

The world class athlete

MED5363, MED5350

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1.
Yang N, MacArthur DG, Gulbin JP, et al. ACTN3 Genotype Is Associated with Human Elite Athletic Performance. *The American Journal of Human Genetics*. 2003;73(3):627-631. doi:10.1086/377590

2.
Bouchard C, An P, Rice P, et al. Familial aggregation of V̇o₂ max response to exercise training: results from the HERITAGE Family Study. 87:1003-1008. <http://ezproxy.lib.gla.ac.uk/login?url=http://jap.physiology.org/content/87/3/1003.long>

3.
Tucker R, Collins M. What makes champions? A review of the relative contribution of genes and training to sporting success. *British Journal of Sports Medicine*. 2012;46(8):555-561. doi:10.1136/bjsports-2011-090548

4.
Webborn N, Williams A, McNamee M, et al. Direct-to-consumer genetic testing for predicting sports performance and talent identification: Consensus statement. *British Journal of Sports Medicine*. 2015;49(23):1486-1491. doi:10.1136/bjsports-2015-095343

5.
van der Gronde T, de Hon O, Haisma HJ, Pieters T. Gene doping: an overview and current implications for athletes. *British Journal of Sports Medicine*. 2013;47(11):670-678. doi:10.1136/bjsports-2012-091288

6.

Rankinen T, Zuberi A, Chagnon YC, et al. The Human Obesity Gene Map: The 2005 Update. *Obesity*. 2006;14(4):529-644. doi:10.1038/oby.2006.71

7.

PÉRUSSE L, RANKINEN T, HAGBERG JM, et al. Advances in Exercise, Fitness, and Performance Genomics in 2012. *Medicine & Science in Sports & Exercise*. 2013;45(5):824-831. doi:10.1249/MSS.0b013e31828b28a3

8.

Bouchard C, Hoffman EP. *Genetic and Molecular Aspects of Sport Performance*. Vol v. 18. Wiley-Blackwell doi:10.1002/9781444327335

9.

Timmons JA, Knudsen S, Rankinen T, et al. Using molecular classification to predict gains in maximal aerobic capacity following endurance exercise training in humans. *Journal of Applied Physiology*. 2010;108(6):1487-1496. doi:10.1152/jappphysiol.01295.2009

10.

Baggish AL, Hale A, Weiner RB, et al. Dynamic regulation of circulating microRNA during acute exhaustive exercise and sustained aerobic exercise training. *The Journal of Physiology*. 2011;589(16):3983-3994. doi:10.1113/jphysiol.2011.213363

11.

Thompson H. Performance enhancement: Superhuman athletes. *Nature*. 2012;487(7407):287-289. doi:10.1038/487287a

12.

Battery L, Solomon A, Gould D. Gene doping: Olympic genes for Olympic dreams. *Journal of the Royal Society of Medicine*. 2011;104(12):494-500. doi:10.1258/jrsm.2011.110240

13.

Barnett A. Using Recovery Modalities between Training Sessions in Elite Athletes. *Sports Medicine*. 2006;36(9):781-796. doi:10.2165/00007256-200636090-00005

14.

Samuels C. Sleep, Recovery, and Performance: The New Frontier in High-Performance Athletics. *Neurologic Clinics*. 2008;26(1):169-180. doi:10.1016/j.ncl.2007.11.012

15.

Mujika I, Padilla S, Pyne D, Busso T. Physiological Changes Associated with the Pre-Event Taper in Athletes. *Sports Medicine*. 2004;34(13):891-927. doi:10.2165/00007256-200434130-00003

16.

MUJIKAI I, PADILLA S. Scientific Bases for Precompetition Tapering Strategies. *Medicine & Science in Sports & Exercise*. 2003;35(7):1182-1187. doi:10.1249/01.MSS.0000074448.73931.11

17.

Bartlett JD, O'Connor F, Pitchford N, Torres-Ronda L, Robertson SJ. Relationships Between Internal and External Training Load in Team-Sport Athletes: Evidence for an Individualized Approach. *International Journal of Sports Physiology and Performance*. 2017;12(2):230-234. doi:10.1123/ijsp.2015-0791

18.

Malone S, Owen A, Newton M, Mendes B, Collins KD, Gabbett TJ. The acute:chronic workload ratio in relation to injury risk in professional soccer. *Journal of Science and Medicine in Sport*. Published online November 2016. doi:10.1016/j.jsams.2016.10.014

19.

Hoff J. Training and testing physical capacities for elite soccer players. *Journal of Sports Sciences*. 2005;23(6):573-582. doi:10.1080/02640410400021252

20.

Windt J, Gabbett TJ, Ferris D, Khan KM. Training load--injury paradox: is greater preseason participation associated with lower in-season injury risk in elite rugby league players? *British Journal of Sports Medicine*. Published online 13 April 2016.
doi:10.1136/bjsports-2016-095973

21.

Maughan RJ, ed. *Nutrition in Sport*. Blackwell Science Ltd; 2000.

22.

Casajus JA. Seasonal variation in fitness variables in professional soccer player. *THE JOURNAL OF SPORTS MEDICINE AND PHYSICAL FITNESS*. 2001;41(4):463-469.
<https://www.minervamedica.it/en/journals/sports-med-physical-fitness/article.php?cod=R40Y2001N04A0463>

23.

Cooke MB, Rybalka E, Williams AD, Cribb PJ, Hayes A. Creatine supplementation enhances muscle force recovery after eccentrically-induced muscle damage in healthy individuals. *Journal of the International Society of Sports Nutrition*. 2009;6(1).
doi:10.1186/1550-2783-6-13

24.

Edge J, Bishop D, Goodman C. The effects of training intensity on muscle buffer capacity in females. *European Journal of Applied Physiology*. 2006;96(1):97-105.
doi:10.1007/s00421-005-0068-6

25.

Erlacher D, Ehrlenspiel F, Adegbesan OA, Galal El-Din H. Sleep habits in German athletes before important competitions or games. *Journal of Sports Sciences*. 2011;29(8):859-866.
doi:10.1080/02640414.2011.565782

26.

FOSTER C, FLORHAUG JA, FRANKLIN J, et al. A New Approach to Monitoring Exercise Training. *Journal of Strength and Conditioning Research*. 2001;15(1):109-115. doi:10.1519/00124278-200102000-00019

27.

Gabbett TJ, Ullah S. Relationship Between Running Loads and Soft-Tissue Injury in Elite Team Sport Athletes. *Journal of Strength and Conditioning Research*. 2012;26(4):953-960. doi:10.1519/JSC.0b013e3182302023

28.

Gabbett TJ, Jenkins DG. Relationship between training load and injury in professional rugby league players. *Journal of Science and Medicine in Sport*. 2011;14(3):204-209. doi:10.1016/j.jsams.2010.12.002

29.

Hoff J, Helgerud J. Endurance and Strength Training for Soccer Players. *Sports Medicine*. 2004;34(3):165-180. doi:10.2165/00007256-200434030-00003

30.

Juliff LE, Halson SL, Peiffer JJ. Understanding sleep disturbance in athletes prior to important competitions. *Journal of Science and Medicine in Sport*. 2015;18(1):13-18. doi:10.1016/j.jsams.2014.02.007

31.

Leeder J, Glaister M, Pizzoferro K, Dawson J, Pedlar C. Sleep duration and quality in elite athletes measured using wristwatch actigraphy. *Journal of Sports Sciences*. 2012;30(6):541-545. doi:10.1080/02640414.2012.660188

32.

Maeda T, Yasukouchi A. Blood Lactate Disappearance during Breathing Hyperoxic Gas after Exercise in Two Different Physical Fitness Groups. On The Work Load Fixed at 70%VO₂max. *APPLIED HUMAN SCIENCE Journal of Physiological Anthropology*. 1997;16(6):249-255. doi:10.2114/jpa.16.249

33.

The Effects of Sleep Extension on the Athletic Performance of Collegiate Basketball Players. *Sleep*. Published online 1 July 2011. doi:10.5665/SLEEP.1132

34.

McMillan K. Lactate threshold responses to a season of professional British youth soccer. *British Journal of Sports Medicine*. 2005;39(7):432-436. doi:10.1136/bjism.2004.012260

35.

Milewski MD, Skaggs DL, Bishop GA, et al. Chronic Lack of Sleep is Associated With Increased Sports Injuries in Adolescent Athletes. *Journal of Pediatric Orthopaedics*. 2014;34(2):129-133.

http://journals.lww.com/pedorthopaedics/Abstract/2014/03000/Chronic_Lack_of_Sleep_is_Associated_With_Increased.1.aspx

36.

Murray K, Sommerville A, McKenna M, Edgar G, Murray A. Normobaric hyperoxia training in elite female hockey players. *Journal of sports medicine and physical fitness*. 56(12):1488-1493.

37.

Natal Rebelo A, Soares JM. The impact of soccer training on the immune system. 1995;35(3):258-271.

<https://www.minervamedica.it/en/journals/sports-med-physical-fitness/archive.php?cod=R40>

38.

Peeling P, Andersson R. Effect of hyperoxia during the rest periods of interval training on perceptual recovery and oxygen re-saturation time. *Journal of Sports Sciences*. 2011;29(2):147-150. doi:10.1080/02640414.2010.526133

39.

Robey E, Dawson B, Halson S, Gregson W, Goodman C, Eastwood P. Sleep quantity and quality in youth soccer players: A pilot study. *European Journal of Sport Science*. 2014;14(5):410-417. doi:10.1080/17461391.2013.843024

40.

Rogalski B, Dawson B, Heasman J, Gabbett TJ. Training and game loads and injury risk in elite Australian footballers. *Journal of Science and Medicine in Sport*. 2013;16(6):499-503. doi:10.1016/j.jsams.2012.12.004

41.

Gibson N, Sommerville AD. Gender differences in sleep quality and quantity in national level swimmers. <http://www.tandfonline.com/doi/full/10.1080/02640414.2014.968382?mobileUi=0>

42.

Sperlich B, Zinner C, Krueger M, Wegrzyk J, Achtzehn S, Holmberg HC. Effects of hyperoxia during recovery from 5×30-s bouts of maximal-intensity exercise. *Journal of Sports Sciences*. 2012;30(9):851-858. doi:10.1080/02640414.2012.671531

43.

VAN ESSEN M, GIBALA MJ. Failure of Protein to Improve Time Trial Performance when Added to a Sports Drink. *Medicine & Science in Sports & Exercise*. 2006;38(8):1476-1483. doi:10.1249/01.mss.0000228958.82968.0a

44.

Burke LM, Hawley JA, Wong SHS, Jeukendrup AE. Carbohydrates for training and competition. *Journal of Sports Sciences*. 2011;29(sup1):S17-S27. doi:10.1080/02640414.2011.585473

45.

Mondazzi L, Arcelli E. Glycemic Index in Sport Nutrition. *Journal of the American College of Nutrition*. 2009;28(sup4):455S-463S. doi:10.1080/07315724.2009.10718112

46.

SAUNDERS MJ, KANE MD, TODD MK. Effects of a Carbohydrate-Protein Beverage on Cycling Endurance and Muscle Damage. *Medicine & Science in Sports & Exercise*. 2004;36(7):1233-1238. doi:10.1249/01.MSS.0000132377.66177.9F

47.

Moore DR, Robinson MJ, Fry JL, et al. Ingested protein dose response of muscle and albumin protein synthesis after resistance exercise in young men. *American Journal of Clinical Nutrition*. 2008;89(1):161-168. doi:10.3945/ajcn.2008.26401

48.

Pedersen DJ, Lessard SJ, Coffey VG, et al. High rates of muscle glycogen resynthesis after exhaustive exercise when carbohydrate is coingested with caffeine. *Journal of Applied Physiology*. 2008;105(1):7-13. doi:10.1152/jappphysiol.01121.2007

49.

Robinson TM, Sewell DA, Hultman E, Greenhaff PL. Role of submaximal exercise in promoting creatine and glycogen accumulation in human skeletal muscle. *J Appl Physiol*. 1999;87(2):598-604. <http://jap.physiology.org/content/87/2/598.long>

50.

DeMARCO HM, SUCHER KP, CISAR CJ, BUTTERFIELD GE. Pre-exercise carbohydrate meals: application of glycemic index. *Medicine & Science in Sports & Exercise*. 1999;31(1):164-170. doi:10.1097/00005768-199901000-00025

51.

Jeukendrup AE, Killer SC. The Myths Surrounding Pre-Exercise Carbohydrate Feeding. *Annals of Nutrition and Metabolism*. 2010;57(s2):18-25. doi:10.1159/000322698

52.

Tsintzas OK, Williams C, Boobis L, Greenhaff P. Carbohydrate ingestion and glycogen utilization in different muscle fibre types in man. *The Journal of Physiology*. 1995;489(1):243-250. doi:10.1113/jphysiol.1995.sp021046

53.

Coyle EF, Coggan AR, Hemmert MK, Ivy JL. Muscle glycogen utilization during prolonged strenuous exercise when fed carbohydrate. 61(1):165-172.
<http://jap.physiology.org/content/61/1/165.full.pdf+html>

54.

CARTER JM, JEUKENDRUP AE, JONES DA. The Effect of Carbohydrate Mouth Rinse on 1-h Cycle Time Trial Performance. *Medicine & Science in Sports & Exercise*. Published online December 2004:2107-2111. doi:10.1249/01.MSS.0000147585.65709.6F

55.

Jeukendrup AE, Rollo I, Carter JM. Carbohydrate mouth rinse: performance effects and mechanisms. 26(1):1-8.
<http://www.gssiweb.org/en/sports-science-exchange/article/sse-118-carbohydrate-mouth-rinse-performance-effects-and-mechanisms>

56.

Jeukendrup AE, Jentjens R. Oxidation of Carbohydrate Feedings During Prolonged Exercise. *Sports Medicine*. 2000;29(6):407-424. doi:10.2165/00007256-200029060-00004

57.

Hawley JA, Bosch AN, Weltan SM, Dennis SC, Noakes TD. Glucose kinetics during prolonged exercise in euglycaemic and hyperglycaemic subjects. *Pflügers Archiv European Journal of Physiology*. 1994;426(5):378-386. doi:10.1007/BF00388300

58.

Jeukendrup AE. Multiple transportable carbohydrates and their benefits. 2013;26(108):1-5.
https://sites.uni.edu/dolgener/Advanced_Sport_Nutrition/Electronic%20Articles/Fall%202014/Sport%20Nutrition%20Fall%202014/Multiple%20Transportable%20CHO.pdf

59.

CURRELL K, JEUKENDRUP AE. Superior Endurance Performance with Ingestion of Multiple Transportable Carbohydrates. *Medicine & Science in Sports & Exercise*. 2008;40(2):275-281. doi:10.1249/mss.0b013e31815adf19

60.

Jeukendrup AE. Nutrition for endurance sports: Marathon, triathlon, and road cycling. *Journal of Sports Sciences*. 2011;29(sup1):S91-S99. doi:10.1080/02640414.2011.610348

61.

Rowlands DS, Hopkins WG. Effects of high-fat and high-carbohydrate diets on metabolism and performance in cycling. *Metabolism*. 2002;51(6):678-690. doi:10.1053/meta.2002.32723

62.

Faigenbaum AD, Kraemer WJ, Blimkie CJR, et al. Youth Resistance Training: Updated Position Statement Paper From the National Strength and Conditioning Association. *Journal of Strength and Conditioning Research*. 2009;23:S60-S79. doi:10.1519/JSC.0b013e31819df407

63.

Baechele TR, National Strength & Conditioning Association (U.S). *Essentials of Strength Training and Conditioning*. Human Kinetics; 1994.

64.

Kelly VG, Coutts AJ. Planning and Monitoring Training Loads During the Competition Phase in Team Sports. *Strength and Conditioning Journal*. 2007;29(4). doi:10.1519/1533-4295(2007)29[32:PAMTLD]2.0.CO;2

65.

Gamble P. Periodization of Training for Team Sports Athletes. *Strength and Conditioning Journal*. 2006;28(5). doi:10.1519/1533-4295(2006)28[56:POTFTS]2.0.CO;2

66.

Maughan RJ, Depiesse F, Geyer H. The use of dietary supplements by athletes. *Journal of Sports Sciences*. 2007;25(sup1):S103-S113. doi:10.1080/02640410701607395

67.

Connor J, Woolf J, Mazanov J. Would they dope? Revisiting the Goldman dilemma. *British Journal of Sports Medicine*. 2013;47(11):697-700. doi:10.1136/bjsports-2012-091826

68.

Volek JS, Rawson ES. Scientific basis and practical aspects of creatine supplementation for athletes. *Nutrition*. 2004;20(7-8):609-614. doi:10.1016/j.nut.2004.04.014

69.

VOLEK JS, DUNCAN ND, MAZZETTI SA, et al. Performance and muscle fiber adaptations to creatine supplementation and heavy resistance training. *Medicine & Science in Sports & Exercise*. 1999;31(8):1147-1156. doi:10.1097/00005768-199908000-00011

70.

IZQUIERDO M, IBAÑEZ J, GONZÁLEZ-BADILLO JJ, GOROSTIAGA EM. Effects of creatine supplementation on muscle power, endurance, and sprint performance. *Medicine and Science in Sports and Exercise*. 2002;34(2):332-343. doi:10.1097/00005768-200202000-00023

71.

Graham TE, Rush JWE, Soeren MH van. Caffeine and Exercise: Metabolism and Performance. *Canadian Journal of Applied Physiology*. 1994;19(2):111-138. doi:10.1139/h94-010

72.

Tarnopolsky MA. Caffeine and Creatine Use in Sport. *Annals of Nutrition and Metabolism*. 2010;57(s2):1-8. doi:10.1159/000322696

73.

Bruce M, Scott N, Lader M, Marks V. The psychopharmacological and electrophysiological effects of single doses of caffeine in healthy human subjects. *British Journal of Clinical Pharmacology*. 1986;22(1):81-87. doi:10.1111/j.1365-2125.1986.tb02883.x

74.

Carr AJ, Hopkins WG, Gore CJ. Effects of Acute Alkalosis and Acidosis on Performance. *Sports Medicine*. 2011;41(10):801-814. doi:10.2165/11591440-000000000-00000

75.

Jones AM. DIETARY NITRATE: THE NEW MAGIC BULLET? 2013;26(110):1-5.
https://secure.footprint.net/gatorade/stg/gssiweb/pdf/110_Jones_SSE.pdf

76.

Bailey SJ, Winyard P, Vanhatalo A, et al. Dietary nitrate supplementation reduces the O₂ cost of low-intensity exercise and enhances tolerance to high-intensity exercise in humans. *Journal of Applied Physiology*. 2009;107(4):1144-1155.
doi:10.1152/jappphysiol.00722.2009

77.

CLARK VR, HOPKINS WG, HAWLEY JA, BURKE LM. Placebo effect of carbohydrate feedings during a 40-km cycling time trial. *Medicine & Science in Sports & Exercise*. Published online September 2000:1642-1647. doi:10.1097/00005768-200009000-00019

78.

Jeukendrup A. A Step Towards Personalized Sports Nutrition: Carbohydrate Intake During Exercise. *Sports Medicine*. 2014;44(S1):25-33. doi:10.1007/s40279-014-0148-z

79.

Burke LM, Kiens B, Ivy JL. Carbohydrates and fat for training and recovery. *Journal of Sports Sciences*. 2004;22(1):15-30. doi:10.1080/0264041031000140527

80.

Phillips SM, Van Loon LJC. Dietary protein for athletes: From requirements to optimum adaptation. *Journal of Sports Sciences*. 2011;29(sup1):S29-S38. doi:10.1080/02640414.2011.619204

81.

Goldstein ER, Ziegenfuss T, Kalman D, et al. International society of sports nutrition position stand: caffeine and performance. *Journal of the International Society of Sports Nutrition*. 2010;7(1). doi:10.1186/1550-2783-7-5

82.

Bean A. *The Complete Guide to Sports Nutrition*. 4th ed. A & C. Black; 2003.

83.

Burke L. *Practical Sports Nutrition*. Human Kinetics; 2007.

84.

Jeukendrup AE. *Sports Nutrition: From Lab to Kitchen*. Meyer & Meyer Sport; 2010.

85.

Maughan RJ, ed. *Nutrition in Sport*. Blackwell Science Ltd; 2000.
<http://content.talisaspire.com/glasgow/bundles/58db7718e7ebb6854b8b4568>

86.

Crust L. A review and conceptual re-examination of mental toughness: Implications for future researchers. *Personality and Individual Differences*. 2008;45(7):576-583. doi:10.1016/j.paid.2008.07.005

87.

MacNamara Á, Button A, Collins D. The Role of Psychological Characteristics in Facilitating

the Pathway to Elite Performance Part 1: Identifying Mental Skills and Behaviors. *The Sport Psychologist*. 2010;24(1):52-73. doi:10.1123/tsp.24.1.52

88.

Prevention, Diagnosis, and Treatment of the Overtraining Syndrome. *Medicine & Science in Sports & Exercise*. 2013;45(1):186-205. doi:10.1249/MSS.0b013e318279a10a

89.

Mellalieu SD, Hanton S, Shearer DA. Hearts in the fire, heads in the fridge: A qualitative investigation into the temporal patterning of the precompetitive psychological response in elite performers. *Journal of Sports Sciences*. 2008;26(8):811-824. doi:10.1080/02640410701790787