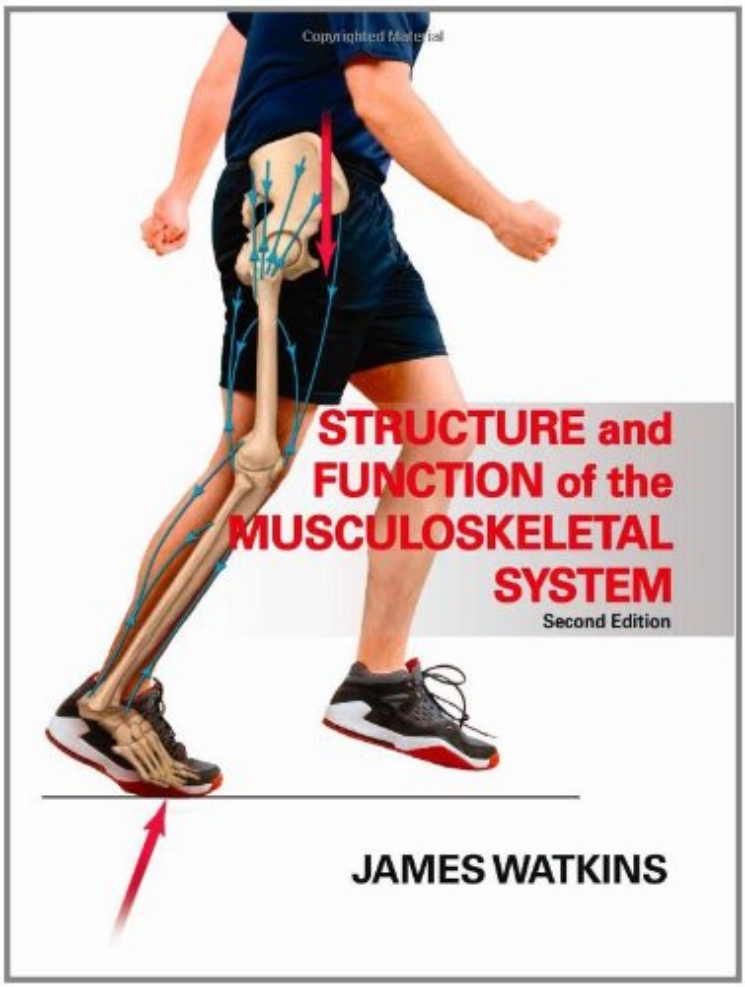
Structure and Function of the Musculoskeletal System - 2E

James Watkins
*DOC | *audiobook | ebooks | Download PDF | ePub*



#845787 in Books Human Kinetics 2009-11-03Original language:EnglishPDF # 1 11.00 x .90 x 8.70l, 3.00 #File Name: 0736078908408 pages | File size: 17.Mb

James Watkins : Structure and Function of the Musculoskeletal System - 2E before purchasing it in order to gage whether or not it would be worth my time, and all praised Structure and Function of the Musculoskeletal System - 2E:

2 of 3 people found the following review helpful. This unique reference should be in any serious sports medicine or health libraryBy Midwest Book ReviewThis unique reference should be in any serious sports medicine or health library. It explores the biomechanical characteristics of musculoskeletal components and the response of these components to physical stress. From the effects of aging on muscles to functional anatomy of the entire system, this blends nearly 700 color illustrations showing key structures and biomechanical properties with new tables covering the actions of individual muscles. Several new case studies illustrate the latest research and how they apply to sports and general living.

Written by James Watkins, an authority on functional anatomy, Structure and Function of the Musculoskeletal System,

Second Edition, integrates anatomy and biomechanics to describe the intimate relationship between the structure and function of the musculoskeletal system. This unique reference thoroughly explores the biomechanical characteristics of musculoskeletal components and the response and adaptation of these components to the physical stress imposed by everyday activities. Following a systematic approach, Structure and Function of the Musculoskeletal System describes-the basic composition and function of the musculoskeletal system;-mechanical concepts and principles that underlie human movement;-functional anatomy of the skeletal, connective tissue, articular, and neuromuscular systems;-mechanical characteristics of musculoskeletal components;-structural adaptation of musculoskeletal components; and-the etiology of musculoskeletal disorders and injuries.Also available as an e-book, the second edition of Structure and Function of the Musculoskeletal System features nearly 700 detailed, full-color illustrations showing key structures and biomechanical properties of the musculoskeletal system. Elementary biomechanical concepts are incorporated throughout the text, offering readers a more integrated understanding of how forces are created and relayed by the components of the musculoskeletal system. The second edition of Structure and Function of the Musculoskeletal System also includes new information on the effects of aging on muscle function as well as a new appendix with illustrations of each muscle group and tables detailing the origin, insertion, and action of individual muscles. In addition, several new case studies illustrate the response and adaptation of the musculoskeletal system to exercise at various ages and in various situations. These case studies present current research and how the findings can be put to practical use in physical activity, competitive sport, rehabilitation, and activities of daily living. Students new to anatomy or biomechanics will benefit from the book's reader-friendly structure featuring applied examples, summaries, review questions, references, an extensive subject index, and a glossary that runs parallel to the text. Learning objectives at the beginning of each chapter identify the key topics, and interesting facts and key points are set off within highlight boxes throughout the text. Highlighted introductory figures assist readers in understanding content as they refer to a sequence of subsequent figures while reading the text. Plus, nearly all the images from the text are included in an image bank that is free to instructors who adopt the text.Structure and Function of the Musculoskeletal System, Second Edition, offers readers a clear conception of how the components of the musculoskeletal system coordinate to produce movement and continuously adapt their structure to the strain of everyday physical activity as well as the effects of aging. Illustrated with full-color detail, this unique resource will assist both future and current professionals in the diagnosis and treatment of musculoskeletal disorders by enhancing their understanding of the relationship between the structure and function of the musculoskeletal system.

About the Author James Watkins, PhD, is a professor of biomechanics in the School of Human Sciences and director of the Sport and Exercise Science Research Centre at the Swansea University in Wales. Watkins spent over 20 years in Glasgow, Scotland, as a lecturer and researcher, and he served as the head of the department of physical education, sport and outdoor education at Jordanhill College and later at the University of Strathclyde, both in Glasgow. Watkins' main teaching and research specializations are musculoskeletal anatomy and the biomechanics of sport and exercise. He has authored over 80 publications, including three well-known textbooks (An Introduction to the Mechanics of Human Movement, 1983; this text, Structure and Function of the Musculoskeletal System; and An Introduction to Biomechanics of Sport and Exercise, 2007). Watkins is a fellow of the British Association of Sport and Exercise Sciences (BASES), a fellow of the Physical Education Association of the United Kingdom (PEAUK), and an honorary member of the Association for Physical Education (afPE). He is an advisory board member of the Journal of Sports Sciences and a former chair of the Biomechanics Section of BASES.In 1975 Watkins received his PhD in biomechanics from the University of Leeds in England. He resides in Swansea, where he enjoys walking, playing golf, and reading about the history of science.