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# Sports Injuries to the Shoulder and Elbow



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Jin-Young PARK  
Editor

# Sports Injuries to the Shoulder and Elbow

 Springer

*Editor*

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## Foreword

Sports are an important aspect of human lives. With our increasing average life expectancy, the number of people who participate in sports is growing rapidly. Consequently, treating sports injuries is emerging as an important concern for professional and amateur athletes.

There are numerous books on sports injuries. This book not only presents shoulder and elbow sports injuries but also outlines their treatment and rehabilitation protocols. There are many specialists who deal with sports injuries; the best experts worldwide have worked together to help professional and amateur athletes to improve their performance and understand the pathophysiology and treatment of the various sports injuries.

This book is not only for physicians and athletes but will also be useful for athletic and physical trainers, physical therapists, sports-related nursing experts, and other associated sports specialists. This book introduces the pathoanatomy (biomechanics), clinical presentation, essential physical examination, disease-specific clinical and arthroscopic pathology, treatment options, and rehabilitation for each injury or disease. Later in the book, rehabilitation methods for each muscle are introduced, which will enable the medical team and sports trainers to help athletes continue to participate in sports after injuries. To simplify the rehabilitation process, videos of each muscle and rehabilitation exercise are provided online in the Springer website.

I want to thank all of the physicians who contributed to this book. Their dedication will enhance the sports activities participated in by athletes and increase the understanding of their injuries by the medical team and trainers. Special thanks go to Dr. Jin-Young PARK for gathering and revising all of the texts.

It is my hope that this book makes an important contribution to sports clinic personnel, professional and amateur athletes, and athletic trainers.

Gilles Walch, MD

A handwritten signature in black ink, reading "Gilles Walch". The signature is written in a cursive style with a horizontal line underneath the name.



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## Foreword

The diagnosis and treatment of sports injuries of the shoulder and elbow continue to be very challenging. The injuries span a broad age spectrum from adolescence to the aging athlete. The complex biomechanics and pathophysiology of the shoulder girdle and elbow must be understood so that an accurate diagnosis can be made and the proper treatment, conservative or operative, can occur for the patient.

This superb text achieves the goal of providing current and insightful information concerning the etiology, diagnosis and treatment of the more common upper extremity sports injuries. The authors are international experts in sports medicine and share their knowledge to provide a wide spectrum of useful information to deal with these complex problems. This text is essential for trainers, therapists and physicians dealing with shoulder and elbow sports medicine injuries.

Louis U. Bigliani, MD  
Lila Wallace Acheson Professor  
Emeritus Chairman  
Department of Orthopaedic Surgery  
Columbia University  
New York, NY, USA





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## Preface

Athletes should always consult sports medicine experts during rehabilitation and competition. However, players not affiliated with professional teams tend to compete while tolerating pain due to a lack of access to medical facilities or rehabilitation centers. Concerned that athletes need more help from sports medicine, I was inspired by a rehabilitation booklet written by Dr. Lennard Funk of Wrightington Hospital. If surgeons, rehabilitation doctors, physiotherapists, other medical practitioners, and trainers can better understand a disease by reading this book about shoulder, elbow, and sports medicine, I believe that they will return athletes to sports in better condition. Many experts concurred with my thoughts, and this book was written. I thank all of the authors who collaborated in the writing of this book, inspired by the regard in which they hold athletes.

Various factors should be considered when an athlete suffers from pain while performing or in a clinic. Some joint pain originates from the joint itself, but in many cases the joint pain is caused by cumulative effect of problems in other parts of the body. This book considers the many problems that can explain a single disease or injury. For each disease or injury, we gathered various expert opinions to show readers that many sports physicians think differently. Nevertheless, in most diseases and injuries, the treatments are similar and overlap. I am convinced that the readers will obtain better outcomes for the athletes they treat if they apply the overlapping treatments of the many experts introduced here.

Finally, I thank Professor Louis U. Bigliani who taught me about shoulders and still guides me as a shoulder surgeon. I also thank Associate Professor Kyung-Soo Oh, Assistant Professor Suk-Won Chung, Assistant Professor Young-Min Roh, and Jae-Hyung Lee, Deputy Director of the NEON Orthopaedic Clinic, for their dedication in preparing this book.

Seoul, Republic of Korea

Jin-Young PARK, MD, PhD



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