

## Book Review Editor

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Thanks to our reviewers for their thoughtful reviews of two diverse texts, one of broad interest, dealing with the area of bone health, while the other review is of a text which will be primarily of interest to those in the musculoskeletal field. We encourage your suggestions for suitable texts to review and invite submissions of book reviews in all clinical areas.

### Physical Activity and Bone Health

**Editors:** Khan K, McKay H, Kannus P, Bailey D, Wark J, Bennell K.  
Human Kinetics 2001. 275 pages ISBN: 0880119683

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*Physical Activity and Bone Health* aims to provide health practitioners and exercise specialists with a thorough understanding of all fundamental aspects of bone make-up and biomechanics and offers a guidebook to physical activity programmes that influence bone health. In this fast-changing field it is important to keep up to date with scientific advancements when working with disease states such as osteoporosis. The text is presented in an illustrated, practical and evidence-based manner, with five distinct parts that can be read in any order depending on existing knowledge and further requirements. This task is made easier with an introduction to each part and a succinct summary of key points at the end of each chapter. Part I provides a clear outline of the structure, function and measurement of bone. The anatomy, physiology and biomechanics chapters offer a detailed and worthwhile background of bone biology, which is required in order to begin to understand how we may influence bone make-up and why it may or may not respond to different interventions. While Chapter 4 (*Measuring the Properties of Bone*) provides a comprehensive description of methods such as DXA, QUS and QCT, it is lacking an in-depth discussion on measurement of bone biomarkers – a tool which has become more prevalent in recent years in examining the relationship between bone metabolism and exercise.

Part II details the factors other than physical activity that influence bone: age, genetics, soft tissue factors, the endocrine system, nutrition and lifestyle. The awareness of these determinants is encouraged by the authors since they account for 90% of the variance in bone mineral, and will help develop realistic aspirations when prescribing exercise for bone health and when examining the literature in this field.

Part III introduces the theory of physical activity and bone, beginning with the methods used for measurement of physical activity and then taking the reader through the life span, critically reviewing the literature that reports the effect of bone loading on the healthy skeleton during childhood and adolescence, during adult life, and in the advancing years. This section also includes chapters specific to providing exercise programmes for falls prevention and osteoporosis. Exercise prescription is evidence-based and is presented in an illustrated and easy-to-read manner at the end of each chapter, making it easy for the reader to consult the text for specific exercises for the population of interest.

Part IV outlines the negative effect of intense physical activity on bone, summarising medical issues such as stress fractures and menstrual disturbance. Part V includes future research opportunities available in physical activity and bone health and lists potential research projects suitable for either a Master's or PhD thesis.

A strong feature of this text is the comprehensive and clear description of bone structure which provides the reader with the background knowledge necessary to understand the role of physical activity in bone health and disease. This makes it a resource accessible to a wider audience to encompass not only experienced health professionals, but also professionals who are new to the area, researchers, exercise trainers and students. It synthesises and condenses the increasing amount of literature on mechanical loading, exercise and bone health. However, outcomes from recent research will not be included in this text. Readers must be cautious and bear in mind that bone health is an area which is rapidly evolving and therefore certain aspects of this text are becoming perhaps a little outdated; therefore, an updated edition is warranted.

This book is appropriately titled because it does indeed