Abdool-Gaffar MS, Ambaram A, Ainslie GM, et al. Guideline for the management of chronic obstructive pulmonary disease—2011 update. S Afr Med J. 2011;101:63–73.

Adel M, ELSheikh A, Sameer S, et al. Arterial stiffness in metabolic syndrome. J Saudi Heart Assoc. 2016;28:249-56.

Ades PA, Savage PD, Toth MJ, et al. High-caloric expenditure exercise: a new approach to cardiac rehabilitation for overweight coronary patients ades: high-caloric exercise overweight coronary patients. Circulation. 2009;119:2671–8.

Adrogue HE, Adrogue HJ. Acid-base physiology. Respirat Care. 2001;46:328-41.

Alhadad SB, Tan PMS, Lee JKW. Efficacy of heat mitigation strategies on core tempera-ture and endurance exercise: a meta-analysis. Front Physiol. 2019; https://doi.org/10.3389/ fphys.2019.00071.

Alkorta-Aranburu G, Beall CM, Witonsky DB, Gebremedhin A, et al. The genetic architec-ture of adaptations to high altitude in Ethiopia. PLoS Genet. 2012;8(12):e1003110. https://doi.org/10.1371/journal.pgen.1003110.

Alsharari R, Lip GYH, Shantsila A. Assessment of arterial stiffness in patients with resistant hypertension: additional insights into the pathophysiology of this condition? Am J Hypertens. 2019; https://doi.org/10.1093/ajh/hpz169.

Amann M. Pulmonary system limitations to endurance exercise performance in humans. Exp Physiol. 2012;97:311-8.

American College of Sports medicine. American College of Sports medicine position stand. Progression models in resistance training for healthy adults. Med Sci Sports Exerc. 2009;41:687–708.

Ancion A, Tridetti J, Nguyen Trung ML, Oury C, et al. A review of the role of Bradykinin and nitric oxide in the cardioprotective action of angiotensin-converting enzyme inhibitors: Focus on Perindopril. Cardiol Ther. 2019. https://doi.org/10.1007/s40119-019-00150-w.

Ansved T. Muscle training in muscular dystrophies. Acta Physiol Scand. 2001;171:359-66.

Aoike DT, Baria F, Kamimura MA, et al. Impact of home-based aerobic exercise on the physical capacity of overweight patients with chronic kidney disease. Int Urol Nephrol. 2015;47:359–67.

Arthurs GJ, Sudhakar M. Carbon dioxide transport. Contin Edu Anaesth Crit Care Pain. 2005;5:207-10.

Ash GI, Eicher JD, Pescatello LS. The promises and challenges of the use of genom-ics in the prescription of exercise for hypertension: the 2013 update. Curr Hypertens Rev. 2013;9:130–47.

Ash GI, Taylor BA, Thompson PD, et al. The antihypertensive effects of aerobic versus iso-metric handgrip resistance exercise. J Hypertens. 2017;35:291–9.

Ashor AW, Lara J, Siervo M, et al. Effects of exercise modalities on arterial stiffness and wave reflection: a systematic review and meta-analysis of randomized controlled trials. PLoS One. 2014;9:e110034.

Atchley AE Jr, Douglas PS. Left ventricular hypertrophy in athletes: morphologic features and clinical correlates. Cardiol Clin. 2007;25:371–82.

Aughey GN, Liu JL. Metabolic regulation via enzyme filamentation. Crit Rev Biochem Mol Biol. 2016;51:282–93.

Avin KG, Coen PM, Huang W, et al. Skeletal muscle as a regulator of the longevity protein, Klotho. Front Physiol. 2014;5:189.

Avolio A, Butlin M, Liu YY, et al. Regulation of arterial stiffness: cellular, molecular and neurogenic mechanisms. Artery Res. 2011;5:122–7.

Aziz M, Yadav K. Pathogenesis of atherosclerosis. Med Clin Rev. 2016;2:22. https://doi. org/10.21767/2471-299X.1000031.

Baguet A, Everaert I, Hespel P, et al. A new method for non-invasive estimation of human muscle fiber type composition. PLoS One. 2011;6(7):e21956. https://doi.org/10.1371/journal.pone.0021956.

Baker JS, McCormick MC, Robergs RA. Interaction among skeletal muscle metabolic energy systems during Intense exercise. J Nutr Metab. 2010;2010:905612. https://doi.org/10.1155/2010/905612.

Baker JS, McCormick MC, Robergs RA. Interaction among skeletal muscle metabolic energy systems during intense exercise. J Nutr Metab. 2010;2010:905612. https://doi.org/10.1155/2010/905612.

Baldwin KM, Haddad F. Research in the exercise sciences: where we are and where do we go from here – Part II. Exerc Sport Sci Rev. 2010;38:42–50.

Barauna VG, Rosa KT, Irigoyen MC, et al. Effects of resistance training on ventricular function and hypertrophy in a rat model. Clin Med Res. 2007;5:114–20.

Barclay CJ. Energy demand and supply in human skeletal muscle. J Muscle Res Cell Motil. 2017;38:143-55.

Barthelmes J, Matthias P, Nagele PM, et al. Endothelial dysfunction in cardiovascular disease and Flammer syndrome-similarities and differences. EPMA J. 2017;8:99–109.

Basset DR Jr, Howley ET. Limiting factors for maximum oxygen uptake and determinants of endurance performance. Med Sci Sports Exerc. 2000;32:70-84.

Beevers G, Lip GYH, O'Brien E. Blood pressure measurement. Part II-Conventional sphygmomanometry: technique of auscultatory blood pressure measurement. BMJ. 2001;322:1043–7.

Bellien J, Thuillez C, Joannides R. Contribution of endothelium-derived hyperpolarizing factors to the regulation of vascular tone in humans. Fundam Clin Pharmacol. 2008;22:363–77.

Benetos A, Waeber B, Izzo J, et al. Influence of age, risk factors, and cardiovascular and renal disease on arterial stiffness: clinical applications. Am J Hypertens. 2002;15:1101–8.

Ben-Sira D, et al. The effect of hypertension and aging on left ventricular function during isometric exercise. J Aging Phys Activ. 1996;4:69–79.

Ben-Sira D, Goldhammer E, Saghiv M, et al. Effects of all out-cycling bouts on left ventricular function in master cyclists. J J Geronto. 2017;3(1):025.

Bhagavan NV. Water, acids bases and buffers, in Medical biochemistry (4th ed). ScienceDirect. 2002:1-16. https://doi.org/10.1016/B978-012095440-7/50003-2.

Bigham A, Bauchet M, Pinto D, et al. Identifying signatures of natural selection in Tibetan and Andean populations using dense genome scan data. PLoS Genetics. 2010;6(9):e1001116. https://doi.org/10.1371/journal.pgen.1001116.

Birbrair A, Zhang T, Wang Z-M, et al. Role of pericytes in skeletal muscle regeneration and fat accumulation. Stem Cells Dev. 2013;22:2298–314.

Birbrair A, Zhang T, Zhong-Min W, et al. Role of pericytes in skeletal muscle regeneration and fat accumulation. Stem Cells Dev. 2013;22:2298–314.

Blackie SP, Fairbarn MS, McElvaney NG, et al. Normal values and ranges for ventilation and breathing pattern at maximal exercise. Chest. 1991;100:136–42.

Blagosklonny MV, Campisi J, Sinclair DA, et al. Impact papers on aging in 2009. Aging (Albany NY). 2010;2:111–21.

Blair SN, Kohl HW 3rd, Barlow CE, et al. Changes in physical fitness and all-cause mortality. JAMA. 1995;273:1093-8.

Bogdanis GC. Effects of physical activity and inactivity on muscle fatigue. Front Physiol. 2012;3:142. https://doi.org/10.3389/fphys.2012.00142.

Booth FW, Roberts CK, Thyfault JP, et al. Role of inactivity in chronic diseases: evolutionary insight and pathophysiological mechanisms. Physiol Rev. 2017;97:1351–402.

Boutouyrie P, Tropeano AI, Asmar R, et al. Hypertensive patients: a longitudinal study or of primary coronary events in hypertensive patients: a longitudinal study. Hypertension. 2002;39:10–5.

Brito LC, Fecchio RY, Peçanha T, et al. Postexercise hypotension as a clinical tool: a "single brick" in the wall. J Am Soc Hypertens. 2018;12:e59-64.

Bronner F. Extracellular and intracellular regulation of calcium homeostasis. Sci World J. 2003;1:919–25. 5. Fluck M, Hoppeler H. Molecular basis of skeletal muscle plasticity–from gene to form and function. Rev Physiol Biochem Pharmacol. 2003;146:159–216.

Brown WM. Exercise-associated DNA methylation change in skeletal muscle and the importance of imprinted genes: a bioinformatics meta-analysis. Br J Sports Med. 2015;49:1567–78.

Brubakk AO, Neuman TS. Bennett and Elliott's physiology and medicine of diving, 5th Rev ed. Philadelphia, PA: Saunders; 2003. p. 800.

Burnside WS, Snowden C. Physiological basis of preoperative cardiopulmonary exercise testing. Surgery (Oxford). 2014;32:59-62.

Cameron JD, Asmar R, Struijker-Boudier H, et al. Current and future initiatives for vascular health management in clinical practice. Vasc Health Risk Manag. 2013;9:255–64.

Cameron JD, Rajkumar C, Kingwell BA, et al. Higher systemic arterial compliance is associ-ated with greater exercise time and lower blood pressure in a young older population. J Am Geriatr Soc. 1999;47:653–6.

Carabello B, Zile MR, Tanaka R, et al. Left ventricular hypertrophy due to volume overload versus pressure overload. Am J Phys. 1992;263(4 Pt 2):H1137–44.

Cardus D, McTaggart WG. Artificial gravity as a countermeasure of physiological decon-ditioning in space. Adv Space Res. 1994;14:409–14.

Carfagno D, Hendrix J. Overtraining syndrome in the athlete. Curr Sports Med Rep. 2014;13:45-51.

Carlsen KH. Sports in extreme conditions: the impact of exercise in cold temperatures on asthma and bronchial hyperresponsiveness in athletes. Br J Sports Med. 2012;46:796–9.

Carlson DJ, Dieberg G, Hess NC, et al. Isometric exercise training for blood pressure man-agement: a systematic review and meta-analysis. Mayo Clin Proc. 2014;89:327–34.

Carroll RG. Elsevier's integrated physiology 3 – body fluid distribution. ScienceDirect. 2007:19–26. https://doi.org/10.1016/B978-0-323-04318-2.50009-1.

Cazzola M, Matera MG. Bronchodilators: current and future. Clin Chest Med. 2014;35:191-201.

Chang P, Nead KT, Olin JW, et al. Effect of physical activity assessment on prognostication for peripheral artery disease and mortality. Mayo Clin Proc. 2015;90:339–45.

Chen CC, Jeon SM, Bhaskar PT, et al. FoxOs inhibit mTORC1 and activate Akt by inducing the expression of Sestrin3 and Rictor. Dev Cell. 2010;18:592–604.

Cheung K, Hume P, Maxwell L. Delayed onset muscle soreness: treatment strategies and performance factors. Sports Med. 2003;33:145–64.

Chirinos JA, Segers P. Noninvasive evaluation of left ventricular afterload: part 1: pressure and flow measurements and basic principles of wave conduction and reflection. Hypertension. 2010;56:555-62.

Cholewa J, Guimaraes-Ferreira L, da Silva TT, et al. Basic models modeling resistance training: an update for basic scientists interested in study skeletal muscle hypertrophy. J Cell Physiol. 2014;229:1148–56.

Churchward-Venne TA, Murphy CH, Longland TM, et al. Role of protein and amino acids in promoting lean mass accretion with resistance exercise and attenuating lean mass loss during energy deficit in humans. Amino Acids. 2013;45:231–40.

Clark AL, Poole-Wilson PA, Coats AJ. Relation between ventilation and carbon dioxide production in patients with chronic heart failure. J Am Coll Cardiol. 1992;20:1326–32.

Clark JA, Lieh-Lai MW, Sarnaik A, et al. Discrepancies between direct and indirect blood pressure measurements using various recommendations for arm cuff selection. Pediatrics. 2002;110:920–3.

Collins EG, Bauldoff G, Carlin B, et al. Clinical competency guidelines for pulmonary rehabilitation professionals: position statement of the American Association of Cardiovascular and Pulmonary Rehabilitation. J Cardiopulm Rehabil Prev. 2014;34:291–302.

Conley KE, Lindstedt SL. Energy-saving mechanisms in muscle: the minimization strategy. J Exp Biol. 2002;205:2175-81.

COPD Working Group. Pulmonary rehabilitation for patients with chronic pulmonary dis-ease (COPD): an evidence-based analysis. Ont Health Technol Assess Ser. 2012;12:1–75.

Cornelissen VA, Smart NA. Exercise training for blood pressure: a systematic review and meta-analysis. J Am Heart Assoc. 2013;2(1):e004473.

Corso LM, Macdonald HV, Johnson BT, et al. Is concurrent training efficacious antihyperten-sive therapy? A meta-analysis. Med Sci Sports Exerc. 2016;48:2398–406.

Costanzo L. Physiology. Philadelphia, PA: Elsevier; 2010.

Costanzo LS. Physiology. 2nd ed. Philadelphia: Saunders; 2002. p. 23.

Cox MM, Nelson David L Chapter 14: Glycolysis, gluconeogenesis, and the pentose phos-phate pathway. Lehninger principles of biochemistry (5 ed.). W. H. Freeman & Co; 2008, pp. 527–568.

Craig JA. Ferri's Netter patient advisor. 2nd ed. Philadelphia: Saunders; 2012. p. 913.

Crowley SD, Coffman TM. The inextricable role of the kidney in hypertension. J Clin Invest. 2014;124:2341-7.

Dashty M. A quick look at biochemistry: carbohydrate metabolism. Clin Biochem. 2013;46:1339-52.

De Rosa S, Cirillo P, Paglia A, et al. Reactive oxygen species and antioxidants in the pathophysiology of cardiovascular disease: does the actual knowledge justify a clinical approach? Curr Vasc Pharmacol. 2010;8:259–75.

De Simone G. Left ventricular concentric geometry is associated with impaired relaxation in hypertension: the HyperGEN study. Eur Heart J. 2005;26:1039–45.

Decramer M, Janssens W, Miravitlles M. Chronic obstructive pulmonary disease. Lancet. 2012;379:1341–51.

Del Giacco SR, DFirinu D, Bjermer L, Carlsen KH. Exercise and asthma: an overview. Eur Clin Respir J. 2015;2:27984. https://doi.org/10.3402/ecrj.v2.27984.

Del Giacco SR, Firinu D, Bjermer L, et al. Exercise and asthma: an overview. Eur Clin Respir

Dempsey JA, Romer L, Rodman J, et al. Consequences of exercise-induced respiratory muscle work. Respir Physiol Neurobiol. 2006;151:242–50.

Despres JP. Physical activity, sedentary Behaviours, and cardiovascular health: when will cardiorespiratory fitness become a vital sign? Can J Cardiol. 2016;32:505–13.

Devine JF. Chronic obstructive pulmonary disease: an overview. Am Health Drug Benefits. 2008;1:34-42.

Di Mauro M, Izzicupo P, Santarelli F, et al. ACE and AGTR1 polymorphisms and left ventricular hypertrophy in endurance athletes. Med Sci Sports Exerc. 2010;42:915–21.

Diaz KM, Shimbo D. Physical activity and the prevention of hypertension. Curr Hypertens Rep. 2013;15:659–68.

DiBartola SP. Introduction to acid-base disorders, fluid, electrolyte, and acid-base disorders in small animal practice (4th, ed.). ScienceDirect; 2012:237–52. https://doi.org/10.1016/ B978-1-4377-0654-3.00016-0.

Dick TJM, Wakeling JM. Shifting gears: dynamic muscle shape changes and force-velocity behavior in the medial gastrocnemius. J Appl Physiol (1985). 2017;123:1433–42.

Diest IV, Tegen K, Van de Woestijne KP, et al. Hyperventilation and attention: effects of hypocapnia on performance in a stroop task. Biol Psychol. 2000;53:233–52.

Dietz J. Arterial stiffness and extracellular matrix. Adv Cardiol. 2007;44:76-95.

Ding Q, Vaynman S, Akhavan M, et al. Insulin-like growth factor I interfaces with brain- derived neurotrophic factor-mediated synaptic plasticity to modulate aspects of exercise- induced cognitive function. Neuroscience. 2006;140:823–33.

Donnelly DF. Voltage-gated Na(+) channels in chemoreceptor afferent neurons—potential roles and changes with development. Respir Physiol Neurobiol. 2013;185:67–74.

Doolette DJ, Mitchell SJ. Hyperbaric conditions. Compr Physiol. 2011:163-201.

Dorresteijn JA, Visseren FL, Spiering W. Mechanisms linking obesity to hypertension. Obes Rev. 2012;13:17-26.

Duncker DJ, Bache RJ. Regulation of coronary blood flow during exercise. Physiol Rev. 2008;88:1009-86.

Duncker DJ, Bache RJ. Regulation of coronary blood flow during exercise. Physiol Rev. 2008;88:1009-86.

Eckman M. Professional guide topathophysiology. 3rd ed. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins; 2010. p. 208.

effects of muscle length, intensity, and intent: a systematic review. Scand J Med Sci Sports. 2019;29:484-503.

Ehrsam JK, Kerrigan DJ, Keteyian SJ. Advanced exercise physiology: essential concepts and applications. Human Kinetics: Champaign IL; 2018.

Eliakim A. Endocrine response to exercise and training-closing the gaps. Pediatr Exerc Sci. 2016;28:226-32.

Engelking LR. Metabolic acidosis. Textbook of veterinary physiological chemistry (3rd ed.). SienceDirect. 2015;561–7. https://doi.org/10.1016/B978-0-12-391909-0.50087-6.

Ernst P. Inhaled corticosteroids moderate lung function decline in adults with asthma. Thorax. 2006;61:93-4.

Eroglu O, Zileli R, Nalbant MA, et al. Prevalence of alpha actinin-3 gene (ACTN3) R577X and angiotensin converting enzyme (ACE) insertion/deletion gene polymorphisms in national and amateur Turkish athletes. Cell Mol Biol (Noisy-le-Grand). 2018;64:24–8.

Ertelt T. Walking with chronic non-specific low back pain – a failed strategy: what can we learn from sports? Med Hypotheses. 2014;82:601–5.

Fagard RH. The ALLHAT trial: strengths and limitations. J Hypertens. 2003;21:229-32.

Feng Z, Hanson RW, Berger NA, et al. Reprogramming of energy metabolism as a driver of aging. Oncotarget. 2016;7:15410-20.

Ferrara CM, Oldberg AP, Ortmeyer HK, et al. Effects of aerobic and resistanceexercise training on glucose disposal and skeletal muscle metabolism in older men. J Gerontol A Biol Sci Med Sci. 2006;61:480–7.

Fischer K, Yamaji K, Luescher S, et al. Feasibility of cardiovascular magnetic resonance to detect oxygenation deficits in patients with multi-vessel coronary artery disease triggered by breathing maneuvers. J Cardiovasc Magn Reson. 2018;20(1):31. https://doi.org/10.1186/s12968-018-0446-y.

Fischer M, Baessler A, Schunkert H. Renin angiotensin system and gender differences in the cardiovascular system. Cardiovac Res. 2002;53:672–7. https://doi.org/10.1016/ S0008-6363(01)00479-5672-677.

Fitch KD, Sue-Chu M, Anderson SD, et al. Asthma and the elite athlete: summary of the International Olympic Committee's consensus conference, Lausanne, Switzerland, January 22-24, 2008. J Allergy Clin Immunol. 2008;122:254–60.

Fitts RH, Widrick JJ. Muscle mechanics: adaptations with exercise-training. Exerc Sport Sci Rev. 1996;24:427–73.

Fitts RH. The cross-bridge cycle and skeletal muscle fatigue. J Appl Physiol. 2007;104:551-8.

Foster C, Farland CV, Guidotti F, et al. The effects of high intensity interval training vs steady state training on aerobic and anaerobic capacity. J Sports Sci Med. 2015;14:747–55.

Franklin PJ, Green DJ, Cable NT. The in fluence of thermoregulation mechanisms on post exercise hypotension in humans. J Physiol. 1993;470:231–41.

Fromm HJ, Hargrove MS. Enzyme kinetics. In: Essentials of biochemistry: Berlin, Springer; 2012.

Frostegard J. Low level natural antibodies against phosphorylcholine: a novel risk marker and potential mechanism in atherosclerosis and cardiovascular disease. Clin Immunol. 2010;134:47–54.

Fu Q, Levine BD. Exercise and the autonomic nervous system. Handb Clin Neurol. 2013;117:147–60.

Fulda KG, Lykens K. Ethical issues in predictive genetic testing: a public health perspective. J Med Ethics. 2006;32:143-7.

Fullstone G, Wood J, Holcombe M, et al. Modelling the transport of nitric oxide particles under blood flow using an agent-based approach. Sci Rep. 2015;5:10649.

Gaasch WH, Zile MR. Left ventricular structural remodeling in health and disease: with special emphasis on volume, mass, and geometry. J Am Coll Cardiol. 2011;58:1733–40.

Ganong WF. Review of medical physiology. 21st ed. New York: Lange Medical Books; 2003.

Ganong WF. Review of medical physiology. 22nd ed. Singapore: International Edition; 2005. p. 571.

Garatachea N, Pareja-Galeano H, Sanchis-Gomar F, et al. Exercise attenuates the major hallmarks of aging. Rejuvenation Res. 2015;18:57–89.

Garber CE, Blissmer B, Deschenes MR, Franklin BA, et al. American College of Sports Medicine position stand. Quantity and quality of exercise for developing and maintaining cardiorespiratory, musculoskeletal, and neuromotor fitness in apparently healthy adults: guidance for prescribing exercise. Med Sci Sports Exerc. 2011 Jul;43(7):1334–59.

Gartner LP, Hiatt JL. Color atlas and text of histology. 6th ed. Baltimore, SA: Lippincott. Wiliams & Wilkins Ed; 2013.

Garvey C, Bayles MP, Hamm LF, et al. Pulmonary rehabilitation exercise prescription in chronic obstructive pulmonary disease: review of selected guidelines: an official statement from the American association of cardiovascular and pulmonary rehabilitation. J Cardiopulm Rehabil Prev. 2016;36:75–83.

Gastinger S, Sorel A, Nicolas G, et al. A comparison between ventilation and heart rate as indicator of oxygen uptake during different intensities of exercise. J Sports Sci Med. 2010;9:110–8.

Gault ML, Willems MET. Aging, functional capacity and eccentric exercise training. Aging Dis. 2013;4:351-63.

Geer EB, Shen W. Gender differences in insulin resistance, body composition, and energy balance. Gend Med. 2009;6(Suppl 1):60–75.

Gharavi AG, Lipkowitz MS, Diamond JA, et al. Deletion polymorphism of the angiotensin- converting enzyme gene is independently associated with left ventricular mass and geometric remodeling in systemic hypertension. Am J Cardiol. 1996;77:1315–9.

Giancoli DG. Physics: principles with applications. Upper Saddle River, NJ: Pearson Education; 2004.

Gianola S, Pecoraro V, Lambiase S, et al. Efficacy of muscle exercise in patients with muscular dystrophy: a systematic review showing a missed opportunity to improve outcomes. PLoS One. 2013;8(6):e65414. https://doi.org/10.1371/journal.pone.0065414.

Gibson GJ. Clinical tests of respiratory function. 3rd ed. London: Hodder Arnold; 2009.

Gielen S, Schuler G, Adams V. Cardiovascular effects of exercise training molecular mechanisms. Circulation. 2010;122:1221-38.

Gilroy AM, MacPherson BR, Ross LM. Atlas of anatomy. Stuttgart: Thieme; 2008. p. 108-11.

Glass DJ. PI3 kinase regulation of skeletal muscle hypertrophy and atrophy. Curr Top Microbiol Immunol. 2010;346:267-

Global Initiative for Asthma. Archived from the original (PDF) on 2012-11-20. 2011.

Gloeckl R, Marinov B, Pitta F. Practical recommendations for exercise training in patients with COPD. Eur Resp Rev. 2013;22:178–86.

Godo S, Shimokawa H. Divergent roles of endothelial nitric oxide synthases system in maintaining cardiovascular homeostasis. Free Radic Biol Med. 2017;109:4–10.

Golbidi S, Laher I. Exercise and the cardiovascular system. Cardiol Res Pract. 2012;2012:210852. https://doi.org/10.1155/2012/210852.

Goodenkuf R, Heesch M, Hassenstab B, et al. Acute high intensity anaerobic training and rhabdomyolysis. Int J Exerc Sci. 2015;8:65–74.

Goodwin ML, Harris JE, Hernandez A, Gladden LB. Blood lactate measurements and analysis during exercise: a guide for clinicians. J Diabetes Sci Technol. 2007;1:558–69.

Gotz M, Hartfuss E, Malatesta P. Radial glial cells as neuronal precursors: a new perspective on the correlation of morphology and lineage restriction in the developing cerebral cortex of mice. Brain Res Bull. 2002;57:777–88.

Goulet EDB, Melancon MO, Lafreniere D, et al. Impact of mild hypohydration on muscle endurance, power, and strength in healthy, active older men. J Strength Cond Res. 2018;32:3405–15.

Gouzi F, Maury J, Molinari N, et al. Reference values for vastus lateralis fiber size and type in healthy subjects over 40 years old: a systematic review and metaanalysis. J Appl Physiol (1985). 2013;115:346–54.

Gravier G, Delliaux S, Delpierre S, et al. Inter-individual differences in breathing pattern at high levels of incremental cycling exercise in healthy subjects. Respir Physiol Neurobiol. 2013;189:59–66.

Grim CE, Grim CM. Auscultatory BP: still the gold standard. J Am Soc Hyperten. 2016;10:191-3.

Gronwald T, Hoos O, Ludyga S, et al. Non-linear dynamics of heart rate variability dur-ing incremental cycling exercise. Res Sports Med. 2018;24:1–11. https://doi.org/10.108 0/15438627.2018.1502182.

Grover I, Reed W, Neuman T. The SANDHoG criteria and its validation for the diagnosis of DCS arising from bounce diving. Undersea Hyperb Med. 2007;34:199–210.

Guyton AC, Hall JE. Textbook of medical physiology. 13th ed. Philadelphia, PA: WB Saunders; 2015.

Hall JE. Guyton and hall textbook of medical physiology. 12th ed. Saunders/Elsevier: Philadelphia, PA; 2010. p. 502.

Halliwill JR, Buck TM, Lacewell AN, et al. Postexercise hypotension and sustained postex-ercise vasodilatation: what happens after we exercise? Exp Physiol. 2013;98:7–18.

Halliwill JR, Minson CT, Joyner MJ. Effect of systemic nitric oxide synthase inhibition on postexercise hypotension in humans. J Appl Physiol (1985). 2000;89:1830-6.

Halliwill JR, Taylor JA, Eckberg DL. Impaired sympathetic vascular regulation in humans after acute dynamic exercise. J Physiol. 1996;495:279-88.

Hambrecht R. Stress and stress tolerance in chronic heart failure. Herz. 2002;27:179-86.

Hamer M. The anti-hypertensive effects of exercise: integrating acute and chronic mecha-nisms. Sports Med Auckl NZ. 2006;36:109–16.

Hamm LL, Nakhoul N, Hering-Smith KS. Acid-base homeostasis. Clin J Am Soc o Nephrol. 2015;10:2232-42.

Hanani M. Satellite glial cells in sympathetic and parasympathetic ganglia: in search of function. Brain Res Rev. 2010;64:304–27.

Handy DE, Castro R, Loscalzo J. Epigenetic modifications: basic mechanisms and role in cardiovascular disease. Circulation. 2011;123:2145–56.

Hanna EG, Tait PW. Limitations to thermoregulation and acclimatization challenge human adaptation to global warming. Int J Environ Res Public Health. 2015;12:8034–74.

Hannukainen JC, Nuutila P, Ronald B, et al. Increased physical activity decreases hepatic free fatty acid uptake: a study in human monozygotic twins. J Physiol. 2007;578:347–58.

Hargens AR, Vico L. Long-duration bed rest as an analog to microgravity. J Appl Physiol (1985). 2016;120:891-903.

Harms CA, Wetter TJ, McClaran SR, et al. Effects of respiratory muscle work on cardiac output and its distribution during maximal exercise. J Appl Physiol. 1998;85:609–18.

Harris KA, Holly RG. Physiological response to circuit weight training in borderline hypertensive subjects. Med Sci Sports Exerc. 1987;19:246–52.

Hart CR, Layec G, Trinity JD, et al. Evidence of preserved oxidative capacity and oxy-gen delivery in the plantar flexor muscles with age. J Gerontol A Biol Sci Med Sci. 2015;70:1067–76.

Hart EC, Wallin BG, Barnes JN, et al. Sympathetic nerve activity and peripheral vasodilator capacity in young and older men. Am J Physiol Heart Circ Physiol. 2014;306:H904–9.

Hawkins S, Wiswell R. Rate and mechanism of maximal oxygen consumption decline with aging: implications for exercise training. Sports Med. 2003;33:877–88.

Higashi Y, Ueda K, Yoshizumi M, et al. Endothelial function and oxidative stress in cardiovascular diseases. Circ J. 2009;73:411-8.

Ho SC, Lin HC, Kuo HP, et al. Exercise training with negative pressure ventilation improves exercise capacity in patients with severe restrictive lung disease: a prospective controlled study. Respir Res. 2013;14:22. https://doi.org/10.1186/1465-9921-14-22.

Hody S, Croisier JL, Bury T, et al. Eccentric muscle contractions: risks and benefits. Front Physiol. 2019;10:536. https://doi.org/10.3389/fphys.2019.00536.

Hogg JC, Chu F, Utokaparch S, et al. The nature of small-airway obstruction in chronic obstructive pulmonary disease. N Engl J Med. 2004;350:2645–53.

Hood DA, Irrcher I, Liubicic V, et al. Coordination of metabolic plasticity in skeletal muscle. J Exp Biol. 2006;209:2265–75. Petersen KF, Morino K, Alves TC, et al. Effect of aging on muscle mitochondrial substrate utilization in humans. Proc Natl Acad Sci U S A. 2015;112:11330–4.

Hopker JG, Coleman DC, Passfield L. Changes in cycling efficiency during a competitive season. Med Sci Sports Exerc. 2009;41:912–9.

Hotamisligil GS. Endoplasmic reticulum stress and atherosclerosis. Nat Med. 2010;16:396-9.

Hsia CC, Hyde DM, Weibel ER. Lung structure and the intrinsic challenges of gas exchange. Comp Physiol. 2016;6:827–95.

Huberts DH, Niebel B, Heinemann M. A flux-sensing mechanism could regulate the switch between respiration and fermentation. FEMS Yeast Res. 2012;12:118–28.

Huertas JR, Casuso RA, Agustín PH, et al. Stay fit, stay young: mitochondria in movement: the role of exercise in the new mitochondrial paradigm. Oxidative Med Cell Longev. 2019;2019:7058350. https://doi.org/10.1155/2019/7058350.

Hughes DC, Ellefsen S, Baar K. Adaptations to endurance and strength training. Cold Spring Harb Perspect Med. https://doi.org/10.1101/cshperspect.a029769.

Hughes TM, Craft S, Lopez OL. Review of the potential role of arterial stiffness in the pathogenesis of Alzheimer's disease. Neurodegener Dis Manag. 2015;5:121–35.

Hurley B, Armstrong TJ. Bisphosphonates vs exercise for the prevention and treatment of osteoporosis. J Nurse Pract. 2012;8:217-24.

Hurrass J, Heinzow B, Aurbach U, et al. Medical diagnostics for indoor mold exposure. Int J Hyg Environ Health. 2017;220:305-28.

Huskisson E, Maggini S, Ruf M. The role of vitamins and minerals in energy metabolism and well-being. J Int Med Res. 2007;35:277–89.

Huveneers S, Daemen MJ, Hordijk PL. Between Rho(k) and a hard place: the relation between vessel wall stiffness, endothelial contractility, and cardiovascular disease. Circ Res. 2015;116:895–908.

Iaia FM, Bangsbo J. Speed endurance training is a powerful stimulus for physiological adaptations and performance improvements of athletes. Scand J Med Sci Sports. 2010;20(Suppl 2):11–23.

Iorga B, Neacsu CD, Neiss WF, et al. Micromechanical function of myofibrils isolated from skeletal and cardiac muscles of the zebrafish. J Gen Physiol. 2011;137:255–70.

Itoh H, Ajisaka R, Koike A, et al. Heart rate and blood pressure response to ramp exercise and exercise capacity in relation to age, gender, and mode of exercise in a healthy population. J Cardiol. 2013;61:71–8. https://doi.org/10.1016/j.jjcc.2012.09.010.

J. 2015;2:27984. https://doi.org/10.3402/ecrj.v2.27984.

Jeppesen J, Kiens B. Regulation and limitations to fatty acid oxidation during exercise. J Physiol. 2012;590:1059-68.

Jiang SZ, Lu W, Zong XF, et al. Obesity and hypertension. Exp Ther Med. 2016;12:2395-9.

Jin RC, Loscalzo J. Vascular nitric oxide: formation and function. J Blood Med. 2010;1:147-62.

Johns DP, Walters JA, Walters EH. Diagnosis and early detection of COPD using spirometry. J Thorac Dis. 2014;6:1557–69.

Johnson JO. pharmacology and physiology for anesthesia. ScienceDirect. 2013:208-17. https://doi.org/10.1016/B978-1-4377-1679-5.00012-0.

Johnson LR, editor. Essential medical physiology. 3rd ed. Amsterdam: Elsevier Academic; 2003.

Jorgensen K, Rasmussen AV, Morant M, et al. Metabolon formation and metabolic channeling in the biosynthesis of plant natural products. Curr Opin Plant Biol. 2005;8:280–91.

Joyner MJ, Casey DP. Regulation of increased blood flow (hyperemia) to muscles during exercise: a hierarchy of competing physiological needs. Physiol Rev. 2015;95:549–601.

Joyner MJ, Charkoudian N, Wallin BG. Sympathetic nervous system and blood pressure in humans individualized patterns of regulation and their implications. Hypertension. 2010;56:10–6.

Kakiyama T, Sugawara J, Murakami H, et al. Effects of short-term endurance training on aortic distensibility in young males. Med Sci Sports Exerc. 2005;37:267–71.

Kaminsky DA, Knyazhitskiy A, Sadeghi A, et al. Assessing maximal exercise capacity: peak work or peak oxygen consumption? Respir Care. 2014;59:90–6.

Kamiya A, Michikami D, Fu Q, et al. Static handgrip exercise modifies arterial baroreflex control of vascular sympathetic outflow in humans. Am J Physiol Regul Integr Comp Physiol. 2001;281:R1134–9.

Kang J, Hoffman JR, Chaloupka EC, et al. Gender differences in the progression of metabolic responses during incremental exercise. J Sports Med Phys Fitness. 2006;46:71–8.

Kanherkar RR, Bhatia-Dey N, Csoka AB. Epigenetics across the human lifespan. Front Cell Dev Biol. 2014;2:49.

Karlic H, Lohninger A. Supplementation of L-carnitine in athletes: does it make sense? Nutrition. 2004;20:709-915.

Kasikcioglu E, Kayserilioglu A, Ciloglu F, et al. Angiotensin-converting enzyme gene polymorphism, left ventricular remodeling, and exercise capacity in strength-trained athletes. Heart Vessel. 2004;19:287–93.

Kauffman GB, Chooljian SH. Friedrich Wohler (1800–1882), on the bicentennial of his birth. Chem Educ. 2001;6:121–33.

Kaye DM, Esler MD. Autonomic control of the aging heart. Neuromolecular Med. 2008;10:179-86.

Kelley GA, Kelley KS. Progressive resistance exercise and resting blood pressure: a meta- analysis of randomized controlled trials. Hypertension. 2000;35:838–43.

Kellici TF, Liapakis G, Tzakos AG, et al. Pharmaceutical compositions for antihypertensive treatments: a patent review. Expert Opin Ther Pat. 2015;25:1305–17.

Khan AM, Paridon SM, Kim YY. Cardiopulmonary exercise testing in adults with congenital heart disease. Expert Rev Cardiovasc Ther. 2014;12:863–72.

Khattar RS, Swales JD, Banfield A, et al. Prediction of coronary and cerebrovascular morbidity and mortality by direct continuous ambulatory blood pressure monitoring in essential hypertension. Circulation. 1999;100:1071–6.

Kingsley JD, Figueroa A. Acute and training effects of resistance exercise on heart rate variability. Clin Physiol Funct Imaging. 2016;36:179–87.

Kleinstreuer C, Hyun S, Buchanan JR Jr, et al. Hemodynamic parameters and early intimal thickening in branching blood vessels. Crit Rev Biomed Eng. 2017;45:319–82.

Klocke R. Dead space: simplicity to complexity. J Appl Physiol. 2006;100:1–2.

Knight JA. Physical inactivity: associated diseases and disorders. Ann Clin Lab Sci Summer. 2012;42:320-37.

Knudsen L, Ochs M. The micromechanics of lung alveoli: structure and function of surfactant and tissue components. Histochem Cell Biol. 2018;150:661–76.

Kohli P, Gulati M. Exercise stress testing in women: going back to the basics. Circulation. 2010;14(122):2570-80.

Kohno F, Kumada T, Kamabayashi M, et al. Change in aortic end-systolic pressure by alterations in loading sequence and its relation to left ventricular isovolumic relaxation. Circulation. 1996;93:2080–7.

Kokkinos P. Physical activity, health benefits, and mortality risk. https://doi. org/10.5402/2012/718789.

Konopka AR, Harber MP. Skeletal muscle hypertrophy after aerobic exercise training. Exerc Sport Sci Rev. 2014;42:53-61.

Kontopoulos AG, Athyros VG, Pehlivanidis AN, et al. Long-term treatment effect of atorvastatin on aortic stiffness in hypercholesterolaemic patients. Curr Med Res Opin. 2003;19:22–7.

Koopman R. Role of amino acids and peptides in the molecular signaling in skeletal muscle after resistance exercise. Int J Sport Nutr Exerc Metab. 2007;17(Suppl):S47–57.

Kougias P, Weakley SM, Yao O, et al. Arterial baroreceptors in the management of systemic hypertension. Med Sci Monit. 2010;16:RA1-8.

Kougias P, Weakley SM, Yao O, Lin PH, Chen C. Arterial baroreceptors in the management of systemic hypertension. Med Sci Monit. 2010;16:RA1-8.

Krakoff LR. Ambulatory blood pressure improves prediction of cardiovascular risk: implications for better antihypertensive management. Curr Atheroscler Rep. 2013;15:317.

Kumar P, Prabhakar NR. Peripheral chemoreceptors: function and plasticity of the carotid body. Compr Physiol. 2012;2:141–219.

Kylasov A, Gavrov S. Diversity of sport: non-destructive evaluation. Paris: UNESCo: Encyclopedia of Life Support Systems; 2011. p. 462–91.

Laine MK, Johan G, Eriksson JG, Kujala UM. Effect of intensive exercise in early adult life on telomere length in later life in men. J Sports Sci Med. 2015;14:239–45.

Lakin R, Notarius C, Thomas S, Goodman J. Effects of moderate-intensity aerobic cycling and swim exercise on post-exertional blood pressure in healthy young untrained and triathlon-trained men and women. Clin Sci (Lond). 2013;125:543–53.

Lameris TW, de Zeeuw S, Alberts G, et al. Time course and mechanism of myocardial cat-echolamine release during transient ischemia in vivo. Circulation. 2000;101:2645–50.

Lane SJ, Moran AL, Shishido CM, et al. Cuticular gas exchange by Antarctic sea spiders. J Exp Biol. 2018;221(Pt 8). pii: jeb177568. https://doi.org/10.1242/jeb.177568.

Lang A, Carlsen KH, Haaland G, et al. Severe asthma in childhood: assessed in 10 year old in a birth cohort study. Allergy. 2008;63:1054-60.

Laurent S, Katsahian S, Fassot C, et al. Aortic stiffness is an independent predictor of fatal stroke in essential hypertension. Stroke. 2003;34:1203–6.

Le TH, Coffman TM. Targeting genes in the renin-angiotensin system. Curr Opin Nephrol Hypertens. 2008;17:57-63.

Lee H, DeLoache WC, Dueber JE. Spatial organization of enzymes for metabolic engineering. Metab Eng. 2012;14:242251. https://doi.org/10.1016/j.ymben.2011.09.003.

Lee TS, Goyal P, Li C, et al. Computational fluid dynamics to evaluate the effectiveness of inferior turbinate reduction techniques to improve nasal airflow. JAMA Facial Plast Surg. 2018;20:263–70.

Lees SJ, Booth FW. Sedentary death syndrome. Can J Appl Physiol. 2004;29:447-60.

Lemanske RF, Busse WW. Asthma: clinical expression and molecular mechanisms. J Allergy Clin Immunol. 2010;125:S95–102

Lenell C, Johnson AM. Sexual dimorphism in laryngeal muscle fibers and ultrasonic vocal-izations in the adult rat. Laryngoscope. 2017;127(8):E270-6.

Lentini AC, McKelvie RS, McCartney N, et al. Left ventricular response in healthy young men during heavy-intensity weightlifting exercise. J Appl Physiol. 1993;75:2703–10.

Leo MD, Zhai X, Yin W, et al. Impaired trafficking of $\beta 1$ subunits inhibits BK channels in cerebral arteries of hypertensive rats. Hypertension. 2018;72:765–75.

Leung JM, Sin DD. COPD in never smokers: prognosis unveiled. Lancet Respir Med. 2013;1:502-4.

Lieber RL, Roberts TJ, Blemker SS, et al. Skeletal muscle mechanics, energetics and plasticity. J Neuroeng Rehabil. 2017;14(1):108. https://doi.org/10.1186/s12984-017-0318-y.

Lim JY. Therapeutic potential of eccentric exercises for age-related muscle atrophy. Integr Med Res. 2016;5:176-81.

Lim K, Groen A, Molostvov G, et al. α-Klotho expression in human tissues. J Clin Endocrinol Metab. 2015;100:E1308-18.

Lindgren M, Alex C, Shapiro PA, et al. Effects of aerobic conditioning on cardiovascular sympathetic response to and recovery from challenge. Psychophysiology. 2013;50:963–73.

Ling C, Groop L. Epigenetics: a molecular link between environmental factors and type 2 diabetes. Diabetes. 2009;58:2718–25.

Liu TH, Wu CL, Chiang CW, et al. Nitric oxide effect of short-term arginine supplementation on nitric oxide production, metabolism and performance in intermittent exercise in athletes. J Nutr Biochem. 2009;20:462–8.

Lodder MAN, de Haan A, Sargeant AJ. Effect of shortening velocity on work output and energy cost during repeated contractions of the rat EDL muscle. Eur J Appl Physiol. 1991;62:430–5.

Lolli L, Batterham AM, Weston KL, et al. Size exponents for scaling maximal oxygen uptake in over 6500 humans: a systematic review and meta-analysis. Sports Med. 2017;47:1405–19.

Lopes S, Mesquita-Bastos J, Alves AJ, et al. Exercise as a tool for hypertension and resistant hypertension management: current insights. Integr Blood Press Control. 2018;11:65–71.

Lozano R, Naghavi M, Foreman K, et al. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet. 2012;380:2095–128.

Lukacs A, Barkai L. Effect of aerobic and anaerobic exercises on glycemic control in type 1 diabetic youths. World J Diabetes. 2015;6:534–42.

Lumb AB. Nunn's applied respiratory physiology. 8th ed. 2017. p. 227-34. https://doi. org/10.1016/B978-0-7020-6294-0.00013-7.

Luo L, Molnar J, Ding H, et al. Physicochemical attack against solid tumors based on the reversal of direction of entropy flow: an attempt to introduce thermodynamics in anticancer therapy. Diagn Pathol. 2006;1:43. https://doi.org/10.1186/1746-1596-1-43.

Lyerly GW, Sui X, Lavie CJ, et al. The association between cardiorespiratory fitness and risk of all-cause mortality among women with impaired fasting glucose or undiagnosed diabetes mellitus. Mayo Clin Proc. 2009;84:780–6.

Ma Y, Chen Y, Li X, et al. Aerobic power of students aged 13-15 years in Wuhan City. (Article in Chinese). Wei Sheng Yan Jiu. 2016;45:608-13.

Macaluso A, De Vito G. Muscle strength, power and adaptations to resistance training in older people. Eur J Appl Physiol. 2004;91:450–72.

MacDonald JR, MacDougall JD, Hogben CD. The effects of exercise duration on post- exercise hypotension. J Hum Hypertens. 2004;14:125–9.

MacDonald JR, MacDougall JD, Interisano SA, et al. Hypotension following mild bouts of resistance exercise and submaximal dynamic exercise. Eur J Appl Physiol Occup Physiol. 1999;79:148–54.

MacDonald JR. Potential causes, mechanisms, and implications exercise hypotension. J Hum Hypertens. 2002;16:225–36.

MacRae HS, Dennis SC, Bosch AN, et al. Effects of training on lactate production and removal during progressive exercise in humans. J Appl Physiol (1985). 1992;72:1649–56.

Mahankali M, Alter G, Gomez-Cambronero J. Mechanism of enzymatic reaction and protein-protein interactions of PLD from a 3D structural. Cell Signal. 2015;27:69–81.

Malekmohammad K, Sewell RDE, Rafieian-Kopaei M. Antioxidants and aherosclerosis: mechanistic aspects. Biomolecules. 2019; https://doi.org/10.3390/biom9080301.

Malisoux L, Francaux M, Nielens H, et al. Stretch-shortening cycle exercises: an effective training paradigm to enhance power output of human single muscle fibers. J Appl Physiol (1985). 2006;100:771–9.

Maltais F, LeBlanc P, Jobin J, et al. Intensity of training and physiologic adaptation in patients with chronic obstructive pulmonary disease. Am J Respir Crit Care Med. 1997;155:555–61.

Manini TM, Pahor M. Physical activity and maintaining physical function in older adults. Br J Sports Med. 2009;43:28-31.

Marcora SM, Bosio A. Effect of exercise-induced muscle damage on endurance running performance in humans. Scand J Med Sci Sports. 2007;17:662–71.

Maron BJ, Pelliccia A. The heart of trained athletes: cardiac remodeling and the risks of sports, including sudden death. Circulation. 2006;114:1633–44.

Marshall-Goebel K, Mulder E, Donoviel D, et al. An international collaboration studying the physiological and anatomical cerebral effects of carbon dioxide during head-down tilt bed rest: the SPACECoT study. J Appl Physiol (1985). 2017;122:1398–405.

Martin J, MacInnis MJ, Gibala MJ. Physiological adaptations to interval training and the role of exercise intensity. J Physiol. 2017;595:2915–30.

Martin WH 3rd, Ogawa T, Kohrt WM, et al. Effects of aging, gender, and physical training on peripheral vascular function. Circulation. 1991;84:654–64.

Martinez-Gomez D, Guallar-Castillon P, Higueras-Fresnillo S, et al. Physical activity attenuates total and cardiovascular mortality associated with physical disability: a national cohort of older adults. J Gerontol A Biol Sci Med Sci. 2018;73:240–7

Martín-Valero R, Cuesta-Vargas AI, Labajos-Manzanares MT. Effectiveness of the physical activity promotion programme on the quality of life and the cardiopulmonary function for inactive people: randomized controlled trial. BMC Public Health. 2013;13:127. https://doi.org/10.1186/1471-2458-13-127.

Mavalli MD, DiGirolamo DJ, Fan Y, et al. Distinct growth hormone receptor signaling modes regulate skeletal muscle development and insulin sensitivity in mice. J Clin Invest. 2010;120:4007–20.

McEniery CM, Wilkinson IB, Avolio AP. Age, hypertension and arterial function. Clin Exp Pharmacol Physiol. 2007;34:665-71.

Messerli FH, Bangalore S, Bavishi C, et al. Angiotensin-converting enzyme inhibitors in hypertension: to use or not to use? J Am Coll Cardiol. 2018;71:1474–82.

Mierzejewska-Krzyżowska B, Drzymała-Celichowska H, Bukowska D, et al. Gender differences in morphometric properties of muscle fibres measured on cross-sections of rat hindlimb muscles. Anat Histol Embryol. 2012;41:122–9.

Mihl C, Dassen WRM, Kuipers H. Cardiac remodelling: concentric versus eccentric hypertrophy in strength and endurance athletes. Neth Heart J. 2008;16:129–33.

Mitchell WK, Williams J, Atherton P, et al. Sarcopenia, dynapenia, and the impact of advancing age on human skeletal muscle size and strength; a quantitative review. Front Physiol. 2012;3:260.

Montero D, Díaz-Canestro C. Endurance training and maximal oxygen consumption with ageing: role of maximal cardiac output and oxygen extraction. Eur J Prev Cardiol. 2016;23:733–43.

Monticone S, D'Ascenzo F, Moretti C, et al. Cardiovascular events and target organ damage in primary aldosteronism compared with essential hypertension: a systematic review and meta-analysis. Lancet Diabetes Endocrinol. 2018;6:41–50.

Moon RE, Cherry AD, Stolp BW, et al. Pulmonary gas exchange in diving. J Appl Physiol. 2009;106:668-77.

Moore LG. Measuring high-altitude adaptation. J Appl Physiol (1985). 2017;123:1371-85.

Morishita S, Tsubaki A, Shirai N. Physical function was related to mortality in patients with chronic kidney disease and dialysis. Hemodial Int. 2017;21:483–9.

Morris NR, Walsh J, Adams L, et al. Exercise training in COPD: what is it about intensity? Respirology. 2016;21:1185-92.

Morris R, Digenio A, Padayachee GN, et al. The effect of 5-months cardiac rehabilitation programme on serum lipoprotein and apoprotein A1 and B and lipoprotein a. S Afr Med J. 1993;83:315–8.

Morucci G, Punzi T, Innocenti G, et al. New frontiers in sport training: genetics and artistic gymnastics. J Strength Cond Res. 2014;28:459-66.

Mozos I, Malainer C, Horbańczuk J, et al. Inflammatory markers for arterial stiffness in cardiovascular diseases. Front Immunol. 2017; https://doi.org/10.3389/fimmu.2017.01058.

Mul JD, Stanford KI, Hirshman MF, et al. Exercise and regulation of carbohydrate metabolism. Prog Mol Biol Transl Sci. 2015;135:17–37.

Murray AJ. Energy metabolism and the high-altitude environment. Exp Physiol. 2016;101:23-7.

Myers J. Exercise and cardiovascular health. https://doi.org/10.1161/01.CIR.000004889

Nakamura M, Sadoshima J. Mechanisms of physiological and pathological cardiac hypertrophy. Nat Rev Cardiol. 2018;15:387–407.

Nathell L, Nathell M, Malmberg P, et al. COPD diagnosis related to different guidelines and spirometry techniques. Respir Res. 2007;8:89.

Navar LG. The Role of the Kidneys in Hypertension. J Clin Hypert. 2007; https://doi. org/10.1111/j.1524-6175.2005.04130.x.

NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in blood pressure from 1975 to 2015: a pooled analysis of 1479 population-based measurement studies with 19·1 million participants. Lancet. 2017;389:37–55.

Nelson DL, Cox MM. Lehninger principles of biochemistry. New York: Freeman; 2013.

Nelson DL, Cox MM. Lehninger principles of biochemistry: Freeman; 2008.

Neves J, Leitz D, Kraut S, et al. Disruption of the hepcidin/ferroportin regulatory system causes pulmonary iron overload and restrictive lung disease. EBiomedicine. 2017;20:230–9.

New K, Bailey DM, Campbell I. Extremes of barometric pressure. Anaesth Intens Care Med. 2005;6:376-9.

Nieuwenburg-van Tilborg EM, Horstman AM, Zwarts B, et al. Physical strain during activities of daily living of patients with coronary artery disease. Clin Physiol Funct Imaging. 2014;34:83–9.

Nigam A, Mitchell GF, Lambert J, et al. Relation between conduit vessel stiffness (assessed by tonometry) and endothelial function (assessed by flow-mediated dilatation) in patients with and without coronary heart disease. Am J Cardiol. 2003;92:395–9.

Nindl BC, Scoville CR, Sheehan KM, et al. Gender differences in regional body composition and somatotrophic influences of IGF-I and leptin. J Appl Physiol. 2002;92:1611–8.

Nishikawa KC, Lindstedt SL, LaStayo CP. Basic science and clinical use of eccentric con-tractions: history and uncertainties. J Sport Health Sci. 2018;7:265–74.

Nishiyama O, Kondoh Y, Kimura T, et al. Effects of pulmonary rehabilitation in patients with idiopathic pulmonary fibrosis. Respirology. 2008;13:394–9.

Nosaka K. Muscle soreness and damage and the repeated-bout effect. In: Tiidus PM, editor. Skeletal muscle damage and repair. Human kinetics. 2008. p. 59–76.

Ntanasis-Stathopoulos J, Tzanninis JG, Philippou A, et al. Epigenetic regulation on gene expression induced by physical exercise. J Musculoskelet Neuronal Interact. 2013;13:133–46.

O'Brien E, Atkins N, Stergiou G, et al. On behalf of the Working Group on Blood Pressure Monitoring of the European Society of Hypertension. European Society of hypertension international protocol revision 2010 for the validation of blood pressure measuring devices in adults. Blood Press Monit. 2010;15:23–38.

O'Shea SD, Taylor NF, Paratz J. Progressive resistance exercise improves muscle strength and may improve elements of performance of daily activities for people with COPD: a systematic review. Chest. 2009;36:1269–83.

Okabe T-A, Kishimoto C, Murayama T, et al. Effects of exercise on the development of atherosclerosis in apolipoprotein E-deficient mice. Exp Clin Cardiol. 2006;11:276–9.

Olah A, Nemeth BT, Matyas C, et al. Physiological and pathological left ventricular hypertrophy of comparable degree is associated with characteristic differences of in vivo hemodynamics. Am J Physiol Heart Circ Physiol. 2016;310:H587–97.

Olson TP, Joyner MJ, Dietz MM, et al. Effects of respiratory muscle work on blood flow distribution during exercise in heart failure. J Physiol. 2010;588:2487–501.

Oranchuk DJ, Storey AG, Nelson AR, et al. Isometric training and long-term adaptations:

Palatini P, Casiglia E, Gąsowski J, et al. Arterial stiffness, central hemodynamics, and cardiovascular risk in hypertension. Vasc Health Risk Manag. 2011;7:725–39.

Palmieri V, Bella JN, DeQuattro V, et al. Relations of diastolic left ventricular filling to systolic chamber and myocardial contractility in hypertensive patients with left ventricular hypertrophy (The PRESERVE Study). Am J Cardiol. 1999;84:558–62.

Palombo C, Kozakova M. Arterial stiffness, atherosclerosis and cardiovascular risk: patho-physiologic mechanisms and emerging clinical indications. Vascul Pharmacol. 2016;77:1–7.

Paneroni M, Simonelli C, Vitacca M, et al. Aerobic exercise training in very severe chronic obstructive pulmonary disease: a systematic review and meta-analysis. Am J Phys Med Rehabil. 2017;96:541–8.

Papachristodoulou DK, Elliott WH, Elliott DC. Alison and Snape. Biochemistry and molecular biology. 5th ed. Oxford university press; 2018.

Papadopoulou V, Eckersley RJ, Balestra C, Karapantsios TD, Tang MX. A critical review of physiological bubble formation in hyperbaric decompression. Adv Colloid Interface Sci. 2013;191–192:22–30.

Papaioannou TG, Protogerou AD, Stamatelopoulos KS, et al. Non-invasive methods and techniques for central blood pressure estimation: procedures, validation, reproducibility and limitations. Curr Pharm Des. 2009;15:245–53.

Patel S, Majmundar SH. Physiology, carbon dioxide retention. StatPearls Publishing; 2019. https://www.ncbi.nlm.nih.gov. NBK482456.

Pecanha T, Bartels R, Brito LC, et al. Methods of assessment of the post-exercise cardiac autonomic recovery: a methodological review. Int J Cardiol. 2017;227:795–802.

peripheral fatigue recovers faster in Sherpa than lowlanders at high altitude. J Physiol. 2018;596:5365-77.

Pescatello LS, Blanchard BE, Tsongalis GJ, et al. A comparison of the genetic and clinical profile of men that respond and do not respond to the immediate antihypertensive effects of aerobic exercise. Appl Clin Genet. 2008;1:7–17.

Pescatello LS, Franklin BA, Fagard R, et al. Exercise and hypertension. Med Sci Sports Exerc. 2004;36:533-53.

Pescatello LS. Exercise and hypertension: recent advances in exercise prescription. Curr Hypertens Rep. 2005;7:281-6.

Petersen BK. Exercise-induced myokines and their role in chronic diseases. Brain Behav Immun. 2011;25:811-6.

Piercy KL, Troiano RP, Ballard RM, et al. The physical activity guidelines for Americans. JAMA. 2018;320:2020-8.

Pirozzi C, Scholand MB. Smoking cessation and environmental hygiene. Med Clin North Am. 2012;96:849-67.

Pittman RN, Rafael S. Regulation of tissue oxygenation. Morgan & Claypool Life Sciences, CA; 2011. https://www.ncbi.nlm.nih.gov. NBK54104.

Plowman SA, Smith DL. Exercise physiology for health, fitness, and performance: Lippincott Williams & Wilkins; 2007. p. 61.

Ponganis PJ. Diving mammals. Compr Physiol. 2011;1:447-65.

Poole DC, Jones AM. Measurement of the maximum oxygen uptake Vo2max: Vo2peak is no longer acceptable. J Appl Physiol (1985). 2017;122:997–1002.

Poole RM, editor. The incredible machine. Washington, DC: Nat Geograp Soc; 1986. p. 307-11.

Popov DV. Adaptation of skeletal muscles to contractile activity of varying duration and intensity: The role of PGC-1α. Biochemistry (Mosc). 2018;83:613–28.

Portela DS, Vieira TO, Matos SM, et al. Maternal obesity, environmental factors, cesarean delivery and breastfeeding as determinants of overweight and obesity in children: results from a cohort. BMC Pregnancy Childbirth. 2015;15:94.

Poulter NR, Prabhakaran D, Caulfield M. Hypertension. Lancet. 2015;386:801-12.

Poussel M, Chenuel B. Exercise-induced bronchoconstriction in non-asthmatic athletes. (Article in French). Rev Mal Respir. 2010;27:898–906.

Powers KA, Dhamoon AS. Physiology, pulmonary, ventilation and perfusion. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2019.

Pricher MP, Holowatz LA, Williams JT, et al. Regional hemodynamics during postexercise hypotension. I. Splanchnic and renal circulations. J Appl Physiol (1985). 2004;97:2065–70.

Proctor DN, Parker BA. Vasodilation and vascular control in contracting muscle of the aging human. Microcirculation. 2006;13:315–27.

Puthucheary Z, Skipworth JR, Rawal J, et al. The ACE gene and human performance: 12 years on. Sports Med. 2011;41:433-48.

Quinn M, Rizzo A. Anatomy, anatomic dead space. StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing; 2019–2018.

Rabe KF, Hurd S, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease: GOLD executive summary. Am J Respir Crit Care Med. 2007;176:532–55.

Rafieian-Kopaei M, Setorki M, et al. Atherosclerosis: process, indicators, risk factors and new hopes. Int J Prev Med. 2014;5:927-46.

Rassier DE. Sarcomere mechanics in striated muscles: from molecules to sarcomeres to cells. Am J Phys Cell Physiol. 2017;313:C134-45.

Rawlins J, Bhan A, Sharma S. Left ventricular hypertrophy in athletes. Eur J Echocardiogr. 2009;10:350-6.

Ray CA, Carrasco DI. Isometric handgrip training reduces arterial pressure at rest without changes in sympathetic nerve activity. Am J Physiol Heart Circ Physiol. 2000;279:H245–9.

Re RN. Obesity-related hypertension. Ochsner J. 2009;9:133-6.

Reckelhoff JF. Gender differences in the regulation of blood pressure. Hypertension. 2001;37:1199-208.

Regitz-Zagrosek V. Sex and gender differences in health science and society series on sex and science. EMBO Rep. 2012;13:596-603.

Renna BF, Kubo H, MacDonnell SM, et al. Enhanced acidotic myocardial Ca2+ responsive-ness with training in hypertension. Med Sci Sports Exerc. 2006;38:847–55.

Restrepo MI, Sibila O, Anzueto A. Pneumonia in patients with chronic obstructive pulmo-nary disease. Tuberc Respir Dis (Seoul). 2018;81:187–97.

Rhoades RA, Bell DR. Medical physiology: principles for clinical medicine. Baltimore, MD: Lippincott Williams & Wilkins; 2012. p. 5-6.

Rich PR. The molecular machinery of Keilin's respiratory chain. Biochem Soc Trans. 2003;31:1095-105.

Rikli RE, Jones CJ. Development and validation of criterion-referenced clinically rele-vant fitness standards for maintaining physical independence in later years. Gerontologist. 2013;53:255–67.

Rivera-Brown AM, Frontera WR. Principles of exercise physiology: responses to acute exercise and long-term adaptations to training. PM&R. 2012;4:797–804.

Robineau J, Babault N, Piscione J, et al. Specific training effects of concurrent aerobic and strength exercises depend on recovery duration. J Strength Cond Res. 2016;30:672–83.

Robinson SL, Lambeth-Mansell A, et al. A nutrition and conditioning intervention for natural bodybuilding contest preparation: case study. J Int Soc Sports Nutr. 2015;12:20. https://doi.org/10.1186/s12970-015-0083-x.

Rolfe DFS, Brown GC. Cellular energy utilization and molecular origin of standard meta-bolic rate in mammals. Physiol Rev. 1997;77:731–58.

Romano AH, Conway T. Evolution of carbohydrate metabolic pathways. Res Microbiol. 1996;147:448-55.

Romer LM, Polkey MI. Exercise-induced respiratory muscle fatigue: implications for performance. J Appl Physiol. 2008;104:879–88.

Romero SA, Ely MR, Sieck DC, et al. Effect of antioxidants on histamine receptor activation and sustained postexercise vasodilatation in humans. Exp Physiol. 2015;100:435–49.

Romero SA, Minson CT, Halliwill JR. The cardiovascular system after exercise. J Appl Physiol (1985). 2017;122:925–93.

Ronn T, Volkov P, Davegardh C, et al. Six months exercise intervention influences the genome- wide DNA methylation pattern in human adipose tissue. PLoS Genet. 2013;9:e1003572. https://doi.org/10.1371/journal.pgen.1003572.

Ruggiero L, Hoiland RL, Hansen AB, Ainslie PN, McNeil CJ. UBC-Nepal expedition:

Runte K, Brosien K, Salcher-Konrad M, et al. Hemodynamic changes during physiological and pharmacological stress testing in healthy subjects, aortic stenosis and aortic coarctation patients – a systematic review and meta-analysis. Front Cardiovasc Med. 2019;6:43. https://doi.org/10.3389/fcvm.2019.00043.

Rush JWE, Ford RJ. Nitric oxide, oxidative stress and vascular endothelium in health and hypertension. Clin Hemorh Microc. 2007;37:185–92.

Sabbah HN, Anbe DT, Stein PD. Negative intraventricular diastolic pressure in patients with mitral stenosis: evidence of left ventricular diastolic suction. Am J Cardiol. 1980;45:562–6.

Saghiv M, Goldhammer E, Sagiv M, et al. Comparison of direct vs indirect blood pressure measurements on treadmill and bicycle in hypertensive responders. Clin Exp Pharmacol. 2016;6:4.

Saghiv M, Goldhammer E, Sagiv M, et al. Klotho gene expression responses to long lasting aerobic training and aging. J J Geronto. 2015;1(2):009.

Saghiv M, Sagiv M, Ben-Sira D, et al. What maintains total energy release at peak anaerobic effort in young and old men? ARC J Res Sports Med. 2016;1:4–8.

Saghiv MS, Goldhammer E, Ben-Sira D, et al. Gender effects on direct vs indirect blood pressure measurements at rest and during biking. Int J Clin Cardiol Res. 2018;2:17–21.

Saghiv MS, Goldhammer E, Sagiv M, et al. Effects of aerobic exercise training on S-Klotho in young and elderly. J J Physiology. 2015;1(1):001.

Sagiv M, Amir O, Goldhammer E, et al. Left ventricular contractility in response to upright isometric exercise in heart transplant recipients and healthy men. J Cardiopulm Rehabil Prev. 2008;28:17–23.

Sagiv M, Amir O, Goldhammer E, et al. Left ventricular contractility in response to upright isometric exercise in heart transplant recipients and healthy men. J Cardiopulm Rehabil Prev. 2008;28:17–2.

Sagiv M, Ben-Sira D, Goldhammer E, et al. Left ventricular contractility and function at peak aerobic and anaerobic exercises. Med Sci Sports Exerc. 2000;32:1197–201.

Sagiv M, Ben-Sira D, Goldhammer E. Direct vs. indirect blood pressure measurement at peak anaerobic exercise. Int J Sports Med. 1999;20:275–8.

Sagiv M, Ben-Sira D, Sagiv M, et al. Left ventricular function at peak all-out anaerobic exercise in older men. Gerontology. 2005;51:122-5.

Sagiv M, Ben-Sira D. Weight lifting training and left ventricular function in adolescents subjects. J Sports Med Phys Fitness. 2007;47:329–34.

Sagiv M, Goldhammer E, Ben-Sira D, et al. What maintains energy supply at peak aerobic exercise in trained and untrained older men? Gerontology. 2007;53:357–61.

Sagiv M, Hanson P, Besozzi M, et al. Left ventricular responses to upright isometric handgrip and deadlift in men with coronary artery disease. Am J Cardiol. 1985;55:1298–302.

Sagiv M, Hanson PG, Ben-Sira D, et al. Direct vs indirect blood pressure at rest and during isometric exercise in normal subjects. Int J Sports Med. 1995;16:514–8.

Sagiv M, Metrany R, Fisher N, et al. Comparison of hemodynamic and left ventricu-lar responses to increased after-load in healthy males and females. Int J Sports Med. 1991;12:41–5.

Sagiv M, Sagiv Beevers G, Lip GYH, O'Brien E. Blood pressure measurement. Part II-Conventional sphygmomanometry: technique of auscultatory blood pressure measurement. BMJ. 2001;322:1043–7.

Sagiv M, Sagiv M, Ben-Sira D. Weight lifting training and left ventricular function in adolescent subjects. J Sports Med Phys Fitness. 2007;47:329–34.

Sagiv M. Exercise cardiopulmonary function in cardiac patients. London: Springer; 2012.

Sagiv M. Exercise cardiopulmonary function in cardiac patients. London: Springer; 2012.

Sagiv SM. Exercise cardiopulmonary function in cardiac patients. London: Springer; 2012.

Salhi B, Troosters T, Behaeqel M, et al. Effects of pulmonary rehabilitation in patients with restrictive lung diseases. Chest. 2010;137:273–9.

Sander R. Compilation of Henry's law constants (version 4.0) for water as solvent. Atmos Chem Phys. 2015;15:4399–981.

Santos-Parker JR, LaRocca TJ, et al. Aerobic exercise and other healthy lifestyle factors that influence vascular aging. Adv Physiol Educ. 2014;38:296–307.

Scheid LM, Weber C, Bopp N, et al. Extraction protocols for individual zebrafish's ventricle myosin and skeletal muscle actin for in vitro motility assays. Front Physiol. 2017;8:367. https://doi.org/10.3389/fphys.2017.00367.

Schiaffino S, Dyar KA, Ciciliot T. Mechanisms regulating skeletal muscle growth and atrophy. FEBS J. 2013;280:4294-314

Schiaffino S, Mammucari C. Regulation of skeletal muscle growth by the IGF1-Akt/ PKB pathway: insights from genetic models. Skelet Muscle. 2011;1(1):4. https://doi. org/10.1186/2044-5040-1-4.

Schmolesky MT, Webb DL, Hansen RA. The effects of aerobic exercise intensity and duration on levels of brain-derived neurotrophic factor in healthy men. J Sports Sci Med. 2013;12:502–11.

Scott JM, Esch BT, Haykowsky MJ, et al. Sex differences in left ventricular function and beta-receptor responsiveness following prolonged strenuous exercise. J Appl Physiol (1985). 2007;102:681–7.

Scott JP, Peters-Golden M. Antileukotriene agents for the treatment of lung disease. Am J Respir Crit Care Med. 2013;188:538-44.

Seiler S, Haugen O, Kuffel E. Autonomic recovery after exercise in trained athletes: intensity and duration effects. Med Sci Sports Exerc. 2007;39:1366–73.

Seim I, Ma S, Gladyshev VN. Gene expression signatures of human cell and tissue longevity. NPJ Aging Mech Dis. 2016;2:16014. https://doi.org/10.1038/npjamd.2016.14.. eCollection 2016

Seo DY, Lee SR, Kim N, et al. Age-related changes in skeletal muscle mitochondria: the role of exercise. Integr Med Res. 2016;5:182-6.

Shimizu I. Physiological and pathological cardiac hypertrophy. J Mol Cell Cardiol. 2016;97:245-62.

Shiojima I, Walsh K. Regulation of cardiac growth and coronary angiogenesis by the Akt/PKB signaling pathway. Genes Dev. 2006;20:3347–65.

Shirwany NA, Zou M. Arterial stiffness: a brief review. Acta Pharmacol Sin. 2010;31:1267-76.

Short KR, Sedlock DA. Excess postexercise oxygen uptake and recovery rate in trained and untrained subjects. J Appl Physiol. 1997;83:153–9.

Silverthorn DU. Human physiology. An integrated approach. 7th, Global ed. Harlow: Pearson; 2016. p. 607-608, 666-673.

Silverthorn DU. Muscles. Human physiology: an integrated approach. 7th ed. San Francisco, CA: Pearson; 2016. p. 377-416

Simoneau JA, Colberg SR, Thaete FL, et al. Skeletal muscle glycolytic and oxidative enzyme capacities are determinants of insulin sensitivity and muscle composition in obese women. FASEB J. 1995;9:273–8.

Simonson TS, Huff CD, Witherspoon DJ, et al. Adaptive genetic changes related to haemo-globin concentration in native high-altitude Tibetans. Exp Physiol. 2015;100:1263–8.

Singh RK, Fan J, Gioacchini N, et al. Transient kinetic analysis of SWR1C-catalyzed H2A.Z deposition unravels the impact of nucleosome dynamics and the asymmetry of histone exchange. Cell Rep. 2019;27:374–86.

Skoog E, Shin JH, Saez-Jimenez V, et al. Biobased adipic acid – the challenge of developing the production host. Biotechnol Adv. 2018;36:2248–63.

Slade JM, Miszko TA, Laity JH, et al. Anaerobic power and physical function in strength-trained and non-strength-trained older adults. J Gerontol A Biol Sci Med Sci. 2002;57:M168–72.

Smith RL, Soeters MR, Wüst RCI, et al. Metabolic flexibility as an adaptation to energy resources and requirements in health and disease. Endocr Rev. 2018;39:489–517.

Smith SL. Postoperative perfusion deficits. ScienceDirect. 1990;(2):567-78.

So C, Pierluissi E. Attitudes and expectations regarding exercise in the hospital of hospitalized older adults: a qualitative study. J Am Geriatr Soc. 2012;60:713–8.

Spriet LL. New insights into the interaction of carbohydrate and fat metabolism during exercise. Sports Med. 2014;44(Suppl 1):87–96.

Spriet LL. The metabolic systems: lipid metabolism. Advanced exercise physiology. 2nd ed. Philadelphia: Lippincott, Williams and Wilkins; 2012. p. 392–407.

Stear S. Health and fitness series—1. The importance of physical activity for health. J Fam Health Care. 2003;13:10-3.

Stefanadis C, Dernellis J, Tsiamis E, et al. Aortic stiffness as a risk factor for recurrent acute coronary events in patients with ischaemic heart disease. Eur Heart J. 2000;21:390–6.

Steffl M, Bohannon RW, Sontakova L, et al. Relationship between sarcopenia and physi-cal activity in older people: a systematic review and meta-analysis. Clin Interv Aging. 2017;12:835–45.

Stewart KJ. Physical activity and aging. Ann NY Acad Sci. 2005;1055:193-206.

Stone M, Plisk S, Collins D. Training principles: evaluation of modes and methods of resistance training-a coaching perspective. Sports Biomech. 2002;1:79–103.

Storz JF, Cheviron ZA, McClelland GB, Scott GR. Evolution of physiological performance capacities and environmental adaptation: insights from high-elevation deer mice (Peromyscus maniculatus). J Mammal. 2019;100(3):910–22.

Strandberg TE, Sirola J, Pitkala KH, et al. Association of midlife obesity and cardiovascular risk with old age frailty: a 26-year follow-up of initially healthy men. Int J Obes (Lond). 2012;36:1153–7.

Swietach P, Tiffert T, Mauritz JM, et al. Hydrogen ion dynamics in human red blood cells. J Physiol. 2010;588:4995-5014.

Taguchi T, Matsuda T, Tamura R, Sato J, Mizumura K. Muscular mechanical hyperalgesia revealed by behavioural pain test and c-Fos expression in the spinal dorsal horn after eccentric contraction in rats. J Physiol. 2005;564:259–68.

Tan CH, Low KA, Kong T, et al. Mapping cerebral pulse pressure and arterial compliance over the adult lifespan with optical imaging. PLoS One. 2017;12:e0171305. https://doi. org/10.1371/journal.pone.0171305.eCollection2017.

Tanriverdi H, Evrengul H, Kaftan A, et al. Effects of angiotensin-converting enzyme poly-morphism on aortic elastic parameters in athletes. Cardiology. 2005;104:113–9.

Taylor AT. Risk factors, prevention, and treatment. Rambam Maimonides Med J. https://doi. org/10.5041/RMMJ.10022.

Taylor J. Bailliere's dictionary e-Book: for nurses and health care workers. Edinburgh: Elsevier Health Sciences; 2019. p. 128.

Terjung RL, Zarzeczny R, Yang HT. Muscle blood flow and mitochondrial function: influence of aging. Int J Sport Nutr Exerc Metab. 2002;12:368–78.

Thomas L, Levett K, Boyd A, Leung DY, et al. Changes in regional left atrial function with aging: evaluation by Doppler tissue imaging. Eur J Echocardiogr. 2003;4:92–100.

Thompson PD, Bucner D, Pina IL, et al. Exercise and physical activity in the prevention and treatment of atherosclerotic cardiovascular disease. Arterioscler Thromb Vasc Biol. 2003;23:1319–21.

Thorin-Trescases N, Thorin E. Lifelong cyclic mechanical strain promotes large elastic artery stiffening: increased pulse pressure and old age-related organ failure. Can J Cardiol. 2016;32:624–33.

Tipton NJ, Harper A, Paton JFR, et al. The human ventilatory response to stress: rate or depth? J Physiol. 2017;595:5729–52.

Tolle J, Waxman A, Systrom D. Impaired systemic oxygen extraction at maximum exercise in pulmonary hypertension. Med Sci Sports Exec. 2008;40:3–8.

Tortora G, Anagnostakos N. Principles of anatomy and physiology. 5th Harper international ed: Harper & Row; 1987. p. 219.

Tortora G, Derrickson B. Principles of anatomy & physiology. 13th ed. Hoboken, NJ: Wiley; 2012. p. 42-3.

Tortora G. Principles of anatomy and physiology. 12th ed. Hoboken, NJ: Wiley; 2008. p. 905-9.

Tortora GJ, Derrickson BH. Principles of anatomy and physiology – maintenance and continuity of the human body. 12th ed. Danvers: Wiley; 2009.

Trappe S, Luden N, Minchev K, et al. Skeletal muscle signature of a champion sprint runner. J Appl Physiol (1985). 2015;118:1460-6.

Tucker WJ, Lijauco CC, Hearon CM Jr, et al. Mechanisms of the improvement in peak VO2 with exercise training in heart failure with reduced or preserved ejection fraction. Heart Lung Circul. 2018;27:9–21.

Turner MJ, Spina RJ, Kohrt WM, et al. Effect of endurance exercise training on left ventricular size and remodeling in older adults with hypertension. J Gerontol Ser A. 2000;55:M245–M25.

Unglaub SD. Human physiology. An integrated approach. 7th, Global ed. Harlow: Pearson; 2016. p. 607-608, 666-673.

Utomi V, Oxborough D, Whyte GP, et al. Systematic review and meta-analysis of training mode, imaging modality and body size influences on the morphology and function of the male athlete's heart. Heart. 2013;99:1727–33.

Va C, Buys R, Na S. Endurance exercise beneficially affects ambulatory blood pressure: a systematic review and meta-analysis. J Hypertens. 2013;31:639–48.

Vaitkevicius PV, Fleg JL, Engel JH, et al. Effects of age and aerobic capacity on arterial stiff-ness in healthy adults. Circulation. 1993;88:1456-62.

Vallet H, Fali T, Sauce D. Aging of the immune system: from fundamental to clinical data. (Article in French). Rev Med Interne. 2019;40:105–11.

Vanhoutte PM, Shimokawa H, Feletou M, et al. Endothelial dysfunction and vascular dis-ease – a 30th anniversary update. Acta Physiol (Oxf). 2017;219:22–96.

Varadi RG, Goldstein RS, Stanbrook MB. Outcomes of pulmonary rehabilitation (PR) in idiopathic pulmonary fibrosis (IPF) [abstract]. Am J Respir Crit Care Med. 2008;177:A792.

Vaz M, Jennings G, Turner A, et al. Regional sympathetic nervous activity and oxygen consumption in obese normotensive human subjects. Circulation. 1997;96:3423–9.

Vellers HL, Kleeberger SR, Lightfoot JT. Inter-individual variation in adaptations to endur-ance and resistance exercise training: genetic approaches towards understanding a complex phenotype. Mamm Genome. 2018;29:48–62.

Venkat NKM, Mohammed KA, Jeffrey PK. Global non-communicable diseases – where worlds meet. New Engl J Med. 2010;363:1196–8.

Ventura SPM, Silva FA, Quental MV, et al. Ionic-liquid-mediated extraction and separation processes for bioactive compounds: past, present, and future trends. Chem Rev. 2017;117:6984–7052.

Verma S, Goni M, Kudyar RP, et al. Assessment of respiratory muscle endurance in type 1 & 2 diabetes mellitus. JK Sci. 2012;4:168-71.

Vernikos J, Schneider VS. Space, gravity and the physiology of aging: parallel or convergent disciplines? A mini-review. Gerontology. 2010;56:157–66.

Vestbo J. Definition and overview. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. Am J Respir Crit Care Med. 2013;187:1–7.

Vina J, Tarazona-Santabalbina FJ, Perez-Ros P, et al. Biology of frailty: modulation of ageing genes and its importance to prevent age-associated loss of function. Mol Asp Med. 2016;50:88–108.

Violante S, Ijlst L, Te Brinke H, et al. Peroxisomes contribute to the acylcarnitine production when the carnitine shuttle is deficient. Biochim Biophys Acta. 1831;2013:1467–74.

Voduc N, Alvarez GG, Amjadi K, et al. Effect of theophylline on exercise capacity in COPD patients treated with combination long-acting bronchodilator therapy: a pilot study. Int J Chron Obstruct Pulmon Dis. 2012;7:245–52.

Voet D, Voet JG, Pratt CW. Fundamentals of biochemistry: life at the molecular level. 4th ed. Hoboken, NJ: Wiley; 2013.

Voet D, Voet JG, Pratt CW. Fundamentals of biochemistry: life at the molecular level. 4th ed. Hoboken, NJ: Wiley; 2013. p. 189.

Voet D, Voet JG. Biochemistry. 3rd ed. Hoboken, NJ: Wiley; 2005.

Voet NBM, van der Kooi EL, Riphagen II, et al. Strength training and aerobic exercise training for muscle disease. Cochrane Data Sys Rev. 2010;CD003907. https://doi.org/10.1002/14651858. CD003907.pub3.

Vogelmeier CF, Criner GJ, Martinez FJ, Anzueto A, et al. Global strategy for the diagnosis, management and prevention of chronic obstructive lung disease 2017 report: GOLD executive summary. Am J Respirol Crit Care Med. 2017;22:575–601.

Vogiatzis I, Terzis G, Nanas S, et al. Skeletal muscle adaptations to interval training in patients with advanced COPD. Vogiatzis I. Chest. 2005;128:3838–45.

Vos T, Flaxman AD, Naghavi M, Lozano R, et al. Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet. 2012;380:2163–96.

Vuga LJ, Tedrow JR, Pandit KV, et al. C-X-C motif chemokine 13 (CXCL13) is a prognostic biomarker of idiopathic pulmonary fibrosis. Am J Respir Crit Care Med. 2014;189:966–74.

Wachtell K, Papademetriou V, Smith G, et al. Relation of impaired left ventricular filling to systolic midwall mechanics in hypertensive patients with normal left ventricular systolic chamber function: the Losartan Intervention for Endpoint Reduction in Hypertension (LIFE) study. Am Heart J. 2004;148:538–44.

Wagner PD, Simonson TS, Wei G, et al. Sea-level haemoglobin concentration is associated with greater exercise capacity in Tibetan males at 4200 m. Exp Physiol. 2015;100:1256–62.

Walker HK, Hall WD, Hurst JW, editors. Serum sodium in clinical methods: the history, physical, and laboratory examinations. 3rd ed. Boston: Butterworths; 1990.

Walter CA, Zhou ZQ, Manguino D, et al. Health span and life span in transgenic mice with modulated DNA repair. Ann N Y Acad Sci. 2001;928:132–40.

Wang I, Dong X, Gao J, et al. Targeting inflammatory vasculature by extracellular vesicles. AAPS J. 2018;20:37.

Wang YX, Zhang CL, Yu RT, et al. Regulation of muscle fiber type and running endurance by PPARδ. PLoS Biol. 2004;2(10):e294.

Wells GD, Selvadurai H, Tein I. Bioenergetic provision of energy for muscular activity. Paediatr Respir Rev. 2009;10:83-

Werner C, Doenst D. Metabolic pathways and cycles. In: Schwarzer M, Doenst D, editors. The scientist's guide to cardiac metabolism: Elsevier; 2016. p. 39–55.

West JB, Luks MD, Andrew M. West's respiratory physiology: the essentials. LWW. 10th ed. 2015.

West JB. Vulnerability of pulmonary capillaries during exercise. Exerc Sport Sci Rev. 2004;32:24-30.

Whelton PK, Carey RM, Aronow WS, et al. Guideline for the prevention, detection, evalu-ation, and management of high blood pressure in adults: A report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Hypertension. 2018;71:e13–e115.

Widmaier EP, Hersel R, Strang KT. Muscle. Vander's human physiology: the mechanisms of body function. 12th ed. New York, NY: McGraw-Hill; 2010. p. 250-91.

Wilmore JH, Costill DL, Kenney WL. Physiology of sport and exercise. 4th ed. Champaign, IL: Human Kinetics; 2008.

Witvrouwen I, Van Craenenbroeck EM, Abreu A, et al. Exercise training in women with cardiovascular disease: differential response and barriers – review and perspective. Eur J Prev Cardiol. 2019; https://doi.org/10.1177/2047487319838221.

Xu JQ, Murphy SL, Kochanek KD, et al. Deaths: final data for 2013 Cdc-pdf [PDF-7.3M]. National vital statistics report. 2016:64(2).

Yakar S, Rosen CJ, Beamer WG, et al. Circulating levels of IGF-1 directly regulate bone growth and density. J Clin Invest. 2002;110:771-81.

Yanai H, Tomono Y, Ito K, Furutani N, et al. The underlying mechanisms for development of hypertension in the metabolic syndrome. Nutr J. 2008; https://doi.org/10.1186/1475-2891-7-10.

Yawn BP. Factors accounting for asthma variability: achieving optimal symptom control for individual patients. Prim Care Resp J. 2008;17:138–47.

Yee AH, Rabinstein AA. Neurologic presentations of acid-base imbalance, electrolyte abnormalities, and endocrine emergencies. Neurol Clin. 2010;28:1–16.

Young AJ, Berryman CE, Kenefick RW, et al. Altitude acclimatization alleviates the hypoxia- induced suppression of exogenous glucose oxidation during steady-state aerobic exercise. Front Physiol. 2018;9:830. https://doi.org/10.3389/fphys.2018.00830.

Zammit PS, Partridge TA, Yablonka-Reuveni Z. The skeletal muscle satellite cell: the stem cell that came in from the cold. J Histochem Cytochem. 2006;54:1177–91.

Zeiher AM, Drexler H, Saurbier B, et al. Endothelium-mediated coronary blood flow modulation in humans: effects of age, atherosclerosis, hypercholesterolemia, and hypertension. J Clin Invest. 1993;92:652–62.

Zeiher J, Ombrellaro KJ, Perumal N, et al. Correlates and determinants of cardiorespira-tory fitness in adults: a systematic review. Sports Med Open. 2019;5(1):39. https://doi.org/10.1186/s40798-019-0211-2.

Zhang R, Wong K. High performance enzyme kinetics of turnover, activation and inhibition for translational drug discovery. Expert opin Drug Discov. 2017;12:17–37.

Zhao SZ, Ariff B, Long Q, et al. Inter-individual variations in wall shear stress and mechanical stress distributions at the carotid artery bifurcation of healthy humans. J Biomech. 2002;35:1367–77.