

Preface

In this revision, I have attempted to update the information and improve the clarity of concepts and illustrations while maintaining the successful presentation approach the late Dr. Clem Thompson established from 1961 through 1989. I first used this book as an undergraduate and later in my teachings over the years. Having developed great respect for this text and Dr. Thompson's style, it is my intention to continue to preserve the effectiveness of this time-honored text, while adding material pertinent to the professions working with today's ever-growing physically active population. Hopefully, I have maintained a clear, concise, and simple presentation method supplemented with applicable information gained through my research and career experiences.

This text, now in its 67th year, has undergone many revisions over the years. My goal continues to be making the material as applicable as possible to physical activity and to make it more understandable and easier to use for the student and professional. While reading this text, I challenge kinesiology students and professionals to immediately apply the content to physical activities with which they are individually familiar. I hope that the reader will simultaneously palpate his or her own moving joints and contracting muscles to gain application. Concurrently, I encourage students to palpate the joints and muscles of fellow students to gain a better appreciation of the wide range of normal anatomy and, when possible, appreciate the variation from normal found in injured and pathological musculoskeletal anatomy. Additionally, with the tremendous growth of information and media available via the Internet and other technological means, I encourage careful and continuous exploration of these resources. These resources should be helpful, but must be reviewed with a critical eye, as all information should be.

Audience

This text is designed for students in an undergraduate structural kinesiology course after completing courses in human anatomy and physiology. While primarily utilized in physical education, exercise science, athletic training, physical therapy, and massage therapy curriculums, it is often used as a continuing reference by other clinicians and educators in addressing musculoskeletal concerns of the physically active. Applied kinesiologists, athletic trainers, athletic coaches, physical educators, physical therapists, occupational therapists, health club instructors, strength and conditioning specialists, personal trainers, massage therapists, physicians, and others who are responsible for evaluating, improving, and maintaining the muscular strength, endurance, flexibility, and overall health of individuals will benefit from this text.

With the ever-continuing growth in the number of participants of all ages in a spectrum of physical activity, it is imperative that medical, health, fitness, and education professionals involved in providing instruction and information to the physically active be correct and accountable for the teachings that they provide. The variety of exercise machines, techniques, strengthening and flexibility programs, and training programs is continuously expanding and changing, but the musculoskeletal system is constant in its design and architecture. Regardless of the goals sought or the approaches used in exercise activity, the human body is the basic ingredient and must be thoroughly understood and considered to maximize performance capabilities and minimize undesirable results. Most advances in kinesiology and exercise science continue to result from a better understanding of the body and how it functions. I believe that an individual in this field can never learn enough about the structure and function

of the human body and that this is typically best learned through practical application.

Those who are charged with the responsibility of providing examination, instruction and consultation to the physically active will find this text a helpful and valuable resource in their never-ending quest for knowledge and understanding of human movement.

New to this edition

Some additional content has been added along with slight revisions in many areas. Tables and illustrations have been refined and updated, and a number of photographs and figures have been added or replaced to improve the visual quality and clarity. Some of the chapter worksheets have also been revised. Website addresses have been moved to the Online Learning Center at www.mhhe.com/floyd19e where they may be more easily accessed and updated as needed. Additional questions and exercises will continue to be added to the Online Learning Center. Finally, several new terms have been added to the Glossary.

Online Learning Center

www.mhhe.com/floyd19e

The Online Learning Center to accompany this text offers a number of additional resources for both students and instructors. Visit this website to find useful materials such as these:

For the instructor:

- Downloadable PowerPoint presentations
- Image bank
- Test bank questions
- End-of-chapter exercise and worksheet answers

For the student:

- Self-scoring multiple choice, matching, and video quizzes
- Anatomy flashcards and crossword puzzles for learning key terms and their definitions
- Student Success Strategies
- Glossary

Acknowledgments

I am very appreciative of the numerous comments, ideas, and suggestions provided by the eight reviewers. These reviews have been a most helpful guide in this revision and the suggestions have been incorporated to the extent possible when appropriate. These reviewers are:

Andrew J. Accacian, *University of Dubuque*

Jessica Adams, *Kean University*

Pam Brown, *The University of North Carolina at Greensboro*

Adam Bruenger, *University of Central Arkansas*

Phillip Morgan, *Washington State University*

Dean Smith, *Miami University*

Scott Strohmeier, *University of Central Missouri*

Traci Worby, *Eastern Illinois University*

I would like to especially thank the kinesiology/athletic training students and faculty of the University of West Alabama for their suggestions, advice, and input throughout this revision. Their assistance and suggestions have been very helpful. I am particularly grateful to Britt Jones of Livingston, Alabama, for his outstanding photography. I also acknowledge John Hood and Lisa Floyd of Birmingham and Livingston, Alabama, respectively, for the fine photographs. Special thanks to Linda Kimbrough of Birmingham, Alabama, for her superb illustrations and insight. I appreciate the models for the photographs, Audrey Crawford, Fred Knighten, Darrell Locket, Amy Menzies, Matthew Phillips, Jay Sears, Marcus Shapiro, and David Whitaker. My thanks also go to Emily Nesheim and Erin Guendelsberger, Sara Jaeger, Adina Lonn and the McGraw-Hill staff who have been most helpful in their assistance and suggestions in preparing the manuscript for publication.

R. T. Floyd