietary intake of vitamin D in premenopausal, healthy vegans was insufficient to maintain concentrations of serum 25-hydroxyvitamin D and intact parathyroid hormone within normal ranges during the winter in Finland. *J Am Diet Assoc* 2000;100:434-441.

Outila TA, Mattila PH, Piironen VI, Lamberg-Allardt CJE. Bioavailability of vitamin D from wild edible mushrooms (*Chantarellus tubaeformis*) as measured with a human bioassay. *Am J Clin Nutr* 1999;69:95-98.

Papakonstantinou E, Flatt WP, Huth PJ, Harris RBS. High Dietary Calcium Reduces Body Fat Content, Digestibility of Fat, and Serum Vitamin D in Rats. *Obes Res* 2003 11: 387-394.

Parikh SJ, Yanovski JA. Calcium intake and adiposity. *Am J Clin Nutr* 2003;77:281-7.

Pereira MA, Jacobs DR, Van Horn L ym. Dairy consumption, obesity, and the insulin resistance syndrome in young adults. The CARDIA study. *JAMA* 2002;287:2081-9.

Peterlik M, Cross HS. Vitamin D and calcium deficits predispose for multiple chronic diseases. *Eur J Clin Invest* 2005; 35:290-304.

Schwellnus MP, Jordaan G. Does calcium supplementation prevent bone stress injuries ? A clinical trial. *Int J Sport Nutr* 1992;2:165-74.

Scrogin KE, Hatton DC, McCarron DA. The interactive effects of dietary sodium chloride and calcium on cardiovascular stress response. *Am J Physiol* 1991; 261:R945-9.

Sosiaali- ja terveysministeriö. D-vitamiinivalmisteiden käyttösuositus. Kuntakirje terveyskeskuksia ja sairaaloita ylläpitäville kunnille ja kuntayhtymille. 8.10.2003. Saatavilla [www-muodossa: <URL: http://www.stm.fi/Resource.phx/ajank/suost/dvitamiini.htm>](http://www.stm.fi/Resource.phx/ajank/suost/dvitamiini.htm)

Specker BL, Vieira NE, O'Brian KO, Ho ML, Heubi JE, Abrams SA, Yergey AL. Calcium kinetics in lactating women with low and high calcium intakes. *Am J Clin Nutr* 1994;59:593-9.

Tangpricha V, Koutkia P, Rieke SM, Chen TC, Perez AA, Holick MF. Fortification of orange juice with vitamin D: a novel approach for enhancing vitamin D nutritional health. *Am J Clin Nutr* 2003;77:1478-83.

Trang HM, Cole DEC, Rubin LA, Pierratos A, Siu S, Vieth R. Evidence that vitamin D3 increases serum 25-hydroxy vitamin D more effectively than does vitamin D2. *Am J Clin Nutr* 1998;68:854-858.

Tsai KS, Heath III H, Kumar R, Riggs BL. Impaired vitamin D metabolism with aging in women. Possible role in pathogenesis of senile osteoporosis. *J Clin Invest* 1984;73:1668-72.

Valtion Ravitsemusneuvottelukunta. Suomalaiset ravitsemussuositukset - ravinto ja liikunta tasapainoon. Edita Publishing Oy, Helsinki 2005.

van de Vijver LPL, Kardinaal AFM, Charzewska J, Rotily M, Charles P, Maggiolini M, Ando S, Välimäki M, Sane T, Dunkel L (toim.). *Endokrinologia. Duodecim, 2000.*

Välimäki V-V, Alftan H, Lehmuskallio E, Löyttyniemi E, Sahi T, Suominen H, Välimäki MJ. Risk factors for clinical stress fractures in male military recruits: A prospective cohort study. *Bone* 2005;37:267-273.

Väänänen K ym. Calcium intake is weakly but consistently negatively associated with iron status in girls and women in six European countries. *J Nutr* 1999;129:963-968.

Weaver CM, Williams RP, Heaney R. Choices for achieving adequate dietary calcium with a vegetarian diet. *Am J Clin Nutr* 1999;70(suppl):543S-8S.

Zemel MB. Role of calcium and dairy products in energy partitioning and weight management. *Am J Clin Nutr* 2004;79(suppl):907S-12S.

Zemel MB, Noton AM, Richards JD ym. Increasing dairy calcium intake reduces adiposity in obese African-American adults. *Circulation* 2002;106(suppl):II-610(abstr).

Zemel MB, Noton AM, Richards JD ym. Dairy augmentation of total and central fat loss in obese subjects. *Int J Obes* 2005;29:341-347.

## Luku 10

Bergeron MF. Heat cramps during tennis: a case report. *Int J Sport Nutr*. 1996 Mar;6(1):62-8.

Brilla LR, Haley TF. Effect of magnesium supplementation on strength training in humans. *J Am Coll Nutr*. 1992 Jun;11(3):326-9.

Britschgi F, Zund G. Bodybuilding: hypokalemia and hypophosphatemia. *Schweiz Med Wochenschr*. 1991 Aug 17;121(33):1163-5.

Brouns F, Beckers E, Wagenmakers AJ, Saris WH. Ammonia accumulation during highly intensive long-lasting cycling: individual observations. *Int J Sports Med*. 1990 May;11 Suppl 2:S78-84.

Clark M, Reed DB, Crouse SF, Armstrong RB. Pre- and post-season dietary intake, body composition, and performance indices of NCAA division I female soccer players. *Int J Sport Nutr Exerc Metab*. 2003 Sep;13(3):303-19.

Deuster PA, Dolev E, Kyle SB, Anderson RA, Schoemaker EB. Magnesium homeostasis during high-intensity anaerobic exercise in men. *J Appl Physiol*. 1987 Feb;62(2):545-50.

Elin RJ. Laboratory tests for the assessment of magnesium status in humans. *Magn Trace Elem*. 1991-92;10(2-4):172-81.

Fine KD, Santa Ana CA, Porter JL, Fordtran JS. Intestinal absorption of magnesium from food and supplements. *J Clin Invest*. 1991 Aug;88(2):396-402.

Finstad EW, Newhouse IJ, Lukaski HC, Mcauliffe JE, Stewart CR. The effects of magnesium supplementation on exercise performance. *Med Sci Sports Exerc*. 2001 Mar;33(3):493-8.

Fogelholm M. Indicators of vitamin and mineral status in athletes' blood: a review. *Int J Sport Nutr*. 1995 Dec;5(4):267-84.

Fogelholm M, Laakso J, Lehto J, Ruokonen I. Dietary intake and indicators of magnesium and zinc status in male athletes. *Nutr Res* 1991;11:1111-8

Fogelholm M, Rehunen S, Gref CG, Laakso JT, Lehto J, Ruokonen I, Himberg JJ. Dietary intake and thiamin, iron, and zinc status in elite Nordic skiers during different training periods. *Int J Sport Nutr*. 1992 Dec;2(4):351-65.

Golf SW, Bohmer D, Nowacki PE. Is magnesium a limiting factor in competitive exercise? A summary of relevant scientific data. Kirjassa: Golf S, Dralle D, Vecchiet L (toim.) *Magnesium* 1993. Lontoo: John Libbey & Company, 1993:209-20

Hickson JF Jr, Schrader J, Trischler LC. Dietary intakes of female basketball and gymnastics athletes. *J Am Diet Assoc*. 1986 Feb;86(2):251-3.

Jeukendrup AE, Jentjens RL, Moseley L. Nutritional considerations in triathlon. *Sports Med*. 2005;35(2):163-81.

Kantorowski PG, Hiller WD, Garrett WE ym. Cramping studies in 2600 endurance athletes. *Med Sci Sports Exerc* 1990;22(suppl4):S104

Keatisuwan W, Ohnaka T, Tochiwara Y. Physiological responses of women during exercise under dry-heat condition in winter and summer. *Appl Human Sci*. 1996 Jul;15(4):169-76.

Leiper JB. Gastric Emptying and Intestinal Absorption of Fluids, Carbohydrates, and Electrolytes. Kirjassa Sports Drinks - Basic Science and Practical Aspects. Maughan RJ, Murray R (toim.) CRC Press, Boca Raton, Florida: 2001, 118-119

Leitzmann C. Vegetarian diets: what are the advantages? Forum Nutr. 2005; (57):147-56

Lindberg JS, Zobitz MM, Poindexter JR, Pak CY. Magnesium bioavailability from magnesium citrate and magnesium oxide. J Am Coll Nutr. 1990 Feb;9(1):48-55.

Liu L, Borowski G, Rose LI. Hypomagnesemia in a tennisplayer. Phys Sportsmed 1983;11:79-80

Lukaski HC. Micronutrients (magnesium, zinc, and copper): are mineral supplements needed for athletes? Int J Sport Nutr. 1995 Jun;5 Suppl:S74-83.

Lukaski HC. Magnesium, zinc, and chromium nutrition and physical activity. Am J Clin Nutr. 2000 Aug;72(2 Suppl):585S-93S

Lukaski HC. Vitamin and mineral status: effects on physical performance. Nutrition. 2004 Jul-Aug;20(7-8):632-44

Lukaski HC, Bolonchuk WW, Klevay LM, Milne DB, Sandstead HH. Maximal oxygen consumption as related to magnesium, copper, and zinc nutrition. Am J Clin Nutr. 1983 Mar;37(3):407-15.

Maughan RJ. Fundamentals of Sports Nutrition: Application to Sports Drinks. Kirjassa: Maughan RJ, Murray R (toim.) Sports Drinks - Basic Science and Practical Aspects. CRC Press, Boca Raton, Florida: 2001, 16-17

Maughan RJ, Leiper JB. Sodium intake and post-exercise rehydration in man. Eur J Appl Physiol Occup Physiol. 1995;71(4):311-9.

McGee SR. Muscle cramps. Arch Intern Med. 1990 Mar;150(3):511-8.

Mickleborough TD, Lindley MR, Ray S. Dietary salt, airway inflammation, and diffusion capacity in exercise-induced asthma. Med Sci Sports Exerc. 2005 Jun;37(6):904-14.

Mooren FC, Golf SW, Volker K. Effect of magnesium on granulocyte function and on the exercise induced inflammatory response. Magnes Res. 2003 Mar;16(1):49-58.

Murray R, Stofan JR. Formulating Carbohydrate-Electrolyte Drinks for Optimal Efficacy. Kirjassa Sports Drinks - Basic Science and Practical Aspects. Maughan RJ, Murray R (toim.) CRC Press, Boca Raton, Florida: 2001, 206-207

Männistö S, Ovaskainen M-L, Valsta L toim. Finravinto 2002 -tutkimus. The National Findiet 2002 Study. Kansanterveyslaitoksen julkaisuja B3/2003. Helsinki: Kansanterveyslaitos, 2003.

Noakes TD, Norman RJ, Buck RH, Godlonton J, Stevenson K, Pittaway D. The incidence of hyponatremia during prolonged ultraendurance exercise. Med Sci Sports Exerc. 1990 Apr;22(2):165-70.

Newhouse IJ, Finstad EW. The effects of magnesium supplementation on exercise performance. Clin J Sport Med. 2000 Jul;10(3):195-200.

Nuviala RJ, Lapieza MG, Bernal E. Magnesium, zinc, and copper status in women involved in different sports. Int J Sport Nutr. 1999 Sep;9(3):295-309.

Rankinen T, Lyytikäinen S, Vänninen E, Penttilä I, Rauramaa R, Uusitupa M. Nutritional status of the Finnish elite ski jumpers. Med Sci Sports Exerc. 1998 Nov;30(11):1592-7.

Saris NE, Mervaala E, Karppanen H, Khawaja JA, Lewenstam A. Magnesium. An update on physiological, clinical and analytical aspects. Clin Chim Acta. 2000 Apr;294(1-2):1-26.

Schweltnus MP, Derman EW, Noakes TD. Aetiology of skeletal muscle 'cramps' during exercise: a novel hypothesis. J Sports Sci. 1997 Jun;15(3):277-85.

Schweltnus MP, Nicol J, Laubscher R, Noakes TD. Serum electrolyte concentrations and hydration status are not associated with exercise associated muscle cramping (EAMC) in distance runners. Br J Sports Med. 2004 Aug;38(4):488-92.

Selsby JT, DiSilvestro RA, Devor ST. Mg2+-creatine chelate and a low-dose creatine supplementation regimen improve exercise performance. J Strength Cond Res. 2004 May;18(2):311-5.



Shirreffs SM. Post-Exercise Rehydration and Recovery. Kirjassa Sports Drinks - Basic Science and Practical Aspects. Maughan RJ, Murray R (toim.) CRC Press, Boca Raton, Florida: 2001, 206-207.

Srinath Reddy K, Katan MB. Diet, nutrition and the prevention of hypertension and cardiovascular diseases. Public Health Nutr. 2004 Feb;7(1A):167-86.

Sulzer NU, Schweltnus MP, Noakes TD. Serum electrolytes in Ironman triathletes with exercise-associated muscle cramping. Med Sci Sports Exerc. 2005 Jul;37(7):1081-5.

Suomalaiset ravitsemussuositukset 2005. Valtion ravitsemusneuvottelukunta. Helsinki: Edita, 2005.

Suter PM, Sierro C, Vetter W. Nutritional factors in the control of blood pressure and hypertension. Nutr Clin Care. 2002 Jan-Feb;5(1):9-19.

Tiilikainen R, Pöllänen K, Lahti-Koski M, Borg P. Suomalaisten nuorten urheilijoiden ravinnonsaanti. Urheilijan ravinto 2001/1:45-49

Vrijens DM, Rehrer NJ. Sodium-free fluid ingestion decreases plasma sodium during exercise in the heat. J Appl Physiol. 1999 Jun;86(6):1847-51.

Walker AF, Marakis G, Christie S, Byng M. Mg citrate found more bioavailable than other Mg preparations in a randomised, double-blind study. Magnes Res. 2003 Sep;16(3):183-91.

Weller E, Bachert P, Meinck HM, Friedmann B, Bartsch P, Mairbaurl H. Lack of effect of oral Mg-supplementation on Mg in serum, blood cells, and calf muscle. Med Sci Sports Exerc. 1998 Nov;30(11):1584-91.

Whitney EN, Rolfes SR. Water and the Major Minerals. Kirjassa: Whitney EN, Rolfes SR. Understanding Nutrition 7th ed. West Publishing Company, USA, 1996.

Wilk B, Bar-Or O. Effect of drink flavor and NaCl on voluntary drinking and hydration in boys exercising in the heat. J Appl Physiol. 1996 Apr;80(4):1112-7.

Zierath J, Kaiserauer S, Snyder AC. Dietary patterns of amenorrheic and regularly menstruating runners. Med Sci Sports Exerc 196;18(suppl):S55-6.

## Luku 11

Aissa Benhaddad A, Bouix D, Khaled S, Micallef JP, Mercier J, Bringer J, Brun JF. Early hemorheologic aspects of overtraining in elite athletes. Clin Hemorheol Microcirc. 1999;20(2):117-25.

Althuis MD, Jordan NE, Ludington EA, Wittes JT. Glucose and insulin responses to dietary chromium supplements: a meta-analysis. Am J Clin Nutr. 2002 Jul;76(1):148-55.

Anderson RA. Chromium, glucose intolerance and diabetes. J Am Coll Nutr. 1998 Dec;17(6):548-55.

Anderson RA, Kozlovsky AS. Chromium intake, absorption and excretion of subjects consuming self-selected diets. Am J Clin Nutr. 1985 Jun;41(6):1177-83.

Anderson RA, Polansky MM, Bryden NA, Bathena SJ, Canary JJ. Effects of supplemental chromium on patients with symptoms of reactive hypoglycemia. Metabolism. 1987 Apr;36(4):351-5.

Anderson RA, Polansky MM, Bryden NA. Stability and absorption of chromium and absorption of chromium histidinate complexes by humans. Biol Trace Elem Res. 2004 Dec;101(3):211-8.

Argiratos V, Samman S. The effect of calcium carbonate and calcium citrate on the absorption of zinc in healthy female subjects. Eur J Clin Nutr. 1994 Mar;48(3):198-204.

Aruoma OI, Reilly T, MacLaren D, Halliwell B. Iron, copper and zinc concentrations in human sweat and plasma; the effect of exercise. Clin Chim Acta. 1988 Sep 30;177(1):81-7.

Bahadori B, Wallner S, Schneider H, Wascher TC, Toplak H. Effect of chromium yeast and chromium picolinate on body composition of obese, non-diabetic patients during and after a formula diet. Acta Med Austriaca. 1997;24(5):185-7.

Bahijri SM. Effect of chromium supplementation on glucose tolerance and lipid profile. *Saudi Med J*. 2000 Jan;21(1):45-50.

Baker DH. Cupric oxide should not be used as a copper supplement for either animals or humans. *J Nutr*. 1999 Dec;129(12):2278-9.

Beard J, Tobin B. Iron status and exercise. *Am J Clin Nutr*. 2000 Aug;72(2 Suppl):594S-7S

Bi L, Triadafilopoulos G. Exercise and gastrointestinal function and disease: an evidence-based review of risks and benefits. *Clin Gastroenterol Hepatol*. 2003 Sep;1(5):345-55.

Borg P. Monivitamiinien kirjo-valitse omasi. *Urheilijan ravinto* 1/2001:54-55.

Brink EJ, Beynen AC. Nutrition and magnesium absorption: a review. *Prog Food Nutr Sci*. 1992;16(2):125-62.

Brownlie T 4th, Utermohlen V, Hinton PS, Giordano C, Haas JD. Marginal iron deficiency without anemia impairs aerobic adaptation among previously untrained women. *Am J Clin Nutr*. 2002 Apr;75(4):734-42.

Brownlie T 4th, Utermohlen V, Hinton PS, Haas JD. Tissue iron deficiency without anemia impairs adaptation in endurance capacity after aerobic training in previously untrained women. *Am J Clin Nutr*. 2004 Mar;79(3):437-43.

Brun JF, Bouchahda C, Chaze D, Benhaddad AA, Micallef JP, Mercier J. The paradox of hematocrit in exercise physiology: which is the "normal" range from an hemorheologist's viewpoint? *Clin Hemorheol Microcirc*. 2000;22(4):287-303.

Cerulli J, Grabe DW, Gauthier I, Malone M, McGoldrick MD. Chromium picolinate toxicity. *Ann Pharmacother*. 1998 Apr;32(4):428-31.

Cheng HH, Lai MH, Hou WC, Huang CL. Antioxidant effects of chromium supplementation with type 2 diabetes mellitus and euglycemic subjects. *J Agric Food Chem*. 2004 Mar 10;52(5):1385-9.

Clarkson PM, Haymes EM. Trace mineral requirements for athletes. *Int J Sport Nutr*. 1994 Jun;4(2):104-19.

Clarkson PM. Minerals: exercise performance and supplementation in athletes. *J Sports Sci*. 1991 Summer;9 Spec No:91-116.

Cordova A, Alvarez-Mon M. Behaviour of zinc in physical exercise: a special reference to immunity and fatigue. *Neurosci Biobehav Rev*. 1995 Fall;19(3):439-45.

Cordova A, Navas FJ. Effect of training on zinc metabolism: changes in serum and sweat zinc concentrations in sportsmen. *Ann Nutr Metab*. 1998;42(5):274-82.

Couzy F, Lafargue P, Guezennec CY. Zinc metabolism in the athlete: influence of training, nutrition and other factors. *Int J Sports Med*. 1990 Aug;11(4):263-6.

Crawford V, Scheckenbach R, Preuss HG. Effects of niacin-bound chromium supplementation on body composition in overweight African-American women. *Diabetes Obes Metab*. 1999 Nov;1(6):331-7.

Cupisti A, D'Alessandro C, Castrogiovanni S, Barale A, Morelli E. Nutrition survey in elite rhythmic gymnasts. *J Sports Med Phys Fitness*. 2000 Dec;40(4):350-5

Deakin V. Iron depletion in athletes. *Kirjassa: Burke L, Deakin V (toim). Clinical sports nutrition* 2nd ed. McGraw-Hill, Australia, 2002.

DeRuisseau KC, Chevront SN, Haymes EM, Sharp RG. Sweat iron and zinc losses during prolonged exercise. *Int J Sport Nutr Exerc Metab*. 2002 Dec;12(4):428-37

Deuster PA, Day BA, Singh A, Douglass L, Moser-Veillon PB. Zinc status of highly trained women runners and untrained women. *Am J Clin Nutr*. 1989 Jun;49(6):1295-301.

Donangelo CM, Woodhouse LR, King SM, Viteri FE, King JC. Supplemental zinc lowers measures of iron status in young women with low iron reserves. *J Nutr*. 2002 Jul;132(7):1860-4.

Ducros V. Chromium metabolism. A literature review. *Biol Trace Elem Res*. 1992 Jan-Mar;32:65-77.

Fallon KE, Sivyer G, Sivyer K, Dare A. Changes in haematological parameters and iron metabolism associated with a 1 600 kilometre ultramarathon. *Br J Sports Med.* 1999 Feb;33(1):27-31.

Finravinto 1997-tutkimus, Kansanterveyslaitoksen julkaisu B8 Helsinki: Kansanterveyslaitos, 1998.

Fisher AE, Naughton DP. Iron supplements: the quick fix with long-term consequences. *Nutr J.* 2004 Jan 16;3:2.

Fogelholm M. Indicators of vitamin and mineral status in athletes' blood: a review. *Int J Sport Nutr.* 1995 Dec;5(4):267-84.

Fogelholm M. Vitamin, mineral and antioxidant needs of athletes. Kirjassa: Burke L, Deakin V (toim). *Clinical sports nutrition 2nd ed.* McGraw- Hill, Australia, 2002.

Fogelholm M, Jaakkola L, Lampisjarvi T. Effects of iron supplementation in female athletes with low serum ferritin concentration. *Int J Sports Med.* 1992a Feb;13(2):158-62.

Fogelholm M, Rehunen S, Gref CG, Laakso JT, Lehto J, Ruokonen I, Himberg JJ. Dietary intake and thiamin, iron, and zinc status in elite Nordic skiers during different training periods. *Int J Sport Nutr.* 1992b Dec;2(4):351-65.

Frauchiger MT, Wenk C, Colombani PC. Effects of acute chromium supplementation on postprandial metabolism in healthy young men. *J Am Coll Nutr.* 2004 Aug;23(4):351-7.

Friedmann B, Weller E, Mairbaurl H, Bartsch P. Effects of iron repletion on blood volume and performance capacity in young athletes. *Med Sci Sports Exerc.* 2001 May;33(5):741-6.

Gardner GW, Edgerton VR, Barnard RJ, Bernauer EM. Cardiorespiratory, hematological and physical performance responses of anemic subjects to iron treatment. *Am J Clin Nutr.* 1975 Sep;28(9):982-8.

Gleeson M, Lancaster GI, Bishop NC. Nutritional strategies to minimise exercise-induced immunosuppression in athletes. *Can J Appl Physiol.* 2001;26 Suppl:S23-35

Gropper SS, Sorrels LM, Blessing D. Copper status of collegiate female athletes involved in different sports. *Int J Sport Nutr Exerc Metab.* 2003 Sep;13(3):343-57

Hallberg L, Rossander-Hulten L, Brune M, Gleerup A. Bioavailability in man of iron in human milk and cow's milk in relation to their calcium contents. *Pediatr Res.* 1992a May;31(5):524-7.

Hallberg L, Rossander-Hulten L, Brune M, Gleerup A. Calcium and iron absorption: mechanism of action and nutritional importance. *Eur J Clin Nutr.* 1992b May;46(5):317-27.

Hallberg L, Hulten L, Gramatkovski E. Iron absorption from the whole diet in men: how effective is the regulation of iron absorption? *Am J Clin Nutr.* 1997 Aug;66(2):347-56.

Haymes EM. Vitamin and mineral supplementation to athletes. *Int J Sport Nutr.* 1991 Jun;1(2):146-69.

Haymes EM, Lamanca JJ. Iron loss in runners during exercise. Implications and recommendations. *Sports Med.* 1989 May;7(5):277-85.

Henderson LM, Brewer GJ, Dressman JB, Swidan SZ, DuRoss DJ, Adair CH, Barnett JL, Berardi RR. Effect of intragastric pH on the absorption of oral zinc acetate and zinc oxide in young healthy volunteers. *JPEN J Parenter Enteral Nutr.* 1995 Sep-Oct;19(5):393-7.

Hoeger WW, Harris C, Long EM, Hopkins DR. Four-week supplementation with a natural dietary compound produces favorable changes in body composition. *Adv Ther.* 1998 Sep-Oct;15(5):305-14.

Horvath PJ, Eagen CK, Ryer-Calvin SD, Pendergast DR. The effects of varying dietary fat on the nutrient intake in male and female runners. *J Am Coll Nutr.* 2000 Feb;19(1):42-51.

Hunt JR. Bioavailability of iron, zinc, and other trace minerals from vegetarian diets. *Am J Clin Nutr.* 2003 Sep;78(3 Suppl):633S-639S.

Itokawa Y, Kimura M, Nishino K, Mino M, Kitagawa M, Matsuoka M, Otsuka H. Blood levels and urinary excretion of thiamin and riboflavin during oral administration of multivitamin tablets to healthy adults. *J Nutr Sci Vitaminol (Tokyo)*. 1992;Spec No:438-41.

Jeejeebhoy KN, Chu RC, Marliss EB, Greenberg GR, Bruce-Robertson A. Chromium deficiency, glucose intolerance, and neuropathy reversed by chromium supplementation, in a patient receiving long-term total parenteral nutrition. *Am J Clin Nutr*. 1977 Apr;30(4):531-8.

Khaled S, Brun JF, Micallel JP, Bardet L, Cassanas G, Monnier JF, Orsetti A. Serum zinc and blood rheology in sportsmen (football players). *Clin Hemorheol Microcirc*. 1997 Jan-Feb;17(1):47-58.

Khaled S, Brun JF, Wagner A, Mercier J, Bringer J, Prefaut C. Increased blood viscosity in iron-depleted elite athletes. *Clin Hemorheol Microcirc*. 1998 Jul;18(4):309-18.

Khaled S, Brun JF, Cassanas G, Bardet L, Orsetti A. Effects of zinc supplementation on blood rheology during exercise. *Clin Hemorheol Microcirc*. 1999;20(1):1-10.

Kikukawa A, Kobayashi A. Changes in urinary zinc and copper with strenuous physical exercise. *Aviat Space Environ Med*. 2002 Oct;73(10):991-5.

Kobla HV, Volpe SL. Chromium, exercise, and body composition. *Crit Rev Food Sci Nutr*. 2000 Jul;40(4):291-308.

Kozlovsky AS, Moser PB, Reiser S, Anderson RA. Effects of diets high in simple sugars on urinary chromium losses. *Metabolism*. 1986 Jun;35(6):515-8.

Krotkiewski M, Gudmundsson M, Backstrom P, Mandroukas K. Zinc and muscle strength and endurance. *Acta Physiol Scand*. 1982 Nov;116(3):309-11.

Lahti-Koski M, Valsta LM, Alfthan G, Tapanainen H, Aro A. Iron status of adults in the capital area of Finland. *Eur J Nutr*. 2003 Oct;42(5):287-92.

Lonnerdal B. Dietary factors influencing zinc absorption. *J Nutr*. 2000 May;130(5S Suppl):1378S-83S.

Lukaski HC. Magnesium, zinc, and chromium nutrition and physical activity. *Am J Clin Nutr*. 2000 Aug;72(2 Suppl):585S-93S.

Lukaski HC. Vitamin and mineral status: effects on physical performance. *Nutrition*. 2004 Jul-Aug;20(7-8):632-44.

Lukaski HC, Bolonchuk WW, Siders WA, Milne DB. Chromium supplementation and resistance training: effects on body composition, strength, and trace element status of men. *Am J Clin Nutr*. 1996 Jun;63(6):954-65.

McArdle WD, Katch FI, Katch VL. Vitamins, minerals and water. Kirjassa: McArdle WD, Katch FI, Katch VL (toim.). *Exercise Physiology 5th ed*. Lippincott Williams & Wilkins, USA, 2001.

McMahon LF Jr, Ryan MJ, Larson D, Fisher RL. Occult gastrointestinal blood loss in marathon runners. *Ann Intern Med*. 1984 Jun;100(6):846-7.

Micheletti A, Rossi R, Rufini S. Zinc status in athletes: relation to diet and exercise. *Sports Med*. 2001;31(8):577-82.

Miller BJ, Pate RR, Burgess W. Foot impact force and intravascular hemolysis during distance running. *Int J Sports Med*. 1988 Feb;9(1):56-60.

Milman N, Pedersen P, Steig T, Melsen GV. Frequencies of the hereditary hemochromatosis allele in different populations. Comparison of previous phenotypic methods and novel genotypic methods. *Int J Hematol*. 2003 Jan;77(1):48-54.

Monsen ER. Iron nutrition and absorption: dietary factors which impact iron bioavailability. *J Am Diet Assoc*. 1988 Jul;88(7):786-90.

Mutanen M, Voutilainen E. Vitamiinit ja kivennäisaineet. Kirjassa: Aro A, Mutanen M, Uusitupa M (toim). *Ravitsemustiede. Duodecim, Helsinki, 1999.*

Männistö S, Ovaskainen M-L, Valsta L toim. *Finravinto 2002 -tutkimus. The National Findiet 2002 Study. Kansanterveyslaitoksen julkaisuja B3/2003. Helsinki: Kansanterveyslaitos, 2003.*

Nachtigall D, Nielsen P, Fischer R, Engelhardt R, Gabbe EE. Iron deficiency in distance runners. A reinvestigation using Fe-labelling and non-invasive liver iron quantification. *Int J Sports Med.* 1996 Oct;17(7):473-9.

Navarro M, Wood RJ. Plasma changes in micronutrients following a multivitamin and mineral supplement in healthy adults. *J Am Coll Nutr.* 2003 Apr;22(2):124-32.

Nielsen F. Controversial chromium: does the superstar mineral of the mountebanks receive appropriate attention from clinicians and nutritionists? *Nutr Today* 1996;31:226-33

Nielsen P, Nachtigall D. Iron supplementation in athletes. Current recommendations. *Sports Med.* 1998 Oct;26(4):207-16.

Nissen SL, Sharp RL. Effect of dietary supplements on lean mass and strength gains with resistance exercise: a meta-analysis. *J Appl Physiol.* 2003 Feb;94(2):651-9.

Nuviala RJ, Lapieza MG, Bernal E. Magnesium, zinc, and copper status in women involved in different sports. *Int J Sport Nutr.* 1999 Sep;9(3):295-309.

Patel RP, Darley-Usmar VM. Molecular mechanisms of the copper dependent oxidation of low-density lipoprotein. *Free Radic Res.* 1999 Jan;30(1):1-9.

Pittler MH, Ernst E. Dietary supplements for body-weight reduction: a systematic review. *Am J Clin Nutr.* 2004 Apr;79(4):529-36.

Porea TJ, Belmont JW, Mahoney DH Jr. Zinc-induced anemia and neutropenia in an adolescent. *J Pediatr.* 2000 May;136(5):688-90.

Powell SR. The antioxidant properties of zinc. *J Nutr.* 2000 May;130(5S Suppl):1447S-54S

Preuss HG, Bagchi D, Bagchi M, Rao CV, Dey DK, Satyanarayana S. Effects of a natural extract of (-)-hydroxycitric acid (HCA-SX) and a combination of HCA-SX plus niacin-bound chromium and *Gymnema sylvestre* extract on weight loss. *Diabetes Obes Metab.* 2004 May;6(3):171-80.

Puhl JL, Runyan WS, Kruse SJ. Erythrocyte changes during training in high school women cross-country runners. *Res Q Exerc Sport.* 1981 Dec;52(4):484-94.

Rabinovitz H, Friedensohn A, Leibovitz A, Gabay G, Rocas C, Habet B. Effect of chromium supplementation on blood glucose and lipid levels in type 2 diabetes mellitus elderly patients. *Int J Vitam Nutr Res.* 2004 May;74(3):178-82.

Roodenburg AJ, Leenen R, van het Hof KH, Weststrate JA, Tijburg LB. Amount of fat in the diet affects bioavailability of lutein esters but not of alpha-carotene, beta-carotene, and vitamin E in humans. *Am J Clin Nutr.* 2000 May;71(5):1187-93.

Rudzki SJ, Hazard H, Collinson D. Gastrointestinal blood loss in triathletes: it's etiology and relationship to sports anaemia. *Aust J Sci Med Sport.* 1995 Mar;27(1):3-8.

Salzman MB, Smith EM, Koo C. Excessive oral zinc supplementation. *J Pediatr Hematol Oncol.* 2002 Oct;24(7):582-4.

Schwartz AE, Vanagunas A, Kamel PL. Endoscopy to evaluate gastrointestinal bleeding in marathon runners. *Ann Intern Med.* 1990 Oct 15;113(8):632-3.

Shaskey DJ, Green GA. Sports haematology. *Sports Med.* 2000 Jan;29(1):27-38.

Shils ME, Olson JA, Shike M (toim.). *Modern nutrition in health and disease.* 8th ed. Williams & Wilkins, USA, 1994.

Singh A, Failla ML, Deuster PA. Exercise-induced changes in immune function: effects of zinc supplementation. *J Appl Physiol.* 1994 Jun;76(6):2298-303.

Smyth PP, Duntas LH. Iodine uptake and loss - can frequent strenuous exercise induce iodine deficiency? *Horm Metab Res.* 2005 Sep;37(9):555-8.

Srinivasan VS. Bioavailability of nutrients: a practical approach to in vitro demonstration of the availability of nutrients in multivitamin-mineral combination products. *J Nutr.* 2001 Apr;131(4 Suppl):1349S-50S.

Stearns DM, Belbruno JJ, Wetterhahn KE. A prediction of chromium(III) accumulation in humans from chromium dietary supplements. *FASEB J.* 1995 Dec;9(15):1650-7

Tangpricha V, Koutkia P, Rieke SM, Chen TC, Perez AA, Holick MF. Fortification of orange juice with vitamin D: a novel approach for enhancing vitamin D nutritional health. *Am J Clin Nutr.* 2003 Jun;77(6):1478-83.

Telford RD, Catchpole EA, Deakin V, McLeay AC, Plank AW. The effect of 7 to 8 months of vitamin/mineral supplementation on the vitamin and mineral status of athletes. *Int J Sport Nutr.* 1992 Jun;2(2):123-34.

Tuomainen TP, Punnonen K, Nyyssonen K, Salonen JT. Association between body iron stores and the risk of acute myocardial infarction in men. *Circulation.* 1998 Apr 21;97(15):1461-6.

Tuntawiroon M, Sritongkul N, Brune M, Rossander-Hulten L, Pleeachinda R, Suwanik R ym. Dose-dependent inhibitory effect of phenolic compounds in foods on nonheme-iron absorption in men. *Am J Clin Nutr.* 1991 Feb;53(2):554-7.

Tiilikainen R, Pöllänen K, Lahti-Koski M, Borg P. Suomalaisten nuorten urheilijoiden ravinnonsaanti. *Urheilijan ravinto* 2001/1:45-49

Valko M, Morris H, Cronin MT. Metals, toxicity and oxidative stress. *Curr Med Chem.* 2005;12(10):1161-208.

Valtion ravitsemusneuvottelukunta . Suomalaiset ravitsemussuosituksset-ravinto ja liikunta tasapainoon. Helsinki: Edita 2005.

van Het Hof KH, West CE, Weststrate JA, Hautvast JG. Dietary factors that affect the bioavailability of carotenoids. *J Nutr.* 2000 Mar;130(3):503-6.

Van Loan MD, Sutherland B, Lowe NM, Turnlund JR, King JC. The effects of zinc depletion on peak force and total work of knee and shoulder extensor and flexor muscles. *Int J Sport Nutr.* 1999 Jun;9(2):125-35.

Van Cauwenbergh R, Hendrix P, Robberecht H, Deelstra HA. Daily dietary chromium intake in Belgium, using duplicate portion sampling. *Z Lebensm Unters Forsch.* 1996 Sep;203(3):203-6.

Vincent JB. The potential value and toxicity of chromium picolinate as a nutritional supplement, weight loss agent and muscle development agent. *Sports Med.* 2003;33(3):213-30.

Volpe SL, Huang HW, Larpadisorn K, Lesser II. Effect of chromium supplementation and exercise on body composition, resting metabolic rate and selected biochemical parameters in moderately obese women following an exercise program. *J Am Coll Nutr.* 2001 Aug;20(4):293-306.

Walker AF, Marakis G, Christie S, Byng M. Mg citrate found more bioavailable than other Mg preparations in a randomised, double-blind study. *Magnes Res.* 2003 Sep;16(3):183-91.

Weaver CM, Rajaram S. Exercise and iron status. *J Nutr.* 1992 Mar;122(3 Suppl):782-7.

Weight LM, Noakes TD, Labadarios D, Graves J, Jacobs P, Berman PA. Vitamin and mineral status of trained athletes including the effects of supplementation. *Am J Clin Nutr.* 1988 Feb;47(2):186-91.

Willis WT, Brooks GA, Henderson SA, Dallman PR. Effects of iron deficiency and training on mitochondrial enzymes in skeletal muscle. *J Appl Physiol.* 1987 Jun;62(6):2442-6.

Worme JD, Doubt TJ, Singh A, Ryan CJ, Moses FM, Deuster PA. Dietary patterns, gastrointestinal complaints, and nutrition knowledge of recreational triathletes. *Am J Clin Nutr.* 1990 Apr;51(4):690-7.

Zheng JJ, Mason JB, Rosenberg IH, Wood RJ. Measurement of zinc bioavailability from beef and a ready-to-eat high-fiber breakfast cereal in humans: application of a whole-gut lavage technique. *Am J Clin Nutr.* 1993 Dec;58(6):902-7.

Zoller H, Vogel W. Iron supplementation in athletes--first do no harm. *Nutrition.* 2004 Jul-Aug;20(7-8):615-9.

- Alanen P. Kariesta ei voitettukaan. *Duodecim*. 2005;121(2):129-30.
- Bar-Or O. The young athlete: some physiological considerations. *J Sports Sci*. 1995 Summer;13 Spec No:S31-3.
- Bar-Or O, Dotan R, Inbar O, Rotshtein A, Zonder H. Voluntary hypohydration in 10- to 12-year-old boys. *J Appl Physiol*. 1980 Jan;48(1):104-8.
- Bar-Or O, Unnithan VB. Nutritional requirements of young soccer players. *J Sports Sci*. 1994 Summer;12 Spec No:S39-42.
- Bar-Or O, Wilk B. Water and electrolyte replenishment in the exercising child. *Int J Sport Nutr*. 1996 Jun;6(2):93-9.
- Bass S, Inge K. Nutrition for special populations: children and young athletes. Kirjassa: Burke L, Deakin V (toim.). *Clinical sports nutrition*. 2nd ed. McGraw-Hill Book Company, Australia, 2002.
- Becker W, Lyhne N, Pedersen AN y.m. Nordic Nutrition Recommendations 2004- Integrating nutrition and physical activity. *Nord* 2004;13, Nordic Council of Ministers, Copenhagen.
- Borg P, Fogelholm M, Hiilloskorpi H. Liikkujan ravitsemus. Edita, Helsinki 2004.
- Dehghan M, Akhtar-Danesh N, Merchant AT. Childhood obesity, prevalence and prevention. *Nutrition Journal* 2005;4:22.
- Ekblom B, Bolin L, Bruce Å, Hambreaus L, Öberg I-B. Kost och idrott. SISU idrottsböcker 1992.
- Falk B, Bar-Or O, Calvert R, MacDougall JD. Sweat gland response to exercise in the heat among pre-, mid-, and late-pubertal boys. *Med Sci Sports Exerc*. 1992 Mar;24(3):313-9.
- Fogelholm M (toim.). *Ratkaisuja ravitsemukseen- ravitsemuskasvatus ja elämänkaari*. Palmenia-kustannus, Helsinki 2001.
- Fogelholm M, Hiilloskorpi H. Aiheuttaako liikunta syömishäiriötä? *Duodecim* 1998;114:215-219.
- Hasunen K, Kalavainen M, Keinonen H ym. Lapsi, perhe ja ruoka. Imeväis- ja leikki-ikäisten lasten, odottavien ja imettävien äitien ravitsemussuositus. Sosiaali- ja terveystieteiden tutkimuskeskuksen julkaisuja 2004:11.
- Kautiainen S, Rimpela A, Vikat A, Virtanen SM. Secular trends in overweight and obesity among Finnish adolescents in 1977-1999. *Int J Obes Relat Metab Disord*. 2002 Apr;26(4):544-52.
- Meyer F, Bar-Or O, MacDougall D, Heigenhauser GJ. Sweat electrolyte loss during exercise in the heat: effects of gender and maturation. *Med Sci Sports Exerc*. 1992 Jul;24(7):776-81.
- Nemets H, Nemets B, Apter A, Bracha Z, Belmaker RH. Omega-3 treatment of childhood depression: a controlled, double-blind pilot study. *Am J Psychiatry*. 2006 Jun;163(6):1098-100.
- Nordblad A, Suominen-Taipale L, Rasilainen J, Karhunen T. Suun terveydenhuoltoa terveystieteiden tutkimuskeskuksissa 1970-luvulta vuoteen 2000. *STAKES* 2004: raportteja 278.
- Petrie HJ, Stover EA, Horswill CA. Nutritional concerns for the child and adolescent competitor. *Nutrition*. 2004 Jul-Aug;20(7-8):620-31.
- Preece MA, Pan H, Ratcliffe SG. Auxological aspects of male and female puberty. *Acta Paediatr Suppl*. 1992 Sep;383:11-3.
- Rampersaud GC, Pereira MA, Girard BL ym. Breakfast Habits, Nutritional Status, Body Weight, and Academic Performance in Children and Adolescents. *JADA* 2005;105:743-760.
- Salovaara S. Tyhjä lautanen, tyhjä pää? Yläkoululaisten ateriaritmi, kouluruokailu ja -menesys. Pro gradu -tutkielma. Soveltavan kemian ja mikrobiologian laitos, Ravitsemustiede. Helsingin yliopisto 2006.
- Sääkslahti A. Effects of Physical Activity Intervention on Physical Activity and Motor Skills and Relationships between Physical Activity and Coronary Heart Disease Risk Factors in 3-7-Year-Old Children. *Studies in Sport, Physical Education and Health* no. 104, 153 s, Jyväskylä 2005.

Suomalainen Lääkäriseura Duodecim, Suomen Akatemia. Konsensuskokous 2005: LIHAVUUS- Painavaa asiaa painosta. Vammala 2005.

Thompson JL. Energy balance in young athletes. *Int J Sport Nutr.* 1998 Jun;8(2):160-74.

Timmons BW, Tarnopolsky MA, Bar-Or O. Immune responses to strenuous exercise and carbohydrate intake in boys and men. *Pediatr Res.* 2004 Aug;56(2):227-34. Epub 2004 Jun 4.

Valtion ravitsemusneuvottelukunta. Suomalaiset ravitsemussuosituksset- ravinto ja liikunta tasapainoon. Edita, Helsinki 2005.

Wardle J, Brodersen NH, Cole TJ, Jarvis MJ, Boniface DR. Development of adiposity in adolescence: five year longitudinal study of an ethnically and socioeconomically diverse sample of young people in Britain. *BMJ.* 2006 May 13;332(7550):1130-5.

Wilk B, Kriemler S, Keller H, Bar-Or O. Consistency in preventing voluntary dehydration in boys who drink a flavored carbohydrate-NaCl beverage during exercise in the heat. *Int J Sport Nutr.* 1998 Mar;8(1):1-9.

### Luku 13

Ahmed FE. Effect of nutrition on the health of the elderly. *J Am Diet Assoc.* 1992 Sep;92(9):1102-8.

Arnal MA, Mosoni L, Boirie Y, Houlier ML, Morin L, Verdier E, Ritz P, Antoine JM, Prugnaud J, Beaufrere B ym. Protein pulse feeding improves protein retention in elderly women. *Am J Clin Nutr.* 1999 Jun;69(6):1202-8.

Bauer T, Weisser B. Effect of aerobic endurance exercise on immune function in elderly athletes. *Schweiz Rundsch Med Prax.* 2002 Jan 30;91(5):153-8.

Beshgetoor D, Nichols JF. Dietary intake and supplement use in female master cyclists and runners. *Int J Sport Nutr Exerc Metab.* 2003 Jun;13(2):166-72.

Blair SN, Kohl HW 3rd, Paffenbarger RS Jr, Clark DG, Cooper KH, Gibbons LW. Physical fitness and all-cause mortality. A prospective study of healthy men and women. *JAMA.* 1989 Nov 3;262(17):2395-401.

Blumberg JB. Nutrient requirements for the healthy elderly. *Bol Asoc Med P R.* 1986 Nov;78(11):494-6.

Breslow L, Breslow N. Health practices and disability: some evidence from Alameda County. *Prev Med.* 1993 Jan;22(1):86-95.

Butterworth DE, Nieman DC, Perkins R, Warren BJ, Dotson RG. Exercise training and nutrient intake in elderly women. *J Am Diet Assoc.* 1993 Jun;93(6):653-7.

Campbell WW, Barton ML Jr, Cyr-Campbell D, Davey SL, Beard JL, Parise G, Evans WJ. Effects of an omnivorous diet compared with a lactoovovegetarian diet on resistance-training-induced changes in body composition and skeletal muscle in older men. *Am J Clin Nutr.* 1999 Dec;70(6):1032-9.

Campbell WW, Trappe TA, Jozsi AC, Kruskall LJ, Wolfe RR, Evans WJ. Dietary protein adequacy and lower body versus whole body resistive training in older humans. *J Physiol.* 2002 Jul 15;542(Pt 2):631-42.

Campbell WW, Geik RA. Nutritional considerations for the older athlete. *Nutrition.* 2004 Jul-Aug;20(7-8):603-8.

Cartee GD. Aging skeletal muscle: response to exercise. *Exerc Sport Sci Rev.* 1994;22:91-120.

Chatard JC, Boutet C, Tourny C, Garcia S, Berthouze S, Guezennec CY. Nutritional status and physical fitness of elderly sportsmen. *Eur J Appl Physiol Occup Physiol.* 1998;77(1-2):157-63.

Coggan AR, Spina RJ, King DS, Rogers MA, Brown M, Nemeth PM, Holloszy JO. Skeletal muscle adaptations to endurance training in 60- to 70-yr-old men and women. *J Appl Physiol.* 1992 May;72(5):1780-6.

Dangin M, Guillet C, Garcia-Rodenas C, Gachon P, Bouteloup-Demange C, Reiffers-Magnani K, Fauquant J ym. The rate of protein digestion affects protein gain



differently during aging in humans. *J Physiol*. 2003 Jun 1;549(Pt 2):635-44. Epub 2003 Mar 28.

Decombaz J, Fleith M, Hoppeler H, Kreis R, Boesch C. Effect of diet on the replenishment of intramyocellular lipids after exercise. *Eur J Nutr*. 2000 Dec;39(6):244-7.

Duchateau J, Delepesse G, Vrijens R, Collet H. Beneficial effects of oral zinc supplementation on the immune response of old people. *Am J Med*. 1981 May;70(5):1001-4.

Ebeling PR, Sandgren ME, DiMagno EP, Lane AW, DeLuca HF, Riggs BL. Evidence of an age-related decrease in intestinal responsiveness to vitamin D: relationship between serum 1,25 dihydroxyvitamin D3 and intestinal vitamin D receptor concentrations in normal women. *J Clin Endocrinol Metab* 1992;75:176-82.

Evans WJ. Exercise, nutrition and aging. *J Nutr*. 1992 Mar;122(3 Suppl):796-801.

Evans WJ. Protein nutrition, exercise and aging. *J Am Coll Nutr*. 2004 Dec;23(6 Suppl):601S-609S.

Evans WJ, Cyr-Campbell D. Nutrition, exercise, and healthy aging. *J Am Diet Assoc*. 1997 Jun;97(6):632-8.

Hallfrisch J, Drinkwater DT, Muler DC ym. Physical conditioning status and dietary intake in active and sedentary older men. *Nutr Res* 1994;14:817-27

Haub MD, Wells AM, Tarnopolsky MA, Campbell WW. Effect of protein source on resistive-training-induced changes in body composition and muscle size in older men. *Am J Clin Nutr*. 2002 Sep;76(3):511-7.

Hernelahti M, Kujala UM, Kaprio J, Karjalainen J, Sarna S. Hypertension in master endurance athletes. *J Hypertens*. 1998 Nov;16(11):1573-7.

Hosoda S, Bamba T, Nakago S, Fujiyama Y, Senda S, Hirata M. Age-related changes in the gastrointestinal tract. *Nutr Rev*. 1992 Dec;50(12):374-7.

Hughes VA, Fiatarone MA, Fielding RA, Kahn BB, Ferrara CM, Shepherd P, Fisher EC, Wolfe RR, Elahi D ym. Exercise increases muscle GLUT-4 levels and insulin action in subjects with impaired glucose tolerance. *Am J Physiol*. 1993 Jun;264(6 Pt 1):E855-62.

Kendrick ZV, Nelson-Steen S, Scafidi K. Exercise, aging, and nutrition. *South Med J*. 1994 May;87(5):S50-60.

Kurpad AV, Vaz M. Protein and amino acid requirements in the elderly. *Eur J Clin Nutr*. 2000 Jun;54 Suppl 3:S131-42.

Lemon PW. Effects of exercise on dietary protein requirements. *Int J Sport Nutr*. 1998 Dec;8(4):426-47.

Lewis RD, Modlesky CM. Nutrition, physical activity, and bone health in women. *Int J Sport Nutr*. 1998 Sep;8(3):250-84.

Lucas M, Heiss CJ. Protein needs of older adults engaged in resistance training: a review. *J Aging Phys Act*. 2005 Apr;13(2):223-36.

Mack GW, Weseman CA, Langhans GW, Scherzer H, Gillen CM, Nadel ER. Body fluid balance in dehydrated healthy older men: thirst and renal osmoregulation. *J Appl Physiol*. 1994 Apr;76(4):1615-23.

MacLaughlin J, Holick MF. Aging decreases the capacity of human skin to produce vitamin D3. *J Clin Invest*. 1985 Oct;76(4):1536-8.

Maughan RJ. Fundamentals of sports nutrition: Application to sports drinks. Kirjassa: Maughan RJ, Murray R (toim.) Sports Drinks. Basic science and practical aspects. CRC Press LLC, Boca Raton, USA, 2001.

McArdle WD, McArdle FI, Katch VL. Physical activity, health, and aging. Kirjassa: McArdle WD, McArdle FI, Katch VL. (toim.). Exercise physiology 5th ed. Lippincott Williams & Wilkins, USA 2001.

McLennan PL, Tapsell LC, Owen AJ, Gutteridge IF. The influence of red meat intake upon the response to a resistance exercise-training program in older Australians. *Asia Pac J Clin Nutr*. 2003;12 Suppl:S17.

Menard D, Stanish WD. The aging athlete. *Am J Sports Med*. 1989 Mar-Apr;17(2):187-96.

Meredith CN, Frontera WR, Fisher EC, Hughes VA, Herland JC, Edwards J, Evans WJ. Peripheral effects of endurance training in young and old subjects. *J Appl Physiol*. 1989 Jun;66(6):2844-9.

Meredith CN, Frontera WR, O'Reilly KP, Evans WJ. Body composition in elderly men: effect of dietary modification during strength training. *J Am Geriatr Soc*. 1992 Feb;40(2):155-62.

Meydani SN. Vitamin/mineral supplementation, the aging immune response, and risk of infection. *Nutr Rev*. 1993 Apr;51(4):106-9.

Meydani SN, Ribaya-Mercado JD, Russell RM, Sahyoun N, Morrow FD, Gershoff SN. Vitamin B-6 deficiency impairs interleukin 2 production and lymphocyte proliferation in elderly adults. *Am J Clin Nutr*. 1991 May;53(5):1275-80.

Meydani SN, Meydani M, Blumberg JB, Leka LS, Siber G, Loszewski R, Thompson C, Pedrosa MC, Diamond RD ym. Vitamin E supplementation and in vivo immune response in healthy elderly subjects. A randomized controlled trial. *JAMA*. 1997 May 7;277(17):1380-6.

Nelson ME, Fisher EC, Dilmanian FA, Dallal GE, Evans WJ. A 1-y walking program and increased dietary calcium in postmenopausal women: effects on bone. *Am J Clin Nutr*. 1991 May;53(5):1304-11.

Nieman DC. Exercise, infection, and immunity. *Int J Sports Med*. 1994 Oct;15 Suppl 3:S131-41

Nieman DC. Exercise immunology: future directions for research related to athletes, nutrition, and the elderly. *Int J Sports Med*. 2000 May;21 Suppl 1:S61-8.

O'Toole ML, Johnson KC, Satterfield S, Bush AJ, Koo WW, Klesges RC, Applegate WB. Do sweat calcium losses affect bone mass during firefighter training? *J Occup Environ Med*. 2000 Nov;42(11):1054-9.

Pedersen BK, Bruunsgaard H, Jensen M, Krzykowski K, Ostrowski K. Exercise and immune function: effect of ageing and nutrition. *Proc Nutr Soc*. 1999 Aug;58(3):733-42.

Pitkänen H. Amino acid metabolism in athletes and non-athletes with special reference to amino acid concentrations and protein balance in exercise, training and aging. *Studies in sport, physical education and health*, no. 89, Jyväskylä 2002.

Pollock ML, Mengelkoch LJ, Graves JE, Lowenthal DT, Limacher MC, Foster C, Wilmore JH. Twenty-year follow-up of aerobic power and body composition of older track athletes. *J Appl Physiol*. 1997 May;82(5):1508-16.

Proctor DN, Joyner MJ. Skeletal muscle mass and the reduction of VO<sub>2</sub>max in trained older subjects. *J Appl Physiol*. 1997 May;82(5):1411-5.

Reaburn P. Nutrition and the ageing athlete. Kirjassa: Burke L, Deakin V (toim). *Clinical Sports Nutrition 2nd ed*. McGraw-Hill 2002.

Rimm EB, Stampfer MJ, Ascherio A, Giovannucci E, Colditz GA, Willett WC. Vitamin E consumption and the risk of coronary heart disease in men. *N Engl J Med*. 1993 May 20;328(20):1450-6.

Rolls BJ, Phillips PA. Aging and disturbances of thirst and fluid balance. *Nutr Rev*. 1990 Mar;48(3):137-44.

Russell RM, Suter PM. Vitamin requirements of elderly people: an update. *Am J Clin Nutr*. 1993 Jul;58(1):4-14.

Sacheck JM, Roubenoff R. Nutrition in the exercising elderly. *Clin Sports Med*. 1999 Jul;18(3):565-84.

Saltzman JR, Russell RM. The aging gut. Nutritional issues. *Gastroenterol Clin North Am*. 1998 Jun;27(2):309-24.

Sandstead HH. Nutritional role of zinc and effects of deficiency. *Curr Concepts Nutr*. 1982;11:97-124.

Sawka MN, Montain SJ. Fluid and electrolyte supplementation for exercise heat stress. *Am J Clin Nutr*. 2000 Aug;72(2 Suppl):564S-72S.

Schoeller DA. Changes in total body water with age. *Am J Clin Nutr*. 1989 Nov;50(5 Suppl):1176-81.

Stewart R, Cooper J. Polypharmacy in the aged. *Drugs Ageing* 1994;4:449-61.  
Swanson CA, Mansourian R, Dirren H, Rapin CH. Zinc status of healthy elderly adults: response to supplementation. *Am J Clin Nutr.* 1988 Aug;48(2):343-9.  
Tucker JM, Townsend DM. Alpha-tocopherol: roles in prevention and therapy of human disease. *Biomed Pharmacother.* 2005 Aug;59(7):380-7.  
Ting AJ. Running and the older athlete. *Clin Sports Med.* 1991 Apr;10(2):319-25.  
Turnlund JR, Durkin N, Costa F, Margen S. Stable isotope studies of zinc absorption and retention in young and elderly men. *J Nutr.* 1986 Jul;116(7):1239-47.  
Valtion ravitsemusneuvottelukunta. Suomalaiset ravitsemussuosituksukset 2005. Helsinki: Edita, 2005.  
Whitney EN, Rolfes SR (toim.). *Understanding Nutrition* 7th ed. West Publishing Company, USA, 1996

#### Luku 14

Henriksson GB, Schnell C, Hirschberg AL. Women endurance runners with menstrual dysfunction have prolonged interruption of training due to injury. *Gynecologic & Obstetric Investigation.* 2000;49:41-46.  
Hobart JA, Smucker DR. The female athlete triad. *American family physician.* 2000;61:3357-3364, 3367.  
Siltaloppi M, Hiilloskorpi H, Borg P, Nupponen R. SURVA - syömiskäyttäytyminen, urheilijat ja valmentajat, 2006, julkaisematon.  
Sundgot-Borgen J, Torstveit MK. Prevalence of eating disorders in elite athletes is higher than in the general population. *Clin J Sport Med.* 2004;14:25-32.

#### Luku 15

Alaranta A, Alaranta H, Heliovaara M, Airaksinen M, Helenius I. Ample Use of Physician-Prescribed Medications in Finnish Elite Athletes. *Int J Sports Med.* 2006 Feb 14.  
Ashton T, Young IS, Davison GW, Rowlands CC, McEneny J, Van Blerk C, Jones E, Peters JR, Jackson SK. Exercise-induced endotoxemia: the effect of ascorbic acid supplementation. *Free Radic Biol Med.* 2003 Aug 1;35(3):284-91.  
Azpiroz F, Malagelada JR. Abdominal bloating. *Gastroenterology.* 2005 Sep;129(3):1060-78.  
Brock-Utne JG, Gaffin SL, Wells MT, Gathiram P, Sohar E, James MF, Morrell DF, Norman RJ. Endotoxaemia in exhausted runners after a long-distance race. *S Afr Med J.* 1988 May 7;73(9):533-6.  
Brouns F, Beckers E. Is the gut an athletic organ? Digestion, absorption and exercise. *Sports Med.* 1993 Apr;15(4):242-57.  
Clausen JP. Effect of physical training on cardiovascular adjustments to exercise in man. *Physiol Rev.* 1977 Oct;57(4):779-815.  
Collings KL, Pierce Pratt F, Rodriguez-Stanley S, Bemben M, Miner PB. Esophageal reflux in conditioned runners, cyclists, and weightlifters. *Med Sci Sports Exerc.* 2003 May;35(5):730-5.  
Dainese R, Serra J, Azpiroz F, Malagelada JR. Effects of physical activity on intestinal gas transit and evacuation in healthy subjects. *Am J Med.* 2004 Apr 15;116(8):536-9.  
Desmond CP, Roberts SK. Exercise-related abdominal pain as a manifestation of the median arcuate ligament syndrome. *Scand J Gastroenterol.* 2004 Dec;39(12):1310-3.  
Fallon K. Athletes with gastrointestinal disorders. Kirjassa: Burke L, Deakin V (toim.) *Clinical Sports Nutrition* 2nd ed. McGraw-Hill, 2002.

Farthing MJ. Treatment of gastrointestinal viruses. *Novartis Found Symp.* 2001;238:289-300.

Färkkilä M. Helsingin Sanomat 14.11.2005 s. D1.

Glance B, Murphy C, McHugh M. Food and fluid intake and disturbances in gastrointestinal and mental function during an ultramarathon. *Int J Sport Nutr Exerc Metab.* 2002 Dec;12(4):414-27.

Houghton LA, Whorwell PJ. Towards a better understanding of abdominal bloating and distension in functional gastrointestinal disorders. *Neurogastroenterol Motil.* 2005 Aug;17(4):500-11.

Houmard JA, Egan PC, Johns RA, Neuffer PD, Chenier TC, Israel RG. Gastric emptying during 1 h of cycling and running at 75% VO<sub>2</sub>max. *Med Sci Sports Exerc.* 1991 Mar;23(3):320-5.

Jeukendrup AE, Vet-Joop K, Sturk A, Stegen JH, Senden J, Saris WH, Wagenmakers AJ. 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 Jan;98(1):47-55.

Jeukendrup AE, Jentjens RL, Moseley L. Nutritional considerations in triathlon. *Sports Med.* 2005;35(2):163-81.

Kelly GS. Bovine colostrums: a review of clinical uses. *Altern Med Rev.* 2003 Nov;8(4):378-94.

Kim HJ, Vazquez Roque MI, Camilleri M, Stephens D, Burton DD, Baxter K, Thomforde G, Zinsmeister AR. A randomized controlled trial of a probiotic combination VSL# 3 and placebo in irritable bowel syndrome with bloating. *Neurogastroenterol Motil.* 2005 Oct;17(5):687-96.

Kolho KL, Farkkila MA, Savilahti E. Undiagnosed coeliac disease is common in Finnish adults. *Scand J Gastroenterol.* 1998 Dec;33(12):1280-3.

Leiper JB, Nicholas CW, Ali A, Williams C, Maughan RJ. The effect of intermittent high-intensity running on gastric emptying of fluids in man. *Med Sci Sports Exerc.* 2005 Feb;37(2):240-7.

Lustyk MK, Jarrett ME, Bennett JC, Heitkemper MM. Does a physically active lifestyle improve symptoms in women with irritable bowel syndrome? *Gastroenterol Nurs.* 2001 May-Jun;24(3):129-37.

Mitsui T, Shimaoka K, Kanao Y, Kondo T. Colonic fermentation after ingestion of fructose-containing sports drink. *J Sports Med Phys Fitness.* 2001 Mar;41(1):121

Morton DP, Callister R. Characteristics and etiology of exercise-related transient abdominal pain. *Med Sci Sports Exerc.* 2000 Feb;32(2):432-8.

Morton DP, Aragon-Vargas LF, Callister R. Effect of ingested fluid composition on exercise-related transient abdominal pain. *Int J Sport Nutr Exerc Metab.* 2004 Apr;14(2):197-208.

Morton DP, Richards D, Callister R. Epidemiology of exercise-related transient abdominal pain at the Sydney City to Surf community run. *J Sci Med Sport.* 2005 Jun;8(2):152-62.

Maki M, Mustalahti K, Kokkonen J, Kulmala P, Haapalahti M, Karttunen T, Ilonen J, Laurila K, Dahlbom I ym. Prevalence of Celiac disease among children in Finland. *N Engl J Med.* 2003 Jun 19;348(25):2517-24.

Noakes TD, Rehrer NJ, Maughan RJ. The importance of volume in regulating gastric emptying. *Med Sci Sports Exerc.* 1991 Mar;23(3):307-13.

Paajanen L, Tuure T, Poussa T, Korpela R. No difference in symptoms during challenges with homogenized and unhomogenized cow's milk in subjects with subjective hypersensitivity to homogenized milk. *J Dairy Res.* 2003 May;70(2):175-9.

Paajanen L, Korpela R, Tuure T, Honkanen J, Jarvela I, Ilonen J, Knip M, Vaarala O, Kokkonen J. Cow milk is not responsible for most gastrointestinal immune-like syndromes-evidence from a population-based study. *Am J Clin Nutr.* 2005 Dec;82(6):1327-35.

Parmelee-Peters K, Moeller JL. Gastroesophageal reflux in athletes. *Curr Sports Med Rep.* 2004 Apr;3(2):107-11.

Peters HP, van Schelven FW, Verstappen PA, de Boer RW, Bol E, Erich WB, van der Togt CR, de Vries WR. Gastrointestinal problems as a function of carbohydrate supplements and mode of exercise. *Med Sci Sports Exerc.* 1993 Nov;25(11):1211-24.

Peters HP, Zweers M, Backx FJ, Bol E, Hendriks ER, Mosterd WL, de Vries WR. Gastrointestinal symptoms during long-distance walking. *Med Sci Sports Exerc.* 1999a Jun;31(6):767-73.

Peters HP, Bos M, Seebregts L, Akkermans LM, van Berge Henegouwen GP, Bol E, Mosterd WL, de Vries WR. Gastrointestinal symptoms in long-distance runners, cyclists, and triathletes: prevalence, medication, and etiology. *Am J Gastroenterol.* 1999 Jun;94(6):1570-81.

Peters HP, De Vries WR, Vanberge-Henegouwen GP, Akkermans LM. Potential benefits and hazards of physical activity and exercise on the gastrointestinal tract. *Gut.* 2001 Mar;48(3):435-9.

Pikkarainen P. Ravitsemus ja maha-suolikanavan sairaudet. Kirjassa: Aro A, Mutanen M, Uusitupa M. Ravitsemustiede. Duodecim, 1999.

Plunkett BT, Hopkins WG. Investigation of the side pain "stitch" induced by running after fluid ingestion. *Med Sci Sports Exerc.* 1999 Aug;31(8):1169-75.

Rao KA, Yazaki E, Evans DF, Carbon R. Objective evaluation of small bowel and colonic transit time using pH telemetry in athletes with gastrointestinal symptoms. *Br J Sports Med.* 2004 Aug;38(4):482-7.

Rehrer NJ, Janssen GM, Brouns F, Saris WH. Fluid intake and gastrointestinal problems in runners competing in a 25-km race and a marathon. *Int J Sports Med.* 1989 May;10 Suppl 1:S22-5.

Rehrer NJ, Beckers EJ, Brouns F, ten Hoor F, Saris WH. Effects of dehydration on gastric emptying and gastrointestinal distress while running. *Med Sci Sports Exerc.* 1990 Dec;22(6):790-5.

Rehrer NJ, van Kemenade M, Meester W, Brouns F, Saris WH. Gastrointestinal complaints in relation to dietary intake in triathletes. *Int J Sport Nutr.* 1992 Mar;2(1):48-59.

Rehrer NJ, Wagenmakers AJ, Beckers EJ, Halliday D, Leiper JB, Brouns F, Maughan RJ, Westerterp K, Saris WH. Gastric emptying, absorption, and carbohydrate oxidation during prolonged exercise. *J Appl Physiol.* 1992 Feb;72(2):468-75.

Riddoch C, Trinick T. Gastrointestinal disturbances in marathon runners. *Br J Sports Med.* 1988 Jun;22(2):71-4.

Salgueiro J, Zubillaga M, Goldman C, Barrado A, Martinez Sarrasague M, Leonardi N, Boccio J. Review article: is there a link between micronutrient malnutrition and *Helicobacter pylori* infection? *Aliment Pharmacol Ther.* 2004 Nov 15;20(10):1029-34.

Shi X, Horn MK, Osterberg KL, Stofan JR, Zachwieja JJ, Horswill CA, Passe DH, Murray R. Gastrointestinal discomfort during intermittent high-intensity exercise: effect of carbohydrate-electrolyte beverage. *Int J Sport Nutr Exerc Metab.* 2004 Dec;14(6):673-83.

Simons SM, Kennedy RG. Gastrointestinal problems in runners. *Curr Sports Med Rep.* 2004 Apr;3(2):112-6.

Snelling AM. Effects of probiotics on the gastrointestinal tract. *Curr Opin Infect Dis.* 2005 Oct;18(5):420-6.

van Nieuwenhoven MA, Vriens BE, Brummer RJ, Brouns F. Effect of dehydration on gastrointestinal function at rest and during exercise in humans. *Eur J Appl Physiol.* 2000 Dec;83(6):578-84.

van Nieuwenhoven MA, Brouns F, Brummer RJ. Gastrointestinal profile of symptomatic athletes at rest and during physical exercise. *Eur J Appl Physiol.* 2004 Apr;91(4):429-34.

van Nieuwenhoven MA, Brouns F, Kovacs EM. The effect of two sports drinks and water on GI complaints and performance during an 18-km run. *Int J Sports Med.* 2005 May;26(4):281-5.

Whitehead WE, Levy RL, Von Korff M, Feld AD, Palsson OS, Turner M, Drossman DA. The usual medical care for irritable bowel syndrome. *Aliment Pharmacol Ther.* 2004 Dec;20(11-12):1305-15.

Yakoob J, Jafri W, Abid S. Helicobacter pylori infection and micronutrient deficiencies. *World J Gastroenterol.* 2003 Oct;9(10):2137-9.

## Luku 16

Arroll B, Kenealy T. Antibiotics for the common cold. *Cochrane Database Syst Rev.* 2002;(3):CD000247.

Bacurau RF, Bassit RA, Sawada L, Navarro F, Martins E Jr, Costa Rosa LF. Carbohydrate supplementation during intense exercise and the immune response of cyclists. *Clin Nutr.* 2002 Oct;21(5):423-9.

Bassit RA, Sawada LA, Bacurau RF, Navarro F, Martins E Jr, Santos RV, Caperuto EC, Rogeri P, Costa Rosa LF. Branched-chain amino acid supplementation and the immune response of long-distance athletes. *Nutrition.* 2002 May;18(5):376-9.

Bogden JD. Influence of zinc on immunity in the elderly. *J Nutr Health Aging.* 2004;8(1):48-54.

Borg P. Liikunta suojaa flunssalta-mutta ei aina. *Urheilijan ravinto* 1/2001.

Borsheim E, Aarsland A, Wolfe RR. Effect of an amino acid, protein, and carbohydrate mixture on net muscle protein balance after resistance exercise. *Int J Sport Nutr Exerc Metab.* 2004a Jun;14(3):255-71.

Borsheim E, Cree MG, Tipton KD, Elliott TA, Aarsland A, Wolfe RR. Effect of carbohydrate intake on net muscle protein synthesis during recovery from resistance exercise. *J Appl Physiol.* 2004b Feb;96(2):674-8.

Brinkworth GD, Buckley JD. Concentrated bovine colostrum protein supplementation reduces the incidence of self-reported symptoms of upper respiratory tract infection in adult males. *Eur J Nutr.* 2003 Aug;42(4):228-32.

Castell LM, Poortmans JR, Newsholme EA. Does glutamine have a role in reducing infections in athletes? *Eur J Appl Physiol Occup Physiol.* 1996;73(5):488-90.

Castell LM. Can glutamine modify the apparent immunodepression observed after prolonged, exhaustive exercise? *Nutrition.* 2002 May;18(5):371-5.

Costa RJ, Jones GE, Lamb KL, Coleman R, Williams JH. The effects of a high carbohydrate diet on cortisol and salivary immunoglobulin A (s-IgA) during a period of increase exercise workload amongst Olympic and Ironman triathletes. *Int J Sports Med.* 2005 Dec;26(10):880-5.

de Vrese M, Winkler P, Rautenberg P, Harder T, Noah C, Laue C, Ott S, Hampe J, Schreiber S, Heller K, Schrezenmeir J. Effect of Lactobacillus gasseri PA 16/8, Bifidobacterium longum SP 07/3, B. bifidum MF 20/5 on common cold episodes: a double blind, randomized, controlled trial. *Clin Nutr.* 2005 Aug;24(4):481-91.

Douglas RM, Hemila H, D'Souza R, Chalker EB, Treacy B. Vitamin C for preventing and treating the common cold. *Cochrane Database Syst Rev.* 2004 Oct 18;(4):CD000980.

Duodecim. Runsaasti nestettä flunssan aikana? *Aikakausikirja* 2006;122(2);147

Eby GA, Davis DR, Halcomb WW. Reduction in duration of common colds by zinc gluconate lozenges in a double-blind study. *Antimicrob Agents Chemother.* 1984 Jan;25(1):20-4.

Eby GA. Zinc ion availability - the determinant of efficacy in zinc lozenge treatment of common colds. *J Antimicrob Chemother.* 1997 Oct;40(4):483-93.

Eccles R. An explanation for the seasonality of acute upper respiratory tract viral infections. *Acta Otolaryngol.* 2002a Mar;122(2):183-91.

Eccles R. Acute cooling of the body surface and the common cold. *Rhinology.* 2002b Sep;40(3):109-14.

Fahlman MM, Engels HJ. Mucosal IgA and URTI in American college football players: a year longitudinal study. *Med Sci Sports Exerc.* 2005 Mar;37(3):374-80.

Field CJ, Johnson I, Pratt VC. Glutamine and arginine: immunonutrients for improved health. *Med Sci Sports Exerc.* 2000 Jul;32(7 Suppl):S377-88.

Flakoll PJ, Judy T, Flinn K, Carr C, Flinn S. Postexercise protein supplementation improves health and muscle soreness during basic military training in Marine recruits. *J Appl Physiol.* 2004 Mar;96(3):951-6.

Gleeson M, Nieman DC, Pedersen BK. Exercise, nutrition and immune function. *J Sports Sci.* 2004 Jan;22(1):115-25.

Hatakka K, Savilahti E, Ponka A, Meurman JH, Poussa T, Nase L, Saxelin M, Korpela R. Effect of long term consumption of probiotic milk on infections in children attending day care centres: double blind, randomised trial. *BMJ.* 2001 Jun 2;322(7298):1327.

Hemilä H. Vitamin C supplementation and respiratory infections: a systematic review. *Mil Med.* 2004 Nov;169(11):920-5.

Henson DA, Nieman DC, Parker JC, Rainwater MK, Butterworth DE, Warren BJ, Utter A, Davis JM, Fagoaga OR ym. Carbohydrate supplementation and the lymphocyte proliferative response to long endurance running. *Int J Sports Med.* 1998 Nov;19(8):574-80.

Henson DA, Nieman DC, Blodgett AD, Butterworth DE, Utter A, Davis JM, Sonnenfeld G, Morton DS, Fagoaga OR ym. Influence of exercise mode and carbohydrate on the immune response to prolonged exercise. *Int J Sport Nutr.* 1999 Jun;9(2):213-28.

Hiscock N, Pedersen BK. Exercise-induced immunodepression- plasma glutamine is not the link. *J Appl Physiol.* 2002 Sep;93(3):813-22.

Hulisz D. Efficacy of zinc against common cold viruses: an overview. *J Am Pharm Assoc (Wash DC).* 2004 Sep-Oct;44(5):594-603.

Jackson JL, Peterson C, Lesho E. A meta-analysis of zinc salts lozenges and the common cold. *Arch Intern Med.* 1997 Nov 10;157(20):2373-6.

Johnson C, Eccles R. Acute cooling of the feet and the onset of common cold symptoms. *Fam Pract.* 2005 Dec;22(6):608-13.

Keast D, Cameron K, Morton AR. Exercise and the immune response. *Sports Med.* 1988 Apr;5(4):248-67.

Keast D, Arstein D, Harper W, Fry RW, Morton AR. Depression of plasma glutamine concentration after exercise stress and its possible influence on the immune system. *Med J Aust.* 1995 Jan 2;162(1):15-8.

Kingsbury KJ, Kay L, Hjelm M. Contrasting plasma free amino acid patterns in elite athletes: association with fatigue and infection. *Br J Sports Med.* 1998 Mar;32(1):25-32.

Kohut M. Immune system modulators. Kirjassa: Antonio J, Stout JR (toim.). *Sports supplements.* Lippincott Williams & Wilkins, USA, 2001.

Konig D, Berg A, Weinstock C, Keul J, Northoff H. Essential fatty acids, immune function, and exercise. *Exerc Immunol Rev.* 1997;3:1-31.

Krause R, Patruta S, Daxbock F, Fladerer P, Biegelmayr C, Wenisch C. Effect of vitamin C on neutrophil function after high-intensity exercise. *Eur J Clin Invest.* 2001 Mar;31(3):258-63.

Krieger JW, Crowe M, Blank SE. Chronic glutamine supplementation increases nasal but not salivary IgA during 9 days of interval training. *J Appl Physiol.* 2004 Aug;97(2):585-91. Epub 2004 Apr 23.

Krzywkowski K, Petersen EW, Ostrowski K, Kristensen JH, Boza J, Pedersen BK. Effect of glutamine supplementation on exercise-induced changes in lymphocyte function. *Am J Physiol Cell Physiol.* 2001 Oct;281(4):C1259-65.

Lindbaek M, Thom E, Fuglerud P, Hjortdahl P. Do colostrum tablets have a symptomatic effect on sore throat? *Tidsskr Nor Laegeforen.* 2004 Dec 16;124(24):3187-90.

Mackinnon LT, Hooper SL. Plasma glutamine and upper respiratory tract infection during intensified training in swimmers. *Med Sci Sports Exerc.* 1996 Mar;28(3):285-90.

McArdle WD, Katch FI, Katch VL. The endocrine system: Organization and acute and chronic response to exercise. Kirjassa: McArdle WD, Katch FI, Katch VL (toim.). Exercise physiology. Fifth edition, Lippincott Williams and Wilkins, USA, 2001.

Mero A, Miikkulainen H, Riski J, Pakkanen R, Aalto J, Takala T. Effects of bovine colostrum supplementation on serum IGF-I, IgG, hormone, and saliva IgA during training. *J Appl Physiol.* 1997 Oct;83(4):1144-51.

Mero A, Kahkonen J, Nykanen T, Parviainen T, Jokinen I, Takala T, Nikula T, Rasi S, Leppaluoto J. IGF-I, IgA, and IgG responses to bovine colostrum supplementation during training. *J Appl Physiol.* 2002 Aug;93(2):732-9.

Mitchell JB, Pizza FX, Paquet A, Davis BJ, Forrest MB, Braun WA. Influence of carbohydrate status on immune responses before and after endurance exercise. *J Appl Physiol.* 1998 Jun;84(6):1917-25.

Mossad SB. Effect of zincum gluconicum nasal gel on the duration and symptom severity of the common cold in otherwise healthy adults. *QJM.* 2003 Jan;96(1):35-43.

Mossad SB, Macknin ML, Medendorp SV, Mason P. Zinc gluconate lozenges for treating the common cold. A randomized, double-blind, placebo-controlled study. *Ann Intern Med.* 1996 Jul 15;125(2):81-8.

Newsholme EA. Biochemical mechanisms to explain immunosuppression in well-trained and overtrained athletes. *Int J Sports Med.* 1994 Oct;15 Suppl 3:S142-7.

Nieman DC. Exercise, upper respiratory tract infection, and the immune system. *Med Sci Sports Exerc.* 1994a Feb;26(2):128-39.

Nieman DC. Exercise, infection, and immunity. *Int J Sports Med.* 1994b Oct;15 Suppl 3:S131-41.

Nieman DC. Upper respiratory tract infections and exercise. *Thorax.* 1995 Dec;50(12):1229-31.

Nieman DC. Exercise immunology: nutritional countermeasures. *Can J Appl Physiol.* 2001;26 Suppl:S45-55.

Nieman DC. Current perspective on exercise immunology. *Curr Sports Med Rep.* 2003 Oct;2(5):239-42.

Nieman DC, Nehlsen-Cannarella SI, Henson DA, Butterworth DE, Fagoaga OR, Warren BJ, Rainwater MK. Immune response to obesity and moderate weight loss. *Int J Obes Relat Metab Disord.* 1996 Apr;20(4):353-60

Pedersen BK, Bruunsgaard H, Jensen M, Toft AD, Hansen H, Ostrowski K. Exercise and the immune system - influence of nutrition and ageing. *J Sci Med Sport.* 1999 Oct;2(3):234-52.

Peters EM, Goetzsche JM, Grobbelaar B, Noakes TD. Vitamin C supplementation reduces the incidence of post-race symptoms of upper-respiratory-tract infection in ultramarathon runners. *Am J Clin Nutr.* 1993 Feb;57(2):170-4.

Peters EM. Exercise, immunology and upper respiratory tract infections. *Int J Sports Med.* 1997 Mar;18 Suppl 1:S69-77.

Peters-Futre EM. Vitamin C, neutrophil function, and upper respiratory tract infection risk in distance runners: the missing link. *Exerc Immunol Rev.* 1997;3:32-52.

Reid VL, Gleeson M, Williams N, Clancy RL. Clinical investigation of athletes with persistent fatigue and/or recurrent infections. *Br J Sports Med.* 2004 Feb;38(1):42-5.

Roy BD, Tarnopolsky MA, MacDougall JD, Fowles J, Yarasheski KE. Effect of glucose supplement timing on protein metabolism after resistance training. *J Appl Physiol.* 1997 Jun;82(6):1882-8.

Sacks GS. Glutamine supplementation in catabolic patients. *Ann Pharmacother.* 1999 Mar;33(3):348-54.

Salvini F, Granieri L, Gemmellaro L, Giovannini M. Probiotics, prebiotics and child health: where are we going? *J Int Med Res.* 2004 Mar-Apr;32(2):97-108.

Sazawal S, Black RE, Jalla S, Mazumdar S, Sinha A, Bhan MK. Zinc supplementation reduces the incidence of acute lower respiratory infections in infants and



preschool children: a double-blind, controlled trial. *Pediatrics*. 1998 Jul;102(1 Pt 1):1-5.

Shephard RJ, Shek PN. Immunological hazards from nutritional imbalance in athletes. *Exerc Immunol Rev*. 1998;4:22-48.

Shephard RJ. Chronic fatigue syndrome. A brief review of functional disturbances and potential therapy. *J Sports Med Phys Fitness*. 2005 Sep;45(3):381-92.

Shephard RJ, Shek PN. Immunological hazards from nutritional imbalance in athletes. *Exerc Immunol Rev*. 1998;4:22-48.

Sullivan A, Nord CE. Probiotics and gastrointestinal diseases. *J Intern Med*. 2005 Jan;257(1):78-92.

Tipton KD, Wolfe RR. Exercise, protein metabolism, and muscle growth. *Int J Sport Nutr Exerc Metab*. 2001 Mar;11(1):109-32.

Tipton KD, Elliott TA, Cree MG, Wolf SE, Sanford AP, Wolfe RR. Ingestion of casein and whey proteins result in muscle anabolism after resistance exercise. *Med Sci Sports Exerc*. 2004 Dec;36(12):2073-81.

Suzuki M. Glycemic carbohydrates consumed with amino acids or protein right after exercise enhance muscle formation. *Nutr Rev*. 2003 May;61(5 Pt 2):S88-94.

Turchet P, Laurenzano M, Auboiron S, Antoine JM. Effect of fermented milk containing the probiotic *Lactobacillus casei* DN-114001 on winter infections in free-living elderly subjects: a randomised, controlled pilot study. *J Nutr Health Aging*. 2003;7(2):75-7.

Umeda T, Nakaji S, Shimoyama T, Kojima A, Yamamoto Y, Sugawara K. Adverse effects of energy restriction on changes in immunoglobulins and complements during weight reduction in judoists. *J Sports Med Phys Fitness*. 2004 Sep;44(3):328-34.

Venkatraman JT, Pendergast DR. Effect of dietary intake on immune function in athletes. *Sports Med*. 2002;32(5):323-37.

Venkatraman JT, Leddy J, Pendergast D. Dietary fats and immune status in athletes: clinical implications. *Med Sci Sports Exerc*. 2000 Jul;32(7 Suppl):S389-95.

Venkatraman JT, Feng X, Pendergast D. Effects of dietary fat and endurance exercise on plasma cortisol, prostaglandin E2, interferon-gamma and lipid peroxides in runners. *J Am Coll Nutr*. 2001 Oct;20(5):529-36.

Winkler P, de Vrese M, Laue Ch, Schrezenmeir J. Effect of a dietary supplement containing probiotic bacteria plus vitamins and minerals on common cold infections and cellular immune parameters. *Int J Clin Pharmacol Ther*. 2005 Jul;43(7):318-26.

Wintergerst ES, Maggini S, Hornig DH. Immune-Enhancing Role of Vitamin C and Zinc and Effect on Clinical Conditions. *Ann Nutr Metab*. 2005 Dec 21;50(2):85-94.

Wu D. Modulation of immune and inflammatory responses by dietary lipids. *Curr Opin Lipidol*. 2004 Feb;15(1):43-7.

## Luku 17

Acheson KJ. Influence of autonomic nervous system on nutrient-induced thermogenesis in humans. *Nutrition*. 1993 Jul-Aug;9(4):373-80.

Ainsworth BE, Haskell WL, Leon AS, Jacobs DR Jr, Montoye HJ, Sallis JF, Paffenbarger RS Jr. Compendium of physical activities: classification of energy costs of human physical activities. *Med Sci Sports Exerc* 1993;25:71-80.

American Medical Association. A critique of low-carbohydrate ketogenic weight and reduction regimens (a review of Dr. Atkins' diet revolution). *JAMA* 1973;224:1418.

Andersen T, Fogh J. Weight loss and delayed gastric emptying following a South American herbal preparation in overweight patients. *J Hum Nutr Diet*. 2001 Jun;14(3):243-50.

Aromaa A, Koskinen S (toim). Terveys ja toimintakyky Suomessa. Terveys 2000 tutkimuksen perustulokset. Kansanterveyslaitoksen julkaisuja B3/2002. Helsinki 2002.

Astrup A. The role of dietary fat in obesity. *Semin Vasc Med.* 2005 Feb;5(1):40-7.

Astrup A, Raben A. Obesity: an inherited metabolic deficiency in the control of macronutrient balance? *Eur J Clin Nutr.* 1992 Sep;46(9):611-20.

Astrup A, Buemann B, Christensen NJ, Toubro S, Thorbek G, Victor OJ, Quaade F. The effect of ephedrine/caffeine mixture on energy expenditure and body composition in obese women. *Metabolism* 1992a;41:686-688.

Astrup A, Breum L, Toubro S, Hein P, Quaade F. The effect and safety of an ephedrine/caffeine compound compared to ephedrine, caffeine and placebo in obese subjects on an energy restricted diet: a double blind trial. *Int J Obes* 1992b;16:269-277.

Astrup A, Larsen TM, Harper A. Atkins and other low-carbohydrate diets: hoax or an effective tool for weight loss? *Lancet.* 2004 Sep 4 10;364(9437):897-9.

Avram MM. Cellulite: a review of its physiology and treatment. *J Cosmet Laser Ther.* 2004 Dec;6(4):181-5.

Bahr R, Sejersted OM. Effect of intensity of exercise on excess postexercise O<sub>2</sub> consumption. *Metabolism.* 1991 Aug;40(8):836-41.

Ballor DL, Katch VL, Becque MD, Marks CR. Resistance weight training during caloric restriction enhances lean body weight maintenance. *Am J Clin Nutr.* 1988 Jan;47(1):19-25.

Baumgartner RN, Chumlea WC, Roche AF. Estimation of body composition from bioelectric impedance of body segments. *Am J Clin Nutr.* 1989 Aug;50(2):221-6.

Beg M, Singhal KC, Afzaal S. A study of effect of guggulsterone on hyperlipidemia of secondary glomerulopathy. *Indian J Physiol Pharmacol.* 1996 Jul;40(3):237-40.

Bell EA, Castellanos VH, Pelkman CL, Thorwart ML, Rolls BJ. Energy density of foods affects energy intake in normal-weight women. *Am J Clin Nutr.* 1998 Mar;67(3):412-20.

Bent S, Tiedt TN, Odden MC, Shlipak MG. The relative safety of ephedra compared with other herbal products. *Ann Intern Med* 2003;138:468-71.

Bilsborough SA, Crowe TC. Low-carbohydrate diets: what are the potential short- and long-term health implications? *Asia Pac J Clin Nutr.* 2003;12(4):396-404.

Blundell JE, Burley VJ, Cotton JR, Lawton CL. Dietary fat and the control of energy intake: evaluating the effects of fat on meal size and postmeal satiety. *Am J Clin Nutr.* 1993 May;57(5 Suppl):772S-777S.

Blundell JE, MacDiarmid JI. Fat as a risk factor for overconsumption: satiation, satiety, and patterns of eating. *J Am Diet Assoc.* 1997 Jul;97(7 Suppl):S63-9.

Bolton-Smith C, Woodward M. Dietary composition and fat to sugar ratios in relation to obesity. *Int J Obes Relat Metab Disord.* 1994 Dec;18(12):820-8.

Bouchard C. Can obesity be prevented? *Nutr Rev* 1996;54:125-130.

Brand-Miller JC, Holt SH, Pawlak DB, McMillan J. Glycemic index and obesity. *Am J Clin Nutr.* 2002 Jul;76(1):281S-5S.

Brandsch C, Eder K. Effect of L-carnitine on weight loss and body composition of rats fed a hypocaloric diet. *Ann Nutr Metab.* 2002;46(5):205-10.

Bray GA, Popkin BM. Dietary fat intake does affect obesity! *Am J Clin Nutr* 1998;68:1157-1173.

Bray GA, Ryan DH, Gordon D, Heidingsfelder S, Cerise F, Wilson K. A double-blind randomized placebo-controlled trial of sibutramine. *Obes Res* 1996;4:263-270.

Buchholz AC, Shoeller DA. Is a calorie a calorie? *Am J Clin Nutr* 2004 May;79(5):899S-906S.

Butterfield GE. Whole-body protein utilization in humans. *Med Sci Sports Exerc.* 1987 Oct;19(5 Suppl):S157-65.

Calles-Escandon J, Devlin JT, Whitcomb W, Horton ES. Pre-exercise feeding does not affect endurance cycle exercise but attenuates post-exercise starvation-like response. *Med Sci Sports Exerc.* 1991 Jul;23(7):818-24.

Costa RJ, Jones GE, Lamb KL, Coleman R, Williams JH. The effects of a high carbohydrate diet on cortisol and salivary immunoglobulin A (s-IgA) during a period of increase exercise workload amongst Olympic and Ironman triathletes. *Int J Sports Med.* 2005 Dec;26(10):880-5.

Daly PA ym. Ephedrine, caffeine and aspirin: safety and efficacy for treatment of human obesity. *Int J Obes* 1993;17:S73-S78

Dashti HM, Al-Zaid NS, Mathew TC, Al-Mousawi M, Talib H, Asfar SK, Behbahani AI. Long term effects of ketogenic diet in obese subjects with high cholesterol level. *Mol Cell Biochem.* 2006 Jun;286(1-2):1-9.

Davidson MH, Hauptman J, DiGirolamo M, Foreyt JP, Halsted CH, Heber D, Heimbürger DC ym. Weight control and risk factor reduction in obese subjects treated for 2 years with orlistat: a randomized controlled trial. *JAMA* 1999;281:235-242.

Davis PG, Phinney SD. Differential effects of two very low calorie diets on aerobic and anaerobic performance. *Int J Obes.* 1990 Sep;14(9):779-87.

DeLany JP, Blohm F, Truett AA, Scimeca JA, West DB. Conjugated linoleic acid rapidly reduces body fat content in mice without affecting energy intake. *Am J Physiol.* 1999 Apr;276(4 Pt 2):R1172-9.

DeLany JP, West DB. Changes in body composition with conjugated linoleic acid. *J Am Coll Nutr.* 2000 Aug;19(4):487S-493S.

Demling RH, DeSanti L. Effect of a hypocaloric diet, increased protein intake and resistance training on lean mass gains and fat mass loss in overweight police officers. *Ann Nutr Metab.* 2000;44(1):21-9.

Deuchi K, Kanauchi O, Shizukuishi M, Kobayashi E. Continuous and massive intake of chitosan affects mineral and fat-soluble vitamin status in rats fed on a high-fat diet. *Biosci Biotechnol Biochem.* 1995 Jul;59(7):1211-6.

DiPietro L, Kohl HW III, Barlow CE ym. Physical fitness and risk of weight gain in men and women: The Aerobics Center Longitudinal Study [abstr]. *Med Sci Sports Exerc* 1997;29:115.

Draeos ZD, Marenus KD. Cellulite. Etiology and purported treatment. *Dermatol Surg.* 1997 Dec;23(12):1177-81.

Drewnowski A. The role of energy density. *Lipids.* 2003 Feb;38(2):109-15.

Dulloo AG, Geissler CA, Horton T, Collins A, Miller DS. Normal caffeine consumption: influence on thermogenesis and daily energy expenditure in lean and postobese human volunteers. *Am J Clin Nutr.* 1989 Jan;49(1):44-50.

Dulloo AG, Duret C, Rohrer D, Girardier L, Mensi N, Fathi M, Chantre P, Vandermander J. Efficacy of a green tea extract rich in catechin polyphenols and caffeine in increasing 24-h energy expenditure and fat oxidation in humans. *Am J Clin Nutr.* 1999 Dec;70(6):1040-5.

Durnin JV, Womersley J. Body fat assessed from total body density and its estimation from skinfold thickness: measurements on 481 men and women aged from 16 to 72 years.

Dyck DJ. Dietary fat intake, supplements, and weight loss. *Can J Appl Physiol.* 2000 Dec;25(6):495-523.

Fine EJ, Feinman RD. Thermodynamics of weight loss diets. *Nutr Metab (Lond).* 2004 Dec 8;1(1):15.

Fogelholm M. Effects of bodyweight reduction on sports performance. *Sports Med.* 1994 Oct;18(4):249-67.

Fogelholm M, Kukkonen-Harjula K. Does physical activity prevent weight gain? - a systematic review. *Obes Rev* 2000;1:95-111.

Fogelholm M, Männistö S, Vartiainen E, Pietinen P. Determinants of energy balance and overweight in Finland 1982 and 1992. *Int J Obes* 1996;20:1097-1104.

Foster GD, Wadden TA, Peterson FJ, Letizia KA, Bartlett SJ, Conill AM. A controlled comparison of three very-low-calorie diets: effects on weight, body composition, and symptoms. *Am J Clin Nutr* 1992;55:811-817.

Foster GD, Wyatt HR, Hill JO, McGuckin BG, Brill C, Mohammed BS, Szapary PO, Rader DJ, Edman JS, Klein S. A randomized trial of a low-carbohydrate diet for obesity. *N Engl J Med*. 2003 May 22;348(21):2082-90.

Franchi J, Pellicier F, Andre P, Schnebert S. The adipocyte in the history of slimming agents. *Pathol Biol (Paris)*. 2003 Jul;51(5):244-7.

Gades MD, Stern JS. Chitosan supplementation and fat absorption in men and women. *J Am Diet Assoc*. 2005 Jan;105(1):72-7.

Garrow JS, Summerbell CD. Meta-analysis: effect of exercise, with or without dieting, on the body composition of overweight subjects. *Eur J Clin Nutr*. 1995 Jan;49(1):1-10.

Girola M, De Bernardi M, Contos S ym. Dose effect in lipid lowering activity of a new dietary integrator (Chitosan, Garcinia cambogia extract and chrome). *Acta Toxicol Ther* 1996;17:25-40

Glenny AM, O'Meara S, Melville A, Sheldon TA, Wilson C. The treatment and prevention of obesity: a systematic review of the literature. *Int J Obes Relat Metab Disord* 1997;21:715-737.

Greenway FL. The safety and efficacy of pharmaceutical and herbal caffeine and ephedrine use as a weight loss agent. *Obes Rev*. 2001 Aug;2(3):199-211.

Graham TE, Spriet LL. Metabolic, catecholamine, and exercise performance responses to various doses of caffeine. *J Appl Physiol*. 1995 Mar;78(3):867-74.

The safety and efficacy of pharmaceutical and herbal caffeine and ephedrine use as a weight loss agent. *Obes Rev*. 2001 Aug;2(3):199-211.

Grinspoon SK, Baum HB, Kim V, Coggins C, Klibanski A. Decreased bone formation and increased mineral dissolution during acute fasting in young women. *J Clin Endocrinol Metab*. 1995 Dec;80(12):3628-33.

Haff GG, Lehmkuhl MJ, McCoy LB, Stone MH. Carbohydrate supplementation and resistance training. *J Strength Cond Res*. 2003 Feb;17(1):187-96.

Haller CA, Benowitz NL. Adverse cardiovascular and central nervous system events associated with dietary supplements containing ephedra alkaloids. *N Engl J Med* 2000;343:1833-8.

Halton TL, Hu FB. The effects of high protein diets on thermogenesis, satiety and weight loss: a critical review. *J Am Coll Nutr*. 2004 Oct;23(5):373-85.

Haskell WL. J.B.Wolffe memorial lecture. Health consequences of physical activity: Understanding and challenging regulation of dose response. *Med Sci Sports Exerc* 1994;26:649-660.

Helakorpi S, Uutela A ym. Suomalaisen aikuisväestön terveystilanne, kevät 1997. *Kansanterveyslaitoksen julkaisuja B10*. Helsinki: Kansanterveyslaitos, 1997.

Heymsfield SB, Allison DB, Vasselli JR, Pietrobelli A, Greenfield D, Nunez C. Garcinia cambogia (hydroxycitric acid) as a potential antiobesity agent: a randomized controlled trial. *JAMA*. 1998 Nov 11;280(18):1596-600.

Himaya A, Louis-Sylvestre J. The effect of soup on satiation. *Appetite*. 1998 Apr;30(2):199-210.

Howard BV, Manson JE, Stefanick ML, Beresford SA, Frank G, Jones B, Rodabough RJ, Snetselaar L, Thomson C, Tinker L ym. Low-fat dietary pattern and weight change over 7 years: the Women's Health Initiative Dietary Modification Trial. *JAMA*. 2006 Jan 4;295(1):39-49.

Hu FB. Protein, body weight, and cardiovascular health. *Am J Clin Nutr*. 2005 Jul;82(1 Suppl):242S-247S.

Iwao S, Mori K, Sato Y. Effects of meal frequency on body composition during weight control in boxers. *Scand J Med Sci Sports*. 1996 Oct;6(5):265-72.

Jagust W, Harvey D, Mungas D, Haan M. Central obesity and the aging brain. *Arch Neurol*. 2005 Oct;62(10):1545-8.

Johnston CS, Day CS, Swan PD. Postprandial thermogenesis is increased 100% on a high-protein, low-fat diet versus a high-carbohydrate, low-fat diet in healthy, young women. *J Am Coll Nutr.* 2002 Feb;21(1):55-61.

Joy EA, Campbell D. Stress fractures in the female athlete. *Curr Sports Med Rep.* 2005 Dec;4(6):323-8.

Kalman D, Colker CM, Stark R ym. Effect of pyruvate supplementation on body composition and mood. *Curr Ther Res* 1998;59:793-802.

Kalman D, Colker CM, Wilets I, Roufs JB, Antonio J. The effects of pyruvate supplementation on body composition in overweight individuals. *Nutrition.* 1999 May;15(5):337-40.

Kappagoda CT, Hyson DA, Amsterdam EA. Low-carbohydrate-high-protein diets: is there a place for them in clinical cardiology? *J Am Coll Cardiol.* 2004 Mar 3;43(5):725-30.

Keim NL, Van Loan MD, Horn WF, Barbieri TF, Mayclin PL. Weight loss is greater with consumption of large morning meals and fat-free mass is preserved with large evening meals in women on a controlled weight reduction regimen. *J Nutr.* 1997 Jan;127(1):75-82.

Kennedy ET, Bowman SA, Spence JT, Freedman M, King J. Popular diets: correlation to health, nutrition, and obesity. *J Am Diet Assoc.* 2001 Apr;101(4):411-20.

Kral TV, Roe LS, Rolls BJ. Combined effects of energy density and portion size on energy intake in women. *Am J Clin Nutr.* 2004 Jun;79(6):962-8.

Kreitzman SN, Coxon AY, Szaz KF. Glycogen storage: illusions of easy weight loss, excessive weight regain, and distortions in estimates of body composition. *Am J Clin Nutr.* 1992 Jul;56(1 Suppl):292S-293S.

Lahti-Koski M, Kilkkinen A. Ravitsemuskertomus 2000. Kansanterveyslaitoksen julkaisuja B1/2001. Kansanterveyslaitos, epidemiologian ja terveyden edistämisen osasto, ravitsemustieteen yksikkö. Helsinki, 2001.

Lambert CP, Frank LL, Evans WJ. Macronutrient considerations for the sport of bodybuilding. *Sports Med.* 2004;34(5):317-27.

Langfort J, Zarzechny R, Pilis W, Nazar K, Kaciuba-Uscitko H. The effect of a low-carbohydrate diet on performance, hormonal and metabolic responses to a 30-s bout of supramaximal exercise. *Eur J Appl Physiol Occup Physiol.* 1997;76(2):128-33.

Layman DK, Evans E, Baum JI, Seyler J, Erickson DJ, Boileau RA. Dietary protein and exercise have additive effects on body composition during weight loss in adult women. *J Nutr.* 2005 Aug;135(8):1903-10.

Leeman M, Ostman E, Bjorck I. Vinegar dressing and cold storage of potatoes lowers postprandial glycaemic and insulinaemic responses in healthy subjects. *Eur J Clin Nutr.* 2005 Nov;59(11):1266-71.

Lenz TL, Hamilton WR. Supplemental products used for weight loss. *J Am Pharm Assoc (Wash DC).* 2004 Jan-Feb;44(1):59-67.

Levitan MD, Murphy JT, Sherwood WG, Deck J, Sawa GM. Adult onset systemic carnitine deficiency: favorable response to L-carnitine supplementation. *Can J Neurol Sci.* 1987 Feb;14(1):50-4.

Ludwig DS. The glycemic index: physiological mechanisms relating to obesity, diabetes, and cardiovascular disease. *JAMA.* 2002 May 8;287(18):2414-23.

Lyon X-H, Di Vetta V, Milon H, Jéquier E, Schutz Y. Compliance to dietary advice directed towards increasing the carbohydrate to fat ratio of the everyday diet. *Int J Obes* 1995;19:260-269.

Maughan RJ, Greenhaff PL, Leiper JB, Ball D, Lambert CP, Gleeson M. Diet composition and the performance of high-intensity exercise. *J Sports Sci.* 1997 Jun;15(3):265-75.

McArdle WD, McArdle FI, Katch VL. *Physique, performance, and physical activity.* Kirjassa: McArdle WD, McArdle FI, Katch VL. *Exercise Physiology* 5th ed. Lippincott Williams & Wikins, USA, 2001a.

McArdle WD, McArdle FI, Katch VL. Overweight, obesity and weight control. Kirjassa: McArdle WD, McArdle FI, Katch VL. Exercise Physiology 5th ed. Lippincott Williams & Wilkins, USA, 2001b.

Mhurchu CN, Dunshea-Mooij C, Bennett D, Rodgers A. Effect of chitosan on weight loss in overweight and obese individuals: a systematic review of randomized controlled trials. *Obes Rev.* 2005 Feb;6(1):35-42.

Mitchell JB, Pizza FX, Paquet A, Davis BJ, Forrest MB, Braun WA. Influence of carbohydrate status on immune responses before and after endurance exercise. *J Appl Physiol.* 1998 Jun;84(6):1917-25.

Morgan WD, Ryde SJS, Birks JL, Thomas DW, Kreitzman SN. Changes in total body nitrogen during weight reduction by very-low-calorie-diets. *Am J Clin Nutr* 1992;56:262-264.

Mosoni L, Mirand PP. Type and timing of protein feeding to optimize anabolism. *Curr Opin Clin Nutr Metab Care.* 2003 May;6(3):301-6.

Mustajoki P, Rissanen A, Uusitupa M. Lihavan potilaan tutkiminen ja hoitomuodon valinta. Kirjassa: Fogelholm ym. (toim.). Lihavuus ongelma ja hoito. Duodecim. Helsinki 1997.

Ni Mhurchu C, Dunshea-Mooij CA, Bennett D, Rodgers A. Chitosan for overweight or obesity. *Cochrane Database Syst Rev.* 2005 Jul 20;(3):CD003892.

O'Connor H, Sullivan T, Caterson I. Weight loss and the athlete. Kirjassa: Burke L, Deakin V (toim.). *Clinical Sports Nutrition* 2nd ed. McGraw-Hill Book Company, Australia, 2002.

Olds TS, Norton KI, Craig NP. Mathematical model of cycling performance. *J Appl Physiol.* 1993 Aug;75(2):730-7.

Ostman E, Granfeldt Y, Persson L, Bjorck I. Vinegar supplementation lowers glucose and insulin responses and increases satiety after a bread meal in healthy subjects. *Eur J Clin Nutr.* 2005 Sep;59(9):983-8.

Paranjpe P, Patki P, Patwardhan B. Ayurvedic treatment of obesity: a randomised double-blind, placebo-controlled clinical trial. *J Ethnopharmacol.* 1990 Apr;29(1):1-11.

Park Y, Albright KJ, Liu W, Storkson JM, Cook ME, Pariza MW. Effect of conjugated linoleic acid on body composition in mice. *Lipids.* 1997 Aug;32(8):853-8.

Pate RR, Heath GW, Dowda M, Trost SG. Associations between Physical Activity and Other Health Behaviors in a Representative Sample of US Adolescents. *Am J Public Health* 1996;86:1577-1581.

Phinney SD. Ketogenic diets and physical performance. *Nutr Metab (Lond).* 2004 Aug 17;1(1):2.

Pittler MH, Ernst E. Dietary supplements for body-weight reduction: a systematic review. *Am J Clin Nutr.* 2004 Apr;79(4):529-36.

Prouteau S, Pelle A, Collomp K, Benhamou L, Courteix D. Bone density in elite judoists and effects of weight cycling on bone metabolic balance. *Med Sci Sports Exerc.* 2006 Apr;38(4):694-700.

Rankin JW. Weight loss and gain in athletes. *Curr Sports Med Rep.* 2002 Aug;1(4):208-13.

Rodriguez-Moran M, Guerrero-Romero F, Lazcano-Burciaga G. Lipid- and glucose-lowering efficacy of Plantago Psyllium in type II diabetes. *J Diabetes Complications.* 1998 Sep-Oct;12(5):273-8.

Rolls BJ. Carbohydrates, fats, and satiety. *Am J Clin Nutr.* 1995 Apr;61(4 Suppl):960S-967S.

Rolls BJ, Castellanos VH, Halford JC, Kilara A, Panyam D, Pelkman CL, Smith GP, Thorwart ML. Volume of food consumed affects satiety in men. *Am J Clin Nutr.* 1998 Jun;67(6):1170-7.

Rolls BJ, Bell EA. Dietary approaches to the treatment of obesity. *Medical Clinics of North America* 2000;84:401-417.

Saldanha Aoki M, Rodriguez Amaral Almeida AL, Navarro F, Bicudo Pereira Costa-Rosa LF, Pereira Bacurau RF. Carnitine supplementation fails to maximize fat

mass loss induced by endurance training in rats. *Ann Nutr Metab.* 2004;48(2):90-4.

Saper RB, Eisenberg DM, Phillips RS. Common dietary supplements for weight loss. *Am Fam Physician.* 2004 Nov 1;70(9):1731-8.

Sarlio-Lähteenkorva S. Losing weight for life? Social, behavioural and health-related factors in obesity and weight loss maintenance. *KTL M171:1999.*

Schutz Y, Flatt JP, Jequier E. Failure of dietary fat intake to promote fat oxidation: a factor favoring the development of obesity. *Am J Clin Nutr.* 1989 Aug;50(2):307-14.

Schwenk WF, Hale DE, Haymond MW. Decreased fasting free fatty acids with L-carnitine in children with carnitine deficiency. *Pediatr Res.* 1988 May;23(5):491-4.

Shapses SA, Riedt CS. Bone, body weight, and weight reduction: what are the concerns? *J Nutr.* 2006 Jun;136(6):1453-6

Shekelle PG, Hardy ML, Morton SC, Maglione M, Mojica WA, Sutorp MJ, Rhodes SL, Jungvig L, Gagne J. Efficacy and safety of ephedra and ephedrine for weight loss and athletic performance: a meta-analysis. *JAMA.* 2003 Mar 26;289(12):1537-45.

Shelmet JJ, Reichard GA, Skutches CL, Hoeldtke RD, Owen OE, Boden G. Ethanol causes acute inhibition of carbohydrate, fat, and protein oxidation and insulin resistance. *J Clin Invest.* 1988 Apr;81(4):1137-45.

Schutz Y, Flatt JP, Jequier E. Failure of dietary fat intake to promote fat oxidation: a factor favoring the development of obesity. *Am J Clin Nutr.* 1989 Aug;50(2):307-14.

Singh RB, Niaz MA, Ghosh S. Hypolipidemic and antioxidant effects of Commiphora mukul as an adjunct to dietary therapy in patients with hypercholesterolemia. *Cardiovasc Drugs Ther.* 1994 Aug;8(4):659-64.

Skov. AR, Toubro S, Ronn B, Holm L, Astrup A. Randomized trial on protein vs carbohydrate in ad libitum fat reduced diet for the treatment of obesity. *Int J Obes Relat Metab Disord.* 1999 May;23(5):528-36.

Snijder MB, Kuyf BE, Deurenberg P. Effect of body build on the validity of predicted body fat from body mass index and bioelectrical impedance. *Ann Nutr Metab.* 1999;43(5):277-85.

Snyder AC. Overtraining and glycogen depletion hypothesis. *Med Sci Sports Exerc* 1998; 30: 1146-1150.

Sonko BJ, Prentice AM, Murgatroyd PR, Goldberg GR, van de Ven ML, Coward WA. Effect of alcohol on postmeal fat storage. *Am J Clin Nutr.* 1994 Mar;59(3):619-25.

Speechly DP, Buffenstein R. Greater appetite control associated with an increased frequency of eating in lean males. *Appetite.* 1999 Dec;33(3):285-97.

Spindel ER, Wurtman RJ, McCall A, Carr DB, Conlay L, Griffith L, Arnold MA. Neuroendocrine effects of caffeine in normal subjects. *Clin Pharmacol Ther.* 1984 Sep;36(3):402-7.

Spriet LL, MacLean DA, Dyck DJ, Hultman E, Cederblad G, Graham TE. Caffeine ingestion and muscle metabolism during prolonged exercise in humans. *Am J Physiol.* 1992 Jun;262(6 Pt 1):E891-8.

Stager JM, Cordain L. Relationship of body composition to swimming performance in female swimmers. *J Swim Res* 1984;1:21-4.

Stanko RT, Adibi SA. Inhibition of lipid accumulation and enhancement of energy expenditure by the addition of pyruvate and dihydroxyacetone to a rat diet. *Metabolism.* 1986 Feb;35(2):182-6.

Stanko RT, Arch JE. Inhibition of regain in body weight and fat with addition of 3-carbon compounds to the diet with hyperenergetic refeeding after weight reduction. *Int J Obes Relat Metab Disord.* 1996 Oct;20(10):925-30.

Stanko RT, Tietze DL, Arch JE. Body composition, energy utilization, and nitrogen metabolism with a severely restricted diet supplemented with dihydroxyacetone and pyruvate. *Am J Clin Nutr.* 1992 Apr;55(4):771-6.

Stanko RT, Reynolds HR, Hoyson R, Janosky JE, Wolf R. Pyruvate supplementation of a low-cholesterol, low-fat diet: effects on plasma lipid concentrations and body composition in hyperlipidemic patients. *Am J Clin Nutr.* 1994 Feb;59(2):423-7.

Steinfeldt HJ, Petho-Schramm S. Methylxanthines inhibit glucose transport in rat adipocytes by two independent mechanisms. *Biochem Pharmacol.* 1990 Sep 1;40(5):1154-7.

Suter PM, Schutz Y, Jequier E. The effect of ethanol on fat storage in healthy subjects. *N Engl J Med.* 1992 Apr 9;326(15):983-7.

Suter PM. Is alcohol consumption a risk factor for weight gain and obesity? *Crit Rev Clin Lab Sci.* 2005;42(3):197-227.

Szapary PO, Wolfe ML, Bloedon LT, Cucchiara AJ, DerMarderosian AH, Cirigliano MD, Rader DJ. Guggulipid for the treatment of hypercholesterolemia: a randomized controlled trial. *JAMA.* 2003 Aug 13;290(6):765-72.

Thompson AB, De Pover A, Keelan M ym. Inhibition of lipid absorption as an approach to the treatment of obesity. *Methods Enzymol* 1997;286:3-44.

Toubro S, Astrup A. Randomised comparison of diets for maintaining obese subjects' weight after major weight loss: Ad lib, low fat, high carbohydrate diet v fixed energy intake. *BMJ* 1997;314:329.

Treuth MS, Hunter GR, Williams M. Effects of exercise intensity on 24-h energy expenditure and substrate oxidation. *Med Sci Sports Exerc.* 1996 Sep;28(9):1138-43.

Tripathi YB, Malhotra OP, Tripathi SN. Thyroid stimulating action of Z-guggulsterone obtained from *Commiphora mukul*. *Planta Med.* 1984 Feb;(1):78-80.

Tripathi YB, Tripathi P, Malhotra OP, Tripathi SN. Thyroid stimulatory action of (Z)-guggulsterone: mechanism of action. *Planta Med.* 1988 Aug;54(4):271-7.

Urizar NL, Moore DD. GUGULIPID: a natural cholesterol-lowering agent. *Annu Rev Nutr.* 2003;23:303-13.

Valsta L, Anttolainen M. Rasvavalinnat ja rasvan saanti Finravinto 1997-tutkimuksessa. Kansanterveyslaitos, epidemiologian ja terveyden edistämisen osasto, ravitsemustieteen yksikkö. Helsinki, 1998.

Vanhala M. Metabolinen oireyhtymä ja sen merkitys. *Suom Lääkäril.* 1998;53:3087-3091.

Villani RG, Gannon J, Self M, Rich PA. L-Carnitine supplementation combined with aerobic training does not promote weight loss in moderately obese women. *Int J Sport Nutr Exerc Metab.* 2000 Jun;10(2):199-207.

Visser TJ, Lamberts SW, Wilson JH, Docter R, Hennemann G. Serum thyroid hormone concentrations during prolonged reduction of dietary intake. *Metabolism.* 1978 Apr;27(4):405-9.

Volek JS, VanHeest JL, Forsythe CE. Diet and exercise for weight loss: a review of current issues. *Sports Med.* 2005;35(1):1-9.

Vukovich M. Fat Reduction. Kirjassa: Antonio J, Stout JR (toim.). *Sports supplements.* Lippincott Williams & Wilkins, USA, 2001.

Walberg-Rankin J. Making weight in sports. Kirjassa: Burke L, Deakin V. *Clinical sports nutrition.* 2nd ed. McGraw-Hill Book Company, Australia, 2002.

Walberg JL, Leidy MK, Sturgill DJ, Hinkle DE, Ritchey SJ, Sebolt DR. Macronutrient content of a hypoenergy diet affects nitrogen retention and muscle function in weight lifters. *Int J Sports Med.* 1988 Aug;9(4):261-6.

Walsh DE, Yaghoubian V, Behforooz A. Effect of glucomannan on obese patients: a clinical study. *Int J Obes.* 1984;8(4):289-93.

Warren JM, Henry CJ, Simonite V. Low glycemic index breakfasts and reduced food intake in preadolescent children. *Pediatrics.* 2003 Nov;112(5):e414.

Westerterp-Plantenga MS, Rolland V, Wilson SA, Westerterp KR. Satiety related to 24 h diet-induced thermogenesis during high protein/carbohydrate vs high fat diets measured in a respiration chamber. *Eur J Clin Nutr.* 1999 Jun;53(6):495-502.



Westerterp-Plantenga MS. The significance of protein in food intake and body weight regulation. *Curr Opin Clin Nutr Metab Care*. 2003 Nov;6(6):635-8.

WHO. Obesity: preventing and managing the global epidemic. Report of a WHO consultation on obesity. WHO Technical Report Series 894, Geneva 2000.

Wing RR. Physical activity in the treatment of the adulthood overweight and obesity: current evidence and research issues. *Med Sci Sports Exerc* 1999;31:S547-S552.

Wolfram G. Dietary fatty acids and coronary heart disease. *Eur J Med Res*. 2003 Aug 20;8(8):321-4.

Wu D. Modulation of immune and inflammatory responses by dietary lipids. *Curr Opin Lipidol*. 2004 Feb;15(1):43-7.

Yao M, Roberts SB. Dietary energy density and weight regulation. *Nutr Rev*. 2001 Aug;59(8 Pt 1):247-58.

Yusuf S, Hawken S, Ounpuu S, Bautista L, Franzosi MG, Commerford P, Lang CC, Rumboldt Z, Onen CL, Lisheng L ym. Obesity and the risk of myocardial infarction in 27,000 participants from 52 countries: a case-control study. *Lancet*. 2005 Nov 5;366(9497):1640-9.

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Abernethy PJ, Jurimae J, Logan PA, Taylor AW, Thayer RE. Acute and chronic response of skeletal muscle to resistance exercise. *Sports Med*. 1994 Jan;17(1):22-38.

Alberts B, Bray D, Lewis J, Raff M, Roberts K, Watson JD. *Molecular biology of the cell* 3rd ed. Garland Publishing, Inc. New York 1994.

Andersen LL, Tufekovic G, Zebis MK, Cramer RM, Verlaan G, Kjaer M, Suetta C ym. The effect of resistance training combined with timed ingestion of protein on muscle fiber size and muscle strength. *Metabolism*. 2005 Feb;54(2):151-6.

Anderson JW, Johnstone BM, Cook-Newell ME. Meta-analysis of the effects of soy protein intake on serum lipids. *N Engl J Med*. 1995 Aug 3;333(5):276-82.

Antonio J, Uelmen J, Rodriguez R, Earnest C. The effects of Tribulus terrestris on body composition and exercise performance in resistance-trained males. *Int J Sport Nutr Exerc Metab*. 2000 Jun;10(2):208-15.

Antonio J, Sanders MS, van Gammere D. The effects of bovine colostrum supplementation on body composition and exercise performance in active men and women. *Nutrition*. 2001 Mar;17(3):243-7.

Antonio J, Sanders MS, Kalman D, Woodgate D, Street C. The effects of high-dose glutamine ingestion on weightlifting performance. *J Strength Cond Res*. 2002 Feb;16(1):157-60.

Ballard TL, Clapper JA, Specker BL, Binkley TL, Vukovich MD. Effect of protein supplementation during a 6-mo strength and conditioning program on insulin-like growth factor I and markers of bone turnover in young adults. *Am J Clin Nutr*. 2005 Jun;81(6):1442-8.

Beaufrere B, Dangin M, Boirie Y. The 'fast' and 'slow' protein concept. *Nestle Nutr Workshop Ser Clin Perform Programme*. 2000;3:121-31;

Bell GJ, Syrotuik DG, Attwood K, Quinney HA. Maintenance of strength gains while performing endurance training in oarswomen. *Can J Appl Physiol*. 1993 Mar;18(1):104-15.

Biolo G, Maggi SP, Williams BD, Tipton KD, Wolfe RR. Increased rates of muscle protein turnover and amino acid transport after resistance exercise in humans. *Am J Physiol*. 1995 Mar;268(3 Pt 1):E514-20.

Biolo G, Tipton KD, Klein S, Wolfe RR. An abundant supply of amino acids enhances the metabolic effect of exercise on muscle protein. *Am J Physiol.* 1997 Jul;273(1 Pt 1):E122-9.

Bizzarini E, De Angelis L. Is the use of oral creatine supplementation safe? *J Sports Med Phys Fitness.* 2004 Dec;44(4):411-6.

Boirie Y, Dangin M, Gachon P, Vasson MP, Maubois JL, Beaufrere B. Slow and fast dietary proteins differently modulate postprandial protein accretion. *Proc Natl Acad Sci U S A.* 1997 Dec 23;94(26):14930-5.

Borsheim E, Cree MG, Tipton KD, Elliott TA, Aarsland A, Wolfe RR. Effect of carbohydrate intake on net muscle protein synthesis during recovery from resistance exercise. *J Appl Physiol.* 2004a Feb;96(2):674-8.

Borsheim E, Aarsland A, Wolfe RR. Effect of an amino acid, protein, and carbohydrate mixture on net muscle protein balance after resistance exercise. *Int J Sport Nutr Exerc Metab.* 2004b Jun;14(3):255-71.

Bounous G, Gold P. The biological activity of undenatured dietary whey proteins: role of glutathione. *Clin Invest Med.* 1991 Aug;14(4):296-309.

Brinkworth GD, Buckley JD, Slavotinek JP, Kurmis AP. Effect of bovine colostrum supplementation on the composition of resistance trained and untrained limbs in healthy young men. *Eur J Appl Physiol.* 2004 Jan;91(1):53-60.

Broeder C, Quindry J, Brittingham K, Panton L, Thomson J, Appakonduru S, Breuel K, Byrd R, Douglas J ym. The Andro Project: physiological and hormonal influences of androstenedione supplementation in men 35 to 65 years old participating in a high-intensity resistance training program. *Arch Intern Med.* 2000 Nov 13;160(20):3093-104.

Brown GA, Vukovich MD, Sharp RL, Reifenrath TA, Parsons KA, King DS. Effect of oral DHEA on serum testosterone and adaptations to resistance training in young men. *J Appl Physiol.* 1999 Dec;87(6):2274-83.

Brown GA, Vukovich MD, Reifenrath TA, Uhl NL, Parsons KA, Sharp RL, King DS. Effects of anabolic precursors on serum testosterone concentrations and adaptations to resistance training in young men. *Int J Sport Nutr Exerc Metab.* 2000a Sep;10(3):340-59.

Brown GA, Vukovich MD, Martini ER, Kohut ML, Franke WD, Jackson DA, King DS. Endocrine responses to chronic androstenedione intake in 30- to 56-year-old men. *J Clin Endocrinol Metab.* 2000b Nov;85(11):4074-80.

Brown EC, DiSilvestro RA, Babaknia A, Devor ST. Soy versus whey protein bars: effects on exercise training impact on lean body mass and antioxidant status. *Nutr J.* 2004 Dec 8;3:22.

Burke L, Desbrow B, Minehan M.. Dietary supplements and nutritional ergogenic aids. In: *Clinical Sports Nutrition (2nd ed.)*, edited by L. Burke and V. Deakin. Sydney: McGraw-Hill, 2000, p. 455-528.

Butterfield GE, Calloway DH. Physical activity improves protein utilization in young men. *Br J Nutr.* 1984 Mar;51(2):171-84.

Butterfield GE. Whole-body protein utilization in humans. *Med Sci Sports Exerc.* 1987 Oct;19(5 Suppl):S157-65.

Calloway DH, Spector H. Nitrogen balance as related to caloric and protein intake in active young men. *Am J Clin Nutr.* 1954 Nov-Dec;2(6):405-12

Candow DG, Chilibeck PD, Burke D, Daviseon KS, Smith-Palmer T. Effect of glutamine supplementation combined with resistance training in young adults. *Eur J Appl Physiol.* 2001 Dec;86(2):142-9.

Catlin D, Wright J, Pope H, Liggett M. Assessing the threat of anabolic steroids. *Phys Sportmed* 1993;21:36-41.

Chromiak J Antonio J. Use of amino acids as growth hormone-releasing agents by athletes. *Nutrition.* 2002 Jul-Aug;18(7-8):657-61.

Demling RH, DeSanti L. Effect of a hypocaloric diet, increased protein intake and resistance training on lean mass gains and fat mass loss in overweight police officers. *Ann Nutr Metab.* 2000;44(1):21-9.

Doherty M, Smith P, Hughes M, Davison R. Caffeine lowers perceptual response and increases power output during high-intensity cycling. *J Sports Sci.* 2004 Jul;22(7):637-43.

Faber M, Benade AJ, van Eck M. Dietary intake, anthropometric measurements, and blood lipid values in weight training athletes (body builders). *Int J Sports Med.* 1986 Dec;7(6):342-6.

Fawcett JP, Farquhar SJ, Walker RJ, Thou T, Lowe G, Goulding A. The effect of oral vanadyl sulfate on body composition and performance in weight-training athletes. *Int J Sport Nutr.* 1996 Dec;6(4):382-90.

Ferrando AA ja Green NR. The effect of boron supplementation on lean body mass, plasma testosterone levels, and strength in male bodybuilders. *Int J Sport Nutr.* 1993 Jun;3(2):140-9.

Flakoll PJ, Judy T, Flinn K, Carr C, Flinn S. Postexercise protein supplementation improves health and muscle soreness during basic military training in Marine recruits. *J Appl Physiol.* 2004 Mar;96(3):951-6.

Friedlander AL, Braun B, Pollack M, MacDonald JR, Fulco CS, Muza SR, Rock PB ym. Three weeks of caloric restriction alters protein metabolism in normal-weight, young men. *Am J Physiol Endocrinol Metab.* 2005 Sep;289(3):E446-55.

Fry AC, Bonner E, Lewis DL, Johnson RL, Stone MH, Kraemer WJ. The effects of gamma-oryzanol supplementation during resistance exercise training. *Int J Sport Nutr.* 1997 Dec;7(4):318-29.

Gleeson M. Interrelationship between physical activity and branched-chain amino acids. *J Nutr.* 2005 Jun;135(6 Suppl):1591S-5S.

Godfrey RJ, Madgwick Z, Whyte GP. The exercise-induced growth hormone response in athletes. *Sports Med.* 2003;33(8):599-613.

Gontzea I, Sutzescu P, Dumitrache S. The influence of adaption to physical effort on nitrogen balance in man. *Nutr Reports Int* 1975;22:231-6.

Graham TE. Caffeine and exercise: metabolism, endurance and performance. *Sports Med.* 2001;31(11):785-807.

Green NR ja Ferrando AA. Plasma boron and the effects of boron supplementation in males. *Environ Health Perspect.* 1994 Nov;102 Suppl 7:73-7.

Greenwood M, Kreider RB, Greenwood L, Byars A. Cramping and Injury Incidence in Collegiate Football Players Are Reduced by Creatine Supplementation. *J Athl Train.* 2003 Sep;38(3):216-219.

Grey V, Mohammed SR, Smountas AA, Bahloul R, Lands LC. Improved glutathione status in young adult patients with cystic fibrosis supplemented with whey protein. *J Cyst Fibros.* 2003 Dec;2(4):195-8.

Ha E, Zemel MB. Functional properties of whey, whey components, and essential amino acids: mechanisms underlying health benefits for active people (review). *J Nutr Biochem.* 2003 May;14(5):251-8.

Haff GG, Lehmkuhl MJ, McCoy LB, Stone MH. Carbohydrate supplementation and resistance training. *J Strength Cond Res.* 2003 Feb;17(1):187-96.

Heald AH, Cade JE, Cruickshank JK, Anderson S, White A, Gibson JM. The influence of dietary intake on the insulin-like growth factor (IGF) system across three ethnic groups: a population-based study. *Public Health Nutr.* 2003 Apr;6(2):175-80.

Hespeel P, Op't Eijnde B, Van Leemputte M. Opposite actions of caffeine and creatine on muscle relaxation time in humans. *J Appl Physiol.* 2002 Feb;92(2):513-8.

Hill S, Box W, DiSilvestro RA. Moderate intensity resistance exercise, plus or minus soy intake: effects on serum lipid peroxides in young adult males. *Int J Sport Nutr Exerc Metab.* 2004 Apr;14(2):125-32.

Juhn MS, Tarnopolsky M. Potential side effects of oral creatine supplementation: a critical review. *Clin J Sport Med.* 1998 Oct;8(4):298-304.

Hultman E, Soderlund K, Timmons JA, Cederblad G, Greenhaff PL. Muscle creatine loading in men. *J Appl Physiol.* 1996 Jul;81(1):232-7.

Jówko E, Ostaszewski P, Jank M, Sacharuk J, Zieniewicz A, Wilczak J, Nissen S. Creatine and beta-hydroxy-beta-methylbutyrate (HMB) additively increase lean body mass and muscle strength during a weight-training program. *Nutrition*. 2001 Jul-Aug;17(7-8):558-66.

Kaklamani VG, Linos A, Kaklamani E, Markaki I, Koumantaki Y, Mantzoros CS. Dietary fat and carbohydrates are independently associated with circulating insulin-like growth factor 1 and insulin-like growth factor-binding protein 3 concentrations in healthy adults. *J Clin Oncol*. 1999 Oct;17(10):3291-8.

Kelly GS. Bovine colostrums: a review of clinical uses. *Altern Med Rev*. 2003 Nov;8(4):378-94.

King DS, Sharp RL, Vukovich MD, Brown GA, Reifenrath TA, Uhl NL, Parsons KA. Effect of oral androstenedione on serum testosterone and adaptations to resistance training in young men: a randomized controlled trial. *JAMA*. 1999 Jun 2;281(21):2020-8.

Kleiner SM, Bazzarre TL, Litchford MD. Metabolic profiles, diet, and health practices of championship male and female bodybuilders. *J Am Diet Assoc*. 1990 Jul;90(7):962-7.

Koopman R, Wagenmakers AJM, Manders RJ, Zorenc AHG, Senden JMG, Gorselink J, Kreizer HA, van Loon LJC. Combined ingestion of protein and free leucine with carbohydrate increases postexercise muscle protein synthesis in vivo in male subjects. *Am J Physiol Endocrinol Metab*. 2005 Apr;288(4):E645-53.

Kreider RB. Dietary supplements and the promotion of muscle growth with resistance exercise. *Sports Med*. 1999 Feb;27(2):97-110.

Kreider RB, Ferreira M, Wilson M, Almada AL. Effects of calcium beta-hydroxy-beta-methylbutyrate (HMB) supplementation during resistance-training on markers of catabolism, body composition and strength. *Int J Sports Med*. 1999 Nov;20(8):503-9.

Kreider RB, Ferreira MP, Greenwood M, Wilson M, Almada 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 Aug;16(3):325-34.

Kreider RB. Effects of creatine supplementation on performance and training adaptations. *Mol Cell Biochem*. 2003 Feb;244(1-2):89-94.

Kuipers H, van Breda E, Verlaan G, Smeets R. Effects of oral bovine colostrum supplementation on serum insulin-like growth factor-I levels. *Nutrition*. 2002 Jul-Aug;18(7-8):566-7.

Lambert CP, Frank LL, Evans WJ. Macronutrient considerations for the sport of bodybuilding. *Sports Med*. 2004;34(5):317-27.

Lands LC, Grey VL, Smountas AA. Effect of supplementation with a cysteine donor on muscular performance. *J Appl Physiol*. 1999 Oct;87(4):1381-5.

Lemon PW, Nagel F. Effects of exercise on protein and amino acid metabolism. *Med Sci Sports Exerc* 1981;13:141.

Lemon PW. Effects of exercise on dietary protein requirements. *Int J Sport Nutr*. 1998 Dec;8(4):426-47.

Lemon PW, Berardi JM, Noreen EE. The role of protein and amino acid supplements in the athlete's diet: does type or timing of ingestion matter? *Curr Sports Med Rep*. 2002 Aug;1(4):214-21.

Leveritt M, Abernethy PJ, Barry BK, Logan PA. Concurrent strength and endurance training. A review. *Sports Med*. 1999 Dec;28(6):413-27.

Marshall K. Therapeutic applications of whey protein. *Altern Med Rev*. 2004 Jun;9(2):136-56.

Matthews DE. Observations of branched-chain amino acid administration in humans. *J Nutr*. 2005 Jun;135(6 Suppl):1580S-4S.

Mero A, Miikkulainen H, Riski J, Pakkanen R, Aalto J, Takala T. Effects of bovine colostrum supplementation on serum IGF-I, IgG, hormone, and saliva IgA during training. *J Appl Physiol*. 1997 Oct;83(4):1144-51.

Mero A, Nykänen T, Keinänen O, Knuutinen J, Lahti K, Alen M, Rasi S, Leppäluoto J. Protein metabolism and strength performance after bovine colostrum supplementation. *Amino Acids*. 2005 May;28(3):327-35.

McArdle WD, Katch FI, Katch VL (toim.) *Exercise Physiology - Energy, Nutrition and Human Performance* 5th ed. Lippincott Williams & Wilkins 2001.

McCall GE, Byrnes WC, Dickinson A, Pattany PM, Fleck SJ. Muscle fiber hypertrophy, hyperplasia, and capillary density in college men after resistance training. *J Appl Physiol*. 1996 Nov;81(5):2004-12.

McCarthy JP, Pozniak MA, Agre JC. Neuromuscular adaptations to concurrent strength and endurance training. *Med Sci Sports Exerc*. 2002 Mar;34(3):511-9.

Middleton N, Jelen P, Bell G. Whole blood and mononuclear cell glutathione response to dietary whey protein supplementation in sedentary and trained male human subjects. *Int J Food Sci Nutr*. 2004 Mar;55(2):131-41.

Morifuji M, Sakai K, Sanbongi C, Sugiura K. Dietary whey protein downregulates fatty acid synthesis in the liver, but upregulates it in skeletal muscle of exercise-trained rats. *Nutrition*. 2005a Oct;21(10):1052-8.

Morifuji M, Sakai K, Sanbongi C, Sugiura K. Dietary whey protein increases liver and skeletal muscle glycogen levels in exercise-trained rats. *Br J Nutr*. 2005b Apr;93(4):439-45.

Mourier AA, Bigard X, de Kerviler E, Roger B, Legrand H, Guezennec CY. 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.

Newhouse IJ ja Finstad EW. The effects of magnesium supplementation on exercise performance. *Clin J Sport Med*. 2000 Jul;10(3):195-200.

Nikawa T, Ikemoto M, Sakai T, Kano M, Kitano T, Kawahara T, Teshima S, Rokutan K ym. Effects of a soy protein diet on exercise-induced muscle protein catabolism in rats. *Nutrition*. 2002 Jun;18(6):490-5.

Nissen SL ja Sharp RL. Effect of dietary supplements on lean mass and strength gains with resistance exercise: a meta-analysis. *J Appl Physiol*. 2003 Feb;94(2):651-9.

Owen OE, Holup JL, D'Alessio DA, Craig ES, Polansky M, Smalley KJ, Kavle EC ym. A reappraisal of the caloric requirements of men. *Am J Clin Nutr*. 1987 Dec;46(6):875-85.

Owen OE, Kavle E, Owen RS, Polansky M, Caprio S, Mozzoli MA, Kendrick ZV ym. A reappraisal of caloric requirements in healthy women. *Am J Clin Nutr*. 1986 Jul;44(1):1-19.

Pacheco MT, Sgarbieri VC. Effect of different hydrolysates of whey protein on hepatic glutathione content in mice. *J Med Food*. 2005 Fall;8(3):337-42.

Parasrampur J, Schwartz K, Petesch R. Quality control of dehydroepiandrosterone dietary supplement products. *JAMA*. 1998 Nov 11;280(18):1565.

Parcell AC, Drummond MJ, Christopherson ED, Hoyt GL, Cherry JA. Glycemic and insulinemic responses to protein supplements. *J Am Diet Assoc*. 2004 Dec;104(12):1800-4.

Persky AM ja Brazeau GA. Clinical pharmacology of the dietary supplement creatine monohydrate. *Pharmacol Rev*. 2001 Jun;53(2):161-76.

Phillips SM, Tipton KD, Ferrando AA, Wolfe RR. Resistance training reduces the acute exercise-induced increase in muscle protein turnover. *Am J Physiol*. 1999 Jan;276(1 Pt 1):E118-24.

Phillips SM, Hartman JW, Wilkinson SB. Dietary protein to support anabolism with resistance exercise in young men. *J Am Coll Nutr*. 2005 Apr;24(2):134S-139S.

Pitkänen HT, Oja SS, Rusko H, Nummela A, Komi PV, Saransaari P, Takala T, Mero AA. Leucine supplementation does not enhance acute strength or running performance but affects serum amino acid concentration. *Amino Acids*. 2003 Jul;25(1):85-94.

Poortmans JR, Francaux M. Adverse effects of creatine supplementation: fact or fiction? *Sports Med.* 2000 Sep;30(3):155-70.

Poullain MG, Cezard JP, Roger L, Mendy F. Effect of whey proteins, their oligopeptide hydrolysates and free amino acid mixtures on growth and nitrogen retention in fed and starved rats. *JPEN J Parenter Enteral Nutr.* 1989 Jul-Aug;13(4):382-6.

Preen D, Dawson B, Goodman C, Beilby J, Ching S. Creatine supplementation: a comparison of loading and maintenance protocols on creatine uptake by human skeletal muscle. *Int J Sport Nutr Exerc Metab.* 2003 Mar;13(1):97-111.

Rainer L ja Heiss CJ. Conjugated linoleic acid: health implications and effects on body composition. *J Am Diet Assoc.* 2004 Jun;104(6):963-8.

Roy BD, Tarnopolsky MA, MacDougall JD, Fowles J, Yarasheski KE. Effect of glucose supplement timing on protein metabolism after resistance training. *J Appl Physiol.* 1997 Jun;82(6):1882-8.

Sallinen J, Pakarinen A, Ahtiainen J, Kraemer WJ, Volek JS, Hakkinen K. Relationship between diet and serum anabolic hormone responses to heavy-resistance exercise in men. *Int J Sports Med.* 2004 Nov;25(8):627-33.

Shimomura Y, Yamamoto Y, Bajotto G, Sato J, Murakami T, Shimomura N, Kobayashi H, Mawatari K. Nutraceutical effects of branched-chain amino acids on skeletal muscle. *J Nutr.* 2006 Feb;136(2):529S-532S.

Slater GJ, Jenkins D. Beta-hydroxy-beta-methylbutyrate (HMB) supplementation and the promotion of muscle growth and strength. *Sports Med.* 2000 Aug;30(2):105-16.

Slater G, Jenkins D, Logan P, Lee H, Vukovich M, Rathmacher JA, Hahn AG. Beta-hydroxy-beta-methylbutyrate (HMB) supplementation does not affect changes in strength or body composition during resistance training in trained men. *Int J Sport Nutr Exerc Metab.* 2001 Sep;11(3):384-96.

Steenge GR, Simpson EJ, Greenhaff PL. Protein- and carbohydrate-induced augmentation of whole body creatine retention in humans. *J Appl Physiol.* 2000 Sep;89(3):1165-71.

Suzuki M. Glycemic carbohydrates consumed with amino acids or protein right after exercise enhance muscle formation. *Nutr Rev.* 2003 May;61(5 Pt 2):S88-94

Tarnopolsky MA, MacDougall JD, Atkinson SA. Influence of protein intake and training status on nitrogen balance and lean body mass. *J Appl Physiol.* 1988 Jan;64(1):187-93.

Tarnopolsky MA, Atkinson SA, MacDougall JD, Senor BB, Lemon PW, Schwarcz H. Whole body leucine metabolism during and after resistance exercise in fed humans. *Med Sci Sports Exerc.* 1991 Mar;23(3):326-33.

Tarnopolsky MA, Atkinson SA, MacDougall JD, Chesley A, Phillips S, Schwarcz HP. Evaluation of protein requirements for trained strength athletes. *J Appl Physiol.* 1992 Nov;73(5):1986-95.

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

Terjung RL, Clarkson P, Eichner ER, Greenhaff P, Hespel PJ, Istaef RG, Kraemer WJ, Meyer RA, Spriet LL ym. 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.

Terpstra AHM. Effect of conjugated linoleic acid on body composition and plasma lipids in humans: an overview of the literature. *Am J Clin Nutr.* 2004 Mar;79(3):352-61.

Tipton KD, Rasmussen BB, Miller SL, Wolf SE, Owens-Stovall SK, Petrini BE, Wolfe RR. Timing of amino acid-carbohydrate ingestion alters anabolic response of muscle to resistance exercise. *Am J Physiol Endocrinol Metab.* 2001 Aug;281(2):E197-206.

Tipton KD, Wolfe RR. Exercise, protein metabolism, and muscle growth. *Int J Sport Nutr Exerc Metab.* 2001 Mar;11(1):109-32.

Tipton KD, Elliott TA, Cree MG, Wolf SE, Sanford AP, Wolfe RR. Ingestion of casein and whey proteins result in muscle anabolism after resistance exercise. *Med Sci Sports Exerc.* 2004 Dec;36(12):2073-81.

Van Gammeren D, Fald D, Antonio J. The effects of supplementation with 19-nor-4-androstene-3,17-dione and 19-nor-4-androstene-3,17-diol on body composition and athletic performance in previously weight-trained male athletes. *Eur J Appl Physiol.* 2001 May;84(5):426-31.

van Loon LJ, Kruijshoop M, Verhagen H, Saris WH, Wagenmakers AJ. Ingestion of protein hydrolysate and amino acid-carbohydrate mixtures increases postexercise plasma insulin responses in men. *J Nutr.* 2000 Oct;130(10):2508-13.

van Someren KA, Edwards AJ, Howatson G. Supplementation with beta-hydroxy-beta-methylbutyrate (HMB) and alpha-ketoisocaproic acid (KIC) reduces signs and symptoms of exercise-induced muscle damage in man. *Int J Sport Nutr Exerc Metab.* 2005 Aug;15(4):413-24.

Voevodin M, Sinclair A, Gibson R, Makrides M. The effect of CLA on body composition in humans: systematic review and meta-analysis. *Asia Pac J Clin Nutr.* 2005;14 Suppl:S55.

Volek JS, Kraemer WJ, Bush JA, Incledon T, Boetes M. Testosterone and cortisol in relationship to dietary nutrients and resistance exercise. *J Appl Physiol.* 1997 Jan;82(1):49-54.

Volek JS. The Effect of Macronutrient Manipulation on Hormones. Kirjassa: Antonio J, Stout JR (toim.) *Sports Supplements.* Lippincott Williams & Wilkins 2001.

Volek JS. Influence of nutrition on responses to resistance training. *Med Sci Sports Exerc.* 2004 Apr;36(4):689-96.

Walberg JL, Leidy MK, Sturgill DJ, Hinkle DE, Ritchey SJ, Sebolt DR. Macronutrient content of a hypoenergy diet affects nitrogen retention and muscle function in weight lifters. *Int J Sports Med.* 1988 Aug;9(4):261-6.

Wallace MB, Lim J, Cutler A, Bucci L. Effects of dehydroepiandrosterone vs androstenedione supplementation in men. *Med Sci Sports Exerc.* 1999 Dec;31(12):1788-92.

Wilborn CD, Kerksick CM, Campbell BI, Taylor LW, Marcello BM, Rasmussen CJ, Greenwood MC, Almada AL, Kreider RB. Effects of zinc magnesium aspartate (ZMA) supplementation on training adaptations and markers of anabolism and catabolism. *Journal of the International Society of Sports Nutrition.* 2004;1(2):12-20.

Williams M. Dietary supplements and sport performance: amino acids. *J Int Soc Sports Nutr* 2005;2(2):63-67.

Ziegenfuss TN, Berardi JM, Lowery LM. Effects of prohormone supplementation in humans: a review. *Can J Appl Physiol.* 2002 Dec;27(6):628-46.

## Luku 19

Abel T, Knechtle B, Perret C, Eser P, von Arx P, Knecht H. Influence of chronic supplementation of arginine aspartate in endurance athletes on performance and substrate metabolism - a randomized, double-blind, placebo-controlled study. *Int J Sports Med.* 2005 Jun;26(5):344-9.

Adolph EF, Willis JH. Thirst. Kirjassa: *Physiology of Man in Desert.* Adolph EF (toim.) New York: Interscience, 1947, s. 241-253.

Ahlborg B, Ekelund LG, Nilsson CG. Effect of potassium-magnesium-aspartate on the capacity for prolonged exercise in man. *Acta Physiol Scand.* 1968 Sep-Oct;74(1):238-45.

Ahlborg G, Felig P. Substrate utilization during prolonged exercise preceded by ingestion of glucose. *Am J Physiol.* 1977 Sep;233(3):E188-94.

Almond CS, Shin AY, Fortescue EB, Mannix RC, Wypij D, Binstadt BA, Duncan CN, Olson DP, ym. Hyponatremia among runners in the Boston Marathon. *N Engl J Med.* 2005 Apr 14;352(15):1550-6.

Alon T, Bagchi D, Preuss HG. Supplementing with beta-hydroxy-beta-methylbutyrate (HMB) to build and maintain muscle mass: a review. *Res Commun Mol Pathol Pharmacol*. 2002;111(1-4):139-51.

Alves MN, Ferrari-Auarek WM, Pinto KM, Sa KR, Viveiros JP, Pereira HA, Ribeiro AM, Rodrigues LO. Effects of caffeine and tryptophan on rectal temperature, metabolism, total exercise time, rate of perceived exertion and heart rate. *Braz J Med Biol Res*. 1995 Jun;28(6):705-9.

Anantaraman R, Carmines AA, Gaesser GA, Weltman A. Effects of carbohydrate supplementation on performance during 1 hour of high-intensity exercise. *Int J Sports Med*. 1995 Oct;16(7):461-5.

Anderson MJ, Cotter JD, Garnham AP, Casley DJ, Febbraio MA. Effect of glycerol-induced hyperhydration on thermoregulation and metabolism during exercise in heat. *Int J Sport Nutr Exerc Metab*. 2001 Sep;11(3):315-33.

Andrews JL, Sedlock DA, Flynn MG, Navalta JW, Ji H. Carbohydrate loading and supplementation in endurance-trained women runners. *J Appl Physiol*. 2003 Aug;95(2):584-90. Epub 2003 Apr 25.

Angus DJ, Hargreaves M, Dancy J, Febbraio MA. Effect of carbohydrate or carbohydrate plus medium-chain triglyceride ingestion on cycling time trial performance. *J Appl Physiol*. 2000 Jan;88(1):113-9.

Anomasiri W, Sanguanrungrasirikul S, Saichandee P. Low dose creatine supplementation enhances sprint phase of 400 meters swimming performance. *J Med Assoc Thai*. 2004 Sep;87 Suppl 2:S228-32.

Anselme F, Collomp K, Mercier B, Ahmaidi S, Prefaut C. Caffeine increases maximal anaerobic power and blood lactate concentration. *Eur J Appl Physiol Occup Physiol*. 1992;65(2):188-91.

Applegate E. Effective nutritional ergogenic aids. *Int J Sport Nutr*. 1999 Jun;9(2):229-39.

Aragón-Vargas LF. Metabolic and Performance Responses to Carbohydrate Intake During Exercise. Kirjassa: Maughan RJ, Murray R (toim.). *Sports Drinks - Basic Science and Practical Aspects*. CRC Press. Boca Raton, USA, 2001.

Arkininstall MJ, Bruce CR, Nikolopoulos V, Garnham AP, Hawley JA. Effect of carbohydrate ingestion on metabolism during running and cycling. *J Appl Physiol*. 2001 Nov;91(5):2125-34.

Armstrong LE. Caffeine, body fluid-electrolyte balance, and exercise performance. *Int J Sport Nutr Exerc Metab*. 2002 Jun;12(2):189-206.

Armstrong LE, Costill DL, Fink WJ. Influence of diuretic-induced dehydration on competitive running performance. *Med Sci Sports Exerc*. 1985 Aug;17(4):456-61.

Armstrong LE, Maresh CM, Castellani JW, Bergeron MF, Kenefick RW, LaGasse KE, Riebe D. Urinary indices of hydration status. *Int J Sport Nutr*. 1994 Sep;4(3):265-79.

Armstrong LE, Pumerantz AC, Roti MW, Judelson DA, Watson G, Dias JC, Sokmen B, Casa DJ ym. Fluid, electrolyte, and renal indices of hydration during 11 days of controlled caffeine consumption. *Int J Sport Nutr Exerc Metab*. 2005 Jun;15(3):252-65.

Atalay M, Laaksonen DE, Khanna S, Kaliste-Korhonen E, Hanninen O, Sen CK. Vitamin E regulates changes in tissue antioxidants induced by fish oil and acute exercise. *Med Sci Sports Exerc*. 2000 Mar;32(3):601-7.

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;50(3):405-11.

Backhouse SH, Bishop NC, Biddle SJ, Williams C. Effect of Carbohydrate and Prolonged Exercise on Affect and Perceived Exertion. *Med Sci Sports Exerc*. 2005 Oct;37(10):1768-1773.

Bacurau RF, Bassit RA, Sawada L, Navarro F, Martins E Jr, Costa Rosa LF. Carbohydrate supplementation during intense exercise and the immune response of cyclists. *Clin Nutr*. 2002 Oct;21(5):423-9.



Bahr R. Excess postexercise oxygen consumption-magnitude, mechanisms and practical implications. *Acta Physiol Scand Suppl.* 1992;605:1-70.

Bahrke MS, Morgan WR. Evaluation of the ergogenic properties of ginseng: an update. *Sports Med.* 2000 Feb;29(2):113-33.

Balsom PD, Soderlund K, Ekblom B. Creatine in humans with special reference to creatine supplementation. *Sports Med.* 1994 Oct;18(4):268-80.

Ball TC, Headley SA, Vanderburgh PM, Smith JC. Periodic carbohydrate replacement during 50 min of high-intensity cycling improves subsequent sprint performance. *Int J Sport Nutr.* 1995 Jun;5(2):151-8.

Barr SI. Effects of dehydration on exercise performance. *Can J Appl Physiol.* 1999 Apr;24(2):164-72.

Bassit RA, Sawada LA, Bacurau RF, Navarro F, Martins E Jr, Santos RV, Caperuto EC, Rogeri P ym. Branched-chain amino acid supplementation and the immune response of long-distance athletes. *Nutrition.* 2002 May;18(5):376-9.

Baylis A, Cameron-Smith D, Burke LM. Inadvertent doping through supplement use by athletes: assessment and management of the risk in Australia. *Int J Sport Nutr Exerc Metab.* 2001 Sep;11(3):365-83.

Baumann JM, Rundell KW, Evans TM, Levine AM. Effects of cysteine donor supplementation on exercise-induced bronchoconstriction. *Med Sci Sports Exerc.* 2005 Sep;37(9):1468-73.

Bell DG, McLellan TM. Exercise endurance 1, 3, and 6 h after caffeine ingestion in caffeine users and nonusers. *J Appl Physiol.* 2002 Oct;93(4):1227-34.

Bellinger BM, Bold A, Wilson GR, Noakes TD, Myburgh KH. Oral creatine supplementation decreases plasma markers of adenine nucleotide degradation during a 1-h cycle test. *Acta Physiol Scand.* 2000 Nov;170(3):217-24.

Below PR, Mora-Rodriguez R, Gonzalez-Alonso J, Coyle EF. Fluid and carbohydrate ingestion independently improve performance during 1 h of intense exercise. *Med Sci Sports Exerc.* 1995 Feb;27(2):200-10.

Bemben MG, Lamont HS. Creatine supplementation and exercise performance: recent findings. *Sports Med.* 2005;35(2):107-25.

Benton D, Donohoe RT, Sillance B, Nabb S. The influence of phosphatidylserine supplementation on mood and heart rate when faced with an acute stressor. *Nutr Neurosci.* 2001;4(3):169-78.

Berardi JM, Ziegenfuss TN. Effects of ribose supplementation on repeated sprint performance in men. *J Strength Cond Res.* 2003 Feb;17(1):47-52.

Bergstrom J, Hultman E. Muscle glycogen synthesis after exercise: an enhancing factor localized to the muscle cells in man. *Nature.* 1966 Apr 16;210(33):309-10.

Bergstrom J, Hermansen L, Hultman E, Saltin B. Diet, muscle glycogen and physical performance. *Acta Physiol Scand.* 1967 Oct-Nov;71(2):140-50.

Bird SR, Wiles J, Robbins J. The effect of sodium bicarbonate ingestion on 1500-m racing time. *J Sports Sci.* 1995 Oct;13(5):399-403.

Birnbaum LJ, Herbst JD. Physiologic effects of caffeine on cross-country runners. *J Strength Cond Res.* 2004 Aug;18(3):463-5.

Bizzarini E, De Angelis L. Is the use of oral creatine supplementation safe? *J Sports Med Phys Fitness.* 2004 Dec;44(4):411-6.

Bjorkman O, Sahlin K, Hagenfeldt L, Wahren J. Influence of glucose and fructose ingestion on the capacity for long-term exercise in well-trained men. *Clin Physiol.* 1984 Dec;4(6):483-94.

Blomstrand E, Newsholme EA. Effect of branched-chain amino acid supplementation on the exercise-induced change in aromatic amino acid concentration in human muscle. *Acta Physiol Scand.* 1992 Nov;146(3):293-8.

Bogdanis GC, Nevill ME, Boobis LH, Lakomy HK, Nevill AM. Recovery of power output and muscle metabolites following 30 s of maximal sprint cycling in man. *J Physiol.* 1995 Jan 15;482 (Pt 2):467-80.

Borg P. Rasva ja hiilihydraatti ravinnossa - ei liian vähän eikä liikaa. *Urheilijan ravinto* 1/2001.

Bosch AN, Dennis SC, Noakes TD. Influence of carbohydrate ingestion on fuel substrate turnover and oxidation during prolonged exercise. *J Appl Physiol.* 1994 Jun;76(6):2364-72.

Bowtell JL, Bruce M. Glutamine: an anerobic precursor. *Nutrition.* 2002 Mar;18(3):222-4.

Brass EP. Carnitine and sports medicine: use or abuse? *Ann N Y Acad Sci.* 2004 Nov;1033:67-78.

Braun B, Clarkson PM, Freedson PS, Kohl RL. Effects of coenzyme Q10 supplementation on exercise performance, VO<sub>2</sub>max, and lipid peroxidation in trained cyclists. *Int J Sport Nutr.* 1991 Dec;1(4):353-65.

Bremner K, Bubbs WA, Kemp GJ, Trenell MI, Thompson CH. The effect of phosphate loading on erythrocyte 2,3-bisphosphoglycerate levels. *Clin Chim Acta.* 2002 Sep;323(1-2):111-4.

Brinkworth GD, Buckley JD, Bourdon PC, Gulbin JP, David A. Oral bovine colostrum supplementation enhances buffer capacity but not rowing performance in elite female rowers. *Int J Sport Nutr Exerc Metab.* 2002 Sep;12(3):349-65.

Brinkworth GD, Buckley JD. Bovine colostrum supplementation does not affect plasma buffer capacity or haemoglobin content in elite female rowers. *Eur J Appl Physiol.* 2004 Mar;91(2-3):353-6. Epub 2003 Dec 18.

Broad EM, Burke LM, Cox GR, Heeley P, Riley M. Body weight changes and voluntary fluid intakes during training and competition sessions in team sports. *Int J Sport Nutr.* 1996 Sep;6(3):307-20.

Brouns F, Saris WH, Stroecken J, Beckers E, Thijssen R, Rehrer NJ, ten Hoor F. Eating, drinking, and cycling. A controlled Tour de France simulation study, Part II. Effect of diet manipulation. *Int J Sports Med.* 1989 May;10 Suppl 1:S41-8.

Brouns F, Saris W, Schneider H. Rationale for upper limits of electrolyte replacement during exercise. *Int J Sport Nutr.* 1992 Sep;2(3):229-38.

Brown AC, Macrae HS, Turner NS. Tricarboxylic-acid-cycle intermediates and cycle endurance capacity. *Int J Sport Nutr Exerc Metab.* 2004 Dec;14(6):720-9.

Bruce CR, Anderson ME, Fraser SF, Stepto NK, Klein R, Hopkins WG, Hawley JA. Enhancement of 2000-m rowing performance after caffeine ingestion. *Med Sci Sports Exerc.* 2000 Nov;32(11):1958-63.

Bucci LR. Selected herbals and human exercise performance. *Am J Clin Nutr.* 2000 Aug;72(2 Suppl):624S-36S.

Buchman AL, Jenden D, Roch M. Plasma free, phospholipid-bound and urinary free choline all decrease during a marathon run and may be associated with impaired performance. *J Am Coll Nutr.* 1999 Dec;18(6):598-601.

Buckley JD, Abbott MJ, Brinkworth GD, Whyte PB. Bovine colostrum supplementation during endurance running training improves recovery, but not performance. *J Sci Med Sport.* 2002 Jun;5(2):65-79.

Burgess WA, Davis JM, Bartoli WP, Woods JA. Failure of low dose carbohydrate feeding to attenuate glucoregulatory hormone responses and improve endurance performance. *Int J Sport Nutr.* 1991 Dec;1(4):338-52.

Burke LM. Energy needs of athletes. *Can J Appl Physiol.* 2001a;26 Suppl:S202-19.

Burke LM. Nutritional needs for exercise in the heat. *Comp Biochem Physiol A Mol Integr Physiol.* 2001b Apr;128(4):735-48.

Burke LM. Nutrition for recovery after competition and training. Kirjassa: Burke L, Deakin V (toim.). *Clinical Sports Nutrition* 2nd ed. McGraw-Hill, 2002.

Burke LM. Preparation for competition. Kirjassa: Burke L, Deakin V (toim.). *Clinical Sports Nutrition* 2nd ed. McGraw-Hill, 2002.

Burke LM, Hawley JA. Fluid balance in team sports. Guidelines for optimal practices. *Sports Med.* 1997 Jul;24(1):38-54.

Burke LM, Claassen A, Hawley JA, Noakes TD. Carbohydrate intake during prolonged cycling minimizes effect of glycemic index of preexercise meal. *J Appl Physiol.* 1998 Dec;85(6):2220-6.

Burke LM, Hawley JA, Schabert EJ, St Clair Gibson A, Mujika I, Noakes TD. Carbohydrate loading failed to improve 100-km cycling performance in a placebo-controlled trial. *J Appl Physiol*. 2000 Apr;88(4):1284-90.

Burke, L, Desbrow B, Minehan M. Dietary supplements and nutritional ergogenic aids. In: *Clinical Sports Nutrition (2nd ed.)*, edited by L. Burke and V. Deakin. Sydney: McGraw-Hill, 2000b, p. 455-528.

Burke LM, Hawley JA. Effects of short-term fat adaptation on metabolism and performance of prolonged exercise. *Med Sci Sports Exerc*. 2002 Sep;34(9):1492-8.

Burke LM, Hawley JA, Angus DJ, Cox GR, Clark SA, Cummings NK, Desbrow B, Hargreaves M. Adaptations to short-term high-fat diet persist during exercise despite high carbohydrate availability. *Med Sci Sports Exerc*. 2002 Jan;34(1):83-91.

Burke LM, Collier GR, Broad EM, Davis PG, Martin DT, Sanigorski AJ, Hargreaves M. Effect of alcohol intake on muscle glycogen storage after prolonged exercise. *J Appl Physiol*. 2003 Sep;95(3):983-90. Epub 2003 May 9

Burke DG, Chilibeck PD, Parise G, Candow DG, Mahoney D, Tarnopolsky M. Effect of creatine and weight training on muscle creatine and performance in vegetarians. *Med Sci Sports Exerc*. 2003 Nov;35(11):1946-55.

Bussau VA, Fairchild TJ, Rao A, Steele P, Fournier PA. Carbohydrate loading in human muscle: an improved 1 day protocol. *Eur J Appl Physiol*. 2002 Jul;87(3):290-5.

Butterfield GE, Calloway DH. Physical activity improves protein utilization in young men. *Br J Nutr*. 1984 Mar;51(2):171-84.

Cade R, Conte M, Zauner C, Mars D, Peterson J, Lunne D, Hommen N, Packer D. Effects of phosphate loading on 2,3-diphosphoglycerate and maximal oxygen uptake. *Med Sci Sports Exerc*. 1984 Jun;16(3):263-8.

Carey AL, Staudacher HM, Cummings NK, Stepto NK, Nikolopoulos V, Burke LM, Hawley JA. Effects of fat adaptation and carbohydrate restoration on prolonged endurance exercise. *J Appl Physiol*. 2001 Jul;91(1):115-22.

Carter J, Jeukendrup AE, Mundel T, Jones DA. Carbohydrate supplementation improves moderate and high-intensity exercise in the heat. *Pflugers Arch*. 2003 May;446(2):211-9. Epub 2003 Mar 4.

Carraro F, Hartl WH, Stuart CA, Layman DK, Jahoor F, Wolfe RR. Whole body and plasma protein synthesis in exercise and recovery in human subjects. *Am J Physiol*. 1990 May;258(5 Pt 1):E821-31.

Carrio I, Estorch M, Serra-Grima R, Ginjaume M, Notivol R, Calabuig R, Vilardell F. Gastric emptying in marathon runners. *Gut*. 1989 Feb;30(2):152-5.

Ceremuzynski L, Chamiec T, Herbaczynska-Cedro K. Effect of supplemental oral L-arginine on exercise capacity in patients with stable angina pectoris. *Am J Cardiol*. 1997 Aug 1;80(3):331-3.

Chandler RM, Byrne HK, Patterson JG, Ivy JL. Dietary supplements affect the anabolic hormones after weight-training exercise. *J Appl Physiol*. 1994 Feb;76(2):839-45.

Chevront SN, Haymes EM. Ad libitum fluid intakes and thermoregulatory responses of female distance runners in three environments. *J Sports Sci*. 2001 Nov;19(11):845-54.

Chevront SN, Carter R 3rd, Sawka MN. Fluid balance and endurance exercise performance. *Curr Sports Med Rep*. 2003 Aug;2(4):202-8.

Chevront SN, Carter R 3rd, Castellani JW, Sawka MN. Hypohydration impairs endurance exercise performance in temperate but not cold air. *J Appl Physiol*. 2005 Nov;99(5):1972-6.

Chromiak JA, Antonio J. Use of amino acids as growth hormone-releasing agents by athletes. *Nutrition*. 2002 Jul-Aug;18(7-8):657-61

Chwalbinska-Moneta J. Effect of creatine supplementation on aerobic performance and anaerobic capacity in elite rowers in the course of endurance training. *Int J Sport Nutr Exerc Metab*. 2003 Jun;13(2):173-83.

Clapp AJ, Bishop PA, Smith JF, Mansfield ER. Effects of carbohydrate-electrolyte content of beverages on voluntary hydration in a simulated industrial environment. *AIHAJ*. 2000 Sep-Oct;61(5):692-9.

Coggan AR, Coyle EF. Carbohydrate ingestion during prolonged exercise: effects on metabolism and performance. *Exerc Sport Sci Rev*. 1991;19:1-40.

Coggan AR, Swanson SC. Nutritional manipulations before and during endurance exercise: effects on performance. *Med Sci Sports Exerc*. 1992 Sep;24(9 Suppl):S331-5.

Cole KJ, Costill DL, Starling RD, Goodpaster BH, Trappe SW, Fink WJ. Effect of caffeine ingestion on perception of effort and subsequent work production. *Int J Sport Nutr*. 1996 Mar;6(1):14-23.

Coleman E. Update on carbohydrate: solid versus liquid. *Int J Sport Nutr*. 1994 Jun;4(2):80-8.

Collomp K, Ahmaidi S, Chatard JC, Audran M, Prefaut C. Benefits of caffeine ingestion on sprint performance in trained and untrained swimmers. *Eur J Appl Physiol Occup Physiol*. 1992;64(4):377-80.

Colombani P, Wenk C, Kunz I, Krahenbuhl S, Kuhnt M, Arnold M, Frey-Rindova P, Frey W, Langhans W. 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;73(5):434-9.

Colombani PC, Bitzi R, Frey-Rindova P, Frey W, Arnold M, Langhans W, Wenk C. Chronic arginine aspartate supplementation in runners reduces total plasma amino acid level at rest and during a marathon run. *Eur J Nutr*. 1999 Dec;38(6):263-70.

Colson SN, Wyatt FB, Johnston DL, Autrey LD, FitzGerald YL, Earnest CP. Cordyceps sinensis- and Rhodiola rosea-based supplementation in male cyclists and its effect on muscle tissue oxygen saturation. *J Strength Cond Res*. 2005 May;19(2):358-63.

Conlay LA, Sabounjian LA, Wurtman RJ. Exercise and neuromodulators: choline and acetylcholine in marathon runners. *Int J Sports Med*. 1992 Oct;13 Suppl 1:S141-2.

Convertino VA, Armstrong LE, Coyle EF, Mack GW, Sawka MN, Senay LC Jr, Sherman WM. American College of Sports Medicine position stand. Exercise and fluid replacement. *Med Sci Sports Exerc*. 1996 Jan;28(1):i-vii.

Coombes JS, Hamilton KL. The effectiveness of commercially available sports drinks. *Sports Med*. 2000 Mar;29(3):181-209.

Coombes JS, Conacher M, Austen SK, Marshall PA. Dose effects of oral bovine colostrum on physical work capacity in cyclists. *Med Sci Sports Exerc*. 2002 Jul;34(7):1184-8.

Costill DL, Coyle E, Dalsky G, Evans W, Fink W, Hoopes D. Effects of elevated plasma FFA and insulin on muscle glycogen usage during exercise. *J Appl Physiol*. 1977 Oct;43(4):695-9.

Costill DL, Miller JM. Nutrition for endurance sport: CHO and fluid balance. *Int J Sports Med* 1980;1:2-14.

Cottrell GT, Coast JR, Herb RA. Effect of recovery interval on multiple-bout sprint cycling performance after acute creatine supplementation. *J Strength Cond Res*. 2002 Feb;16(1):109-16.

Coutts A, Reaburn P, Mummery K, Holmes M. The effect of glycerol hyperhydration on olympic distance triathlon performance in high ambient temperatures. *Int J Sport Nutr Exerc Metab*. 2002 Mar;12(1):105-19.

Coyle EF, Coggan AR, Hemmert MK, Ivy JL. Muscle glycogen utilization during prolonged strenuous exercise when fed carbohydrate. *J Appl Physiol*. 1986 Jul;61(1):165-72.

Coyle EF. *Fuels for Sport Performance*. Kirjassa: *Perspectives in Exercise and Sports Medicine: Optimizing Sport Performance*. Lamb DR, Murray R. (toim.). Cooper Publishing Group, Carmel, IN, 1997.

Coyle EF. *Fuels for Sport Performance*. Kirjassa: *Perspectives in Exercise and Sports Medicine: Optimizing Sport Performance*. Lamb DR, Murray (toim.) Cooper Publishing Group, Carmel, IN, USA, 1999.

Coyle EF, Montain SJ. Benefits of fluid replacement with carbohydrate during exercise. *Med Sci Sports Exerc.* 1992 Sep;24(9 Suppl):S324-30.

Coyle EF, Jeukendrup AE, Wagenmakers AJ, Saris WH. Fatty acid oxidation is directly regulated by carbohydrate metabolism during exercise. *Am J Physiol.* 1997 Aug;273(2 Pt 1):E268-75.

Cox GR, Broad EM, Riley MD, Burke LM. Body mass changes and voluntary fluid intakes of elite level water polo players and swimmers. *J Sci Med Sport.* 2002a Sep;5(3):183-93.

Cox GR, Desbrow B, Montgomery PG, Anderson ME, Bruce CR, Macrides TA, Martin DT, Moquin A ym. Effect of different protocols of caffeine intake on metabolism and endurance performance. *J Appl Physiol.* 2002b Sep;93(3):990-9.

Cox G, Mujika I, Tumilty D, Burke L. Acute creatine supplementation and performance during a field test simulating match play in elite female soccer players. *Int J Sport Nutr Exerc Metab.* 2002 Mar;12(1):33-46.

Darbinyan V, Kteyan A, Panossian A, Gabrielian E, Wikman G, Wagner H. *Rhodiola rosea* in stress induced fatigue--a double blind cross-over study of a standardized extract SHR-5 with a repeated low-dose regimen on the mental performance of healthy physicians during night duty. *Phytomedicine.* 2000 Oct;7(5):365-71.

Davis JM, Jackson DA, Broadwell MS, Queary JL, Lambert CL. Carbohydrate drinks delay fatigue during intermittent, high-intensity cycling in active men and women. *Int J Sport Nutr.* 1997 Dec;7(4):261-73.

De Bock K, Eijnde BO, Ramaekers M, Hespel P. Acute *Rhodiola rosea* intake can improve endurance exercise performance. *Int J Sport Nutr Exerc Metab.* 2004 Jun;14(3):298-307.

Decombaz J, Reinhardt P, Anantharaman K, von Glutz G, Poortmans JR. Biochemical changes in a 100 km run: free amino acids, urea, and creatinine. *Eur J Appl Physiol Occup Physiol.* 1979 Apr 12;41(1):61-72.

Decombaz J, Gmuender B, Sierro G, Cerretelli P. Muscle carnitine after strenuous endurance exercise. *J Appl Physiol.* 1992 Feb;72(2):423-7.

Decombaz J, Deriaz O, Acheson K, Gmuender B, Jequier E. Effect of L-carnitine on submaximal exercise metabolism after depletion of muscle glycogen. *Med Sci Sports Exerc.* 1993 Jun;25(6):733-40.

Decombaz J, Fleith M, Hoppeler H, Kreis R, Boesch C. Effect of diet on the replenishment of intramyocellular lipids after exercise. *Eur J Nutr.* 2000 Dec;39(6):244-7.

DeMarco HM, Sucher KP, Cisar CJ, Butterfield GE. Pre-exercise carbohydrate meals: application of glycemic index. *Med Sci Sports Exerc.* 1999 Jan;31(1):164-70.

Denadai BS, Denadai ML. Effects of caffeine on time to exhaustion in exercise performed below and above the anaerobic threshold. *Braz J Med Biol Res.* 1998 Apr;31(4):581-5.

Denis C, Dormois D, Linossier MT, Eychenne JL, Hauseux P, Lacour JR. Effect of arginine aspartate on the exercise-induced hyperammonemia in humans: a two periods cross-over trial. *Arch Int Physiol Biochim Biophys.* 1991 Feb;99(1):123-7.

Deuster PA, Singh A, Coll R, Hyde DE, Becker WJ. Choline ingestion does not modify physical or cognitive performance. *Mil Med.* 2002 Dec;167(12):1020-5.

Devlin LH, Fraser SF, Barras NS, Hawley JA. Moderate levels of hypohydration impairs bowling accuracy but not bowling velocity in skilled cricket players. *J Sci Med Sport.* 2001 Jun;4(2):179-87.

Dodd SL, Johnson CA, Fernholz K, St Cyr JA. The role of ribose in human skeletal muscle metabolism. *Med Hypotheses.* 2004;62(5):819-24.

Doherty M, Smith PM, Davison RC, Hughes MG. Caffeine is ergogenic after supplementation of oral creatine monohydrate. *Med Sci Sports Exerc.* 2002 Nov;34(11):1785-92.

Doherty M, Smith P, Hughes M, Davison R. 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.

Dohm GL, Kasperek GJ, Tapscott EB, Barakat HA. Protein metabolism during endurance exercise. *Fed Proc.* 1985 Feb;44(2):348-52.

Dunne L, Worley S, Macknin M. Ribose Versus Dextrose Supplementation, Association With Rowing Performance: A Double-Blind Study. *Clin J Sport Med.* 2006 Jan;16(1):68-71.

Earnest CP, Almada AL, Mitchell TL. Effects of creatine monohydrate ingestion upon intermediate length anaerobic treadmill running to exhaustion. *J Strength Cond Res* 1997;4:234-238.

Earnest CP, Morss GM, Wyatt F, Jordan AN, Colson S, Church TS, Fitzgerald Y, Autrey L, Jurca R ym. Effects of a commercial herbal-based formula on exercise performance in cyclists. *Med Sci Sports Exerc.* 2004 Mar;36(3):504-9.

Economos CD, Bortz SS, Nelson ME. Nutritional practices of elite athletes. Practical recommendations. *Sports Med.* 1993 Dec;16(6):381-99.

el-Khoury AE, Forslund A, Olsson R, Branth S, Sjodin A, Andersson A, Atkinson A, Selvaraj A ym. Moderate exercise at energy balance does not affect 24-h leucine oxidation or nitrogen retention in healthy men. *Am J Physiol.* 1997 Aug;273(2 Pt 1):E394-407.

Engelhardt M, Neumann G, Berbalk A, Reuter I. Creatine supplementation in endurance sports. *Med Sci Sports Exerc.* 1998 Jul;30(7):1123-9.

Engels HJ, Fahlman MM, Wirth JC. Effects of ginseng on secretory IgA, performance, and recovery from interval exercise. *Med Sci Sports Exerc.* 2003 Apr;35(4):690-6.

Enkovaara A-L. Ginseng - kiinalainen rohdos Euroopassa. *Suomen Lääkärilehti* 27-29/2002 vsk 57.

Eto B, Peres G, Le Moel G. Effects of an ingested glutamate arginine salt on ammonemia during and after long lasting cycling. *Arch Int Physiol Biochim Biophys.* 1994 May-Jun;102(3):161-2.

Fairchild TJ, Fletcher S, Steele P, Goodman C, Dawson B, Fournier PA. Rapid carbohydrate loading after a short bout of near maximal-intensity exercise. *Med Sci Sports Exerc.* 2002 Jun;34(6):980-6.

Febbraio MA, Chiu A, Angus DJ, Arkinstall MJ, Hawley JA. Effects of carbohydrate ingestion before and during exercise on glucose kinetics and performance. *J Appl Physiol.* 2000 Dec;89(6):2220-6.

Flakoll PJ, Judy T, Flinn K, Carr C, Flinn S. Postexercise protein supplementation improves health and muscle soreness during basic military training in Marine recruits. *J Appl Physiol.* 2004 Mar;96(3):951-6.

Fogelholm M, Tikkanen H, Naveri H, Harkonen M. High-carbohydrate diet for long distance runners--a practical view-point. *Br J Sports Med.* 1989 Jun;23(2):94-6.

Fordtran JS. Stimulation of active and passive sodium absorption by sugars in the human jejunum. *J Clin Invest.* 1975 Apr;55(4):728-37.

Foster C, Costill DL, Fink WJ. Effects of preexercise feedings on endurance performance. *Med Sci Sports.* 1979 Spring;11(1):1-5.

Friedlander AL, Braun B, Pollack M, MacDonald JR, Fulco CS, Muza SR, Rock PB ym. Three weeks of caloric restriction alters protein metabolism in normal-weight, young men. *Am J Physiol Endocrinol Metab.* 2005 Sep;289(3):E446-55.

Fudge BW, Westerterp KR, Kiplamai FK, Onywera VO, Boit MK, Kayser B, Pitsiladis YP. Evidence of negative energy balance using doubly labelled water in elite Kenyan endurance runners prior to competition. *Br J Nutr.* 2006 Jan;95(1):59-66.

Gardner JW. Death by water intoxication. *Mil Med.* 2002 May;167(5):432-4.

Giamberardino MA, Dragani L, Valente R, Di Lisa F, Saggini R, Vecchiet L. Effects of prolonged L-carnitine administration on delayed muscle pain and CK release after eccentric effort. *Int J Sports Med.* 1996 Jul;17(5):320-4.

Gillette CA, Bullough RC, Melby CL. Postexercise energy expenditure in response to acute aerobic or resistive exercise. *Int J Sport Nutr.* 1994 Dec;4(4):347-60.

Gisolfi CV, Spranger KJ, Summers RW, Schedl HP, Bleiler TL. Effects of cycle exercise on intestinal absorption in humans. *J Appl Physiol.* 1991 Dec;71(6):2518-27.

Gisolfi CV, Summers RW, Schedl HP, Bleiler TL. Intestinal water absorption from select carbohydrate solutions in humans. *J Appl Physiol.* 1992 Nov;73(5):2142-50.

Glace BW, Murphy CA, McHugh MP. Food intake and electrolyte status of ultramarathoners competing in extreme heat. *J Am Coll Nutr.* 2002a Dec;21(6):553-9.

Glace B, Murphy C, McHugh M. Food and fluid intake and disturbances in gastrointestinal and mental function during an ultramarathon. *Int J Sport Nutr Exerc Metab.* 2002b Dec;12(4):414-27.

Glazer JL. Management of heatstroke and heat exhaustion. *Am Fam Physician.* 2005 Jun 1;71(11):2133-40.

Gleeson M, Nieman DC, Pedersen BK. Exercise, nutrition and immune function. *J Sports Sci.* 2004 Jan;22(1):115-25.

Gleeson M. Interrelationship between physical activity and branched-chain amino acids. *J Nutr.* 2005 Jun;135(6 Suppl):1591S-5S.

Godek SF, Godek JJ, Bartolozzi AR. Hydration status in college football players during consecutive days of twice-a-day preseason practices. *Am J Sports Med.* 2005 Jun;33(6):843-51.

Goedecke JH, Christie C, Wilson G, Dennis SC, Noakes TD, Hopkins WG, Lambert EV. Metabolic adaptations to a high-fat diet in endurance cyclists. *Metabolism.* 1999 Dec;48(12):1509-17.

Goedecke JH, Clark VR, Noakes TD, Lambert EV. The effects of medium-chain triacylglycerol and carbohydrate ingestion on ultra-endurance exercise performance. *Int J Sport Nutr Exerc Metab.* 2005 Feb;15(1):15-27.

Goforth HW Jr, Arnall DA, Bennett BL, Law PG. Persistence of supercompensated muscle glycogen in trained subjects after carbohydrate loading. *J Appl Physiol.* 1997 Jan;82(1):342-7.

Goldfinch J, Mc Naughton L, Davies P. Induced metabolic alkalosis and its effects on 400-m racing time. *Eur J Appl Physiol Occup Physiol.* 1988;57(1):45-8.

Gontzea I, Sutzescu P, Dumitrache S. The influence of adaptation to physical effort on nitrogen balance in man. *Nutr Reports Int* 1975;22:231-6.

Gonzalez-Alonso J, Heaps CL, Coyle EF. Rehydration after exercise with common beverages and water. *Int J Sports Med.* 1992 Jul;13(5):399-406.

Gonzalez-Alonso J, Calbet JA, Nielsen B. Muscle blood flow is reduced with dehydration during prolonged exercise in humans. *J Physiol.* 1998 Dec 15;513 ( Pt 3):895-905.

Graham TE, Spriet LL. Performance and metabolic responses to a high caffeine dose during prolonged exercise. *J Appl Physiol.* 1991 Dec;71(6):2292-8.

Graham TE, Hibbert E, Sathasivam P. Metabolic and exercise endurance effects of coffee and caffeine ingestion. *J Appl Physiol.* 1998 Sep;85(3):883-9.

Green AL, Hultman E, Macdonald IA, Sewell DA, Greenhaff PL. Carbohydrate ingestion augments skeletal muscle creatine accumulation during creatine supplementation in humans. *Am J Physiol.* 1996 Nov;271(5 Pt 1):E821-6.

Greenhaff PL, Bodin K, Soderlund K, Hultman E. Effect of oral creatine supplementation on skeletal muscle phosphocreatine resynthesis. *Am J Physiol.* 1994 May;266(5 Pt 1):E725-30.

Greenleaf JE. Problem: thirst, drinking behavior, and involuntary dehydration. *Med Sci Sports Exerc.* 1992 Jun;24(6):645-56.

Guezennec CY, Satabin P, Duforez F, Koziat J, Antoine JM. The role of type and structure of complex carbohydrates response to physical exercise. *Int J Sports Med.* 1993 May;14(4):224-31.

Halson SL, Jeukendrup AE. Does overtraining exist? An analysis of overreaching and overtraining research. *Sports Med.* 2004;34(14):967-81.

Haralambie G, Berg A. Serum urea and amino nitrogen changes with exercise duration. *Eur J Appl Physiol Occup Physiol.* 1976 Dec 6;36(1):39-48.

Hargreaves M, Costill DL, Coggan A, Fink WJ, Nishibata I. Effect of carbohydrate feedings on muscle glycogen utilization and exercise performance. *Med Sci Sports Exerc.* 1984 Jun;16(3):219-22.

Hargreaves M, Costill DL, Katz A, Fink WJ. Effect of fructose ingestion on muscle glycogen usage during exercise. *Med Sci Sports Exerc.* 1985 Jun;17(3):360-3.

Hargreaves M, Hawley JA, Jeukendrup A. Pre-exercise carbohydrate and fat ingestion: effects on metabolism and performance. *J Sports Sci.* 2004 Jan;22(1):31-8.

Harris RC, Soderlund K, Hultman E. Elevation of creatine in resting and exercised muscle of normal subjects by creatine supplementation. *Clin Sci (Lond).* 1992 Sep;83(3):367-74.

Havemann L, West SJ, Goedecke JH, Macdonald IA, St Clair Gibson A, Noakes TD, Lambert EV. Fat adaptation followed by carbohydrate-loading compromises high intensity sprint performance. *J Appl Physiol.* 2005 Sep 1;

Hawley J. Nutritional strategies to enhance fat oxidation during aerobic exercise. *Kirjassa: Clinical Sports Nutrition 2nd ed.* Burke L, Deakin V (toim.). McGraw-Hill, 2002.

Hawley JA, Dennis SC, Noakes TD. Carbohydrate, fluid, and electrolyte requirements of the soccer player: a review. *Int J Sport Nutr.* 1994 Sep;4(3):221-36.

Hawley JA, Dennis SC, Lindsay FH, Noakes TD. Nutritional practices of athletes: are they sub-optimal? *J Sports Sci.* 1995 Summer;13 Spec No:S75-81.

Hawley JA, Burke LM. Effect of meal frequency and timing on physical performance. *Br J Nutr.* 1997 Apr;77 Suppl 1:S91-103.

Hawley JA, Schabert EJ, Noakes TD, Dennis SC. Carbohydrate-loading and exercise performance. An update. *Sports Med.* 1997 Aug;24(2):73-81.

Hawley JA, Burke LM, Angus DJ, Fallon KE, Martin DT, Febbraio MA. Effect of altering substrate availability on metabolism and performance during intense exercise. *Br J Nutr.* 2000 Dec;84(6):829-38.

Heald AH, Cade JE, Cruickshank JK, Anderson S, White A, Gibson JM. The influence of dietary intake on the insulin-like growth factor (IGF) system across three ethnic groups: a population-based study. *Public Health Nutr.* 2003 Apr;6(2):175-80.

Heinonen OJ. Carnitine and physical exercise. *Sports Med.* 1996 Aug;22(2):109-32.

Hellsten Y, Skadhauge L, Bangsbo J. 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.

Hespeel P, Op't Eijnde B, Van Leemputte M. Opposite actions of caffeine and creatine on muscle relaxation time in humans. *J Appl Physiol.* 2002 Feb;92(2):513-8.

Helge JW. Adaptation to a fat-rich diet: effects on endurance performance in humans. *Sports Med.* 2000 Nov;30(5):347-57.

Hespeel P, Op't Eijnde B, Van Leemputte M. Opposite actions of caffeine and creatine on muscle relaxation time in humans. *J Appl Physiol.* 2002 Feb;92(2):513-8.

Hew TD, Chorley JN, Cianca JC, Divine JG. The incidence, risk factors, and clinical manifestations of hyponatremia in marathon runners. *Clin J Sport Med.* 2003 Jan;13(1):41-7.



Hew TD. Women hydrate more than men during a marathon race: hyponatremia in the Houston marathon: a report on 60 cases. *Clin J Sport Med*. 2005 May;15(3):148-53.

Hirvonen J, Rehunen S, Rusko H, Harkonen M. Breakdown of high-energy phosphate compounds and lactate accumulation during short supramaximal exercise. *Eur J Appl Physiol Occup Physiol*. 1987;56(3):253-9.

Hirvonen J, Nummela A, Rusko H, Rehunen S, Harkonen M. Fatigue and changes of ATP, creatine phosphate, and lactate during the 400-m sprint. *Can J Sport Sci*. 1992 Jun;17(2):141-4.

Hiscock N, Pedersen BK. Exercise-induced immunodepression- plasma glutamine is not the link. *J Appl Physiol*. 2002 Sep;93(3):813-22.

Hitchins S, Martin DT, Burke L, Yates K, Fallon K, Hahn A, Dobson GP. Glycerol hyperhydration improves cycle time trial performance in hot humid conditions. *Eur J Appl Physiol Occup Physiol*. 1999 Oct;80(5):494-501.

Hofman Z, Smeets R, Verlaan G, Lugt R, Verstappen PA. The effect of bovine colostrum supplementation on exercise performance in elite field hockey players. *Int J Sport Nutr Exerc Metab*. 2002 Dec;12(4):461-9.

Hooker S, Morgan C, Wells C. Effect of sodium bicarbonate ingestion on time to exhaustion and blood lactate of 10 km runners. *Med Sci Sports Exerc* 1987;19:S67.

Houmard JA, Egan PC, Johns RA, Neuffer PD, Chenier TC, Israel RG. Gastric emptying during 1 h of cycling and running at 75% VO<sub>2</sub>max. *Med Sci Sports Exerc*. 1991 Mar;23(3):320-5.

Hsu CC, Ho MC, Lin LC, Su B, Hsu MC. American ginseng supplementation attenuates creatine kinase level induced by submaximal exercise in human beings. *World J Gastroenterol*. 2005 Sep 14;11(34):5327-31.

Huertas R, Campos Y, Diaz E, Esteban J, Vechietti L, Montanari G, D'Iddio S, Corsi M, Arenas J. Respiratory chain enzymes in muscle of endurance athletes: effect of L-carnitine. *Biochem Biophys Res Commun*. 1992 Oct 15;188(1):102-7.

Huffman DM, Altena TS, Mawhinney TP, Thomas TR. Effect of n-3 fatty acids on free tryptophan and exercise fatigue. *Eur J Appl Physiol*. 2004 Aug;92(4-5):584-91.

Hunt JN, Smith JL, Jiang CL. Effect of meal volume and energy density on the gastric emptying of carbohydrates. *Gastroenterology*. 1985 Dec;89(6):1326-30.

Ibanez J, Pullinen T, Gorostiaga E, Postigo A, Mero A. Blood lactate and ammonia in short-term anaerobic work following induced alkalosis. *J Sports Med Phys Fitness*. 1995 Sep;35(3):187-93.

Inder WJ, Swanney MP, Donald RA, Prickett TC, Hellemans J. The effect of glycerol and desmopressin on exercise performance and hydration in triathletes. *Med Sci Sports Exerc*. 1998 Aug;30(8):1263-9.

Ivy JL. Glycogen resynthesis after exercise: effect of carbohydrate intake. *Int J Sports Med*. 1998a Jun;19 Suppl 2:S142-5.

Ivy JL. Effect of pyruvate and dihydroxyacetone on metabolism and aerobic endurance capacity. *Med Sci Sports Exerc*. 1998b Jun;30(6):837-43.

Ivy JL. Dietary strategies to promote glycogen synthesis after exercise. *Can J Appl Physiol*. 2001;26 Suppl:S236-45.

Ivy JL, Goforth HW Jr, Damon BM, McCauley TR, Parsons EC, Price TB. Early postexercise muscle glycogen recovery is enhanced with a carbohydrate-protein supplement. *J Appl Physiol*. 2002 Oct;93(4):1337-44.

Ivy JL, Res PT, Sprague RC, Widzer MO. Effect of a carbohydrate-protein supplement on endurance performance during exercise of varying intensity. *Int J Sport Nutr Exerc Metab*. 2003 Sep;13(3):382-95.

Izquierdo M, Ibanez J, Gonzalez-Badillo JJ, Gorostiaga EM. Effects of creatine supplementation on muscle power, endurance, and sprint performance. *Med Sci Sports Exerc*. 2002 Feb;34(2):332-43.

James AP, Lorraine M, Cullen D, Goodman C, Dawson B, Palmer TN, Fournier PA. Muscle glycogen supercompensation: absence of a gender-related difference. *Eur J Appl Physiol*. 2001 Oct;85(6):533-8.

Jentjens R, Jeukendrup A. Determinants of post-exercise glycogen synthesis during short-term recovery. *Sports Med.* 2003;33(2):117-44.

Jentjens RL, Achten J, Jeukendrup AE. High oxidation rates from combined carbohydrates ingested during exercise. *Med Sci Sports Exerc.* 2004 Sep;36(9):1551-8.

Jeukendrup A, Brouns F, Wagenmakers AJ, Saris WH. Carbohydrate-electrolyte feedings improve 1 h time trial cycling performance. *Int J Sports Med.* 1997 Feb;18(2):125-9.

Jeukendrup AE, Jentjens R. Oxidation of carbohydrate feedings during prolonged exercise: current thoughts, guidelines and directions for future research. *Sports Med.* 2000 Jun;29(6):407-24.

Jeukendrup AE, Aldred S. Fat supplementation, health, and endurance performance. *Nutrition.* 2004 Jul-Aug;20(7-8):678-88.

Jeukendrup AE, Jentjens RL, Moseley L. Nutritional considerations in triathlon. *Sports Med.* 2005;35(2):163-81.

Jones AM, Atter T, Georg KP. Oral creatine supplementation improves multiple sprint performance in elite ice-hockey players. *J Sports Med Phys Fitness.* 1999 Sep;39(3):189-96.

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 Jun;36(6):983-90.

Kaklamani VG, Linos A, Kaklamani E, Markaki I, Koumantaki Y, Mantzoros CS. Dietary fat and carbohydrates are independently associated with circulating insulin-like growth factor 1 and insulin-like growth factor-binding protein 3 concentrations in healthy adults. *J Clin Oncol.* 1999 Oct;17(10):3291-8.

Kalmar JM, Cafarelli E. Caffeine: a valuable tool to study central fatigue in humans? *Exerc Sport Sci Rev.* 2004 Oct;32(4):143-7.

Karlsson J, Saltin B. Diet, muscle glycogen, and endurance performance. *J Appl Physiol.* 1971 Aug;31(2):203-6.

Kay D, Marino FE. Fluid ingestion and exercise hyperthermia: implications for performance, thermoregulation, metabolism and the development of fatigue. *J Sports Sci.* 2000 Feb;18(2):71-82.

Kenefick RW, Hazzard MP, Mahood NV, Castellani JW. Thirst sensations and AVP responses at rest and during exercise-cold exposure. *Med Sci Sports Exerc.* 2004 Sep;36(9):1528-34.

Kiens B. Diet and training in the week before competition. *Can J Appl Physiol.* 2001;26 Suppl:S56-63.

Kilduff LP, Georgiades E, James N, Minnion RH, Mitchell M, Kingsmore D, Hadjicharlambo M ym. The effects of creatine supplementation on cardiovascular, metabolic, and thermoregulatory responses during exercise in the heat in endurance-trained humans. *Int J Sport Nutr Exerc Metab.* 2004 Aug;14(4):443-60.

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;37(8):1300-6.

Kirwan JP, O'Gorman DJ, Cyr-Campbell D, Campbell WW, Yarasheski KE, Evans WJ. Effects of a moderate glycemic meal on exercise duration and substrate utilization. *Med Sci Sports Exerc.* 2001 Sep;33(9):1517-23.

Knitter AE, Pantou L, Rathmacher JA, Petersen A, Sharp R. Effects of beta-hydroxy-beta-methylbutyrate on muscle damage after a prolonged run. *J Appl Physiol.* 2000 Oct;89(4):1340-4.

Koh-Banerjee PK, Ferreira MP, Greenwood M, Bowden RG, Cowan PN, Almada AL, Kreider RB. Effects of calcium pyruvate supplementation during training on body composition, exercise capacity, and metabolic responses to exercise. *Nutrition.* 2005 Mar;21(3):312-9.

Kovacs EM, Stegen JHCH, Brouns F. Effect of caffeinated drinks on substrate metabolism, caffeine excretion, and performance. *J Appl Physiol*. 1998 Aug;85(2):709-15.

Kovacs EM, Schmahl RM, Senden JM, Brouns F. Effect of high and low rates of fluid intake on post-exercise rehydration. *Int J Sport Nutr Exerc Metab*. 2002 Mar;12(1):14-23.

Koivisto VA, Karonen SL, Nikkila EA. Carbohydrate ingestion before exercise: comparison of glucose, fructose, and sweet placebo. *J Appl Physiol*. 1981 Oct;51(4):783-7.

Konig D, Berg A, Weinstock C, Keul J, Northoff H. Essential fatty acids, immune function, and exercise. *Exerc Immunol Rev*. 1997;3:1-31.

Koopman R, Pannemans DL, Jeukendrup AE, Gijsen AP, Senden JM, Halliday D, Saris WH ym. Combined ingestion of protein and carbohydrate improves protein balance during ultra-endurance exercise. *Am J Physiol Endocrinol Metab*. 2004 Oct;287(4):E712-20.

Kratz A, Siegel AJ, Verbalis JG, Adner MM, Shirey T, Lee-Lewandrowski E, Lewandrowski KB. Sodium status of collapsed marathon runners. *Arch Pathol Lab Med*. 2005 Feb;129(2):227-30.

Kreider RB, Miller GW, Williams MH, Somma CT, Nasser TA. Effects of phosphate loading on oxygen uptake, ventilatory anaerobic threshold, and run performance. *Med Sci Sports Exerc*. 1990 Apr;22(2):250-6.

Kreider RB, Miller GW, Schenck D, Cortes CW, Miriel V, Somma CT, Rowland P, Turner C, Hill D. Effects of phosphate loading on metabolic and myocardial responses to maximal and endurance exercise. *Int J Sport Nutr*. 1992 Mar;2(1):20-47.

Kreider RB. Effects of creatine supplementation on performance and training adaptations. *Mol Cell Biochem*. 2003 Feb;244(1-2):89-94.

Kreider RB, Melton C, Greenwood M, Rasmussen C, Lundberg J, Earnest C, Almada A. 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.

Kuipers H, van Breda E, Verlaan G, Smeets R. Effects of oral bovine colostrum supplementation on serum insulin-like growth factor-I levels. *Nutrition*. 2002 Jul-Aug;18(7-8):566-7.

Lamb DR, Brodowicz GR. Optimal use of fluids of varying formulations to minimise exercise-induced disturbances in homeostasis. *Sports Med*. 1986 Jul-Aug;3(4):247-74.

Lambert EV, Goedecke JH, Zyle C, Murphy K, Hawley JA, Dennis SC, Noakes TD. High-fat diet versus habitual diet prior to carbohydrate loading: effects of exercise metabolism and cycling performance. *Int J Sport Nutr Exerc Metab*. 2001 Jun;11(2):209-25.

Lambert EV, Goedecke JH. The role of dietary macronutrients in optimizing endurance performance. *Curr Sports Med Rep*. 2003 Aug;2(4):194-201.

Lands LC, Grey VL, Smountas AA. Effect of supplementation with a cysteine donor on muscular performance. *J Appl Physiol*. 1999 Oct;87(4):1381-5.

Latzka WA, Sawka MN. Hyperhydration and glycerol: thermoregulatory effects during exercise in hot climates. *Can J Appl Physiol*. 2000 Dec;25(6):536-45.

Laurent D, Schneider KE, Prusaczyk WK, Franklin C, Vogel SM, Krssak M, Petersen KF, Goforth HW ym. Effects of caffeine on muscle glycogen utilization and the neuroendocrine axis during exercise. *J Clin Endocrinol Metab*. 2000 Jun;85(6):2170-5.

Leiper JB. Gastric Emptying and Intestinal Absorption of Fluids, Carbohydrates and Electrolytes. Kirjassa: Maughan RJ, Murray R (toim.). *Sports Drinks - Basic Science and Practical Aspects*. CRC Press. Boca Raton, USA, 2001.

Leiper JB, Nicholas CW, Ali A, Williams C, Maughan RJ. The effect of intermittent high-intensity running on gastric emptying of fluids in man. *Med Sci Sports Exerc*. 2005 Feb;37(2):240-7.

Lemon PW, Nagel F. Effects of exercise on protein and amino acid metabolism. *Med Sci Sports Exerc* 1981;13:141.

Lenn J, Uhl T, Mattacola C, Boissonneault G, Yates J, Ibrahim W, Bruckner G. The effects of fish oil and isoflavones on delayed onset muscle soreness. *Med Sci Sports Exerc*. 2002 Oct;34(10):1605-13.

Levine L, Rose MS, Francesconi P, Neuffer PD, Sawka MN. Fluid replacement during sustained activity in the heat: nutrient solution vs. water. *Aviat Space Environ Med*. 1991 Jun;62(6):559-64.

Levitan MD, Murphy JT, Sherwood WG, Deck J, Sawa GM. Adult onset systemic carnitine deficiency: favorable response to L-carnitine supplementation. *Can J Neurol Sci*. 1987 Feb;14(1):50-4.

Liang MT, Podolka TD, Chuang WJ. Panax notoginseng supplementation enhances physical performance during endurance exercise. *J Strength Cond Res*. 2005 Feb;19(1):108-14.

Linderman J, Fahey TD. Sodium bicarbonate ingestion and exercise performance. An update. *Sports Med*. 1991 Feb;11(2):71-7.

Linderman JK, Gosselink KL. The effects of sodium bicarbonate ingestion on exercise performance. *Sports Med*. 1994 Aug;18(2):75-80

Loucks AB. Energy balance and body composition in sports and exercise. *J Sports Sci*. 2004 Jan;22(1):1-14.

Lukaski HC, Bolonchuk WW, Klevay LM, Milne DB, Sandstead HH. Interactions among dietary fat, mineral status, and performance of endurance athletes: a case study. *Int J Sport Nutr Exerc Metab*. 2001 Jun;11(2):186-98.

MacDougall JD, Ward GR, Sale DG, Sutton JR. Biochemical adaptation of human skeletal muscle to heavy resistance training and immobilization. *J Appl Physiol*. 1977 Oct;43(4):700-3.

MacIntosh BR, Wright BM. Caffeine ingestion and performance of a 1,500-metre swim. *Can J Appl Physiol*. 1995 Jun;20(2):168-77.

Madsen K, MacLean DA, Kiens B, Christensen D. Effects of glucose, glucose plus branched-chain amino acids, or placebo on bike performance over 100 km. *J Appl Physiol*. 1996 Dec;81(6):2644-50.

Maffucci DM, McMurray RG. Towards optimizing the timing of the pre-exercise meal. *Int J Sport Nutr Exerc Metab*. 2000 Jun;10(2):103-13.

Magal M, Webster MJ, Sistrunk LE, Whitehead MT, Evans RK, Boyd JC. Comparison of glycerol and water hydration regimens on tennis-related performance. *Med Sci Sports Exerc*. 2003 Jan;35(1):150-6.

Malm C, Svensson M, Sjoberg B, Ekblom B, Sjodin B. Supplementation with ubiquinone-10 causes cellular damage during intense exercise. *Acta Physiol Scand*. 1996 Aug;157(4):511-2.

Malm C, Svensson M, Ekblom B, Sjodin B. Effects of ubiquinone-10 supplementation and high intensity training on physical performance in humans. *Acta Physiol Scand*. 1997 Nov;161(3):379-84.

Marconi C, Sassi G, Carpinelli A, Cerretelli P. Effects of L-carnitine loading on the aerobic and anaerobic performance of endurance athletes. *Eur J Appl Physiol Occup Physiol*. 1985;54(2):131-5.

Maresh CM, Gabaree-Boulant CL, Armstrong LE, Judelson DA, Hoffman JR, Castellani JW, ym. Effect of hydration status on thirst, drinking, and related hormonal responses during low-intensity exercise in the heat. *J Appl Physiol*. 2004 Jul;97(1):39-44. Epub 2004 Feb 27.

Marino FE, Kay D, Cannon J. Glycerol hyperhydration fails to improve endurance performance and thermoregulation in humans in a warm humid environment. *Pflugers Arch*. 2003 Jul;446(4):455-62.

Martin WH 3rd, Dalsky GP, Hurley BF, Matthews DE, Bier DM, Hagberg JM, Rogers MA, King DS ym. Effect of endurance training on plasma free fatty acid turnover and oxidation during exercise. *Am J Physiol*. 1993 Nov;265(5 Pt 1):E708-14.

Matson LG, Tran ZV. Effects of sodium bicarbonate ingestion on anaerobic performance: a meta-analytic review. *Int J Sport Nutr*. 1993 Mar;3(1):2-28.

Maughan RJ. Creatine supplementation and exercise performance. *Int J Sport Nutr.* 1995 Jun;5(2):94-101.

Maughan RJ, Sadler DJ. The effects of oral administration of salts of aspartic acid on the metabolic response to prolonged exhausting exercise in man. *Int J Sports Med.* 1983 May;4(2):119-23.

Maughan RJ, Leiper JB. Sodium intake and post-exercise rehydration in man. *Eur J Appl Physiol Occup Physiol.* 1995;71(4):311-9.

Maughan RJ, Bethell LR, Leiper JB. Effects of ingested fluids on exercise capacity and on cardiovascular and metabolic responses to prolonged exercise in man. *Exp Physiol.* 1996a Sep;81(5):847-59.

Maughan RJ, Leiper JB, Shirreffs SM. Restoration of fluid balance after exercise-induced dehydration: effects of food and fluid intake. *Eur J Appl Physiol Occup Physiol.* 1996b;73(3-4):317-25.

Maughan RJ, Leiper JB. Limitations to fluid replacement during exercise. *Can J Appl Physiol.* 1999 Apr;24(2):173-87.

Maughan RJ. *Fundamentals of Sports Nutrition: Application to Sports Drinks.* Kirjassa: *Sports Drinks - Basic Science and Practical Aspects.* Maughan RJ, Murray R (toim.). CRC Press. Boca Raton, USA, 2001.

Maughan RJ. *Physiological Responses of Fluid Intake During Exercise.* Kirjassa: Maughan RJ, Murray R (toim.). *Sports Drinks - Basic Science and Practical Aspects.* CRC Press. Boca Raton, USA, 2001b

Maughan RJ. Impact of mild dehydration on wellness and on exercise performance. *Eur J Clin Nutr.* 2003 Dec;57 Suppl 2:S19-23.

Maughan RJ, Merson SJ, Broad NP, Shirreffs SM. Fluid and electrolyte intake and loss in elite soccer players during training. *Int J Sport Nutr Exerc Metab.* 2004 Jun;14(3):333-46.

Maughan RJ, Shirreffs SM, Merson SJ, Horswill CA. Fluid and electrolyte balance in elite male football (soccer) players training in a cool environment. *J Sports Sci.* 2005 Jan;23(1):73-9.

McArdle WD, Katch FI, Katch VL. *Carbohydrates, Lipids, and Proteins.* Kirjassa: McArdle WD, Katch FI, Katch VL (toim.). *Exercise physiology 5th ed.* Lippincott Williams & Wilkins, USA, 2001.

McArdle WD, Katch FI, Katch VL. *Special aids to exercise training and performance.* Special aids to exercise training and performance. Kirjassa: McArdle WD, Katch FI, Katch VL (toim.). *Exercise physiology 5th ed.* Lippincott Williams & Wilkins, USA, 2001.

McConell G, Kloot K, Hargreaves M. Effect of timing of carbohydrate ingestion on endurance exercise performance. *Med Sci Sports Exerc.* 1996 Oct;28(10):1300-4.

McGregor SJ, Nicholas CW, Lakomy HK, Williams C. The influence of intermittent high-intensity shuttle running and fluid ingestion on the performance of a soccer skill. *J Sports Sci.* 1999 Nov;17(11):895-903.

McKenzie S, Phillips SM, Carter SL, Lowther S, Gibala MJ, Tarnopolsky MA. Endurance exercise training attenuates leucine oxidation and BCOAD activation during exercise in humans. *Am J Physiol Endocrinol Metab.* 2000 Apr;278(4):E580-7.

McNaughton L, Dalton B, Palmer G. Sodium bicarbonate can be used as an ergogenic aid in high-intensity, competitive cycle ergometry of 1 h duration. *Eur J Appl Physiol Occup Physiol.* 1999 Jun;80(1):64-9.

Mero AA, Keskinen KL, Malvela MT, Sallinen JM. Combined creatine and sodium bicarbonate supplementation enhances interval swimming. *J Strength Cond Res.* 2004 May;18(2):306-10.

Mickleborough T, Gotshall R. Dietary components with demonstrated effectiveness in decreasing the severity of exercise-induced asthma. *Sports Med.* 2003;33(9):671-81.

Mickleborough TD, Murray RL, Ionescu AA, Lindley MR. Fish oil supplementation reduces severity of exercise-induced bronchoconstriction in elite athletes. *Am J Respir Crit Care Med.* 2003 Nov 15;168(10):1181-9.

Middleton N, Jelen P, Bell G. Whole blood and mononuclear cell glutathione response to dietary whey protein supplementation in sedentary and trained male human subjects. *Int J Food Sci Nutr.* 2004 Mar;55(2):131-41.

Misell LM, Lagomarcino ND, Schuster V, Kern M. Chronic medium-chain triacylglycerol consumption and endurance performance in trained runners. *J Sports Med Phys Fitness.* 2001 Jun;41(2):210-5.

Mitchell JB, Voss KW. The influence of volume on gastric emptying and fluid balance during prolonged exercise. *Med Sci Sports Exerc.* 1991 Mar;23(3):314-9.

Mitchell JB, Grandjean PW, Pizza FX, Starling RD, Holtz RW. The effect of volume ingested on rehydration and gastric emptying following exercise-induced dehydration. *Med Sci Sports Exerc.* 1994 Sep;26(9):1135-43.

Mitchell JB, Braun WA, Pizza FX, Forrest M. Pre-exercise carbohydrate and fluid ingestion: influence of glycemic response on 10-km treadmill running performance in the heat. *J Sports Med Phys Fitness.* 2000 Mar;40(1):41-50.

Monteleone P, Beinat L, Tanzillo C, Maj M, Kemali D. Effects of phosphatidylserine on the neuroendocrine response to physical stress in humans. *Neuroendocrinology.* 1990 Sep;52(3):243-8.

Montner P, Stark DM, Riedesel ML, Murata G, Robergs R, Timms M, Chick TW. Pre-exercise glycerol hydration improves cycling endurance time. *Int J Sports Med.* 1996 Jan;17(1):27-33.

Montain SJ, Coyle EF. Influence of graded dehydration on hyperthermia and cardiovascular drift during exercise. *J Appl Physiol.* 1992 Oct;73(4):1340-50.

Motl RW, O'Connor PJ, Dishman RK. Effect of caffeine on perceptions of leg muscle pain during moderate intensity cycling exercise. *J Pain.* 2003 Aug;4(6):316-21.

Morrison MA, Spriet LL, Dyck DJ. Pyruvate ingestion for 7 days does not improve aerobic performance in well-trained individuals. *J Appl Physiol.* 2000 Aug;89(2):549-56.

Mujika I, Padilla S, Ibanez J, Izquierdo M, Gorostiaga E. Creatine supplementation and sprint performance in soccer players. *Med Sci Sports Exerc.* 2000 Feb;32(2):518-25.

Murphy AJ, Watsford ML, Coutts AJ, Richards DA. Effects of creatine supplementation on aerobic power and cardiovascular structure and function. *J Sci Med Sport.* 2005 Sep;8(3):305-13.

Murray R. The effects of consuming carbohydrate-electrolyte beverages on gastric emptying and fluid absorption during and following exercise. *Sports Med.* 1987 Sep-Oct;4(5):322-51.

Murray R, Eddy DE, Murray TW, Seifert JG, Paul GL, Halaby GA. The effect of fluid and carbohydrate feedings during intermittent cycling exercise. *Med Sci Sports Exerc.* 1987 Dec;19(6):597-604.

Murray R, Paul GL, Seifert JG, Eddy DE, Halaby GA. The effects of glucose, fructose, and sucrose ingestion during exercise. *Med Sci Sports Exerc.* 1989 Jun;21(3):275-82.

Murray R, Stofan J. *Formulating Carbohydrate-Electrolyte Drinks for Optimal Efficacy.* Kirjassa: *Sports Drinks - Basic Science and Practical Aspects.* Maughan RJ, Murray R (toim.). CRC Press. Boca Raton, USA, 2001b.

Männistö S, Ovaskainen M-L, Valsta L (toim). *Finravinto 2002 -tutkimus. The National Findiet 2002 Study.* Kansanterveyslaitoksen julkaisu B3/2003. Helsinki: Kansanterveyslaitos, 2003.

Neufer PD, Costill DL, Fink WJ, Kirwan JP, Fielding RA, Flynn MG. Effects of exercise and carbohydrate composition on gastric emptying. *Med Sci Sports Exerc.* 1986 Dec;18(6):658-62.

Neufer PD, Young AJ, Sawka MN. Gastric emptying during walking and running: effects of varied exercise intensity. *Eur J Appl Physiol Occup Physiol.* 1989;58(4):440-5.

Newsholme EA, Blomstrand E. Tryptophan, 5-hydroxytryptamine and a possible explanation for central fatigue. *Adv Exp Med Biol.* 1995;384:315-20.

Nicholas CW, Williams C, Lakomy HK, Phillips G, Nowitz A. Influence of ingesting a carbohydrate-electrolyte solution on endurance capacity during intermittent, high-intensity shuttle running. *J Sports Sci.* 1995 Aug;13(4):283-90.

Nielsen, B., R. Kubica, A. Bonnesen, I.B. Rassmussen, J. Stoklosa and B. Wilk. Physical work capacity after dehydration and hyperthermia: a comparison of the effect of exercise versus passive heating and sauna and diuretic dehydration. *Scand. J. Sport Sci.* 3:2-10, 1981.

Nieman DC, Nehlsen-Cannarella SI, Henson DA, Butterworth DE, Fagoaga OR, Warren BJ, Rainwater MK. Immune response to obesity and moderate weight loss. *Int J Obes Relat Metab Disord.* 1996 Apr;20(4):353-60

Noakes TD. Fluid and electrolyte disturbances in heat illness. *Int J Sports Med.* 1998 Jun;19 Suppl 2:S146-9.

Noakes TD. Overconsumption of fluids by athletes. *BMJ.* 2003a Jul 19;327(7407):113-4.

Noakes T; IMMUDA. Fluid replacement during marathon running. *Clin J Sport Med.* 2003b Sep;13(5):309-18.

Noakes TD, Rehrer NJ, Maughan RJ. The importance of volume in regulating gastric emptying. *Med Sci Sports Exerc.* 1991 Mar;23(3):307-13.

Nose H, Mack GW, Shi XR, Nadel ER. Role of osmolality and plasma volume during rehydration in humans. *J Appl Physiol.* 1988 Jul;65(1):325-31.

Nybo L. CNS fatigue and prolonged exercise: effect of glucose supplementation. *Med Sci Sports Exerc.* 2003 Apr;35(4):589-94.

O'Brien C, Young AJ, Sawka MN. Bioelectrical impedance to estimate changes in hydration status. *Int J Sports Med.* 2002 Jul;23(5):361-6.

O'Connor DM, Crowe MJ. Effects of beta-hydroxy-beta-methylbutyrate and creatine monohydrate supplementation on the aerobic and anaerobic capacity of highly trained athletes. *J Sports Med Phys Fitness.* 2003 Mar;43(1):64-8.

Okano G, Takeda H, Morita I, Katoh M, Mu Z, Miyake S. Effect of pre-exercise fructose ingestion on endurance performance in fed men. *Med Sci Sports Exerc.* 1988 Apr;20(2):105-9.

Oopik V, Saaremets I, Medijainen L, Karelson K, Janson T, Timpmann S. Effects of sodium citrate ingestion before exercise on endurance performance in well trained college runners. *Br J Sports Med.* 2003 Dec;37(6):485-9.

Oopik V, Saaremets I, Timpmann S, Medijainen L, Karelson K. Effects of Acute Ingestion of Sodium Citrate on Metabolism and 5-km Running Performance: A Field Study. *Can J Appl Physiol.* 2004 Dec;29(6):691-703.

Oostenbrug GS, Mensink RP, Hardeman MR, De Vries T, Brouns F, Hornstra G. Exercise performance, red blood cell deformability, and lipid peroxidation: effects of fish oil and vitamin E. *J Appl Physiol.* 1997 Sep;83(3):746-52.

Op 't Eijnde B, Van Leemputte M, Brouns F, Van Der Vusse GJ, Labarque V, Ramaekers M, Van Schuylenberg R ym. No effects of oral ribose supplementation on repeated maximal exercise and de novo ATP resynthesis. *J Appl Physiol.* 2001 Nov;91(5):2275-81.

Ostojic SM. Creatine supplementation in young soccer players. *Int J Sport Nutr Exerc Metab.* 2004 Feb;14(1):95-103.

Paddon-Jones D, Borsheim E, Wolfe RR. Potential ergogenic effects of arginine and creatine supplementation. *J Nutr.* 2004 Oct;134(10 Suppl):2888S-2894S

Palmer GS, Clancy MC, Hawley JA, Rodger IM, Burke LM, Noakes TD. Carbohydrate ingestion immediately before exercise does not improve 20 km time trial performance in well trained cyclists. *Int J Sports Med.* 1998 Aug;19(6):415-8.

Parcell AC, Smith JM, Schulthies SS, Myrer JW, Fellingham G. Cordyceps Sinensis (CordyMax Cs-4) supplementation does not improve endurance exercise performance. *Int J Sport Nutr Exerc Metab.* 2004 Apr;14(2):236-42.

Parry-Billings M, Budgett R, Koutedakis Y, Blomstrand E, Brooks S, Williams C, Calder PC, Pilling S ym. Plasma amino acid concentrations in the overtraining syndrome: possible effects on the immune system. *Med Sci Sports Exerc.* 1992 Dec;24(12):1353-8.

Pasman WJ, van Baak MA, Jeukendrup AE, de Haan A. The effect of different dosages of caffeine on endurance performance time. *Int J Sports Med.* 1995 May;16(4):225-30.

Paton CD, Hopkins WG, Vollebregt L. Little effect of caffeine ingestion on repeated sprints in team-sport athletes. *Med Sci Sports Exerc.* 2001 May;33(5):822-5.

Peeters BM, Lantz CD, Mayhew JL. Effects of oral creatine monohydrate and creatine phosphate supplementation on maximal strength indices, body composition and blood pressure. *J Strength Cond Res* 1998;13:3-9.

Pendergast DR, Leddy JJ, Venkatraman JT. A perspective on fat intake in athletes. *J Am Coll Nutr.* 2000 Jun;19(3):345-50

Peters EM. Nutritional aspects in ultra-endurance exercise. *Curr Opin Clin Nutr Metab Care.* 2003 Jul;6(4):427-34.

Pieralisi G, Ripari P, Vecchiet L. 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.

Pizza FX, Flynn MG, Duscha BD, Holden J, Kubitz ER. A carbohydrate loading regimen improves high intensity, short duration exercise performance. *Int J Sport Nutr.* 1995 Jun;5(2):110-6.

Potteiger JA, Nickel GL, Webster MJ, Haub MD, Palmer RJ. Sodium citrate ingestion enhances 30 km cycling performance. *Int J Sports Med.* 1996 Jan;17(1):7-11.

Powers SK, Lawler J, Dodd S, Tulley R, Landry G, Wheeler K. Fluid replacement drinks during high intensity exercise: effects on minimizing exercise-induced disturbances in homeostasis. *Eur J Appl Physiol Occup Physiol.* 1990;60(1):54-60.

Preen D, Dawson B, Goodman C, Beilby J, Ching S. Creatine supplementation: a comparison of loading and maintenance protocols on creatine uptake by human skeletal muscle. *Int J Sport Nutr Exerc Metab.* 2003 Mar;13(1):97-111.

Price M, Moss P, Rance S. Effects of sodium bicarbonate ingestion on prolonged intermittent exercise. *Med Sci Sports Exerc.* 2003 Aug;35(8):1303-8.

Raastad T, Hostmark AT, Stromme SB. Omega-3 fatty acid supplementation does not improve maximal aerobic power, anaerobic threshold and running performance in well-trained soccer players. *Scand J Med Sci Sports.* 1997 Feb;7(1):25-31.

Rankin JW. Role of protein in exercise. *Clin Sports Med.* 1999 Jul;18(3):499-511.

Rauch LH, Rodger I, Wilson GR, Belonje JD, Dennis SC, Noakes TD, Hawley JA. The effects of carbohydrate loading on muscle glycogen content and cycling performance. *Int J Sport Nutr.* 1995 Mar;5(1):25-36.

Rauch HG, Hawley JA, Woodey M, Noakes TD, Dennis SC. Effects of ingesting a sports bar versus glucose polymer on substrate utilisation and ultra-endurance performance. *Int J Sports Med.* 1999 May;20(4):252-7.

Rehrer NJ, Beckers EJ, Brouns F, ten Hoor F, Saris WH. Effects of dehydration on gastric emptying and gastrointestinal distress while running. *Med Sci Sports Exerc.* 1990 Dec;22(6):790-5.

Rehrer NJ, van Kemenade M, Meester W, Brouns F, Saris WH. Gastrointestinal complaints in relation to dietary intake in triathletes. *Int J Sport Nutr.* 1992a Mar;2(1):48-59.

Rehrer NJ, Wagenmakers AJ, Beckers EJ, Halliday D, Leiper JB, Brouns F, Maughan RJ, Westerterp ym. Gastric emptying, absorption, and carbohydrate oxidation during prolonged exercise. *J Appl Physiol.* 1992b Feb;72(2):468-75.

Rehrer NJ. Fluid and electrolyte balance in ultra-endurance sport. *Sports Med.* 2001;31(10):701-15.

Reid SA, Speedy DB, Thompson JM, Noakes TD, Mulligan G, Page T, Campbell RG, Milne C. Study of hematological and biochemical parameters in runners completing a standard marathon. *Clin J Sport Med.* 2004 Nov;14(6):344-53.

Requena B, Zabala M, Padial P, Feriche B. Sodium bicarbonate and sodium citrate: ergogenic aids? *J Strength Cond Res.* 2005 Feb;19(1):213-24.



Rico-Sanz J, Zehnder M, Buchli R, Dambach M, Boutellier U. Muscle glycogen degradation during simulation of a fatiguing soccer match in elite soccer players examined noninvasively by <sup>13</sup>C-MRS. *Med Sci Sports Exerc.* 1999 Nov;31(11):1587-93.

Rivera-Brown AM, Gutierrez R, Gutierrez JC, Frontera WR, Bar-Or O. Drink composition, voluntary drinking, and fluid balance in exercising, trained, heat-acclimatized boys. *J Appl Physiol.* 1999 Jan;86(1):78-84.

Robergs RA, Griffin SE. Glycerol. *Biochemistry, pharmacokinetics and clinical and practical applications.* *Sports Med.* 1998 Sep;26(3):145-67.

Rockwell MS, Rankin JW, Dixon H. Effects of muscle glycogen on performance of repeated sprints and mechanisms of fatigue. *Int J Sport Nutr Exerc Metab.* 2003 Mar;13(1):1-14.

Roltsch MH, Flohr JA, Brevard PB. The effect of diet manipulations on aerobic performance. *Int J Sport Nutr Exerc Metab.* 2002 Dec;12(4):480-9.

Romijn JA, Coyle EF, Sidossis LS, Gastaldelli A, Horowitz JF, Endert E, Wolfe RR. Regulation of endogenous fat and carbohydrate metabolism in relation to exercise intensity and duration. *Am J Physiol.* 1993 Sep;265(3 Pt 1):E380-91.

Rowlands DS, Hopkins WG. Effects of high-fat and high-carbohydrate diets on metabolism and performance in cycling. *Metabolism.* 2002 Jun;51(6):678-90.

Roy BD, Luttmner K, Bosman MJ, Tarnopolsky MA. The influence of post-exercise macronutrient intake on energy balance and protein metabolism in active females participating in endurance training. *Int J Sport Nutr Exerc Metab.* 2002 Jun;12(2):172-88.

Sallinen J. Emästankkaus. *Urheilijan ravinto 2/2001*

Sanders B, Noakes TD, Dennis SC. Sodium replacement and fluid shifts during prolonged exercise in humans. *Eur J Appl Physiol.* 2001 May;84(5):419-25.

Saunders MJ, Kane MD, Todd MK. Effects of a carbohydrate-protein beverage on cycling endurance and muscle damage. *Med Sci Sports Exerc.* 2004 Jul;36(7):1233-8.

Saris WH, van Erp-Baart MA, Brouns F, Westerterp KR, ten Hoor F. Study on food intake and energy expenditure during extreme sustained exercise: the Tour de France. *Int J Sports Med.* 1989 May;10 Suppl 1:S26-31.

Sawka MN, Montain SJ. Fluid and electrolyte supplementation for exercise heat stress. *Am J Clin Nutr.* 2000 Aug;72(2 Suppl):564S-72S.

Sawka MN, Montain SJ, Latzka WA. Hydration effects on thermoregulation and performance in the heat. *Comp Biochem Physiol A Mol Integr Physiol.* 2001 Apr;128(4):679-90.

Sawka MN, Cheuvront SN, Carter R 3rd. Human water needs. *Nutr Rev.* 2005 Jun;63(6 Pt 2):S30-9.

Schabort EJ, Wilson G, Noakes TD. Dose-related elevations in venous pH with citrate ingestion do not alter 40-km cycling time-trial performance. *Eur J Appl Physiol.* 2000 Nov;83(4-5):320-7.

Schena F, Guerrini F, Tregnaghi P, Kayser B. Branched-chain amino acid supplementation during trekking at high altitude. The effects on loss of body mass, body composition, and muscle power. *Eur J Appl Physiol Occup Physiol.* 1992;65(5):394-8.

Schoeller DA. Limitations in the assessment of dietary energy intake by self-report. *Metabolism.* 1995 Feb;44(2 Suppl 2):18-22.

Segura R, Ventura JL. Effect of L-tryptophan supplementation on exercise performance. *Int J Sports Med.* 1988 Oct;9(5):301-5.

Selsby JT, Beckett KD, Kern M, Devor ST. Swim performance following creatine supplementation in Division III athletes. *J Strength Cond Res.* 2003 Aug;17(3):421-4.

Shave R, Whyte G, Siemann A, Daggart L. The effects of sodium citrate ingestion on 3,000-meter time-trial performance. *J Strength Cond Res.* 2001 May;15(2):230-4.

Sherman WM, Costill DL, Fink WJ, Miller JM. Effect of exercise-diet manipulation on muscle glycogen and its subsequent utilization during performance. *Int J Sports Med.* 1981 May;2(2):114-8.

Sherman WM, Lamb DR. Nutrition and prolonged exercise. Kirjassa: Lamb DR, Murray R (toim.). *Perspectives in exercise science and sports medicine.* Vol 1. Prolonged exercise. Indianapolis: Benchmark, 1988: 213-80.

Sherman WM. Metabolism of sugars and physical performance. *Am J Clin Nutr.* 1995 Jul;62(1 Suppl):228S-241S.

Shi X, Summers RW, Schedl HP, Chang RT, Lambert GP, Gisolfi CV. Effects of solution osmolality on absorption of select fluid replacement solutions in human duodenojejunum. *J Appl Physiol.* 1994 Sep;77(3):1178-84.

Shi X, Summers RW, Schedl HP, Flanagan SW, Chang R, Gisolfi CV. Effects of carbohydrate type and concentration and solution osmolality on water absorption. *Med Sci Sports Exerc.* 1995 Dec;27(12):1607-15.

Shi X, Gisolfi CV. Fluid and carbohydrate replacement during intermittent exercise. *Sports Med.* 1998 Mar;25(3):157-72.

Shirreffs SM, Taylor AJ, Leiper JB, Maughan RJ. Post-exercise rehydration in man: effects of volume consumed and drink sodium content. *Med Sci Sports Exerc.* 1996 Oct;28(10):1260-71.

Shirreffs SM, Maughan RJ. Restoration of fluid balance after exercise-induced dehydration: effects of alcohol consumption. *J Appl Physiol.* 1997 Oct;83(4):1152-8.

Shirreffs SM. The importance of good hydration for work and exercise performance. *Nutr Rev.* 2005 Jun;63(6 Pt 2):S14-21

Shirreffs SM, Aragon-Vargas LF, Chamorro M, Maughan RJ, Serratosa L, Zachwieja JJ. The sweating response of elite professional soccer players to training in the heat. *Int J Sports Med.* 2005 Mar;26(2):90-5.

Simard C, Tremblay A, Jobin M. Effects of carbohydrate intake before and during an ice hockey match on blood and muscle energy substrates. *Res Q Exerc Sport.* 1988;59:144.

Skare OC, Skadberg, Wisnes AR. Creatine supplementation improves sprint performance in male sprinters. *Scand J Med Sci Sports.* 2001 Apr;11(2):96-102.

Smith JC, Stephens DP, Hall EL, Jackson AW, Earnest CP. Effect of oral creatine ingestion on parameters of the work rate-time relationship and time to exhaustion in high-intensity cycling. *Eur J Appl Physiol Occup Physiol.* 1998 Mar;77(4):360-5.

Snider IP, Bazzarre TL, Murdoch SD, Goldfarb A. Effects of coenzyme athletic performance system as an ergogenic aid on endurance performance to exhaustion. *Int J Sport Nutr.* 1992 Sep;2(3):272-86.

Sparks MJ, Selig SS, Febbraio MA. Pre-exercise carbohydrate ingestion: effect of the glycemic index on endurance exercise performance. *Med Sci Sports Exerc.* 1998 Jun;30(6):844-9.

Spasov AA, Wikman GK, Mandrikov VB, Mironova IA, Neumoin VV. A double-blind, placebo-controlled pilot study of the stimulating and adaptogenic effect of *Rhodiola rosea* SHR-5 extract on the fatigue of students caused by stress during an examination period with a repeated low-dose regimen. *Phytomedicine.* 2000 Apr;7(2):85-9.

Spector SA, Jackman MR, Sabounjian LA, Sakkas C, Landers DM, Willis WT. Effect of choline supplementation on fatigue in trained cyclists. *Med Sci Sports Exerc.* 1995 May;27(5):668-73.

Speedy DB, Thompson JM, Rodgers I, Collins M, Sharwood K, Noakes TD. Oral salt supplementation during ultradistance exercise. *Clin J Sport Med.* 2002 Sep;12(5):279-84.

Sports Science Exchange 97. Volume 18 (2005) number 2 supplement. Hydration Assessment of Athletes "WUT" IS the Answer?

Spriet LL, MacLean DA, Dyck DJ, Hultman E, Cederblad G, Graham TE. Caffeine ingestion and muscle metabolism during prolonged exercise in humans. *Am J Physiol.* 1992 Jun;262(6 Pt 1):E891-8.

Stanko RT, Robertson RJ, Spina RJ, Reilly JJ Jr, Greenawalt KD, Goss FL. Enhancement of arm exercise endurance capacity with dihydroxyacetone and pyruvate. *J Appl Physiol.* 1990a Jan;68(1):119-24.

Stanko RT, Robertson RJ, Galbreath RW, Reilly JJ Jr, Greenawalt KD, Goss FL. Enhanced leg exercise endurance with a high-carbohydrate diet and dihydroxyacetone and pyruvate. *J Appl Physiol.* 1990b Nov;69(5):1651-6.

Stannard SR, Constantini NW, Miller JC. The effect of glycemic index on plasma glucose and lactate levels during incremental exercise. *Int J Sport Nutr Exerc Metab.* 2000 Mar;10(1):51-61.

Stensrud T, Ingjer F, Holm H, Stromme SB. L-tryptophan supplementation does not improve running performance. *Int J Sports Med.* 1992 Aug;13(6):481-5.

Stephensen CB. Fish oil and inflammatory disease: is asthma the next target for n-3 fatty acid supplements? *Nutr Rev.* 2004 Dec;62(12):486-9.

Stewart I, McNaughton L, Davies P, Tristram S. Phosphate loading and the effects on VO<sub>2</sub>max in trained cyclists. *Res Q Exerc Sport.* 1990 Mar;61(1):80-4.

Struder HK, Hollmann W, Platen P, Donike M, Gotzmann A, Weber K. Influence of paroxetine, branched-chain amino acids and tyrosine on neuroendocrine system responses and fatigue in humans. *Horm Metab Res.* 1998 Apr;30(4):188-94.

Stuessi C, Hofer P, Meier C, Boutellier U. L-Carnitine and the recovery from exhaustive endurance exercise: a randomised, double-blind, placebo-controlled trial. *Eur J Appl Physiol.* 2005 Sep 29;:1-5.

Sullo A, Monda M, Brizzi G, Meninno V, Papa A, Lombardi P, Fabbri B. The effect of a carbohydrate loading on running performance during a 25-km treadmill time trial by level of aerobic capacity in athletes. *Eur Rev Med Pharmacol Sci.* 1998 Sep-Dec;2(5-6):195-202.

Syrotuik DG, Bell GJ. Acute creatine monohydrate supplementation: a descriptive physiological profile of responders vs. nonresponders. *J Strength Cond Res.* 2004 Aug;18(3):610-7.

Tarnopolsky MA. Caffeine and endurance performance. *Sports Med.* 1994 Aug;18(2):109-25.

Tarnopolsky MA. Protein and amino acid needs for training and bulking up. Kirjassa: *Clinical Sports Nutrition* 2nd ed. Burke L, Deakin V (toim.). McGraw Hill, 2002.

Tarnopolsky MA. Protein requirements for endurance athletes. *Nutrition.* 2004 Jul-Aug;20(7-8):662-8.

Tarnopolsky MA, MacDougall JD, Atkinson SA. Influence of protein intake and training status on nitrogen balance and lean body mass. *J Appl Physiol.* 1988 Jan;64(1):187-93.

Tarnopolsky MA, Atkinson SA, Phillips SM, MacDougall JD. Carbohydrate loading and metabolism during exercise in men and women. *J Appl Physiol.* 1995 Apr;78(4):1360-8.

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

Tarnopolsky MA, Ruby BC. Sex differences in carbohydrate metabolism. *Curr Opin Clin Nutr Metab Care.* 2001 Nov;4(6):521-6.

Tarnopolsky MA, Zawada C, Richmond LB, Carter S, Shearer J, Graham T, Phillips SM. Gender differences in carbohydrate loading are related to energy intake. *J Appl Physiol.* 2001 Jul;91(1):225-30.

Terjung RL, Clarkson P, Eichner ER, Greenhaff P, Hespel PJ, Istael RG, Kraemer WJ, Meyer RA ym. 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.

Thomas DE, Brotherhood JR, Brand JC. Carbohydrate feeding before exercise: effect of glycemic index. *Int J Sports Med.* 1991 Apr;12(2):180-6.

Thomas DE, Brotherhood JR, Miller JB. Plasma glucose levels after prolonged strenuous exercise correlate inversely with glycemic response to food consumed before exercise. *Int J Sport Nutr.* 1994 Dec;4(4):361-73.

Thompson JL. Energy balance in young athletes. *Int J Sport Nutr.* 1998 Jun;8(2):160-74.

Thompson CH, Kemp GJ, Sanderson AL, Dixon RM, Styles P, Taylor DJ, Radda GK. Effect of creatine on aerobic and anaerobic metabolism in skeletal muscle in swimmers. *Br J Sports Med.* 1996 Sep;30(3):222-5.

Tiilikainen R, Pöllänen K, Lahti-Koski M, Borg P. Suomalaisten nuorten urheilijoiden ravinnonsaanti. *Urheilijan ravinto* 2001/1:45-49

Tipton KD, Elliott TA, Cree MG, Wolf SE, Sanford AP, Wolfe RR. Ingestion of casein and whey proteins result in muscle anabolism after resistance exercise. *Med Sci Sports Exerc.* 2004 Dec;36(12):2073-81.

Tortora GJ, Grabowski SR. *Principles of Anatomy and Physiology.* New York: Harper Collins Collage Publications, 1996.

Tremblay MS, Galloway SD, Sexsmith JR. Ergogenic effects of phosphate loading: physiological fact or methodological fiction? *Can J Appl Physiol.* 1994 Mar;19(1):1-11.

Tuttle JL, Potteiger JA, Evans BW, Ozmun JC. Effect of acute potassium-magnesium aspartate supplementation on ammonia concentrations during and after resistance training. *Int J Sport Nutr.* 1995 Jun;5(2):102-9.

Twerenbold R, Knechtle B, Kakebeeke TH, Eser P, Muller G, von Arx P, Knecht H. Effects of different sodium concentrations in replacement fluids during prolonged exercise in women. *Br J Sports Med.* 2003 Aug;37(4):300-3; discussion 303.

Valtion ravitsemusneuvottelukunta. *Suomalaiset ravitsemussuosituks* 2005. Helsinki: Edita, 2005.

Vandenbergh K, Gillis N, Van Leemputte M, Van Hecke P, Vanstapel F, Hespel P. Caffeine counteracts the ergogenic action of muscle creatine loading. *J Appl Physiol.* 1996 Feb;80(2):452-7.

van Gammeren D. *Endurance performance.* Kirjassa: Antonio J, Stout JR (toim): *Sports Supplements.* Lippincott Williams & Wilkins 2001.

van Hall G, Raaymakers JS, Saris WH, Wagenmakers AJ. Ingestion of branched-chain amino acids and tryptophan during sustained exercise in man: failure to affect performance. *J Physiol.* 1995 Aug 1;486 ( Pt 3):789-94.

van Hall G, Shirreffs SM, Calbet JA. Muscle glycogen resynthesis during recovery from cycle exercise: no effect of additional protein ingestion. *J Appl Physiol.* 2000 May;88(5):1631-6.

van Loon LJ, Saris WH, Kruijshoop M, Wagenmakers AJ. Maximizing postexercise muscle glycogen synthesis: carbohydrate supplementation and the application of amino acid or protein hydrolysate mixtures. *Am J Clin Nutr.* 2000 Jul;72(1):106-11.

van Loon LJ, Oosterlaar AM, Hartgens F, Hesselink MK, Snow RJ, Wagenmakers AJ. 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.

Van Montfoort MC, Van Dieren L, Hopkins WG, Shearman JP. Effects of ingestion of bicarbonate, citrate, lactate, and chloride on sprint running. *Med Sci Sports Exerc.* 2004 Jul;36(7):1239-43.

Van Nieuwenhoven MA, Brummer RM, Brouns F. Gastrointestinal function during exercise: comparison of water, sports drink, and sports drink with caffeine. *J Appl Physiol.* 2000 Sep;89(3):1079-85.

van Nieuwenhoven MA, Brouns F, Brummer RJ. Gastrointestinal profile of symptomatic athletes at rest and during physical exercise. *Eur J Appl Physiol.* 2004 Apr;91(4):429-34.

van Nieuwenhoven MA, Brouns F, Kovacs EM. The effect of two sports drinks and water on GI complaints and performance during an 18-km run. *Int J Sports Med.* 2005 May;26(4):281-5.

Van Schuylenbergh R, Van Leemputte M, Hespel P. Effects of oral creatine-pyruvate supplementation in cycling performance. *Int J Sports Med.* 2003 Feb;24(2):144-50.

van Someren K, Fulcher K, McCarthy J, Moore J, Horgan G, Langford R. An investigation into the effects of sodium citrate ingestion on high-intensity exercise performance. *Int J Sport Nutr.* 1998 Dec;8(4):356-63.

van Someren KA, Edwards AJ, Howatson G. Supplementation with beta-hydroxy-beta-methylbutyrate (HMB) and alpha-ketoisocaproic acid (KIC) reduces signs and symptoms of exercise-induced muscle damage in man. *Int J Sport Nutr Exerc Metab.* 2005 Aug;15(4):413-24.

van Zant RS, Lemon PW. Preexercise sugar feeding does not alter prolonged exercise muscle glycogen or protein catabolism. *Can J Appl Physiol.* 1997 Jun;22(3):268-79.

van Zyl CG, Lambert EV, Hawley JA, Noakes TD, Dennis SC. Effects of medium-chain triglyceride ingestion on fuel metabolism and cycling performance. *J Appl Physiol.* 1996 Jun;80(6):2217-25.

Venkatraman JT, Feng X, Pendergast D. Effects of dietary fat and endurance exercise on plasma cortisol, prostaglandin E<sub>2</sub>, interferon-gamma and lipid peroxides in runners. *J Am Coll Nutr.* 2001 Oct;20(5):529-36.

Vergauwen L, Brouns F, Hespel P. Carbohydrate supplementation improves stroke performance in tennis. *Med Sci Sports Exerc.* 1998 Aug;30(8):1289-95.

Vogler BK, Pittler MH, Ernst E. The efficacy of ginseng. A systematic review of randomised clinical trials. *Eur J Clin Pharmacol.* 1999 Oct;55(8):567-75.

Volek JS. The Effect of Macronutrient Manipulation on Hormones. Kirjassa: Antonio J, Stout JR (toim.) *Sports Supplements.* Lippincott Williams & Wilkins 2001.

Voltaire B, Galy O, Coste O, Recinais S, Callis A, Blanc S, Hertogh C, Hue O. Effect of fourteen days of acclimatization on athletic performance in tropical climate. *Can J Appl Physiol.* 2002 Dec;27(6):551-62.

von Allworden HN, Horn S, Kahl J, Feldheim W. The influence of lecithin on plasma choline concentrations in triathletes and adolescent runners during exercise. *Eur J Appl Physiol Occup Physiol.* 1993;67(1):87-91.

Von Duvillard SP, Braun WA, Markofski M, Beneke R, Leithauser R. Fluids and hydration in prolonged endurance performance. *Nutrition.* 2004 Jul-Aug;20(7-8):651-6.

Vrijens DM, Rehrer NJ. Sodium-free fluid ingestion decreases plasma sodium during exercise in the heat. *J Appl Physiol.* 1999 Jun;86(6):1847-51.

Vukovich MD, Costill DL, Fink WJ. Carnitine supplementation: effect on muscle carnitine and glycogen content during exercise. *Med Sci Sports Exerc.* 1994 Sep;26(9):1122-9.

Vukovich MD, Dreifort GD. Effect of beta-hydroxy beta-methylbutyrate on the onset of blood lactate accumulation and V(O)<sub>2</sub> peak in endurance-trained cyclists. *J Strength Cond Res.* 2001 Nov;15(4):491-7.

Wagenmakers AJ. Amino acid supplements to improve athletic performance. *Curr Opin Clin Nutr Metab Care.* 1999 Nov;2(6):539-44.

Wahlqvist ML, Wilmshurst EG, Richardson EN. The effect of chain length on glucose absorption and the related metabolic response. *Am J Clin Nutr.* 1978 Nov;31(11):1998-2001.

Wald A, Back C, Bayless TM. Effect of caffeine on the human small intestine. *Gastroenterology.* 1976 Nov;71(5):738-42.

Walker JL, Heigenhauser GJ, Hultman E, Spriet LL. Dietary carbohydrate, muscle glycogen content, and endurance performance in well-trained women. *J Appl Physiol.* 2000 Jun;88(6):2151-8.

Walsh RM, Noakes TD, Hawley JA, Dennis SC. Impaired high-intensity cycling performance time at low levels of dehydration. *Int J Sports Med.* 1994 Oct;15(7):392-8.

Warber JP, Patton JF, Tharion WJ, Zeisel SH, Mello RP, Kemnitz CP, Lieberman HR. The effects of choline supplementation on physical performance. *Int J Sport Nutr Exerc Metab.* 2000 Jun;10(2):170-81.

Wee SL, Williams C, Garcia-Roves P. Carbohydrate availability determines endurance running capacity in fasted subjects. *Med Sci Sports Exerc* 1999;31:S91.

Welsh RS, Davis JM, Burke JR, Williams HG. Carbohydrates and physical/mental performance during intermittent exercise to fatigue. *Med Sci Sports Exerc.* 2002 Apr;34(4):723-31.

Weston SB, Zhou S, Weatherby RP, Robson SJ. Does exogenous coenzyme Q10 affect aerobic capacity in endurance athletes? *Int J Sport Nutr.* 1997 Sep;7(3):197-206.

Wheeler KB, Banwell JG. Intestinal water and electrolyte flux of glucose-polymer electrolyte solutions. *Med Sci Sports Exerc.* 1986 Aug;18(4):436-9.

Whitley HA, Humphreys SM, Campbell IT, Keegan MA, Jayanetti TD, Sperry DA, MacLaren DP, Reilly T ym. Metabolic and performance responses during endurance exercise after high-fat and high-carbohydrate meals. *J Appl Physiol.* 1998 Aug;85(2):418-24.

Widrick JJ, Costill DL, Fink WJ, Hickey MS, McConell GK, Tanaka H. Carbohydrate feedings and exercise performance: effect of initial muscle glycogen concentration. *J Appl Physiol.* 1993 Jun;74(6):2998-3005.

Wilkes D, Gledhill N, Smyth R. Effect of acute induced metabolic alkalosis on 800-m racing time. *Med Sci Sports Exerc.* 1983;15(4):277-80.

Williams MH. Facts and fallacies of purported ergogenic amino acid supplements. *Clin Sports Med.* 1999 Jul;18(3):633-49.

Wingo JE, Casa DJ, Berger EM, Dellis WO, Knight JC, McClung JM. Influence of a Pre-Exercise Glycerol Hydration Beverage on Performance and Physiologic Function During Mountain-Bike Races in the Heat. *J Athl Train.* 2004 Jun;39(2):169-175.

Winnick JJ, Davis JM, Welsh RS, Carmichael MD, Murphy EA, Blackmon JA. Carbohydrate feedings during team sport exercise preserve physical and CNS function. *Med Sci Sports Exerc.* 2005 Feb;37(2):306-15.

Witte MB, Barbul A. Arginine physiology and its implication for wound healing. *Wound Repair Regen.* 2003 Nov-Dec;11(6):419-23.

Wolfe RR. Protein supplements and exercise. *Am J Clin Nutr.* 2000 Aug;72(2 Suppl):551S-7S.

Wright DA, Sherman WM, Dernbach AR. Carbohydrate feedings before, during, or in combination improve cycling endurance performance. *J Appl Physiol.* 1991 Sep;71(3):1082-8.

Yamaguchi Y, Kagota S, Nakamura K, Shinozuka K, Kunitomo M. Antioxidant activity of the extracts from fruiting bodies of cultured *Cordyceps sinensis*. *Phytother Res.* 2000 Dec;14(8):647-9.

Ylikoski T, Piirainen J, Hanninen O, Penttinen J. The effect of coenzyme Q10 on the exercise performance of cross-country skiers. *Mol Aspects Med.* 1997;18 Suppl:S283-90.

Zawadzki KM, Yaspelkis BB 3rd, Ivy JL. Carbohydrate-protein complex increases the rate of muscle glycogen storage after exercise. *J Appl Physiol.* 1992 May;72(5):1854-9.

Ziegenfuss T, Gales D, Felix S ym. Performance benefits following a five day creatine loading procedure persist for at least four weeks. *Med Sci Sports Exerc* 1998;30(Suppl):265.