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(Suppl) 147: 1-75, 1963.Google ScholarAuchinclos J.H., R. Gilbert, and G.H. Baule. The effect of ventilation on oxygen transmission during early exercise. J. Appl. Physiol. 21: 810-818, 1966.PubMedGoogle ScholarBabcock M.A., D.F. Pegelow, S.R. McClaran, O.E. Suman, and J.A. Dempsey. Contribution of diaphragmatic force output for exercise induced diaphragm fatigue. J. Appl. Physiol. 78: 1710-1719, 1995.PubMedGoogle ScholarBachofen H., H.J. Hobi, and M. Scherrer. Alveolar-arterial gradients N2 at rest and during exercise in healthy men of different ages. J. Appl. Physiol. 34: 137-142, 1973.PubMedGoogle ScholarBake B., J. Bjure, and J. Widimsky. The effect of sedentary and graded exercises on the distribution of pulmonary blood flow in healthy subjects studied with the help of 133-xson technique. Scand.J. Klein. Invest. 22: 99-106, 1968.PubMedGoogle ScholarBand D.M. and S.J.G. Semple. Continuous measurement of the pH of the blood using an arterial glass electrode. J. Appl. Physiol. 22: 854-857, 1967.PubMedGoogle ScholarBanzett R.B., R.W. Lansing, R. Brown, G.P. Topulos, D. Yager, S.M. Steele, B. Londono, S.H. Loring, M.B. Reid, L. Adams, c.S. Nations. Air hunger from elevated PCO2 persists after a complete neuromuscular block in humans. Spear. Physiol. 81: 1-17, 1990.PubMedGoogle ScholarBarcroft J. Features in the architecture of physiological function. Cambridge: Cambridge University Press, 1934.Google ScholarBarr D.P., H.E. Himwich, and R.P. Green. Research in the physiology of muscle exercises. J. Biol. Chem. 55: 495-537, 1923.Google ScholarBartlett D. Postpartum growth of lung mammals: the effect of exercise and thyroid activity. Spear. Physics 9: 50-57, 1970.PubMedGoogle ScholarBartlett D. and J.G. Areson. The quantitative morphology of the lungs in Japanese mice. J. Appl. Physiol. 44: 446-449, ScholarBayly W.M., D.R. Hodgson, D.A. D.A. J.A. Dempsey and P.D. Gollnick. Exercise induced hypercapnia in a horse. J. Appl. Physiol. 67: 1958-1966, 1989.PubMedGoogle ScholarBeaver W.L., K. Wasserman and B.J. Whipp. Online computer analysis and breath-by-breath graphic display exercise function tests. J. Appl. Physiol. 34: 128-132, 1973.PubMedGoogle ScholarBeck K.C. Management of respiratory function during and after exercise in asthmatics. Med. Sci. Sports Exerc. 31 (Suppl): 54-511, 1999.Google ScholarBellemare F., D. White, C.M. Lavigne, and A. Grassino. Effect of tension and reduction times on the blood flow of the diaphragm. J. Appl. Physiol. 54: 1597-1606, 1983.PubMedGoogle ScholarBisgard G.E., H.V. Forster, B. Byrnes, K. Stanek, J. Klein, and M. Manohar. Spinal fluid acid-basic balance during muscle exercises. J. Appl. Physiol. 45: 94-101, 1978.PubMedGoogle ScholarBlack A.M.S. and R.W. Torrance. Respiratory fluctuations in discharge than the receptorator when controlling breathing. Spear. Physics 13: 221-237, 1971.PubMedGoogle ScholarBock A.V. and D.B. Dill. The physiology of muscle exercises. In: F.A. Bainbridge, 3rd Ed., rewritten by Bock A.V. and D.B. Dill. London: Longmans, Green and Co., 1931, page 157.Google ScholarBrown H.V., K. Wasserman and B.J. Whipp. Exposure to beta-adrenergic blockage during exercises on ventilation and gas drainage. J. Appl. Physiol. 41: 886-892, 1976.PubMedGoogle ScholarBurri P.H. and E.R. Weibel. Morphometric assessment of the ability to diffusion of the lungs. II. Effect of P02 on growing lung: adaptation of the growing rat lung to hypoxia and hyperoxia. Spear. Physics 11: 247-264, 1971.PubMedGoogle ScholarBusse M.W., N. Maassen and H. Conrad. The link between plasma K⁺ and post-depletion of glycogen and abounds in the man J. Physiol. 443: 469-476, 1991.PubMedGoogle ScholarBye T.P.P., S.A. Esau, K.R. Walley, P.T. Macklem, and R.L. Pardy. Vent muscles during exercises in the air and oxygen in normal men. J. Appl. Physiol. Respir. Environ. Exer. Physics 58: 464-471, 1984.Google ScholarCampbell E.J.M. Respiratory Muscles and Breathing Mechanics. Chicago: Yearbook Publishers, 1958. Google ScholarCasaburi R., B.J. Whipp, K. Wasserman, W.L. Beaver, and S.N. Coyal. Dynamics of ventilation and gas replacement in response to sinusoidal work. J. Appl. Physiol. 42: 300-311, 1977.PubMedGoogle ScholarChen Z.F.L. Edridge, and P.G. Wagner. Respiratory-associated thalamic activity is associated with the level of respiratory drive. Spear. Physics 90: 99-113, 1992.PubMedGoogle ScholarClanton T., G.F. Dixon, J. Drake, and J. Gadek. The effect of training on swimming on lung volumes and the muscle conditioning system. J. Appl. Physiol. 62: 39-46, 1987.PubMedGoogle ScholarCotes J.E. Lung Function and Evaluation and Application in Medicine (3rd ed). Oxford: Blackwell, 1975. Google ScholarCrandall E.D. and R.E. Forster. Fast exchange of ion throughout cell membrane. Adv. Chem. Ser. 118: 65-87, 1973. Google ScholarCropp G.J.A. and J.H. Comroe, Jr. The role of mixed venous CO2 in respiratory control. J. Appl. Physiol. 16: 1029-1033, 1961.PubMedGoogle ScholarCumming G. Gas mixing in disease. In: Scientific Foundations of Medicine, edited by J.G. Scadding and G. Cumming. London: Heinemann, 1981. Google ScholarCunningham D.J.C. Integrated Aspects of Respiratory Regulation: Personal Opinion. In: MTP International Science Review. Ser. 1, Physiology, edited by J.G. Widdicombe. Baltimore: University Park Press, 1974, page 303-369. Google ScholarCunningham D.J.C., P.A. Robbins, and C.B. Wolff. Integration of respiratory reactions to changes in alveolar partial pressure of CO2 and O2 and in arterial pH. In: Handbook of Physiology: Respiratory System, Volume II, Breathing Control, edited by N.S. Chernyak and J.G. Widdicombe. Bethesda: American Physiological Society, 1986, page 475-528. Google ScholarDeal E.C., E.R. McFadden, R.H. Ingram, R.H. Strauss, and J.J. Jaeger. The role of respiratory heat-mixing in asthma caused by exercise. J. Appl. Physiol. 46: 467-475, 1979.PubMedGoogle ScholarDejours P., Y. Labrousse, J. Raynaud, F. Girard, and A. Teillac. Stimulus oxygne de la ventilation au repo au cours de l'exercice musculaire, height bass (50 m) chez l'Homme. Reverend Frank. Studies Klein. Biol. 3: 105-123, 1958. Google ScholarDejours P. Control of breathing in muscle exercises. In: The Handbook of Physiology, edited by V.O. Fenn and H. Rana. Washington, D.C.: American Physiological Society, 1964, page 631-648. Google ScholarDempsey J., Hansen and K. Henderson. Hypoxemia caused by exercise in healthy people at sea level. J. Physiol. (Lond.) 355: 161-175, 1984. Google ScholarDempsey J. A. Is the lung built for exercise? Med. Sci. Sports 18: 143-155, 1986. Google ScholarDempsey J. A., L. Adams, J. Ainsworth, R. Fregosi, K. Gallagher, A. Goose, B. Johnson and S. Powers. Respiratory, lung and respiratory muscles during exercise. In: Physio-XII-Exercise, edited by L.B. and J.T.S. Rowell. Oxford: Oxford Press, 1996, page 448-515. Google ScholarDoll E., J. Keul, A. Brechtel, R. Limon-Lason, and H. Reindell. Der Einfluss krplicher arbeit auf die in Freiburg and in Mexico City. Sportarzt Sportsmedizin 8: 317-325, 1967. Google ScholarDouglas C.G. Coordination of breathing and circulation with variations in bodily activity. Lancet 2: 213-218, 1927. Google ScholarDownes J.J. and C.J. Lambertsen. Dynamic characteristics of ventilation and hardware depression in humans at a sharp introduction O2. J. Appl. Physiol. 21: 447-453, 1966. PubMedGoogle ScholarDuBois A.B., A.G. Britt and W.O. Fenn. Alveolar CO2 during the respiratory cycle. J. Appl. Physiol. 4: 535-548, 1952. PubMedGoogle ScholarEffros R.M., R.S.Y. And Chang. Silverman. Acceleration carbon dioxide conversion to pulmonary carbon anhydrase. Science 199: 427-429, 1978. PubMedGoogle ScholarEldridge F.L. and Gill-Kumar. Hyperpnea mechanisms induced by isoproterenol. Spear. Physics 40: 349-363, 1980. PubMedGoogle ScholarEldridge F., D.E. Millhorn, and T.G. Waldrop. Hyperpnea exercise and movement: parallel activation of the hypothalamus. Science 211: 844-846, 1981. PubMedGoogle ScholarEngland S.J. and D. Bartlett Jr. Changes in the respiratory movements of a person's vocal cords during hyperpnea. J. Appl. Physiol. 52: 780-785, 1982. PubMedGoogle ScholarFarhi L.E. Vent-perfusion relationship. In: The Handbook of Physiology, Sect 3, Respiratory System, edited by L. E. Farhi and S.M. Tanni. Bethesda: American Physiological Society, 1987, page 199-215. Google ScholarFletcher W.M. and F.G. Hopkins. Lactic acid in the muscles of the amphibian. J. Physiol. (Lond.) 35: 247, 1907. Google ScholarForster R.E. Exchange of gases between alveolar air and pulmonary capillary blood: pulmonary diffuse ability. Physiol. Reverend 37: 391-452, 1957. PubMedGoogle ScholarForster H.V. and L.G. Pan. Exercise hyperpnea. In: Light: Scientific Foundations, edited by R.G. Crystal and J.B. West. New York: Raven Press, page 1553-1564, 1991. Google ScholarForster H.V. Hyperpnea Exercise: Where Do We Go Next? Exer. Sport Sci. Reverend 28: 133-137, 2000. PubMedGoogle ScholarGale G.E., J. Torre-Bueno, R. Moon, G.A. Saltzman, and P.D. Wagner. Inequality of VAW in a normal person during exercise at sea level and simulated height. J. Appl. Physiol. 58: 978-988, 1985. PubMedGoogle ScholarGallagher C.G. and M. Younes. Pressure effect helps ventilation and breathing mechanics in heavy exercise. J. Appl. Physiol. 66: 1824-1837, 1989. PubMedGoogle ScholarGeelhaar A. and E.R. Weibel. Morphometric assessment of pulmonary diffuse ability. Iii. Effect of increased oxygen consumption in Japanese mice. Spear. Physics 11: 354-366, 1971. PubMedGoogle ScholarGeppert J. and N. Sunz. Ueber die Regulation der Amung. Arch of Gesa. Physics 42: 189-244, 1888. Google ScholarGilbert K.A. and D.E. Rannels. From limbs to lungs: a new look at compensatory lung growth. Physiol News. Sci. 14: 260-267, 1999. PubMedGoogle ScholarGledhill N., A.B. Froese, and J.A. Dempsey. Ventilation to distribute perfusion during health exercise. In: Muscle Exercises and Lungs, edited by J.A. Dempsey and C.E. Reed. Madison: University of Wisconsin Press, 1977, page 325-343. Google ScholarGrimby G., B. Saltin, and L. Wilhemson. Pulmonary flow, volume and volume of pressure ratio during submaximal and maximum exercise in young well-trained men. Physiopatol. Spear. 7: 57-168, 1971. Google ScholarGrimby G., M. Goldman, and J. Mead. Respiratory muscle action is derived from the chest and abdominal V-P sectionation. J. Physiol. 41: 739-751, 739-751, ScholarGrodins F. Analysis of factors related to the regulation of breathing in exercise. Physiol. Reverend 30: 220-239, 1950. PubMedGoogle ScholarHagberg J.M., E.F. Coyle, J.E. Carroll, J.M. Miller, W.H. Martin, and M.H. Brooke. Exercise hyperventilation in patients with Macardie's disease. J. Appl. Physiol. 52: 991-994, 1982. PubMedGoogle ScholarHammond M.D., G.E. Gale, K.S. Kapitan, A. Ries, and P.D. Wagner. Pulmonary gas ex. change in people during sea level training. J. Appl. Physiol. 60: 1590-1598, 1986. PubMedGoogle ScholarHanouzi P., A. Huszczuk, J.P. Gilles, B. Chalou, F. Marchal, J.P. Crance and B.J. Whipp. Vascular distension in the muscles contributes to respiratory control in sheep. Spear. Physics 99: 41-50, 1995. Google ScholarHanouzi P., J.M. Hill, B.K. Lewis, and M.P. Kaufman. Reactions of group III and IV muscle afferents to the blur of the peripheral vascular bed. J. Appl. Physiol. 87: 545-553, 1999. Google ScholarHarms C.A., S.R. McClaran, D.F. Pegelow, G.A. Nickele, W.B. Nelson, P. Hanson, and J.A. Dempsey. The effect of the respiratory muscles on the cardiac output and its distribution during maximum exercise. J. Appl. Physiol. 85: 609-618, 1998. PubMedGoogle ScholarHarms C.A., S.R. McClaran, D.F. Pegelow, G.A. Nickele, W.B. Nelson, and J.A. Dempsey. Exercise induced arterial hypoxemia in healthy young women. J. Physiol. 507: 619-628, 1998. PubMedGoogle ScholarHerxheimer H. and R. Cost. Das verhaltenis von sauerstoffaufnahme y kohlenstaurausscheidung zur ventilation bei Harter muskellarbeit. S. Wedge. Med. 108: 240-247, 1932. Google ScholarHill A.V. and H. Lupton. Muscle exercises, lactic acid, and the supply and use of oxygen. The question is: J. Med. 16: 135-171, 1923. Google ScholarHill J.M. Discharge group IV frenic afferent fibers increases during diaphragmatic fatigue. Brain Res. 856: 240-244, 2000. PubMedGoogle ScholarHolmgren A. and H. Linderholm. Oxygen and carbon dioxide voltage arterial blood during heavy and exhaustive exercises. Acta Physiol. Scand. 44: 203-215, 1958. PubMedGoogle ScholarHornbein T.F., S.J. Griffo and A. Roos. A quantitative assessment of activity than anorexic: the relationship of hypoxia and hypercapnia. J. Neurophysiol. 24: 561-568, 1961. PubMedGoogle ScholarHuszcuk A., B.J. Whipp, T.D. Adams, A.G. Fisher, R.O. Crapo, G.C. Elliott, K. Wasserman, and D.B. Olsen. Vent control during exercises in calves with artificial hearts. J. Appl. Physiol. 68: 2604-2611, 1990. PubMedGoogle ScholarJennings D.B. Breathing control during exercise: hormones, osmolality, strong ions and PaCO2. Can. J. Appl. Physiol. 19: 334-349, 1994. PubMedGoogle ScholarHyatt R. E., D.P. Schilder, and D.L. Fry. The relationship between maximum expiration and lung inflation. J. Appl. Physiol. 13: 331-338, 1958. PubMedGoogle ScholarJeyaranjan R., R. and J. Duffin. The role of lactic acidosis on the reacting to heavy exercise. Breath 55: 202-209, 1989. Google ScholarJohnson R.L., S.C. Cassidy, R. Grover, J. Schutte, and R.H. Epstein. The functionality of the lungs and chest in beagles after a long stay at 3100 m. J. Appl. Physiol. 59: 1773-1782, 1985. PubMedGoogle ScholarJohnson B.D., W. G. Reddan, K.G. Deow, and J.A. Dempsey. Mechanical limitations on the exercise of hyperpnea in the form of an aging population. Am. Reverend Spear. Dis. 143: 968-977, 1991. PubMedGoogle ScholarJohnson B.D., M.A. Babcock, O.E. Suman, and J.A. Dempsey. Exercise induced diaphragmatic fatigue in healthy people. J. Physiol. (Lond.) 460: 385-405, 1993. Google ScholarJohnson B.D., M.S. Badr, and J.A. Dempsey. The effect of the aging pulmonary system on the reaction to exercise. Wedge, Wedge. Breast Med. 15: 229-246, 1994. PubMedGoogle ScholarJones N.L., D.G. Robertson, and J.J. Kane. The difference between end tidal and arterial PCO2 in exercise. J. Appl. Physiol. 47: 954-960, 1979. PubMedGoogle ScholarJones N.L. Our duty to Peter Stewart. Can. J. Appl. Physiol. 20: 327-332, 1995. Google ScholarJones P.W., A. Khushchuk and K. Wasserman. Heart output as a ventilation controller through changes in the right ventricle load. J. Appl. Physiol. 53: 218-244, 1982. PubMedGoogle ScholarKao F.F. Experimental study of the pathway involved in the implementation of hyperpnea using cross-circulation techniques. In: Human Breathing Regulation, edited by D.J.S. Cunningham and B.B. Lloyd. Blackwell: Oxford, 1963, page 461-502. Google ScholarKaras R.J., C.R. Taylor, H.J. Jones, S.L. Lindstedt, R.B. Reeves and E.R. Weibel. Adaptive changes in the mammalian respiratory system in relation to vigorous demand. Spear. Physics 69: 101-115, 1987. Google ScholarKaufman M.P. and H.V. Forster. Reflexes that control the response of circulation, ventilation of the lungs and airways to exercise. In: The Handbook of Physiology, Section 12, Exercise: Regulating and Integrating Multiple Systems, edited by L.B. Rowell and J.T. Shepherd. New York: Oxford, 1996, page 381-447. Google ScholarKayser B., M. Narici, T. Binzoni, B. Grassi, and P. Cerretelli. Fatigue and exhaustion in chronic hypobaric hypoxia: the effect of exercising muscle mass. J. Appl. Physiol. 76: 634-640, 1994. PubMedGoogle ScholarKenyon C.M., S.J. Cala, S. Yan, A. Aliverti, G. Scano, R. Doratni, A. Pedotti, and P.T. Macklem. Chest mechanics during quiet breathing and exercise in humans. J. Appl. Physiol. 83: 1242-1255, 1997. PubMedGoogle ScholarKilian K.J., P. Leblanc, D.H. Martin, E. Summers, N.L. Jones, and E.J.M. Campbell. Exercise capacity and ventilation, circulatory and symptom restriction in patients with chronic airflow restriction. Am. Reverend Spear. Dis. 146: 935-940, 1992. PubMedGoogle ScholarKim T.S., H. and L.E. Farhi. Evaluation of true venous and arterial PCO2 by gas analysis of one breath. J. Appl. Physiol. 21: 21: 1966. PubMedGoogle ScholarKoulouris N.G., I. Dimopoulos, Valt, R. Finkelstein, R. Cocio and D. Milic-Emily. Detection of the restriction expires during exercise in patients with COPD. J. Appl. Physiol. 82: 723-731, 1997. PubMedGoogle ScholarKowalchuk J.M. and B.W. Scheuermann. Acid-basic regulation: comparing quantitative methods. Can. J. Physiol. Pharmacol. 72: 818-826, 1994. PubMedGoogle ScholarKrogh A. and J. Lindhard. Regulation of breathing and circulation in the early stages of muscle work. J. Physiol. (Lond.) 47: 112-136, 1913. Google ScholarLavoisier A.L. Changes qu'eprouve l'air respire. In: Ouvre de Lavoisier. Paris: Im-primaire Imperiale, 1862-1893, page 676-687. Google ScholarLewis S.M. and E.P. Hill. Effect of plasma carbon anhydrase (C.A.) on ventilation during dog exercise. Fed Proc. 38: 1034, 1970. Google ScholarLilienthal JR, R. L. Riley, D.D. Proemmel, and R.E. Franke. Experimental analysis in humans of the gradient of oxygen pressure from alveolar air to arterial blood during rest and exercise at sea level and at altitude. Am. J. Physiol. 147: 199-216, 1946. PubMedGoogle ScholarLinnerholm G. Pulmonary carbonic angiraz in humans, monkeys and rats. J. Appl. Physiol. 52: 352-356, 1982. Google ScholarLongworth K.E., J.H. Jones, J.E.P.W. Bicudo, C.R. Taylor, and E.R. Weibel. High consumption O2 in fox exercise: The big difference is PO2 drives diffusion through the lungs. Spear. Physics 77: 263-276, 1989. PubMedGoogle ScholarLugliani R., B.J. Whipp, C. Seard, and K. Wasserman. The effect of bilateral sleepy resection of the body on ventilation control at rest and during physical exercises in humans. N. Engl. J. Med. 285: 1105-1111, 1971. PubMedGoogle ScholarManohar M. Blood flow to respiratory and limber muscles and to abdominal organs during maximum tension in the pony. J. Physiol. 377: 25-35, 1986. PubMedGoogle ScholarMargarita R., J.M.

Milic-Emili, J.M. Petit and G. Cavangna. Mechanical breathing during muscle exercises. J. Appl. Physiol. 15: 354-358, 1960.PubMedGoogle ScholarMcCloskey D.J. and J.H. Mitchell. The reflex of the cardiovascular and respiratory reactions occurring in the exercise of the muscles. J. Physiol. 224: 173-186, 1972.PubMedGoogle ScholarMead J. Mechanical lung properties. Physiol. Rev. 41: 281-329, 1961.PubMedGoogle ScholarMitchell J.H., D.R. Reeves, H.B. Rogers, and N.H. Secher. Epidural anesthesia and cardiovascular reactions to static exercises in a person J. Physiol. (Lond.) 417: 13-24, 1989.Google ScholarMitchell J. and B. Saltin. Oxygen transport and the concept of maximum oxygen absorption. Chapter 6, this volume. Google ScholarNielsen M. Untersuchungen ueber die Atemregulation beim Menschen, besonders mit Hinblick auf die Art de chemischen Reizes. The scandal. Arch Physiol. 74 (Suppl 10): 83-208, 1936.Google ScholarNoakes T.D. Oxygen absorption: classic vs vs. viewpoint: rebuttal. Med. Sci. Sports Exer. 30: 1381-1398, 1998.Google ScholarO'Donnell D.E., J.C. Bertley, L.C.L. Chow, and C.A. Webb. High-quality aspects of shortness of breath in chronic airflow restriction: pathophysiological mechanisms. Am. J. Resp. Crit. Care Med. 155: 109-115, 1997.PubMedGoogle ScholarOlafsson S. and R.E. Hyatt. Ventilation mechanics and limiting the flow during exercise in normal subjects. J. Klein. 48: 564-573, 1969.PubMedGoogle ScholarOrem J. and A. Netick. Behavioral control of breathing in the cat. Brain Res. 366: 238-253, 1986.PubMedGoogle ScholarOttis A. Breathing work. Physiol. Rev. 34: 449-472, 1954.PubMedGoogle ScholarPaintal A.S. Vagal sensory receptors and their reflexive effects. Physicist Reverend 53: 159-227, 1973.PubMedGoogle ScholarPan L.G., H.W. Forster, A.G. Bryce, T.F. Lowry, C.L. Murphy and D. Wurster. The effect of multiple deenrvations on hyperpnea exercises in pony wakes. J. Appl. Physiol. 79: 302-311, 1995.PubMedGoogle ScholarPatterson, D. Potassium and ventilation during exercise. J. Appl. Physiol. 72: 811-820, 1992.Google ScholarPickar J.G., J.M. Hill and M.P. Kaufman. Stimulation of vagal afferents inhibits movement in mesencephalic cats. J. Appl. Physiol. 74: 103-110, 1993.PubMedGoogle ScholarPiiper J. and P. Scheid. Model for capillary-alveolar equilibrium with a special reference to O2 absorption in hypoxia. Spear. Physics 46: 193-208, 1981.PubMedGoogle ScholarPowers S., J. Lawler, J. Criswell, C.L. Foo, and D. Martin. Aging and respiratory muscle metabolic plasticity: the effects of endurance training. J. Appl. Physiol. 72: 1068-1073, 1992.PubMedGoogle ScholarRahn H. The concept of medium alveolar air and ventilation blood flow. Am. J. Physiol. 158: 21-30, 1949.PubMedGoogle ScholarRahn H. and W.O. Fenn. Graphic analysis of the respiratory gas exchange. Washington, D.C.: American Physiological Society, 1955.Google ScholarRausch S. M., B.J. Whipp, K. Wasserman, and A. Huzczuk. The role of carotid artery organs in respiratory compensation for metabolic acidosis is exercise in humans. J. Physiol. (Lond.) 444: 567-578, 1991.Google ScholarReinhard U., P.H. Mueller, and R.M. Schmuelling. Determining the anaerobic threshold by ventilation equivalent in normal people. Breath 38: 36-42, 1979.PubMedGoogle ScholarRiley R.L. and A. Kurnand. Perfect alveolar air and analysis of vent perfusion communication in the lungs. J. Appl. Physiol. 1: 825-847, 1949.PubMedGoogle ScholarRiley R. Pulmonary function in relation to exercise. In: Science Medicine of Sports Physiological Education, edited by W.R. Johnson. New York: Harper Brothers, 1960, page 162-177.Google ScholarRiley R.L. Hyperpnya Exercise. In: Human Breathing Regulation, edited by D.J.S Cunningham and B.B. Lloyd. Oxford: Blackwell, 1963, p. ScientistRuss K.S. and P.T. McLem. Diaphragmatic fatigue in a person J. Appl. Physiol. 43: 189-197, 1977.PubMedGoogle ScholarRowell L.B., H.L. Taylor, Y. Wang, and W.S. Carlson. Saturating arterial blood with oxygen during maximum exercise. J. Appl. Physiol. 19: 284-286, 1964.PubMedGoogle ScholarRyan U.S., P.L. Whitney, and J.W. Ryan. Localization of carbon anhyrase on endothelial cells of the pulmonary artery in culture. J. Appl. Physiol. 53: 914-919, 1982.PubMedGoogle ScholarRyffel J.M. Experiments on the formation of lactic acid in a man J. Physiol. 39: 29, 1909.Google ScholarShepherd R.H. Effect of pulmonary diffuse ability on exercise tolerance. J. Appl. Physiol. 12: 487-488, 1958.Google ScholarSmith C.A., C.A. Harms, K.S. Henderson and J.A. Dempsey. The vent effects of specific carotid artery hypoxia and hypocapnia in awake dogs. J. Appl. Physiol. 82: 791-798, 1997.PubMedGoogle ScholarStewart P.A. Independent and dependent acid-base control variables. Spear. Physiol. 33: 9-26, 1978.PubMedGoogle ScholarSutton J.R., J.T. Reeves, P.D. Wagner, et al. Operation Everest II: transporting oxygen during exercises at extremely simulated altitudes. J. Appl. Physiol. 64: 1309-1321, 1988.PubMedGoogle ScholarSyvester J.T., B.J. Whipp, K. Wasserman. Ventilated control during brief infusions of CO2-laden blood into the awake dog. J. Appl. Physiol. 35: 178-186, 1973.PubMedGoogle ScholarSzydlzo z. Water that is not wet hands. Warsaw: Polish Academy of Sciences, 1994, page 82-85.Google ScholarTaylor R. and N.L. Jones. Reduce by preparing CO2 emissions during exercise. Eur. J. Cardiol. 9: 53-62, 1979.PubMedGoogle ScholarTenney S.M., and J.E. Remmers. Comparative quantitative morphology of light mammals: region of diffusion. Nature 197: 54-66, 1963.PubMedGoogle ScholarThurlbeck W.M. Growth and Lung Development. In: Lung Pathology (2nd Ed.), edited by V.M. Teribeck and A.M. Chung. New York: J. Massengale and R.A. Swanson. Saturating arterial blood with oxygen during maximum exercise. J. Appl. Physiol. 19: 284-286, 1964.PubMedGoogle ScholarWagner P.D., H.A. Saltzman, and J.B. West. Measuring the continuous distribution of ventilation and perfusion ratios: theory. J. Appl. Physiol. 36: 588-599, 1974.PubMedGoogle ScholarWaldrop T.G., D.C. Mullins, and D. Millhorn. Control of breathing by hypothalamus and feedback from contract muscles in cats. Spear. Physics 64: 317-328, 1986.PubMedGoogle ScholarWaldrop T.G. and R.W. Stremel. Muscle contraction stimulates posterior hypothalamic neurons. Am. J. Physiol. 256: R348 - R356, 1989.PubMedGoogle ScholarWard S.A. Assessment of peripheral chemoreflex deposits in ventilation during exercise. Med. Sci. Sports Exerc. 26: 303-310, ScholarWasserman K. and M.B. McLroy. Detection Detection anaerobic metabolism in cardiac patients during exercise. Am. D. Cardiol. 14: 844-852, 1964.PubMedGoogle ScholarWasserman K., BJ Whipp, and J. Castagna. Cardiodynamic hyperpnya: hyperpnea is secondary to an increase in cardiac output. J. Appl. Physiol. 36: 457-464, 1974.PubMedGoogle ScholarWasserman K., B.J. Whipp, R. Kasaburi, W.L. Beaver, and H.V. Brown. CO2 is flowing into the lungs and ventilation. In: Muscle Exercises and Lungs, edited by J.A. Dempsey and C.E. Reed. Madison: University of Wisconsin Press, 1977, page 105-135.Google ScholarWasserman C., R.A. Mitchell, A.J. Burger, R. Kasaburi, and J.A. Davis. The mechanism of isoproterenol hyperpnea in a cat. Spear. Physics 38: 359-376, 1979.PubMedGoogle ScholarWeibel E.R. Morphometry of Human Lungs. Berlin and New York: Spring and Academic, 1963.Google ScholarWeibel E.R., L.B. Marquez, M. Kopstantinopol, F. Doffey., Ger, and C.R. Taylor. Adaptive changes in the mammalian respiratory system in relation to vigorous demand. VI: Pulmonary gas meter. Spear. Physiol. 69: 81-100, 1987.Google ScholarWelch H. Effect of hypoxia and hyperoxia on human performance. Exerk. Sport Sci. Reverend 15: 191-221, 1987.PubMedGoogle ScholarWest J.B. and O. Mathieu Costello. Stress insufficiency of pulmonary capillaries: role in lung and heart disease. Lancet 340: 762-767, 1992.PubMedGoogle ScholarWest J.B. (ed). Respiratory physiology: people and ideas. New York: Oxford University Press, 1996.Google ScholarWhipp B.J., N. Lamarra, S.A. Ward, J.A. Davis, and K. Wasserman. Assessment of arterial PCO2 from age-weighted and time-averaged alveolar PCO2 during exercise. In: Respiratory Control: Perspective modeling, edited by G.D. Swanson and F.S. Grodins. New York: Plenum, 1990, page 91-99.Google ScholarZu J. and D.T. Fraser. Respiratory neurons of the fastigial nucleus in response to chemical and mechanical problems. J. Appl. Physiol. 82: 1177-1184, 1997.Google ScholarYamamoto W.S. and M.W. Edwards, Jr. Carbon dioxide gomostase during an intravenous infusion of carbon dioxide. J. Appl. Physiol. 15: 807-818, 1960.PubMedGoogle ScholarYamamoto W.S. Looking at ventilation regulation as an alarm process. In: Muscle Exercises and Lungs, edited by J.A. Dempsey and C.E. Reed. Madison, WI: University of Wisconsin, 1977, page 137-148.Google ScholarPage 2This is the first history of exercise physiology written in terms of the system. The importance of human exercise experiments is emphasized, and the range of coverage is very wide. Among the figures whose thoughts or works are discussed are Galen, Avicenna, Descartes, Edward Smith, Seguin, Krog, AV Hill, Henry Taylor, Sunz, Ingie, Palladin, Galbo, and Bloor. Throughout the book, disputes are recognized and differences of opinion are presented. After an introductory chapter on early ideas about physiology exercises and training of athletes, there are eleven in-depth reports on the development of scientific thinking about the response of key physiological systems to the conditions of acute and chronic exercise, as well as their relationship with integrative response. They cover neuromuscular, cardiovascular, respiratory, vegetative, oxygen transport, metabolic, renal, endocrine and temperature control systems, among others. The authors of these chapters are very qualified. Two of them received the Olympic Award in Sports Sciences, seven Honorary Prizes for Research in Sports Medicine and Exercise Science, and five gave Adol a Lecture in Environment and Exercise Physiology for the American Physiological Society. Not other volume offers such a broad and authoritative set of historical points of view on the physiology of exercise. Exercise Physiology History of cardiovascular growth hormone growth hormone hormones medicine metabolism muscular physiology regulates the respiratory system of skeletal muscle training editors and accessories 1.Department of Physiology University of ArizonaTucsonUSA Page 3Adrian E.D. and D.W. Bronk. The secretion of pulses in motor nerve fibers. II. Frequency of discharges in reflex and voluntary reductions. J. Physiol. (Lond.) 67: 119-151, 1929.Google ScholarAlway S.E., P.K. Winchester, M.E. Davis, and W.J. Gonyea. Regionalized devices and proliferation of muscle fibers in the increase caused by stretching. J. Appl. Physiol. 66: 771-781, 1989.PubMedGoogle ScholarAristotle. De Motu Animalium. Translated by A.S.L. Farquharson in the works of Aristotle, translated by J.A. Smith and W.J. Ross, Volume 5. Oxford: Clarendon Press, 1912.Google ScholarAristotle. De Partibus Animalium. Translated by W. Ogle in the works of Aristotle, translated by J.A. Smith and W.J. Ross, Volume 5. Oxford: Clarendon Press, 1912.Google ScholarAshley C.C. and E.B. Ridgway. About the relationship between membrane potential, transient calcium and tension in single muscle fibers. J. Physiol. (Lond.) 209: 105-130, 1970.Google ScholarBang O. Content of lactate in the blood during and after muscle exercises in a person. Archive. Physics 74 (suppl. 10): 49-82, 1936.Google ScholarBarnard R.J., V.R. Edgerton, and J.B. Peter. Effect of exercise on skeletal muscles. I. Biochemical and histochemical properties. J. Appl. Physiol. 28: 762-766, 1970.PubMedGoogle ScholarBellemare F., JJ Woods, R. Johansson, and B. Bigland-Ritchie. The speed of unloading motor units with maximum voluntary contractions of three human muscles. J. Neurophysiol. 50: 1380-1392, 1983.PubMedGoogle ScholarBergstr'm J. Muscle electrolytes in man. Determined by the analysis of neutron activation of needle biopsy samples. Study on normal subjects, kidney patients, and patients with chronic diarrhea. Scand.J. Klein. 14 (Supple 68): 1-110, 1-110, FellowBerzelius, J. 1807. Cited by D.M. Needham in Machina Carnis. The biochemistry of muscle compression in its historical development. Cambridge: University Press, 1971, p. 41.Google ScholarBigland B. and O.C.J. Lippold. Motor activity in voluntary contraction of human muscles. J. Physiol. (Lond.) 125: 322-335, 1954.Google ScholarBigland-Ritchie B.R., N.J. Dawson, R.S. Johansson, and O.C.J. Lippold. Reflex origin for slowing the rate of motor neurone driving when a person is tired from voluntary cuts. J. Physiol. (Lond.) 376: 451-459, 1986.Google ScholarBlasius W., J. Boylan, and K. Kramer (eds). Founders of experimental physiology. Munich: J.F. Lehmanns Verlag, 1971, p. 241.Google ScholarBlomstrand E., F. Celsing, and E. A. Newsholme. Changes in plasma concentration of aromatic and branched chain amino acids during sustained exercise in humans and their possible role in fatigue. Acta Physiol. Scand. 133: 115-121, 1988.PubMedCrossRefGoogle ScholarBongiovanni L.G. and K.-E. Hagbart. Tonic vibrational reflexes caused by fatigue from maximum voluntary contractions in a person J. Physiol. (Lond.) 423: 1-14, 1990.Google ScholarBorelli G. De Motu Animalium. Rome: Angelo Bernabo, 1680. Cited by Sir M. Foster, lectures on the history of physiology in the sixteenth, seventeenth and eighteenth centuries. Cambridge: University Press, 1901, page 73-75.Google ScholarBrooks G.A. and G.A. Gaesser. The endpoints of lactate and glucose metabolism after grueling exercise. J. Appl. Physiol. 49: 1057-1069, 1980.PubMedGoogle ScholarBrooks S.V. and J.A. Faulkner. The strength and strength of slow and fast skeletal muscles in mice during repeated contractions. J. Physiol. (Lond.) 436: 701-710, 1991.Google ScholarBuller A.J., JC Eccles, and R.M. Eccles. Interaction between motor neurons and ro muscles in relation to the characteristic velocities of their reactions. J. Physiol. (Lond.) 150: 417-439, 1960.Google ScholarBuller A.J. and D.M. Lewis. Some observations about the effects of tenotomy on the rabbit. J. Physiol. (Lond.) 178: 326-342, 1965.Google ScholarBurke R.E. Group Ia synaptic input for rapid and slow twitching of the motor units of the cat's sura triceps. J. Physiol. (Lond.) 196: 605-630, 1968.Google ScholarBurke R.E. Motor unit types of cat triceps sura muscles. J. Physiol. (Lond.) 193: 141-160, 1967.Google ScholarBurke R.E., R.N. Levine, F.E. Cairns and V.K. Engel. Mammal motor units: physiological-histochemical correlation in three types of cat gastric, gastric gastrocnemius. Science 174: 709-712, 1971.PubMedCrossRefGoogle ScholarBuskirk E.R. and C. M. Tipton. Exercise physiology. In: History of exercise and sports with science, edited by J.D. Massengale and R.A. Swanson. Champaign, Illinois: Human Kinetics, 1997, page 367-439.Google ScholarButler J., E. Cosmos, and J. Brierley. Differentiation of types of muscle fibers in aneuvrst brachiala brachiala chicken embryo. J. Exp. It's a zuol. 224: 65-90, 1982.PubMedCrossRefGoogle ScholarCajal R.S. Histologie du Systeme Nerveux de l'Homme et de Vertebré, Volume 1. Paris: Maloine, 1909, pages 485-489.Google ScholarCarolan B. and E. Cafarelli. Adaptation in co-activity after isometric resistance training. J. Appl. Physiol. 73: 911-917, 1992.PubMedGoogle ScholarClamann H.P. and K.T. Broecker. The link between the strength and fatness of red and pale skeletal muscles in humans. Am. J. Phys. Med. 58: 70-85, 1979.PubMedGoogle ScholarCooper R.G., M.J. Stokes, and R.H.T. Edwards. The activation of myofibrillar in Maccardi's disease has failed. J. Neurol. Sci. 93: 1-10, 1989.PubMedCrossRefGoogle ScholarCooper S. and JC Eccles. Isometric resistance of mammalian muscles. J. Physiol. (Lond.) 69: 377-385, 1930.Google ScholarDawson M.J., D.G. Gadian, and D.R. Wilkie. Muscle fatigue investigated by phosphorus nuclear magnetic resonance. Nature 274: 861-866, 1978.PubMedCrossRefGoogle ScholarDelorme T.L. Restoring muscle power with heavy resistance exercises. J. Bones Joint Surg. 27: 645-667, 1945.Google ScholarDenny-Brown D. Histochemical features striped muscles in relation to its functional activities. It's a good time. R. Sots. Lond. Ser. B 104: 371-411, 1929.CrossRefGoogle ScholarDenny-Brown D. and J.B. Pennybacker. Fibrillation and fasciculation in voluntary muscles. Brain 61: 311-334, 1938.CrossRefGoogle ScholarDubowitz V. Cross-inner skeletal muscle of mammals: histochemical, physiological and biochemical observations. J. Physiol. (Lond.) 193: 481-496, 1967.Google ScholarDubowitz V. and A.G.E. Pearse. Mutual connection of phosphorylase and oxidative enzymes in skeletal muscles. Nature 185: 701-702, 1960.PubMedCrossRefGoogle ScholarDuchenne G.B.A. De l'electrication Localis'et de son Application a la Physiologie, a la Pathologie et Al Therapeutik (2nd and 3rd eds.). Paris: J.-B. Bailliere et Fils, 1861, 1872.Google ScholarEberstein A. and A. Sandow. Mechanisms of fatigue in muscle fibers. In: The effect of use and non-use on neuromuscular function, edited by E. Gutman and Hn'ic. Prague: Czechoslovak Academy of Sciences Publishing House, 1963, page 515-526.Google ScholarEccles J.C. and W.C.C. Gibson. Sherrington. His life and thoughts. Berlin: Springer Verlag, 1979, page 50.CrossRefGoogle ScholarEdstr'm L. and E. Kugelberg. Histochemical composition, fiber distribution and skimming of single-engine units. The anterior muscles of the rat's muscles. J. Neurol. Neurosurgeon. Psychiatry 31: 424-433, 1968.PubMedCrossRefGoogle ScholarEggleton P. and G.P. Eggleton. Inorganic phosphate and labile form of organic phosphate in frog gastriacim. Biochemistry. J. 21: 190-195.Google ScholarEmbden G. and E. Grafe. sber den einfluss der muskularbeit auf die phosphorussaurauscheidung. The question: Physics-chemical 113: 108-137, 1921.Google V.K. The essentiality of histo-and cytochemical studies of skeletal muscles in the study of neuromuscular diseases. Neurology 12: 778-794, 1962.CrossRefGoogle ScholarErasistratus, cited by Galen in De Locis Af F ectis. Translation by K.G. Kuun, Volume 8, p. 429; quoted by D.M. Needham in Machina Carnis. The biochemistry of muscle compression in its historical development. Cambridge: University Press, 1971, p. 8.G. Google ScholarFeinstein B., B. Lindegird, E. Nyman, and G. Wohlfart. Morphological studies of motor units in normal human muscles. Acta Anat. 23: 127-142, 1955.PubMedCrossRefGoogle ScholarFennn W.O. Quantitative comparison of the sucked energy and work performed by the isolated sartorial muscle of the frog. J. Physiol. (Lund.) 58: 175-203, 1923.Google ScholarFenn W.O. Frictional and kinetic factors in the work of sprint works. Am. J. Physiol. 92: 583-611, 1930.Google ScholarFiske C.H. and Y. Subbarow. The nature of inorganic phosphate in voluntary muscles. Science 65: 401-403.Google ScholarFletcher W.M. and F.G. Hopkins. Lactic acid in the muscles of the amphibian. J. Physiol. (Lond.) 35: 247-309, 1907.Google ScholarFoster M.A. Physiology Textbook (4th century London: MacMillan Co., 1883, p. 96-97.Google ScholarFoster, Sir M. Lectures on the History of Physiology in the Sixteenth, Seventeenth and Eighteenth Centuries. Cambridge: University Press, 1901, page 73-75.Google ScholarGalen C. On muscle movements. Translated by K.W. Durhamberg to Oeuvres Anatomiques, Physiologiques et M'edicales de Galien, Vol. 2. Paris: J.-B. Baillier, 1870, page 334.Google ScholarGandevia S.C., G.M. Allen, J.E. Butler and J.L. Taylor. Supraspinal factors of human muscle fatigue: evidence of suboptimal exit from the motor cortex. J. Physiol. (Lond.) 490: 529-536, 1996.Google ScholarGandevia S.C., G.M. Allen and D.K. McKenzie. Central fatigue. Critical questions, quantification and practical implications. In: Fatigue, Neural and Muscular Mechanisms, edited by S.K. Gandevia, R.M. Enopi, A.J. McComas, D.G. Stewart and C.K. Thomas. New York: Plenum Press, 1995, page 281-294.Google ScholarGarland S.J., S.H. Garner, and A.J. McComas. The relationship between numbers and the frequency of stimuli in human fatigue. J. Appl. Physiol. 65: 89-93, 1988.PubMedGoogle ScholarGarrett R.A., M.J. O'Donovan, J.A. Stephens and A. Taylor. Motor organization of the human block medial gastrocnemius. J. Physiol. (Lond.) 287: 33-43, 1979.Google ScholarGiddings CJ and WJ Gonyea. Morphological observations that support the hyperplasia of muscle fibers after weight lifting exercises in cats. Anat. Rec. 233: 178-195, 1992.PubMedCrossRefGoogle ScholarGillespie C.A.A., D.R. Simpson and V.R. Edgerton. A set of motor units, as reflected by the loss of muscle fiber glycogen in the bushby after running and jumping. J. Neurol. Neurosurgeon. Psychiatry 37:817-824, ScholarGilliant RV Dr. Derek Denny-Brown, OBE, MD, DPHIL, FRCP, 1901-1981. Gratitude. Canad. J. Neurol. Sci. 8: 271-273, 1981.Google ScholarGoldsipink G., A. Scott, J. Martindale, T. Jaenicke, L. Turay, and G.-F. Gerlach. Stretching and power generation cause rapid hypertrophy, and myosin isoform gene switches in adult skeletal muscles. Biochemistry. Soc. Trans. 19: 368-373, 1991.PubMedGoogle ScholarGoldsipink G. The spread of myofibrillations in the growth of muscle fibers. J. Cell Sci. 6: 933-603, 1970.PubMedGoogle ScholarGollnick P.D. and L. Hermansen. Biochemical adaptation to exercise: anaerobic metabolism. Exercise Sport Sci. Reverend 1: 1-43, 1973.CrossRefGoogle ScholarGollnick P.D., J. Karlsson, K. Piel, and B. Saltin. Selective glycogen depletion in the skeletal muscles of human fibers after sustained contractions. J. Physiol. (Lond.) 241: 59-67, 1974.Google ScholarGollnick P.D., K. Pielh, and B. Saltin. Selective model of glycogen depletion in human muscle fibers after exercise of varying intensity and at different pedal rates. J. Physiol. (Lond.) 241: 45-57, 1974.Google ScholarGollnick P.D. and B. Saltin. The value of the oxidative enzyme of skeletal muscles with endurance training. Wedge. Physics 2: 1012, 1082.Google ScholarGordon A.M., A.F. Huxley and F.J. Julian. Variation of isometric tension with sarcomer length in the muscle fibers of vertebrates. J. Physiol. (Lond.) 184: 170-192, 1966.Google ScholarGorza L., K. Gundersen, T. Limó, S. Schiaffino, and R.H. Westgaard. Slow to rapidly transform the denervative muscles of the sole by chronic high-frequency stimulation in the rat. J. Physiol. (Lond.) 402: 627-649, 1988.Google ScholarGranit R. Charles Scott Sherrington. Score. Doubleday Company, Inc.: Garden City, New York, 1967.Google ScholarGranit R., D. Kernell, and G.K. Shorters. Behavior of mammals motor neurone during long orthodrom, anti-drome and transmembrane stimulation. J. Physiol. (Lond.) 169: 743-754, 1963.Google ScholarGrimby L., J. Hannerz, J. Borg, and B. Hedman. The fire properties of single human motor units are on supported maximum voluntary efforts. In: Human Muscle Fatigue: Physiological Mechanisms, edited by R. Porter and J. Whelan. London: Pitman Medical, 1981, page 157-177.Google ScholarGrimby L., J. Hannerz and B. Hedman. Fatigue and voluntary properties of discharge of single-engine units into man. J. Physiol. (Lond.) 316: 545-554, 1981.Google ScholarHainaut K. and J. Duchateau. Muscle fatigue, the consequences of training and insuduth. Muscle nerve 12: 660-669, 1989.PubMedCrossRefGoogle ScholarHanson J. and H.E. Huxley. Structural basis of cross bands in muscles. Nature 172: 530-532, 1953.PubMedCrossRefGoogle ScholarHelmholtz H., 1848. Cited by D.M. Needham in Machina Carnis. The biochemistry of muscle compression in its historical development. University press, press, p. 40.Google ScholarHenneman E. The relationship between the size of neurons and their susceptibility to discharge. Science 126: 1345-1346, 1957.PubMedCrossRefGoogle ScholarHenneman E., G. Somjen, and D.O. Carpenter. The functional value of cell size in spinal motor neurons. J. Neurophysiol. 28: 560-580, 1965.PubMedGoogle ScholarHill A.V. First and last experiments in muscle mechanics. London: Cambridge University Press, 1970, page 26 (face to page). Google ScholarHill A.V. Memories and Reflections. Churchill College Library Cambridge, 1974, page 1-25.Google ScholarHill A.V. Absolute mechanical efficiency of contracting an isolated muscle. J. Physiol. (Lond.) 46: 435-469, 1913.Google ScholarHill A.V. Heat contraction and dynamic muscle constants. Proc. R. Soc. Ser. B 126: 136-195, 1938.CrossRefGoogle ScholarHill A.V. Active Muscle Mechanics. Proc. R. Soc. Ser. B 141: 104-117, 1953.CrossRefGoogle ScholarHill A.V. Trails and Trials in Physiology. London: Edward Arnold, 1965.Google ScholarHill A.V. and W. Hattry. Four phases of thermal muscle production. J. Physiol. (Lond.) 54: 84-128, 1920.Google ScholarHill A.V. and H. Lupton. Muscle exercises, lactic acid and oxygen use. Quart. J. Med. 16: 1335-1371, 1923.CrossRefGoogle ScholarHippocrates (Hippocratic Corpus). On the nature of bones; On the sacred disease; Epidemics, Diseases. Translated by E. Littré in Oeuvres Compl'ies d'Hippocrates,10 vols. Paris: J.B. Bailliere, 1839-1861.Google ScholarHolloszy J.O. Biochemical adaptation in muscles. Effect of exercise on the absorption of mitochondrial oxygen and the activity of respiratory enzyms in skeletal muscles. J. Biol. Chem. 242: 2278-2282, 1967.PubMedGoogle ScholarHultman E., J. Bergstr'm and N. McLennan Andersen. Breakdown and resynthesis of phosphate and adenosine triphosphate due to muscle work in humans. Laboratory. Invest. 19: 56-66, 1967.PubMedCrossRefGoogle ScholarHuxley A.F. Looking back at the muscles. In: The pursuit of nature. Unofficial essays on the history of physiology, edited by A.L. Hodgkin, A.F. Huxley, W. Felding, W.A.H. Rushton, R.A. Gregory and R.A. McCannus. Cambridge: Cambridge University Press, 1977, page 23-64.Google ScholarHuxley A.F. Muscle Reduction (Lecture Review). J. Physiol. (Lond.) 243: 1-43, 1974.Google ScholarHuxley A.F. and R. Niedergeker. Structural changes in the muscles during contraction. Interference microscopy of living muscle fibers. Nature 173: 971-973, 1954.Google ScholarHuxley A.F. and R.E. Taylor. Local activation of striped muscle fibers. J. Physiol. (Lond.) 144: 426-441, 1958.Google ScholarHuxley H.E. Electron microscope examining vaginal films in striped muscles. A biochemist. Biophysics. Acta 12: 387-394, 1953.PubMedCrossRefGoogle ScholarHuxley H.E. X-ray analysis and muscle problem. It's a good time. R. Ser. B 141: 59-62, 1953.CrossRefGoogle ScholarHuxley H.E. and J. Hanson. Changes in the cross bands of muscles during contraction and stretching and their structural interpretation. Nature 173: 973-976, 1954.PubMedCrossGoogle ScholarIngfer F. Effects of endurance training on muscle fiber ATP-ase activity, capillary nutrition and mitochondrial content in humans. J. Physiol. (Lond.) 294: 419-432, 1979.Google ScholarJansson E. and L. Kaijser. Muscle adaptation to extreme endurance training in humans. Acta Physiol. Scand. 100: 315-324, 1977.PubMedCrossRefGoogle ScholarJones D.A. How far can experiments in the laboratory explain the fatigue of athletes in this area? In: Neuromuscular fatigue, edited by A.J. Sargeant and D. Kernell. Amster-re Dam: North Holland, 1992, p. 100-108.Google ScholarJones D.A., B. Bigland Ritchie and R.H.T. Edwards. Frequency of arousal and muscle f-tees: mechanical reactions during voluntary and stimulating contractions. Exp. Neus, rol. 64: 401-413, 1979.Google ScholarJones N.L., N. McCartney, and A.J. McComas (eds). Human muscle strength. Champaign, i- ll: Human Kinetics Publishing Company, 1986.Google ScholarKatz B. and S. Thesleff. About the factors that determine the amplitude miniatures in the potential of the final plate. J. Physiol. (Earth) 137: 267-278, 1957.Google ScholarKernell D. and B. zwagstra. Entrance conductivity, speed of conduction of axonal and cell size R- among motor neurons of the rear brain of the cat. Brain Res. 204: 311-326, 1980.CrossRefGoogle ScholarKronecker H. Ueber die Ermudung und Erholung der Kvergestra F ten Muskeln. Berichte.p. der Verhandlungen d. h. Sehssischen Gesell. Der Wiess. zu Leipzig, 1871, page 718.Google ScholarKukulka C.G. and H.P. Clamann. Comparison of recruitment and statement proper-Le. communication of motor units in human brachi biceps and additive pollinators during isometric contractions. Brain Res. 219: 45-55, 1981.PubMedCrossRefGoogle ScholarLangley J.N. Sir Michael Foster. In memory. J. Physiol. (Earth) 35:233-246, 1906.Google ScholarLee J.A., H. Westerblad, and D.G. Allen. Changes in the titanic res and rest (Ca2): during fatigue and recovery of single muscle fibers from Xenopus laevis. J. Physiol. (Lond.) 433: 307-326, 1991.Google ScholarLeksell L. Potential action and excitatory effects of small ventricles of root fibers on skeletal muscles. Acta Physiol. Scand. 10 (Suppl. 31): 1-84, 1945.Google ScholarLimo T. and J. Rosenthal. Control the sensitivity of Ach muscle activity in a rat. J. Physiol. (Earth)221: 493-513, 1972.Google ScholarLundsgaard E. Untersuchungen zber muskelkontraktion ohne milchs'ure. Biochemistry. The question: 10 217: 162-177, 1930.Google ScholarMacDougall J.D., D.G. Sale, S.E. Alway, and JR Sutton. Muscle fiber number in biceps at brachii in body builders and control subjects. J. Appl. Physiol. 57: 1399-1403, ScholarMacefield V., S.C. S.C. B. Bigland-Ritchie, R.B. Gorman and D. Burke. The rate of shooting of human motor neurons voluntarily increased in the absence of muscular afferent feedback. J. Physiol. (Earth)471: 429-443, 1993.Google ScholarMargaria R., H.T. Edwards, and D.B. Dill. Possible mechanisms for contracting and paying oxygen debt and the role of lactic acid in muscle contracting. Am. J. Physiol. 106: 689-715, 1933.Google ScholarMarsden C.D., J.C. Meadows and P.A. Merton. Isolated single-engine units in a person 7, muscles and the speed of their discharge during maximum voluntary efforts. J. Physiol. (Earth) 217: 12-13P, 1971.Google ScholarMarsden C.D., JC Meadows, and P.A. Merton. Muscle wisdom. J. Physiol. (Earth) r- 200: 15P, 1969.Google ScholarMarsden C.D., JC Meadows, and P.A. Merton. Muscle wisdom that minimizes fatigue 1) during long-term human efforts: peak rates of motor neurone and slowing discharge during fatigue. Adv. Neurol. 39: 169-211, 1983.PubMedGoogle ScholarMariuyama K. Birth of a sliding fila in muscle contraction. D. Biochim. 117: 1-6, 1995.PubMedGoogle ScholarMcArdle B. Myopathy due to a defect in the breakdown of the glycogen muscles. Wedge. Wedge. Sci. 10: 13-35, 1951.Google ScholarMcComas A.J., W. Galea, and R.W. Einhorn. Pseudofacility: a misleading term. Muscle Nerve 17: 599-607, 1994.PubMedCrossRefGoogle ScholarMcComas A.J., P.R.W. Fawcett, M.J. Campbell, and R.E.P. Sica. Electrophysiological assessment of the number of motor units in human muscles. J. Neurol. Neurosurgeon. Psychiatry 34: 121-131, 1971.PubMedCrossRefGoogle ScholarMcPhedran A.M., R.B. Wuerker, and E. Henneman. Properties of motor units in a homogeneous red muscle (sole) of the cat. J. Neurophysiol. 28: 71-84, 1965.PubMedGoogle ScholarMense S. Nervous outflow from skeletal muscles after chemical harmful stimulation. J. Physiol. (Lond.) 267: 75-98, 1977.Google ScholarMerton P.A. Muscle fatigue problems. British Honey. Bull. 12: 219-239, 1956.PubMedGoogle ScholarMerton P.A. Voluntary strength and fatigue. J. Physiol. (Lond.) 123: 553-564, 1954.Google ScholarMeyerhof O. Die Energienumwandlungen im muskel. I. Ueber die beziehungen der milchs'ure zur w'mbelndung und arbeitsleistung des muskels in der anaerobiosis. Pflugers Archive ges. Physics 182: 232-283, 1920.CrossRefGoogle ScholarMilner-Brown H.S., R.B. Stein and R. Yemm. Changes in the rate of firing of human motor units with linear change of voluntary reductions. J. Physiol. (Lond.) 230: 371-390, 1973.Google ScholarMilner-Brown H.S., R.B. Stein, and R. Yemm. An orderly set of human motor units during voluntary isometric reductions. J. Physiol. (Lond.) 230: 359-370, 1973.Google ScholarMosso A. Fatigue. Translated by M. Drummond and W.B. Drummond. London: George Allen Unwin Ltd. New York: Sons of G.P. Putnam, 1915.Google ScholarNeedham D.M. Mr. Carnis, im sorry. These muscles compression in its historical development. Cambridge: University Press, 1971.CrossRefGoogle ScholarPearn J. Two early dynamometers. Historical record on the earliest measurements to study a person's muscular strength. J. Neurol. Sci. 37: 127-134, 1978.PubMedCrossRefGoogle ScholarPeter J.B., R.J. Barnard, V.R. Edgerton, C.A. Gillespie, and K.E. Stempel. Metabolic profiles of three types of skeletal muscle fibers in guinea pigs and rabbits. Biochemistry 11: 2627-2633, 1972.PubMedCrossRefGoogle ScholarPette D., B.W. Ramirez, W. Muller, R. Simon, G.W. Exner, and R. Hildebrand. The effect of intermittent long-term stimulation on the contracting, histochemical and metabolic properties of fiber populations in fast and slow rabbit muscles. Pflugers Archive. 361: 1-7, 1975.PubMedCrossRefGoogle ScholarRanvier L. Leons d'Anatomy Generale sur le System Musmuser., Paris, 1880.Google ScholarRome L.C. Muscle System Design. In: Neuromuscular fatigue, edited by A.J. Sargeant and D. Kernell. Amsterdam: North Holland, 1992, page 129-136.Google ScholarRutherford O.M. and D.A. Jones. The role of training and coordination in strength training. Eur. J. Appl. Physiol. 55: 100-105, 1986.CrossRefGoogle ScholarSalmons S. and G. Vrbovd. The effect of activity on some of mammalian contracting characteristics of fast and slow muscles. J. Physiol. (Lond.) 201: 535-549, 1969.Google ScholarSaltin B. and J. Karlsson. Muscle ATP, CP and lactate during exercise after physical conditioning. In: Muscle metabolism during exercise, edited by B. Pernow and B. Saltin. New York: Plenum, 1971, page 395-399.Google ScholarSargeant A.J., E. Hoinville, and A. Young. Maximum leg strength and power during short-term dynamic exercises. J. Appl. Physiol. 51: 1175-1182, 1981.PubMedGoogle ScholarSchantz P.G. and G. K. Dhoot. The coexistence of slow and fast isoforms and regulatory proteins in human muscle fibers is caused by endurance training. Acta Physiol. Scand. 131: 147-154, 1987.PubMedCrossRefGoogle ScholarSherrington C.S. Some functional problems associated with convergence. It's a good time. R. Sots. Lond. Ser. B 105: 332-362, 1929.CrossRefGoogle ScholarSherrington C.S. Integrative action of the nervous system. New Haven: Yale University Press Office, 1906 (reissued in 1947). Google ScholarSica R.E.P. and A.J. McComas. Fast and slow twitch units in the human muscle. J. Neurol. Neurosurgeon. Psychiatry 34: 113-120, 1970.CrossRefGoogle ScholarSimoneau J.A., G. Lorti, M.R. Bonley, C.M. Marcotte, M.K. Thibault and C. Bouchard. Change in the type of muscle fiber of a person with high-intensity intermittent workouts. Eur. J. Appl. Physiol. 54: 250-253, 1985.CrossRefGoogle ScholarSola O.M., D.L. Christensen and AV Martin. Hypertrophy and hyperplasia in adult chicken anterior muscle latissimus dorsl after stretching with and without 41: 76-100, 1973.PubMedCrossRefGoogle ScholarStaron R.S., M.J. Leonardi, J.L. Carapondt, E.S. Malik, F.O Falkel, EC Hagerman, and R.S. Hickid. Strength and skeletal muscles adapt to the heavy resistance of trained women after detraining and retraining. J. Appl. Physiol. 70: 631-640, 1991.PubMedGoogle ScholarStensen N. De Musculis et Glandulis Observation um Specimen, 1664. Cited by Sir M. Foster. Lectures on the history of physiology in the sixteenth, seventeenth and eighteenth centuries. Cambridge: University Press, 1901, p. 71.Google ScholarStephens, J.A., R. Garnett, and N.P. Buller. Cancellation of the order of a set of single motor units produced by coa stimulation with voluntary muscle contraction in humans. Nature 272: 362-364, 1978.PubMedCrossRefGoogle ScholarStephens J.A. and A. Taylor. Fatigue from supported voluntary cuts in a J. Physiol. person. (Lond.) 220: 1-18, 1972.Google ScholarVesalius A. Fabrica Humani Corporis. Basel, 1543. Cited by Sir M. Foster. Lectures on the history of physiology in the sixteenth, seventeenth and eighteenth centuries. Cambridge: University Press, 1901, page 69-70. Google ScholarVlensky J.A. and S. Gilman. Renaming the Henneman size principle. Science 280: 203, 1998.CrossRefGoogle ScholarVellestad N.K., O.M. Seiersted, R. Bahr, J.J. Woods and B. Bigland-Ritchie. Motor drive and metabolic reactions during repeated submaximal contractions in humans. J. Appl. Physiol. 64: 1421-1427, 1988.Google ScholarVrbove G. Factors determining the rate of contraction of striped muscles. J. Physiol. (Lond.) 185: 17-18P, 1966.Google ScholarVrbove G. Effect of motor neuron activity on the rate of contraction of striped muscles. J. Physiol. (Lond.) 169: 513-526, 1963.Google ScholarWachstein M. and E. Meisel. Distribution of obvious succinic dehydrogenase and mitochondria in the tongue and skeletal muscles. D. Biophysics. Biochemistry. It's a tiztol. 1: 483-488, 1955.PubMedCrossRefGoogle ScholarWaller A. Sense of Effort: Objective Research. Brain 14: 179-249, 1891.CrossRefGoogle ScholarWikkie D.R. Muscle function: historical view. In: Human Muscle Power, edited by N.L. Jones, N. McCartney and A.J. McComas. Champaign, IL: Man Kinetics Publishers, 1986, page 3-13.Google ScholarWikkie D.R. Muscle Function: Personal View. J. Exp. Biol. 115: 1-13, 1985.PubMedGoogle ScholarWikkie D.R. The link between strength and speed in human muscles. J. Physiol. (Lond.) 110: 249-280, 1950.Google ScholarWuerker R.B., A.M. McPhedran, and E. Henneman. Properties of motor units in a heterogeneous pale muscle (m. gastro-nessomius) of a cat. J. Neurophysiol. 28: 85-99, 1965.Google Scholar'terman Y. Obituary. Lord Adrian. Eeg. Wedge, Wedge. Neurophysiol. 44: 137-139, 1978.CrossRefGoogle Fellow exercise 24 respiratory system physiology answers. exercise 24 respiratory system physiology pre lab quiz. exercise 24 respiratory system physiology pdf