

EIGHTH EDITION

Essentials of
ATHLETIC
INJURY
Management

William E. PRENTICE

ESSENTIALS OF
*Athletic Injury
Management*

Eighth Edition

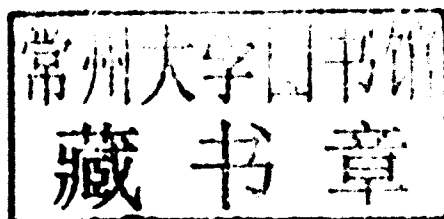
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Preface

WHO SHOULD USE THIS TEXT?

The majority of students who take courses about the prevention and management of injuries that typically occur in an athletic population have little or no intention of pursuing athletic training as a career. However, it is also true that a large percentage of those students who are taking these courses are doing so because they intend to pursue careers in coaching, fitness, physical education, or other areas related to exercise and sport science. For these individuals, some knowledge and understanding of the many aspects of health care for both recreational and competitive athletes is essential for them to effectively perform the associated responsibilities of their job. The eighth edition of *Essentials of Athletic Injury Management* is written for those students interested in coaching, physical education, and the fitness profession.

Other students who are personally involved in fitness, or training and conditioning, may be interested in taking a course that will provide them with guidelines and recommendations for preventing injuries, recognizing injuries, and learning how to correctly manage a specific injury. Thus, *Essentials of Athletic Injury Management* has been designed to provide basic information on a variety of topics, all of which relate in one way or another to health care for the athlete.

Essentials of Athletic Injury Management was created from the foundations established by another well-recognized textbook, *Arnheim's Principles of Athletic Training*, currently in its fourteenth edition. Whereas *Arnheim's Principles of Athletic Training* serves as a major text for professional athletic trainers and those individuals interested in sports medicine, *Essentials of Athletic Injury Management* is written at a level **more appropriate for the coach, fitness professional, and physical educator**. It provides guidance, suggestions, and recommendations for handling athletic health care situations when an athletic trainer or physician is not available.

ORGANIZATION AND COVERAGE

The eighth edition of *Essentials of Athletic Injury Management* provides the reader with the most current information possible on the subject of prevention and basic care of sports injuries. The general philosophy of the text is that adverse effects of physical activity arising from participation in sport should be prevented to the greatest extent possible. However, the nature of participation in physical activity dictates that sooner or later injury may occur. In these situations, providing immediate and correct care can minimize the seriousness of an injury.

Overall, this text is designed to take the beginning student from general to more specific concepts. Each chapter focuses on promoting an understanding of the prevention and care of athletic injuries.

Essentials of Athletic Injury Management is divided into three parts: *Organizing and Establishing an Effective Athletic Health Care System*, *Techniques for Preventing or Minimizing Sport-Related Injuries*, and *Recognition and Management of Specific Injuries and Conditions*.

Part One, *Organizing and Establishing an Effective Athletic Health Care System*, begins in Chapter 1 with a discussion of the roles and responsibilities of all the individuals on the “sports medicine team” who in some way affect the delivery of health care to the athlete. Chapter 2 provides guidelines and recommendations for setting up a system for providing athletic health care in situations where an athletic trainer is not available to oversee that process. In today’s society, and in particular for anyone who is remotely involved with providing athletic health care, the issue of legal responsibility and, perhaps more importantly, legal liability is of utmost concern. Chapter 3 discusses ways to minimize the chances of litigation and also to make certain that both the athlete and anyone who is in any way involved in providing athletic health care are protected by appropriate insurance coverage.

Part Two, *Techniques for Preventing or Minimizing Sport-Related Injuries*, discusses a variety of topics that both individually and collectively can reduce the chances for injury to occur. Chapter 4 emphasizes the importance of making certain that the athlete is fit to prevent injuries. Chapter 5 discusses the importance of a healthy diet, giving attention to sound nutritional practices and providing sound advice on the use of dietary supplements. Chapter 6 provides guidelines for selecting and using protective equipment. Chapter 7 details how to assess the severity of an injury and then provides specific steps that should be taken to handle emergency situations. Chapter 8 provides guidelines that can help reduce the chances of spreading infectious diseases by taking universal precautions dealing with bloodborne pathogens. Chapter 9 looks at ways to minimize the potentially negative threats of various environmental conditions on the health of the athlete. Chapter 10 discusses the more common taping techniques that can be used to prevent new injuries from occurring and old ones from becoming worse. Chapter 11 includes a brief discussion of the general techniques that may be used in rehabilitation following injury. Chapter 12 discusses the psychology of preparing to compete and proposes recommendations for how a coach should manage an injury.

Part Three, *Recognition and Management of Specific Injuries and Conditions*, begins with Chapter 13, which defines and classifies the various types of injuries that are most commonly seen in the physically active population.

Chapters 14 through 22 discuss injuries that occur in specific regions of the body, including the foot; the ankle and lower leg; the

knee; the hip, thigh, groin, and pelvis; the shoulder; the elbow, wrist, forearm, and hand; the spine; the thorax and abdomen; and the head, face, eyes, ears, nose, and throat. Injuries are discussed individually in terms of their most common causes, the signs of injury you would expect to see, and a basic plan of care for that injury. Chapter 23 provides guidelines and suggestions for managing various illnesses and other health conditions that may affect athletes and their ability to play and compete. Chapter 24 focuses specifically on issues related to substance abuse and the potential effects on the athlete. Chapter 25 provides special considerations for injuries that may occur in young athletes.

NEW TO THIS EDITION

Based on reviewer comments, a substantial effort has been made to improve the quality of the illustrations throughout this text. Most of the outdated line drawings have been replaced with photographs that more clearly demonstrate and emphasize the points made in the text. Approximately 190 new photos have been included as replacement for outdated photos.

In addition, numerous changes and clarification have been made in content throughout the entire text.

Chapter 1

- Clarification on CPR/AED certifications for certain members of the sport medicine team.
- Two new photos illustrating fitness professionals' roles in the sports medicine team.

Chapter 2

- Updated terminology throughout to reflect current health care facilities.
- Updated list of recommended basic athletic training room and field kit supplies.

Chapter 3

- Clarified purpose and audience for the chapter.
- Reorganized insurance section.

Chapter 4

- Revised coverage of dynamic and static stretching.
- Several new photos illustrating proper techniques for stretches and exercises.

Chapter 5

- Clarification on the use of herbal supplements.

- New discussion of the effectiveness of organic foods.
- New coverage of anorexia athletica.

Chapter 6

- Updated to include the latest information on safety equipment.
- Many new photos showing new safety and rehabilitative equipment.

Chapter 7

- Updated and expanded information on AEDs and CPR.
- Information on “Hands-only CPR.”
- New Focus Box on consent forms for minors.
- New flowcharts on appropriate emergency procedures and flowchart for adult and child CPR.
- New photos for CPR and other emergency techniques.

Chapter 8

- Added brief discussion of using appropriate gloves.
- Included new photos that better show wounds that frequently occur in sports.

Chapter 9

- New illustration that shows the correlation between temperature and relative humidity in heat index.
- Updated terminology throughout to reflect current trends.
- New recommendations for preventing heat illness.

Chapter 10

- Clarification on who should apply tape.
- Clarification on the steps of several taping techniques.
- Several new and updated photos and illustrations.

Chapter 11

- New discussion of therapeutic versus conditioning exercise.
- New content and photos on reestablishing core stability.

Chapter 12

- Added brief introduction and focus box discussing the role of the coach and other fitness professionals in helping athletes deal with injury.

Chapter 13

- New introduction discussing injury causes and prevention.
- New and enhanced photos and illustrations of muscle strains, osteoarthritis, and tissue healing.

Chapter 14

- New introduction on assessments that states recommendations on referrals to medical staff.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.

Chapter 15

- New introduction on assessments that states recommendations on referrals to medical staff.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.

Chapter 16

- New introduction on assessments that states recommendations on referrals to medical staff.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.
- New information on knee plica.

Chapter 17

- New introduction on assessments that states recommendations on referrals to medical staff.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.
- New information on femoral stress fractures.
- New information on hip labral tear.

Chapter 18

- New introduction on assessments that states recommendations on referrals to medical staff.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.

Chapter 19

- New introduction on assessments that states recommendations on referrals to medical staff.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.

Chapter 20

- New introduction on assessments that states recommendations on referrals to medical staff.
- New introduction to special tests clarifies the role of non-medical personnel in recognizing potential red flags associated with injuries.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.

Chapter 21

- New introduction on assessments that states recommendations on referrals to medical staff.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.

Chapter 22

- Expanded information on cerebral concussion.
- New, updated, and enhanced photos that show a variety of conditions, injuries, protection, and rehabilitation options.

Chapter 23

- New recommendations on referrals to medical staff.
- New information on testicular and breast cancer.
- New photos on common skin infections and MRSA.

Chapter 24

- New information on crystal methamphetamine, ecstasy, and other recreational drugs.
- Updated coverage of Androstenedione.

Chapter 25

- New coverage of where injuries occur and proven interactions.
- Updated information on coaching qualifications.

Appendix A

- Expanded and updated the discussion of employment settings and opportunities for athletic trainers.

PEDAGOGICAL FEATURES

- *Chapter objectives.* Objectives are presented at the beginning of each chapter to reinforce learning goals.
- *Focus Boxes.* Important information is highlighted to provide additional content that supplements the main text.
- *Margin information.* Key concepts, selected definitions and pronunciation guides, helpful training tips, and illustrations are placed in margins throughout the text for added emphasis and ease of reading and studying.
- *Illustrations and photographs.* The illustrations have been significantly upgraded with many line drawings replaced by photographs. Approximately 190 new photos have been included.
- *Critical thinking exercises.* Included in every chapter, these brief case studies correspond with the accompanying text and help students apply the content just learned. Solutions for each exercise are located at the end of the chapters.

- *Athletic Injury Management Checklists*. New checklists prepared specifically to help organize the details of a specific procedure when managing athletic health care.
- *Chapter summaries*. Chapter content is summarized and bulleted to reinforce key concepts and aid in test preparation.
- *Review questions and class activities*. A list of questions and suggested class activities follows each chapter for review and application of the concepts learned.
- *References*. All chapters have a bibliography of pertinent references that includes the most complete and up-to-date resources available.
- *Annotated bibliography*. To further aid in learning, relevant and timely articles, books, and topics from the current literature have been annotated to provide additional resources.
- *Websites*. A list of useful websites is included to direct the student to additional relevant information that can be found on the Internet.
- *Color throughout the text*. A second color appears throughout the text to enhance overall appearance and accentuate and clarify illustrations.
- *Glossary*. A comprehensive list of key terms with their definitions is presented at the end of the text.
- *Appendixes*. For those students interested in learning more about athletic training, Appendixes A and B provide information about employment settings for the athletic trainer and the requirements for certification as an athletic trainer.
- *Back cover*. Helpful charts for metric and celsius conversions are found inside the back cover.

INSTRUCTOR'S RESOURCE MATERIALS

Computerized Test Bank

McGraw-Hill's Computerized Testing is the most flexible and easy-to-use electronic testing program available in higher education. The program allows instructors to create tests from book-specific test banks. It accommodates a wide range of question types, and instructors may add their own questions. Multiple versions of the test can be created. The program is available for Windows, Macintosh, and Linux environments. It is located in the Online Learning Center.

PowerPoint Presentation

Developed for the eighth edition by Jason S. Scibek, Ph.D., ATC, from Duquesne University, a comprehensive and extensively illustrated PowerPoint presentation accompanies this text for use in classroom discussion. The PowerPoint presentation may also be converted to outlines and given to students as a handout. You can easily download the PowerPoint presentation from the McGraw-Hill website at

www.mhhe.com/prentice/8e. Adopters of the text can obtain the login and password to access this presentation by contacting your local McGraw-Hill sales representative.

INTERNET RESOURCES

Online Learning Center

www.mhhe.com/prentice8e This website offers resources to students and instructors. It includes downloadable ancillaries, Web links, student quizzes, additional information on topics of interest, and more. Resources for the instructor include:

- Instructor's Manual
- Downloadable PowerPoint presentations
- Links to professional resources

Resources for the student include:

- Flashcards
- Review materials
- Interactive quizzes

eSims

www.mhhe.com/esims eSims is an online assessment tool that provides students with computerized simulation tests with instant feedback that emulate the actual Athletic Training certification exam. It is available with each new purchase of *Essentials of Athletic Injury Management*. (It is also available for purchase online too!) Check out eSims at the address above.

ACKNOWLEDGMENTS

Special thanks are extended to Gary O'Brien, my Development Editor on this and several additional projects. As always he has provided invaluable guidance in the preparation of the eighth edition of *Essentials of Athletic Injury Management*.

Jill Eccher, who has been the Senior Project Manager on several of my recent texts, has become someone that I rely on quite heavily to make sure all of the countless details are taken care of. She makes the process a lot less stressful and I know that I can always count on her diligence.

Amanda Andrews, PhD, ATC, from Troy University and Linda Stark Bobo, PhD, ATC, from Stephen F. Austin University have been responsible for preparing the Instructor's Manual and Test Bank that accompany this text. Jason Scibek from Duquesne University has prepared the PowerPoint presentation. Their efforts have provided a much needed educational resource for individuals teaching a course in athletic injury management, and I certainly appreciate the manner in which they have completed their parts of this project.

I would also like to thank the following individuals who served as reviewers for their input into the revision of this text:

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William E. Prentice

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