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# A Practical Approach to Adolescent Bone Health

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Sarah Pitts · Catherine M. Gordon  
Editors

# A Practical Approach to Adolescent Bone Health

A Guide for the Primary Care Provider

 Springer

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## Preface

As vertebrates, we rely upon our bones for structure and support, protection of vital organs, a home for marrow, and a biological bank of minerals essential for muscle and nerve function. However, many adolescents take their bones for granted, not considering the long-term implications of poor bone mass accrual at this critical time of their lives. It is up to clinicians to guide adolescents toward optimal bone health to mitigate the fractures, morbidity, and health-care costs associated with osteoporosis.

In this first edition of *A Practical Approach to Adolescent Bone Health*, we seek to provide a clinically relevant text for all clinicians who care for adolescents. Clinical and research experts in the fields of general pediatrics, adolescent medicine, endocrinology, nutrition, radiology, orthopedics, sports medicine, and physical medicine and rehabilitation have contributed to this important compendium. Throughout the text are clinical case vignettes highlighting key concepts for practitioners. In Chap. 1, the stage is set, reminding readers of the importance of adolescent bone health care, followed by an in-depth review of the pathophysiology of bone in Chap. 2. Subsequently, experts outline how diet and exercise impact the dynamic skeletal system (Chaps. 3–4). In Chaps. 5, 6, and 7, a bone-centric review of the clinical history, physical examination, laboratory assessment, and imaging is presented. The final chapters highlight the clinical thinking and latest research supporting the care of adolescents with multiple fractures, eating disorders, athletic involvement, chronic illness, ambulatory limitations, and bone fragility. By way of conclusion, we present additional case examples to illustrate the art and science of adolescent bone health care.

We hope this text can be used as an accessible reference for day-to-day clinical practice.

Before closing, we wish to acknowledge Drs. Jean Emans and Joseph Majzoub whose support of our clinical and research efforts in the field of adolescent bone health has been invaluable. And last, but not least, we acknowledge our families whose patience and support have made this book and all aspects of our work possible. We gratefully acknowledge our husbands, Edward Pitts and Robert Bagley, and our children, Liam and Jane, and Benny and Jack. We dedicate this book with gratitude to all of you.

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