

Reference

Chapter 2

1. Guoyao Wu, Amino acids: metabolism, functions, and nutrition, *Amino Acids* May 2009, Volume 37, Issue 1, pp 1-17
2. Davi Vieira Teixeira da Silva1, Carlos Adam Conte-Junior2, Hormonal response to Larginine supplementation in physically active individuals, foodandnutritionresearch. 2014, 58: 22569
3. Ignarro LJ (ed.) Nitric Oxide: Biology andPathobiology, San Diego: Academic Press, 2000
4. Egashira K. Clinical importance of endothelialfunction in arteriosclerosis and ischemic heart disease. *Circ J* 2002; 66:529-533.
5. Hishikawa K, Nakaki T, Tsuda M, et al. Effect of systemic l-arginine administration on hemodynamicand nitric oxide release in man. *Jpn Heart J* 1992;33:41-48
6. Blum, A, et al. 2000 Oral L-arginine in patients with coronary artery disease on medical management. *Circulation* 101: 2160-64.
7. Siani A, Pagano E, et al. Blood pressure and metabolic changes during dietary l-arginine supplementation in humans. *Am J Hypertension* 2000; 13: 13(5Pt 1: 547-551.)
8. Wolf A, Zalpour CD, Theilmeier G, et al. Dietary larginine supplementation normalizes platelet aggregation in hypercholesterolemic humans. *J Am Coll Cardiol* 1997, 29; 479-485
9. Heys, S., Walker, L., Smith, I. & Eremin, O. (1999) Enteral nutritionalsupplementation with key nutrients in patients with critical illness and cancer: a meta-analysis of randomized controlled clinical trials. *Ann. Surg.* 229: 467–477.
10. Beale, R., Bryg, D. & Bihari, D. (1999) Immunonutrition in the critically ill: a systematic review of clinical outcome. *Crit. Care Med.* 27: 2799–2805.
11. Heyland, D., Novak, F., Drover, J., Jain, M., Su, X. & Suchner, U. (2001)Should immunonutrition become routine in critically ill patients? A systematic review of the evidence. *J. Am. Med. Assoc.* 286: 944–953.
12. Gao X, Xu X, Belmadani S, Park Y, Tang Z, Feldman AM et al. (2007). TNF-alpha contributes to endothelial dysfunction by upregulating arginase in ischemia/reperfusion injury. *Arterioscler Thromb Vasc Biol* 27: 1269–1275.
13. World Health Organization. Report on a WHO Consultation Technical Report Series, No 894 Print on demand. Obesity: Preventing and Managing the Global Epidemic. Geneva: WHO press, 1997.
14. Hill JO, Wyatt HR, Reed GW, Peters JC. Obesity and the environment: where do we go from here? *Science* 2003; 299(5608): 853-5.
15. Dixon JB. The effect of obesity on health outcomes. *Mol Cell Endocrinol* 2010; 316(2): 104-8.
16. Tan B, Yin Y, Liu Z, Li X, Xu H, Kong X, et al. Dietary L-arginine supplementation increases muscle gain and reduces body fat mass in growing-finishing pigs. *Amino Acids* 2009; 37(1): 169-75.
17. Lucotti P, Setola E, Monti LD, Galluccio E, Costa S, Sandoli EP, et al. Beneficial effects of a long-term oral Larginine treatment added to a hypocaloric diet and exercise training program in obese, insulin-resistant type 2 diabetic patients. *Am J Physiol Endocrinol Metab* 2006; 291(5): E906-12.
18. Jobgen WS, Fried SK, Fu WJ, Meininguer CJ, Wu G. Regulatory role for the arginine-nitric oxide pathway in metabolism of energy substrates. *J Nutr Biochem* 2006; 17(9): 571-88.
19. Engeli S, Janke J, Gorzelnik K, Bohnke J, Ghose N, Lindschau C, et al. Regulation of the nitric oxide system in human adipose tissue. *J Lipid Res* 2004; 45(9): 1640-8.
20. Jobgen W, Fu WJ, Gao H, Li P et al (2009b) High fat feeding and dietary L-arginine supplementation differentially regulate gene expression in rat white adipose tissue. *Amino Acids* 37:187–198
21. Nisoli E, Falcone S, Tonello C et al (2004) Mitochondrial biogenesis by NO yields functionally active mitochondria in mammals. *Proc Natl Acad Sci USA* 101:16507–16512
22. Gruber HJ, Mayer C, Mangge H, Fauler G, Grandits N, Wilders-Truschnig M. Obesity reduces the bioavailability of nitric oxide in juveniles. *Int J Obes Lond.* 2008; 32:826–831. [PubMed: 18197180]
23. Bailey SJ, Winyard PG, Vanhatalo A, Blackwell JR, DiMenna FJ, Wilkerson DP, Jones AM: Acute L-arginine supplementation reduces the O₂ cost of moderate-intensity exercise and enhances high-intensity exercise tolerance. *J Appl Physiol* 2010, 109(5):1394–1403.
24. Stevens BR, Godfrey MD, Kaminski TW, Braith RW: High-intensity dynamic human muscle performance enhanced by a metabolic intervention. *Med Sci Sports Exerc* 2000, 32(12):2102–2108.
25. Koppo K, Taes YE, Pottier A, Boone J, Bouckaert J, Derave W: Dietary arginine supplementation speeds pulmonary VO₂ kinetics during cycle exercise. *Med Sci Sports Exerc* 2009, 41(8):1626–1632.
26. Tang JE, Lysecki PJ, Manolakos JJ, MacDonald MJ, Tarnopolsky MA, Phillips SM: Bolus arginine supplementation affects neither muscle blood flow nor muscle protein synthesis in young men at rest or afterresistance exercise. *J Nutr* 2011, 141(2):195–200.
27. - Blum A, Hathaway L, Mincemoyer R, Schenke WH, Kirby M, Csako G, Waclawiw MA, Panza JA, Cannon RO 3rd: Effects of oral L-arginine on endothelium-dependent vasodilation and markers of inflammation in healthy postmenopausal women. *J Am CollCardiol* 2000, 35(2):271–276
28. B. Skeie, V. Kvetan, K. M. Gil, M. M. Rothkopf, E. A. Newsholme, and J. Askanazi, “Branch-chain amino acids: their metabolism and clinical utility,” *Critical Care Medicine*, vol. 18, no. 5, pp. 549–571, 1990.
30. S. Nishitani, C. Ijichi, K. Takehana, S. Fujitani, and I. Sonaka, “Pharmacological activities of branched-chain amino acids: specificity of tissue and signal transduction,” *Biochemical and Biophysical Research Communications*, vol. 313, no. 2, pp. 387–389, 2004.
31. S. Nishitani, T. Matsumura, S. Fujitani, I. Sonaka, Y. Miura, and K. Yagasaki, “Leucine promotes glucose uptake in skeletal muscles of rats,” *Biochemical and Biophysical Research Communications*, vol. 299, no. 5, pp. 693–696, 2002.
32. B. C. Batch, K. Hyland, and L. P. Svetkey, “Branch chain amino acids: biomarkers of health and disease,” *Current Opinion in Clinical Nutrition and Metabolic Care*, vol. 17, no. 1, pp. 86–89,2014.
33. L. Q. Qin, P. Xun, D. Bujnowski et al., “Higher branched-chain amino acid intake is associated with a lower prevalence of being overweight or obese in middle-aged East Asian and Western adults,” *Journal of Nutrition*, vol. 141, no. 2, pp. 249–254, 2011.
34. Gustavo Duarte Pimentel; Leucine stimulates mTOR and muscle protein synthesis in both animal and human: Nutricionistas, April 2009.
35. Yoshiharu Shimomura, 2 Taro Murakami, Naoya Nakai,y Masaru Nagasaki, and Robert A. Harris, Exercise Promotes BCAA Catabolism: Effects of BCAA Supplementation on Skeletal Muscle during Exercise, *J. Nutr.* 134: 1583S–1587S, 2004

36. Matsumoto K1, Koba T, Hamada K, Tsujimoto H, Mitsuzono R. Branched-chain amino acid supplementation increases the lactate threshold during an incremental exercise test in trained individuals. *J Nutr Sci Vitaminol (Tokyo)*. 2009 Feb;55(1):52-8.
37. KEVIN D. TIPTON* and ROBERT R. WOLFE, Protein and amino acids for athletes, *Journal of Sports Sciences*, 2004, 22, 65–79
38. Stout, J.R.; Cramer, J.T.; Mielke, M.; O'Kroy J.A.; Torok, D.; Zoeller, R.F. Effects of twenty-eight days of beta-alanine and creatine monohydrate supplementation on the physical working capacity at neuromuscular fatigue threshold. *J. Strength Cond. Res.* 2006, 20, 928-931.
39. Derave, W.; Ozdemir, M.S.; Harris, R.C.; Pottier, A.; Reyngoudt, H.; Koppo, K.; Wise, J.A.; Achter, E. Beta-alanine supplementation augments muscle carnosine content and attenuates fatigue during repeated isokinetic contraction bouts in trained sprinters. *J. Appl. Physiol.* 2007;103, 1736-1743.
40. Hill, C.A.; Harris, R.C.; Kim, H.J.; Harris, B.D.; Sale, C.; Boobis, L.H.; Kim, C.K.; Wise, J.A. Influence of beta-alanine supplementation on skeletal muscle carnosine concentrations and high intensity cycling capacity. *Amino Acids* 2007, 32, 225-233.
41. Harris, R.C.; Tallon, M.J.; Dunnett, M.; Boobis, L.; Coakley, J.; Kim, H.J.; Fallowfield, J.L.; Hill, C.A.; Sale, C.; Wise, J.A. The absorption of orally supplied beta-alanine and its effect on muscle carnosine synthesis in human vastus lateralis. *Amino Acids* 2006, 30, 279-289.
42. Gardner, M.L.; Illingworth, K.M.; Kelleher, J.; Wood, D. Intestinal absorption of the intact peptide carnosine in man, and comparison with intestinal permeability to lactulose. *J. Physiol.* 1991, 439, 411-422.
43. Suzuki, T.; Ito, O.; Takahashi, H.; Takamatsu, K. The effect of sprint training on skeletal muscle carnosine in humans. *Int. J. Sport Health Sci.* 2004, 2, 105-110.
44. Kendrick, I.; Harris, R.; Kim, J.J.; Kim, C.; Dang, V.; Lam, T.; Bui, T.; Smith, M.; Wise, J. The effects of 10 weeks of resistance training combined with beta-alanine supplementation on whole body strength, force production, muscular endurance and body composition. *Amino Acids* 2008;34, 546-554.
45. Harris, R.C.; Marlin, D.J.; Dunnett, M.; Snow, D.H.; Hultman, E. Muscle buffering capacity and dipeptide content in the thoroughbred horse, greyhound dog and man. *Comp. Biochem. Physiol. A Comp. Physiol.* 1990, 97, 249-251.
46. Kendrick, I.P.; Harris, R.C.; Kim, C.K.; Kim, H.J.; Viet, D.H.; Thanh, L.Q.; Toai, B.T.; Wise, J.A. The effect of beta-alanine (Carnosyn) supplementation on muscle carnosine synthesis during 4 weeks using a one-leg training model (Abstract). *J. Int. Soc. Sports Nutr.* 2006, 3, S8.
47. Baguet, A.; Reyngoudt, H.; Pottier, A.; Everaert, I.; Callens, S.; Achter, E.; Derave, W. Carnosine loading and washout in human skeletal muscles. *J. Appl. Physiol.* 2009, 106, 837-842.
48. deVries, H.A.; Tichy, M.W.; Housh, T.J.; Smyth, K.D.; Tichy, A.M.; Housh, D.J. A method for estimating physical working capacity at the fatigue threshold (PWCFT). *Ergonomics* 1987, 30, 1195-1204.
49. Bump, K.; Lawrence, L.; Moser, L.; Miller-Graber, P.; Kurcz, E. Effect of breed of horse on muscle carnosine concentration. *Comp. Biochem. Physiol.* 1990, 195-197.
50. Kraemer, W.J.; Gordon, S.E.; Lynch, J.M.; Pop, M.E.; Clark, K.L. Effects of multibuffer supplementation on acid-base balance and 2,3-diphosphoglycerate following repetitive anaerobic exercise. *Int. J. Sport Nutr.* 1995, 5, 300-314.
51. Kendrick, I.P. Kim, H.J. Harris, R.C. Kim, C.K. Dang, V.H. Lam, T.Q. Bui, T.T. Wise, J.A. The effect of 4 weeks beta-alanine supplementation and isokinetic training on carnosine concentrations in type I and II human skeletal muscle fibers. *Eur. J. Appl. Physiol.* 2009, 106, 131-138.
52. Candow, D. G., Chilibeck, P. D., Burke, D. G., Davison, K. S., & Smith-Palmer, T. (2001). Effect of glutamine supplementation combined with resistance training in young adults. *European Journal of Applied Physiology*, 86(2), 142-149.
53. Castell, L. (2003). Glutamine supplementation in vitro and in vivo, in exercise and in immunodepression. *Sports Medicine (Auckland, N.Z.)*, 33(5), 323-345.
54. Gleeson, M. (2008). Dosing and efficacy of glutamine supplementation in human exercise and sport training. *The Journal of Nutrition*, 138(10), 2045S-2049S.
55. P. L. Greenhaff, M. Gleeson, R. J. Maughan, The effects of diet on muscle pH and metabolism during high intensity exercise, May 1988, Volume 57, Issue 5, pp 531-539
56. Kartik N. Rajagopalan and Ralph J. DeBerardinis, Role of Glutamine in Cancer: Therapeutic and Imaging Implications, *J Nucl Med.* 2011;52:1005-1008.
57. Antonio, J., & Street, C. (1999). Glutamine: a potentially useful supplement for athletes. / La glutamine: un complément potentiellement utile pour les athlètes. *Canadian Journal Of Applied Physiology*, 24(1), 1-14. Beduschi, G. (2003). Current popular ergogenic aids used in sports: a critical view. *Nutrition & Dietetics*, 60(2), 104.
58. Gleeson, M. (2008). Dosing and efficacy of glutamine supplementation in human exercise and sport training. *Journal Of Nutrition*, 138(10), 2045S-2049S.
59. Street, B., Bryne, C., & Eston, R. (2011). Original Article: Glutamine Supplementationin Recovery From Eccentric Exercise Attenuates Strength Loss and Muscle Soreness. *Journal Of Exercise Science & Fitness*, (9) 116-122. doi:10.1016/S1728- 869X(12)60007-0

Chapter 3

- Alaunyte I, Stojceska V, Plunkett A, Derbyshire E. Dietary iron intervention using a staple food product for improvement of iron status in female runners. *J Int Soc Sports Nutr.* 2014;11:50
- McClung JP. Iron status and the female athlete. *J Trace Elem Med Biol* 2012;26:124–6.
- Brune M, Magnusson B, Persson H, Hallberg L. Iron losses in sweat. *Am J Clin Nutr* 1986;43:438–43
- Lyle RM, Weaver CM, Sedlock DA, Rajaram S, Martin B, Melby CL. Iron status in exercising women: the effect of oral iron therapy vs increased consumption of muscle foods. *Am J Clin Nutr* 1992;56:1049–55
- Weaver CM, Rajaram S. Exercise and iron status. *J Nutr* 1992;122:782–7.
- Ponka P, Schulman HM. Regulation of heme biosynthesis: distinct regulatory features in erythroid cells. *Stem Cells* 1993;11(Suppl. 1):24–35.
- Peeling P, Dawson B, Goodman C, et al. Effects of exercise on hepcidin response and iron metabolism during recovery. *Int J Sport Nutr Exerc Metab* 2009;19:583–97.
- DellaValle DM, Haas JD. Impact of iron depletion without anemia on performance in trained endurance athletes at the beginning of a training season: a study of female collegiate rowers. *Int J Sport Nutr Exerc Metab* 2011;21:501–6.
- Eichner ER. Pearls and pitfalls: everyone needs iron. *Curr Sports Med Rep* 2012;11:50–1.
- Ahmadi A, Enayatizadeh N, Akbarzadeh M, Asadi S, Tabatabaei SH. Iron status in female athletes participating in team ball-sports. *Pak J Biol Sci* 2010;13:93–6
- Jeukendrup AE. Nutrition for endurance sports: marathon, triathlon, and road cycling. *J Sports Sci* 2011;29(Suppl. 1): S91–9.
- Dueck CA, Matt KS, Manore MM, Skinner JS. Treatment of athletic amenorrhea with a diet and training intervention program. *Int J Sport Nutr* 1996;6:24–40.

14. Tan D, Dawson B, Peeling P. Hemolytic effects of a football-specific training session in elite female players. *Int J Sports Physiol Perform* 2012;7:271–6.
15. Choi J, Masarata P, Latunde-Dada GO, Arno M, Simpson RJ, McKie AT. Duodenal reductase activity and spleen iron stores are reduced and erythropoiesis is abnormal in dcytb knockout mice exposed to hypoxic conditions. *J Nutr* 2012;142:1929–34.
16. Ganz T, Nemeth E. Hepcidin and iron homeostasis. *Biochim Biophys Acta* 2012;1823:1434–43.
17. Office of Dietary Supplements/National Institutes of Health, US Department of Health and Human Services. Dietary Supplement Fact Sheet: Iron. Bethesda, MD: National Institutes of Health; 2006. <http://ods.od.nih.gov/pdf/factsheets/IronHealthProfessional.pdf>. Accessed November 26, 2011.
18. Braun WA, Flynn MG, Carroll KK, Brickman T, Lambert CP. Iron status and resting immune function in female collegiate swimmers. *Int J Sport Nutr Exerc Metab*. 2000;10:425–433.
19. Zoller H, Vogel W. Iron supplementation in athletes—first do no harm. *Nutrition*. 2004;20:615–619.
20. Zötter H, Robinson N, Zorzoli M, Schattenberg L, Saugy M, Mangin P. Abnormally high serum ferritin levels among professional road cyclists. *Br J Sports Med*. 2004;38:704–708.
21. Janakiraman K, Shenoy S, Sandhu JS. Intravascular haemolysis during prolonged running on asphalt and natural grass in long and middle distance runners. *J Sports Sci* 2011;29:1287–92.
22. McClung JP, Gaffney-Stomberg E, Lee JJ. Female athletes: a population at risk of vitamin and mineral deficiencies affecting health and performance. *J Trace Elem Med Biol*. 2014;28:388–92.
23. Burden RJ, Morton K, Richards T, Whyte GP, Pedlar CR. Is iron treatment beneficial in, iron-deficient but non-anaemic (IDNA) endurance athletes? A meta-analysis. *Br J Sports Med*. 2014;0:1–10.
24. Matthias W. Hentze, Martina U. Muckenthaler, Bruno Galy, and Clara Camaschella, Two to Tango: Regulation of Mammalian Iron Metabolism, *j. cell*.2010.06.028
- 25-Waller MF, Haymes EM I, The effects of heat and exercise on sweat iron loss, *Medicine and Science in Sports and Exercise* [1996, 28(2):197-203]
- 60.

Chapter 4

1. Mary Enig and Sally Fallon. Eat Fat, Lose Fat - Lose Weight and Feel Great with Three Delicious, Science-Based Coconut Diets. (New York: Penguin, 2005).
2. - P N Durrington, D Bhatnagar, M I Mackness, J Morgan, K Julier, M A Khan, M France, An omega-3 polyunsaturated fatty acid concentrate administered for one year decreased triglycerides in simvastatin treated patients with coronary heart disease and persisting hypertriglyceridaemia, *Heart* 2001;85:544–548
3. Kelerman G, Weissman MM, Increasing rates of depression. *JAMA* 1989, 261:2229-35.
4. Edwards R, Peet M, Shay J, Horrobin D: Omega-3 polyunsaturated fatty acid levels in the diet and in red blood cell membranes of depressed patients. *J Affect Disord* 1998; 48:149 155.
5. - Logan Alan C, Omega-3 fatty acids and major depression: A primer for the mental health professional, 2004, *Lipids Health Dis* (3): 25.
6. Nemets H, Nemets B, Apter A, Bracha Z, Belmaker RH. Omega-3 treatment of childhood depression: a controlled, doubleblind pilot study. *Am J Psychiatry*, 2006;163(6):1098-100.
7. - Su KP, Huang SY, Chiu CC, Shen WW. Omega-3 fatty acids in major depressive disorder. A preliminary double-blind, placebocontrolled trial, *Eur Neuropsychopharmacol*. 2003, 13(4):267-71.
8. Lespérance F, Frasure-Smith N, St-André E, Tureck G, Lespérance P, Wisniewski SR, The Efficacy of Omega-3 Supplementation for Major Depression: A Randomized Controlled Trial, Published online 2010 June 15, *J Clin Psychiatry*.
9. Andersson A, Sjödin A, Olsson R, Vessby B: Effects of physical exercise on phospholipid fatty acid composition in skeletal muscle. *Am J Physiol Endocrinol Metab* 1998, 274: E432-E438.
10. Helge JW, Wu BJ, Willer M, et al.: Training affects muscle phospholipid fatty acid composition in humans. *J Appl Physiol* 2001, 90:670–677.
11. Kunešová, M. Braunerová, R. Hlavatý, P. Tvrzická, E. Staňková, B. Škrha, J. Hilgertová, J. Hill, M. Kopecký, J. Wagenchnecht, M. Hainer, V. Matoulek, M. Pařízková, J. Ták, A. Svačina, Š. The influence of n-3 polyunsaturated fatty acids and very low calorie diet during a short-term weight reducing regimen on weight loss and serum fatty acid composition in severely obese women. *Physiol. Res.* 2006, 55, 63-72
12. Eric E Noreen*, Michael J Sass, Megan L Crowe, Vanessa A Pabon, Josef Brandauer and Lindsay K Averill, Effects of supplemental fish oil on resting metabolic rate, body composition, and salivary cortisol in healthy adults, *Journal of the International Society of Sports Nutrition* 2010, 7:31 doi:10.1186/1550-2783-7-31
13. Oura T1, Kajiwara S. Substrate specificity and regioselectivity of delta12 and omega3 fatty acid desaturases from *Saccharomyces kluyveri*. *Biosci Biotechnol Biochem*. 2008 Dec;72(12):3174-9. Epub 2008 Dec 7.
14. Parra, D. Ramel, A. Bandarra, N. Kiely, M. Martinez, J. Thorsdottir, I. A diet rich in long chain omega 3 fatty acids modulates satiety in overweight and obese volunteers during weight loss. *Appetite* 2008, 51, 676-680.
15. Parrish, C. Pathy, D. Parkes, J. Angel, A. Dietary fish oils limit adipose tissue hypertrophy in rats. *Metabolism* 1990, 39, 217-219.

Chapter 5

1. Zanchi NE, Gerlinger-Romero F, Guimaraes-Ferreira L, de Siqueira Filho MA, Felitti V, Lira FS, Seelaender M, Lancha AH Jr: HMB supplementation: clinical and athletic performance-related effects and mechanisms of action. *Amino Acids* 2011, 40:1015–1025
2. Flakoll P, Sharp R, Baier S, Levenhagen D, Carr C, Nissen S: Effect of betahydroxy- beta-methylbutyrate, arginine, and lysine supplementation on strength, functionality, body composition, and protein metabolism in elderly women. *Nutrition* 2004, 20:445–451.
3. Vukovich MD, Stubbs NB, Bohlken RM: Body composition in 70-year-old adults responds to dietary beta-hydroxy-beta-methylbutyrate similarly to that of young adults. *J Nutr* 2001, 131:2049–2052.
4. - Wilson JM, Grant SC, Lee SR, Masad IS, Park YM, Henning PC, Stout JR, Loenneke JP, Arjmandi BH, Panton LB, Kim JS: Beta-hydroxy-beta-methyl-butrate blunts negative age-related changes in body composition, functionality and myofiber dimensions in rats. *J Int Soc Sports Nutr* 2012, 9:18.
5. Nissen SL, Panton L, Fuller J, Rice D, Ray M, Sharp R: Effect of feeding β -hydroxy- β -methylbutyrate (HMB) on body composition and strength of women. *FASEBJ* 1997, 11:A150.
6. Vukovich , Stubbs NB, Bohlken RM, Desch MF, Fuller JC, Rathmacher JA: The effect of dietary β -hydroxy- β -methylbutyrate (HMB) on strength gains and body composition changes in older adults [abstract]. *FASEB J* 1997, 11:A376.
7. Ransone Jack, nNeighbors Kerri, Lefavi Robert, Chromiak Joseph: The Effect of β -Hydroxy β -Methylbutyrate on Muscular Strength and Body Composition in

- Collegiate Football Players. *The Journal of Strength and Conditioning Research* 2003;17(1):34-39.
8. Paddon-Jones D, Keech A, Jenkins D: Short-term beta-hydroxybeta-methylbutyrate supplementation does not reduce symptoms of eccentric muscle damage. *IntJ Sport Nutr Exerc Metab* 2001, 11(4):442-50.
 9. Clark RH, Feleke G, Din M, Yasmin T, Singh G, Khan FA, Rathmacher JA: Nutritional treatment for acquired immunodeficiency virus-associated wasting using beta-hydroxy beta-methylbutyrate, glutamine, and arginine: a randomized, double-blind, placebo-controlled study. *JPNEN Parenter EnteralNutr* 2000;24(3):133-9.
 10. Ostaszewksi , Grzelkowska PK, Balasinska B, Barej W, Nissen S:Effects of 3-hydroxy 3-methyl butyrate and 2-oxoisocaporate on body composition and cholesterol metabolism in rabbits.VII Symposium on Protein Metabolism and Nutrition 1995. Vale de Santarim 162.
 11. Nissen S, Fuller JC Jr, Sell J, Ferket PR, Rives DV: The effect of β hydroxy- β -methylbutyrate on growth, mortality and carcass qualities of broiler chickens. *Poult Sci* 1994, 73:137-155.
 12. Tipton KD, Rasmussen BB, Miller SL, Wolf SE, Owens-Stovall SK, Petri BE, Wolfe RR: Timing of amino acid-carbohydrate ingestion alters anabolic response of muscle to resistance exercise. *Am J Physiol Endocrinol Metab* 2001, 281:E197-E206.
 13. Thompson HS, Scordalis SP: Ubiquitin changes in human biceps muscle following exercise-induced damage. *Biochem Biophys Res Commun* 1994, 204:1193-1198.
 14. Nissen SL, Panton L, Wilhelm R, Fuller JC: Effect of β -hydroxy- β methylbutyrate(HMB) supplementation on strength and body composition of trained and untrained males undergoing intense resistance training. *FASEB J* 1996;10:287.

Chapter 6

1. Dangin M1, Boirie Y, Garcia-Rodenas C, Gachon P, Fauquant J, Callier P, Ballèvre O, Beaufrère B. The digestion rate of protein is an independent regulating factor of postprandial protein retention. *Am J Physiol Endocrinol Metab*. 2001 Feb;280(2):E340-8.
2. Yoo YC, Watanabe S, Watanabe R, et al. Bovine lactoferrin and lactoferricin inhibit tumor metastasis in mice. *Adv Exp Med Biol* 1998;443:285-291
3. Kent KD, Harper WJ, Bomser JA. Effect of whey protein isolate on intracellular glutathione and oxidant-induced cell death in human prostate epithelial cells. *Toxicol In Vitro* 2003;17:27-33.
4. - Yoo YC1, Watanabe S, Watanabe R, Hata K, Shimazaki K, Azuma I. Bovine lactoferrin and Lactoferricin inhibit tumor metastasis in mice. *Adv Exp Med Biol*. 1998;443:285-91.
5. 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;31:171-178.
6. - Lawrence J, Appel, M.D., M.P.H., Thomas J. Moore, M.D., Eva Obarzanek, Ph.D., William M. Vollmer, A Clinical Trial of the Effects of Dietary Patterns on Blood Pressure, *Engl J Med* 1997; 336:1117-1124
7. Zemel MB. Mechanisms of dairy modulation of adiposity. *J Nutr* 2003;133:252S-256S
8. Bowen J, Noakes M, Clifton PM: A high dairy protein, high-calcium diet minimizes bone turnover in overweight adults during weight loss. *J Nutr* 2004, 134:568-573.
9. MortensenL,HartvigsenM,BraderL,etal.Differentialeffectsofproteinqualityonpostprandiallipemiainresponsetoafat-richmealintype2diabetes: comparisonof-whey,casein,glutenandcodprotein.*AmJClinNutr*2009;90(1):41-8.
10. Sebely Pal*, Vanessa Ellis,Suleen Ho,Acuteeffectsofwheyproteinisolateoncardiovascularriskfactorsinoverweight,
11. post-menopausal women, *Atherosclerosis* 212 (2010) 339–344
12. Kasim-Karakas SE, Cunningham WM, Tsodikov A: Relation of nutrients and hormones in polycystic ovary syndrome. *Am J Clin Nutr* 2007, 85:688-694.
13. PalS,EllisV,DhaliwalS.Effectsofwheyproteinisolateonbodycomposition,lipids,insulinandglucoseinoverweightandobeseindividuals.*BrJNutr*;inpress.
14. Hopman WPM, Jansen JBMJ & Lamers CBHW (1985) Comparative study of the effects of equal amounts of fat, protein and starch on plasma cholecystokinin in man. *Scandinavian Journal of Gastroenterology* 20, 843–847.
15. Hulmi JJ1, Volek JS, Selänne H, Mero AA. Protein ingestion prior to strength exercise affects blood hormones and metabolism. *Med Sci Sports Exerc*. 2005 Nov;37(11):1990-7.
16. Campbell, W.W., Crim, M.C., Young, V.R., Joseph, L.J. and Evans, W.J. (1995). Effects of resistance training and dietary protein intake on protein metabolism in older adults. *American Journal of Physiology*, 268, E1143–E1153.
17. Burke, D.G., Chilibeck, P.D., Davidson, K.S., Candow, D.G., Farthing, J. and Smith-Palmer, T. (2001). The effect of whey protein supplementation with and without creatine monohydrate combined with resistance training on lean tissue mass and muscle strength. *International Journal of Sport Nutrition and Exercise Metabolism*, 11, 349–364.
18. Butterfield, G.E. (1987). Whole-body protein utilization in humans. *Medicine and Science in Sports and Exercise*, 19,S157–S165.
19. Esmarck, B., Andersen, J.L., Olsen, S., Richter, E.A., Mizuno, M. and Kjaer, M. (2001). Timing of postexercise protein intake is important for muscle hypertrophy with resistance training in elderly humans. *Journal of Physiology*,535, 301–311.
20. Levenhagen, D.K., Gresham, J.D., Carlson, M.G., Maron, D.J., Borel, M.J. and Flakoll, P.J. (2001). Postexercise nutrient intake timing in humans is critical to recovery of leg glucose and protein homeostasis. *American Journal of Physiology*, 280, E982–E993.
21. Miller, S.L., Tipton, K.D., Chinkes, D.L., Wolf, S.E. and Wolfe, R.R. (2003). Independent and combined effects of amino acids and glucose after resistance exercise. *Medicine and Science in Sports and Exercise*, 35, 449–455.
22. Paddon-Jones D, Sheffield-Moore M, Zhang XJ, Volpi E, Wolf SE, Aarsland A, Ferrando AA, Wolfe RR. Amino acid ingestion improves muscle protein synthesis in the young and elderly. *Am J Physiol Endocrinol Metab*. 2004 Mar;286(3):E321-8.
23. Norton LE, Layman DK. Leucine regulates translation initiation of protein synthesis in skeletal muscle after exercise. *J Nutr*. 2006 Feb;136(2):533S-537S.
24. Anthony JC, Lang CH, Crozier SJ, Anthony TG, MacLean DA, Kimball SR, Jefferson LS. Contribution of insulin to the translational control of protein synthesis in skeletal muscle by leucine. *Am J Physiol Endocrinol Metab*. 2002 May;282(5):E1092-101.
25. Paddon-Jones D, Sheffield-Moore M, Aarsland A, Wolfe RR, Ferrando AA. Exogenous amino acids stimulate human muscle anabolism without interfering with the response to mixed meal ingestion. *Am J Physiol Endocrinol Metab*. 2005 Apr;288(4):E761-7.
26. Arnal MA, Mosoni L, Boirie Y, Houlier ML, Morin L, Verdier E, Ritz P, Antoine JM, Prugnaud J, Beaufrère B, Mirand PP. pulse feeding improves protein retention in elderly women. *Am J Clin Nutr*. 1999 Jun;69(6):1202-8.
27. Bohe J, Low JF, Wolfe RR, Rennie MJ. Latency and duration of stimulation of human muscle protein synthesis during continuous infusion of amino acids. *J*

Chapter 7

1. Li YH1, Wu Y, Wei HC, Xu YY, Jia LL, Chen J, Yang XS, Dong GH, Gao XH, Chen HD. Protective effects of green tea extracts on photoaging and photomunmosuppression. 2009 Aug;15(3):338-45. doi: 10.1111/j.1600-0846.2009.00370.x
2. Wang H1, Wen Y, Du Y, Yan X, Guo H, Ryeroff JA, Boon N, Kovacs EM, Mela DJ. Effects of catechin enriched green tea on body composition. 2010 Apr;18(4):773-9. doi: 10.1038/oby.2009.256. Epub 2009 Aug 13.
3. Kavanagh KT, Hafer LJ, Kim DW, Mann KK, Sherr DH, Rogers AE, Sonenshein GE: Green tea extracts decrease carcinogen-induced mammary tumor burden in rats and rate of breast cancer cell proliferation in culture. *J Cell Biochem* 2001, 82:387-398.
4. Koo MWL, Cho CH: Pharmacological effects of green tea on the gastrointestinal system. *Eur J Pharmacol* 2004, 500:177-185.
5. Meydani M: Nutrition interventions in aging and age associated disease. *Ann N Y Acad Sci* 2001, 928:226-235.
6. Khokhar S, Magnusdottir SGM: Total phenol, catechin, and caffeine contents of teas commonly consumed in the United Kingdom. *J AgricFood Chem* 2002, 50:565-570.
7. Naghma K, Hasan M: Tea polyphenols for health promotion. *Life Sciences* 2007, 81:519-533.
8. Raederstorff DG, Schlachter MF, Elste V, Weber P: Effect of EGCG on lipidabsorption and plasma lipid levels in rats. *J Nutr Biochem* 2003, 14:326-332.
9. Erba D, Riso P, Bordoni A, Foti P, Biagi PL, Testolin G. Effectiveness of moderate green tea consumption on antioxidative status and plasma lipid profile in humans. *J Nutr Biochem* 2005;16(3): 144-9.
10. Raihan SZ, Chowdhury AK, Rabbani GH, MarniF, Ali MS, Nahar L, et al. Effect of aqueous extracts of black and green teas in arsenicinduced toxicity in rabbits. *Phytother Res* 2009; 23(11): 1603-8.
11. Tsuneki H, Ishizuka M, Terasawa M, Wu JB, Sasaoka T, Kimura I: Effect of
12. green tea on blood glucose levels and serum proteomic patterns in diabetic (db/db) mice and on glucose metabolism in healthy humans. *BMC Pharmacol* 2004, 4:18-21.
13. Haqqi TM, Anthony DD, Gupta S, Ahmad N, Lee MS, Kumar GK, Mukhtar H:
14. Prevention of collagen-induced arthritis in mice by a polyphenolic fraction from green tea. *Proc Natl Acad Sci USA* 1999, 96:4524-4529.

Chapter 8

1. Y Campos, R Huertas, G Lorenzo, J Bautista, Plasma carnitine insufficiency and effectiveness of L-carnitine therapy in patients with mitochondrial myopathy, *Muscle & Nerve* Volume 16, Issue 2, pages 150–153, February 1993
2. Ramos AC, Barrucand L, Elias PR, et al. Carnitine supplementation in diphtheria. *Indian Pediatr* 1992;29:1501-1505.
3. Corbucci GG, Lettieri B. Cardiogenic shock and L-carnitine: clinical data and therapeutic perspectives. *Int J Clin Pharmacol Res* 1991;11:283-293.
4. Ino T, Sherwood WG, Benson LN, et al. Cardiac manifestations in disorders of fat and carnitine metabolism in infancy. *J Am Coll Cardiol* 1988;11:1301-1308.
5. Kamikawa T, Suzuki Y, Kobayashi A, et al. Effects of L-carnitine on exercise tolerance in patients with stable angina pectoris. *Jpn Heart J* 1984;25:587-597.
6. Canale C, Terrachini V, Biagini A, et al. Bicycle ergometer and echocardiographic study in healthy subjects and patients with angina pectoris after administration of Lcarnitine: semiautomatic computerized analysis of M-mode tracing. *Int J Clin Pharmacol Ther Toxicol* 1988;26:221-224.
7. Negro P, Gossetti F, La Pinta M, et al. The effect of L-carnitine, administered through intravenous infusion of glucose, on both glucose and insulin levels in healthy subjects. *Drugs Exp Clin Res* 1994;20:257-262.
8. Grandi M, Pederzoli S, Sacchetti C. Effect of acute carnitine administration on glucose insulin metabolism in healthy subjects. *Int J Clin Pharmacol Res* 1997;17:143-147.
9. Colombani P, Wenk C, Kunz I, Krahenbuhl S, Kuhnt M, Arnold M. 1996. Effects of L-carnitine supplementation on physical performance and energy metabolism of endurance-trained athletes: a doubleblind crossover field study. *E uropean Journal of Applied physiology and Occupational physiology* 73(5) 434-439.
10. - Trappe SW, Costill DL, Goopaster B, Vukovich MD, Fink WJ. 1994. The effects of L-carnitine supplementation on performance during interval swimming. *International Journal of sport Medicine* 15(4): 181-5.
11. Brass EP. 2000. Supplemental carnitine and exercise. *The American Journal of clinical nutrition* 72(2): 6185-6235.
12. Arenas J, Rubio JC, Martín MA, Campos Y. Biological roles of L-carnitine in perinatal metabolism. *Early Hum Dev* 1998; 53(Suppl): S43-50.
13. 20. Barnett C, Costil DL, Vukovich MD, Cole KJ, Goodpaster BH, Trappe SW, et al. Effect of L-carnitine supplementation on muscle and blood carnitine muscle content and lactate accumulation during high-intensity sprint cycling. *Int J Sport Nutr* 1994; 4(3):280-8.
14. - Williams C, Walker MP, Nute MG, Jackson J, Brooks S. Fat metabolism during prolonged exercise: Influence of carnitine supplementation. *The Proceedings of the Nutrition Society* 1987; 46: 138A.
15. Sohaily S, Eizadi M, Faraji G, Kamyabnya M (2011). Aerobic Capacity and Glucose Metabolism in Response to Oral Carnitine Ingestion in Healthy People. *Journal of Basic and Applied Scientific Research* 1(9): 1305-1309.
16. Robert C. 1998. Carnitine may benefit Athletes. *Journal of theAmerican College of Nutrition* 17(6): 646-650.

Chapter 9

1. Noha H. Farag, M.D., Ph.D., Thomas L. Whitsett, M.D., Barbara S. McKey, R.N., M.B.A., Michael F. Wilson, M.D., Andrea S. Vincent, Ph.D., Susan A. Ever-son-Rose, Ph.D., and William R. Lovallo, Ph.D, Caffeine and Blood Pressure Response: Sex, Age, and Hormonal Status, *JOURNAL OF WOMEN'S HEALTH* Volume 19, Number 6, 2010
2. Greenberg JA, Dunbar CC, Schnoll R, Kokolis R, Kokolis S, Kassotis J. Caffeinated beverage intake and the risk of heart disease mortality in the elderly: a prospective analysis. *Am J Clin Nutr.* 2007;85(2):392- 398.
3. Myers MG, Harris L, Leenen FH, Grant DM. Caffeine as a possible cause of ventricular arrhythmias during the healing phase of acute myocardial infarction. *Am J Cardiol.* 1987;59(12):1024-1028.
4. Barger-Lux, M. J., and Heaney, R. P., 1995, Caffeine and the calcium economy revisited. *Osteoporosis International*, 5, 97–102.
5. Osama M. Badr; Samir A. El-Masry; Magda A. Mansor and Walid M. Abdalla, Biochemical effects of caffeine on bone of growing rats, *Nature and Science* 2013;11
6. Barger-Lux, M. J., Heaney, R. P., and Stegman, M. R., 1990, Effects of moderate caffeine intake on the calcium economy of premenopausal women. *American*

Journal of Clinical Nutrition, 52, 722–725.

7. Hasling, C., S:ndergaard, K., Charles, P., and Mosekilde, L., 1992, Calcium metabolism in postmenopausal osteoporotic women is determined by dietary calcium and coffee intake. *Journal of Nutrition*, 122, 1119–1126.
8. Harris, S. S., and Dawson-Hughes, B., 1994, Caffeine and bone loss in healthy postmenopausal women. *American Journal of Clinical Nutrition*, 60, 573–578.
9. Barrett-Connor, E., Chang, J. C., and Edelstein, S. L., 1994, Coffee-associated osteoporosis offset by daily milk consumption. *The Rancho Bernardo Study. Journal of the American Medical Association*, 271, 280–283.
10. Koschlakoff (1864) Beobachtungen über die wirkung des citronensäuren coffein's. *Virchow's Archiv*. 31, 436–445.
11. Eddy, N.M. & Downs, A.W. (1928) Tolerance and crosstolerance in the human subject to the diuretic effect of caffeine, theobromine and theophylline. *J. Pharmacol. Exp. Therap.* 33, 167–174.
12. Passmore, A.P., Kondowe, G.P. & Johnston, G.D. (1987) Renal and cardiovascular effects of caffeine: a doseresponse study. *Clin. Sci.* 72, 749–756.
13. - Killer SC, Blannin AK, Jeukendrup AE (2014) No Evidence of Dehydration with Moderate Daily Coffee Intake: A Counterbalanced Cross-Over Study in a Free-Living Population. *PLoS ONE* 9(1): e84154. doi:10.1371/journal.pone.0084154
14. J. H. WILLIAMS, J. F. SIGNORILE, W. S. BARNEs AND T. W. HENRICH, CAFFEINE, MAXIMAL POWER OUTPUT AND FATIGUE, *BritJ.Sports Med.* - Vol. 22, No. 4, December 1988, pp. 132-134
15. Kim, B.R.; H.T. Kim; D. Lee (1999). «The effect of caffeine ingestion on anaerobic power.» *Exercise science*, 8 (1) pp: 53- 62.
16. Anselme, F.; B. Collomp, et.al (1992). «Caffeine increases maximal power and lactate concentration». *Eur.J. Appl.Physiol.* (65) pp:188-191.
17. Pasman, W.J., et al. (1995). «The effect of different dosages of caffeine on endurance performance time». *Int. J. sports. Med.* 16 (4) pp: 225- 230.
18. Graham TE. Caffeine and exercise: metabolism, endurance and performance. *Sports Med.* 2001;31(11):785-807.

Chapter 10

1. SHEPPARD, H.L., S.M. RAICHADA, K.M. KOURI, L. STENSONBAR- MAOR, AND J.D. BRANCH. Use of creatine and other supplements by members of civilian and military health clubs: A cross-sectional survey. *Int. J. Sport Nutr. Exerc. Metab.* 10:245– 259. 2000.
- 2- STANTON, R., AND G.A. ABT. Creatine monohydrate use among elite Australian powerlifters. *J. Strength Cond. Res.* 14:322–327. 2000.
- 3- MCGUINE, T.A., J.C. SULLIVAN, AND D.A. BERNHARDT. Creatine supplementation in Wisconsin high school athletes. *Wmj.* 101: 25–30. 2002.
- 4- NOONAN, D., K. BERG, R.W. LATIN, J.C. WAGNER, AND K. REIMERS. Effects of varying dosages of oral creatine relative to fat free body mass on strength and body composition. *J. Strength Cond. Res.* 12:104–108. 1998.
- 5- VANDENBERGHE, K., M. GORIS, P. VAN HECKE, M. VAN LEEMPUTTE, L. VANGERVEREN, AND P. HESPEL. Long-term creatine intake is beneficial to muscle performance during resistance training. *J. Appl. Physiol.* 83:2055–2063. 1997.
- 6- VOLEK, J.S., W.J. KRAEMER, J.A. BUSH, M. BOETES, T. INCLEDON, K.L. CLARK, AND J.M. LYNCH. Creatine supplementation enhances muscular performance during high-intensity resistance exercise. *J. Am. Diet Assoc.* 97:765–770. 1997.
- 7- EARNEST, C.P., P.G. SNELL, R. RODRIGUEZ, A.L. ALMADA, AND T.L. MITCHELL. The effect of creatine monohydrate ingestion on anaerobic power indices, muscular strength and body composition. *Acta Physiol. Scand.* 153:207–209. 1995.
- 8- BRENNER, M., J. WALBERG RANKIN, AND D. SEBOLT. The effect of creatine supplementation during resistance training in women. *J. Strength Cond. Res.* 14:207–213. 2000.
- 9-- BURKE, D.G., P.D. CHILIBECK, K.S. DAVIDSON, D.G. CANDOW, J. FARTHING, AND T. SMITH-PALMER. The effect of whey protein supplementation with and without creatine monohydrate combined with resistance training on lean tissue mass and muscle strength. *Int. J. Sport Nutr. Exerc. Metab.* 11:349–364. 2001.
10. 10 - KREIDER, R.B., M. FERREIRA, M. WILSON, P. GRINDSTAFF, S.PLISK, J. REINARDY, E. CANTLER, AND A.L. ALMADA. Effects of creatine supplementation on body composition, strength, and sprint performance. *Med. Sci. Sports Exerc.* 30:73–82. 1998.
11. 11-Elevation of creatine in resting and exercising muscles of normal subjects by creatine supplementation. Harris R. et al . *Clin. Sci.* 1992; 83: 367-74
12. 12-Creatine supplementation and dynamic high-intensity intermittent exercise. Balsom PD, et al. *Scand J Med Sci Sports.* 1993; 3: 143-9.
13. 13-Creatine supplementation per se does not enhance endurance exercise performance. Balsom PD,et al. *Acta Physiol Scand.* 1993; 149; 521-3.
14. 14-.Fitch CD. Significance of abnormalities of creatine metabolism. In: Rowland LP, ed. *Pathogenesis of human musculardystrophies*. Amsterdam: Excerpta Medica, 1977: 328–40.

Chapter 11

1. Zhou S, Zhang Y, Davie AJ, Marshall- Gradisnik SM, Hu H, Wang J, et al. Muscle and plasma coenzyme Q10 concentration, aerobic power and exercise economy of healthy men in response to four weeks of supplementation. *The Journal of Sports Medicine and Physical Fitness.* 2005;45(3):337-46. 7.
2. Ochoa JJ, Quiles JL, Huertas JR, Mataix J. Coenzyme Q10 protects from aging-related oxidative stress and improves mitochondrial function in heart of rats fed a polyunsaturated fatty acid (PUFA)-rich diet. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences.* 2005;60(8):970-5
3. Cooke M, Iosia M, Buford T, Shelmadine B, Hudson G, Kerksick C, et al. Effects of acute and 14-day coenzyme Q10 supplementation on exercise performance in both trained and untrained individuals. *Journal of the International Society of Sports Nutrition.* 2008;5(1):1-14
4. Kaikkonen J, Tuomainen T-P, Nyyssönen K, Salonen JT. Coenzyme Q10: absorption, antioxidative properties, determinants, and plasma levels. *Free Radical Research.* 2002;36(4):389-97.
5. Leelarungrayub D, Rawattikanon A, Klaphajone J, Pothongsunan P, Bloomer RJ. Coenzyme Q10 supplementation decreases oxidative stress and improves physical performance in young swimmers; a pilot study. *The Open Sports Med J.* 2010;4:1-8.
6. Bhagavan HN, Chopra RK. Plasma coenzyme Q10 response to oral ingestion of coenzyme Q10 formulations. *Mitochondrion.* 2007;7:S78-S88
7. Malm C, Svensson M, Ekblom B, Sjödin B. Effects of ubiquinone-10 supplementation and high intensity training on physical performance in humans. *Acta Physiologica Scandinavica.* 1997; 161(3):379-84.
8. Kon M, Kimura F, Akimoto T, Tanabe K, Murase Y, Ikemune S, et al. Effect of Coenzyme Q10 supplementation on exercise-induced muscular injury of rats. *Exerc Immunol Rev.* 2007;13:76-88.
9. Littarru GP, Tiano L. Bioenergetic and antioxidant properties of coenzyme Q10: recent developments. *Molecular Biotechnology.* 2007;37(1):31-7
10. Sohet FM, Neyrinck AM, Pachikian BD, de Backer FC, Bindels LB, Niklowitz P, et al. Coenzyme Q10 supplementation lowers hepatic oxidative stress and inflammation associated with diet-induced obesity in mice. *Biochemical Pharmacology.* 2009;78(11):1391-400.

11. Gökböl H, Gergerlioğlu HS, Okudan N, Güllü İ, Büyükbaba S, Belviranlı M. Effects of Coenzyme Q10 supplementation on plasma adiponectin, interleukin-6, and tumor necrosis factor- α levels in men. *Journal of Medicinal Food*. 2010;13(1):216-8.
12. Bessler H, Bergman M, Blumberger N, Djaldetti M, Salman H. Coenzyme Q10 Decreases TNF. ALPHA. and IL-2 Secretion by Human Peripheral Blood Mono-nuclear Cells. *Journal of Nutritional Science and Vitaminology*. 2010; 56(1):77-81.
13. Reid M, Li YP. Cytokines and oxidative signalling in skeletal muscle. *Acta physiologica Scandinavica*. 2001;171(3):225-32.
14. Thompson WR, Gordon NF, Pescatello LS. ACSM's guidelines for exercise testing and prescription: Hubsta Ltd; 2009.

Chapter 12

1. Shils, M.E., Magnesium. In: Shils, M.E., Olson, J.A., Shike, M., eds. Modern nutrition in health and disease. 8th ed. Philadelphia: Lea & Febiger, 1993; pp.164-184.
2. Antonio, J. and Stout, J. R. Supplements for strength-power athletes., Human Kinetics Publishers, 2002; pp.123,125,149.
3. Wilbom C et al. Effects of ZMA supplementation on the relationship of zinc and magnesium to body composition, strength, sprint performance, metabolic and hormonal profiles. *Sports Nutrition Review Journal* 2004; 1: S13.
4. Arikán S, Akkus H, Halifeoglu I, Baltaci AK. Comparison of plasma leptin and zinc levels in elite athletes and sedentary people. *Cell Biochem Funct*. 2008 Aug;26(6):655-8.
5. Haboubi, NY, Baker MA, Gyde OH, Small NA, Haboubi N. Zinc supplementation and erythropoiesis in the elderly. *Journal of Clinical Pathology* 41: 706,1988.
6. Koehler K, Parr MK, Geyer H, Mester J, Schänzer W. Serum testosterone and urinary excretion of steroid hormone metabolites after administration of a high-dose zinc supplement. *European Journal of Clinical Nutrition* 63:65- 70,2009.
7. Wilborn CD, Kerksick CM, Campbell BI, Taylor LW, Marcello BM, Rasmussen CJ, Greenwood MC, Almada A, Kreider RB. Effects of Zinc Magnesium Aspartate (ZMA) Supplementation on Training Adaptations and Markers of Anabolism and Catabolism. *J Int Soc Sports Nutr*. 2004 Dec 31;1(2):12-20.
8. Newhouse IJ, Finstad EW: The effects of magnesium supplementation on exercise performance. *Clin J Sport Med* 2000;10:195-200.
9. Abraham GE, Schwartz UD, Lubran NM. Effect of vitamin B6 on plasma and red blood cell magnesium levels in premenopausal women. *Ann Clin Lab Sci*. 1981;11:333-336.
10. Turnlund JR, Keyes WR, Hudson CA, Betschart AA, Kretsch MJ, Sauberlich HE. A stable-isotope study of zinc, copper, and iron absorption and retention by young women fed vitamin B6 deficient diets. *Am J Clin Nutr*. 1991;54:1059-1064
11. Chien XX, Zafra-Stone S, Bagchi M, Bagchi D. Bioavailability, antioxidant and immune-enhancing properties of zinc methionine. *BioFactors*. 2006;27:231-244.
12. Colin D Wilborn, Chad M Kerksick1, Bill I Campbell, Lem W Taylor1, Brandon M Marcello, 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, 1:12-20 doi:10.1186/1550-2783-1-2-12
13. Koehler, K., Parr, M.K., Geyer, H., Master, J., Schanzer, W. *European Journal of Clinical Nutrition*, 2007,63,65-70
14. Brilla LR, Conte, V. A novel zinc and magnesium formulation (ZMA) increases anabolic hormones and strength in athletes. *Sport Med Train and Rehab* (in press). Abstract presented November 14, 1998 at the 18th Annual Meeting of the S.W. Chapter of the ACSM

Chapter 13

1. Evans WJ. Vitamin E, vitamin C and exercise. *Am. J. Clin. Nutr.* 2000; 72 (suppl): 647S-521S.
2. Alessio HM, Goldfarb AH and Cao G. Exercise-induced oxidative stress before and after vitamin C supplementation. *Int. J. Sports Nutr.* 1997; 7: 1-9.
3. Sacheck JM and Blumberg JB. Role of vitamin E and oxidative stress in exercise. *Nutrition*. 2001; 17: 809-814.
4. Reznick A, Witt EH, Matsumoto M and Packer L. Vitamin E inhibits protein oxidation in skeletal muscle of resting and exercised rat. *Biochem. Biophys. Res. Commun.* 1992; 189(2):801-806.
5. 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*. 2001 Dec;11(4):466-81.
6. Burke L.M. Read R.S.D.: Dietary supplements in sport. *Sports Med*. 1993; 15: 43–65.
7. Quintanilha A.T. Packer L.: Vitamin E, physical exercise and tissue oxidative damage. In: Packer L. ed. *Biology of vitamin E*. London: E. Pitman, 1983: 56–69.
8. Jeng K.C. Yang C.S. Siu W.Y. Tsai Y.S. Liao W.J. Kuo J.S.: Supplementation with vitamins C and E enhances cytokine production by peripheral blood mononuclear cells in healthy adults. *Am. J. Clin. Nutr.* 1996; 64: 960–5
9. Keren G. Epstein Y.: The effect of high dosage vitamin C intake on aerobic and anaerobic capacity. *J. Sports Med.* 1980; 20: 145–8.
10. Schröder H, Navarro E, Tramullas A. et al. Nutrition antioxidant status and oxidative stress in professional basketball players: Effects of a three compound anti-oxidative supplement. *Int. J. Sports Med.* 2000; 21: 146-150.
11. Meydani M, Evans WJ, Handelman G. et al. Protective effect of vitamin E on exercise-induced oxidative damage in young and older adult. *Am. J. Physiol.* 1993; 264: R992-R998.
12. Carr AC, Zhu BZ, Frei B. Potential antieatherogenic mechanisms of ascorbate (vitamin C) and α -tocopherol (vitamin E). *Circ. Res.* 2000; 87: 349.
13. 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*. 2001 Dec;11(4):466-81.
14. Shephard RJ, Campbell R, Pimm P. et al. Vitamin E, exercise, and the recovery from physical activity. *Eur. J. Appl. Physiol.* 1974; 33: 119-126.

Chapter 14

1. Bhandari U, Kanojia R, Pillai KK. Effect of ethanolic extract of Zingiber officinale on dyslipidaemia in diabetic rats. *J Ethnopharmacol.* 2005; 97(2):227-30.
2. Mahluji S, Attari VE, Mobasseri M, Payahoo L, Ostadrahimi A, Golzari SE. Effects of ginger (Zingiber officinale) on plasma glucose level, HbA1c and insulin sensitivity in type 2 diabetic patients. *Int J Food Sci Nutr.* 2013,doi10.3109/ 09637486.2013.775223.
3. Ali BH, Blunden G, Tanira MO, Nemmar A. Some phytochemical, pharmacological and toxicological properties of ginger (Zingiber officinale Roscoe): a review of recent research. *Food Chem Toxicol.* 2008; 46(2):409-20.
4. Bordia A, Verma SK, Srivastava KC. Effect of ginger (Zingiber officinale Rosc) and fenugreek (Trigonella foenumgraecum L) on blood lipids, blood sugar and platelet aggregation in patients with coronary artery disease. *Prostaglandins Leukot Essent Fatty Acids.* 1997; 56(5):379-84
5. Al-Amin ZM, Thomson M, Al-Qattan KK, Peltonen-Shalaby R, Ali M. Antidiabetic and hypolipidaemic properties of ginger (Zingiber officinale) in streptozoo-

- tocin- induced diabetic rats. Br J Nutr. 2006; 96(4):660-6.
6. Islam MS ,Choi H. Comparative effects of dietary ginger (*Zingiber officinale*) and garlic (*Allium sativum*) investigated in a type 2 diabetes model of rats. J Med Food. 2008;11(1):152-9.
 7. Ilsley SE, Miller HM, Kamel C. Effects of dietary quillaja saponin and curcumin on the performance and immune status of weaned piglets. J Anim Sci. 2005 Jan;83(1):82-8.
 8. Shang YJ, Jin XL, Shang XL, Tang JJ, Liu GY, Dai F, et al. Antioxidant capacity of curcumin-directed analogues: Structure– activity relationship and influence of microenvironment. Food Chemistry. 2010 Apr; 119(4): 1435-42.
 9. Li X, Liu X. Effect of curcumin on immune function of mice. J Huazhong Univ Sci Technolog Med Sci. 2005; 25(2):137-40.
 10. Hosseinzadeh S, Dabidi Roshan V. [Effects of Curcumin supplementation on BDNF and Oxidative/antioxidative process in rat's hippocampus which exposed to lead]. J Gorgan Uni Med Sci. Summer 2010;13(2):1-8. [Article in Persian]
 11. Nabavi S.F , Ebrahimzadeh M.A , Nabavi S.M. , and Eslami B. (2010) Antioxidant activity of flowers, stems and leaves extract of Ferula gummosa Boiss .Pharmaceutical Sciences Research Center
 12. Mandegary A., Sayyah M., Heidari M.R., (2004). Anti-nociceptive and antiinflammatory activity of the seed and root extracts of ferula gummosa boiss in mice and rats; daru volume 12(2);

Chapter 15

1. Biolo, G., Williams, B.D., Fleming, R.Y. and Wolfe, R.R.(1999). Insulin action on muscle protein kinetics and amino acid transport during recovery after resistance exercise. Diabetes, 48, 949–957.
2. Bohe, J., Low, J.F., Wolfe, R.R. and Rennie, M.J. (2001).Latency and duration of stimulation of human muscle protein synthesis during continuous infusion of amino acids. Journal of Physiology 532, 575–579.
3. Blomstrand, E. and Saltin, B. (2001). BCAA intake affects protein metabolism in muscle after but not during exercise in humans. American Journal of Physiology, 281, E365–E374.
4. Borsheim, E., Tipton, K.D., Wolf, S.E. and Wolfe, R.R.(2002). Essential amino acids and muscle protein recovery from resistance exercise. American Journal of Physiology,283, E648–E657.
5. Dangin, M., Guillet, C., Garcia-Rodenas, C., Gachon, P.,Bouteloup-Demange, C., Reiffers-Magnani, K., Fauquant,J., Ballevre, O. and Beaufre, B. (2003). The rate of protein digestion affects protein gain differently during aging in humans. Journal of Physiology, 549, 635–644.
6. Deuster, P.A., Kyle, S.B., Moser, P.B., Vigersky, R.A.,Singh, A. and Schoomaker, E.B. (1986). Nutritional survey of highly trained women runners. American Journal of Clinical Nutrition, 44, 954–962.
7. El Khoury, A.E., Forslund, A., Olsson, R., Branth, S.,Sjodin, A., Andersson, A., Atkinson, A., Selvaraj, A.,Hamraeus, L. and Young, V.R. (1997). Moderate exercise at energy balance does not affect 24-h leucine oxidation or nitrogen retention in healthy men. American Journal of Physiology, 273, E394–E407.
8. Esmarck, B., Andersen, J.L., Olsen, S., Richter, E.A.,Mizuno, M. and Kjaer, M. (2001). Timing of postexercise protein intake is important for muscle hypertrophy with resistance training in elderly humans. Journal of Physiology, 535, 301–311.
9. Forbes, G.B., Brown, M.R., Welle, S.L. and Lipinski, B.A.(1986). Deliberate overfeeding in women and men: energy cost and composition of the weight gain. British Journal of Nutrition, 56, 1–9.
10. Lemon, P.W. (1991). Effect of exercise on protein requirements.Journal of Sports Sciences, 9(special issue), 53–70.
11. Levenhagen, D.K., Gresham, J.D., Carlson, M.G., Maron,D.J., Borel, M.J. and Flakoll, P.J. (2001). Postexercise nutrient intake timing in humans is critical to recovery of leg glucose and protein homeostasis. American Journal of Physiology, 280, E982–E993.
12. Levenhagen, D.K., Carr, C., Carlson, M.G., Maron, D.J.,Borel, M.J. and Flakoll, P.J. (2002). Postexercise protein intake enhances whole-body and leg protein accretion in humans. Medicine and Science in Sports and Exercise, 34,828–837.
13. Millward, D.J. (1999). Inherent difficulties in defining aminoacid requirements. In The Role of Protein and Amino Acids in Sustaining and Enhancing Performance (edited by FaNBioM Committee on Military Nutrition Research), pp. 169–216. Washington, DC: National Academy Press.
14. O'Hagan, F.T., Sale, D.G., MacDougall, J.D. and Garner,S.H. (1995). Comparative effectiveness of accommodating and weight resistance training modes. Medicine and Science in Sports and Exercise, 27, 1210–1219.
15. Phillips, S.M., Tipton, K.D., Aarsland, A., Wolf, S.E. and Wolfe, R.R. (1997). Mixed muscle protein synthesis and breakdown after resistance exercise in humans. American Journal of Physiology, 273, E99–E107.

