

The Achilles Tendon

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Treatment and Rehabilitation

Edited by

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To my wife, Elise,
for her love, support, and encouragement of so many years.

To my children, Ryan, Stephanie, and Jefferson,
for the excitement and joy that they have brought to my life.

To all of the residents and fellows at Duke University,
for their unwavering support and for providing me with intellectual
stimulation for so many years.

Foreword

Disorders of the Achilles tendon are universal, affecting people in a wide range of age groups. Because the Achilles tendon is one of the most powerful musculotendinous structures in the body, the impact of an injury to the Achilles tendon becomes magnified. There is a wide range of disorders or problems that can involve the insertional region, where pathology may rest with bone, tendon, or bursae. A completely different set of pathologic entities resides in the noninsertional region, one of which may include the frustrating degenerative tendinopathy. As our growing population ages but remains physically active longer into life, the incidence of these disorders will continue to increase.

I am proud to be given the opportunity to write the foreword to this text, which is intended for foot and ankle surgeons worldwide. Seldom does a book on a single entity become a current concepts review, as this work has. Too often, textbooks are not published for several years after the chapters have been written, making them obsolete upon publication. Not so with this book, which deals with timely topics on the Achilles tendon. Dr. James Nunley has compiled this work in slightly over a year, thus providing the reader with state-of-the-art material.

Dr. Nunley had the foresight to create a much needed techniques-oriented book dealing with the complexities of the Achilles tendon. His approach was to develop a comprehensive guide to managing Achilles tendon problems. You will learn not only the latest nonoperative approaches to specific Achilles problems, but also updated surgical techniques, with comparisons and references to traditional treatments. The chapters include a thorough description of indications and contraindications. Less invasive and minimally invasive technical advancements from the recent past are also included.

Dr. Nunley has met many experts in the field of foot and ankle surgery through his extensive travels and ongoing education in this subspecialty. He has enlisted these internationally renowned physicians to contribute chapters based on their vast experience. Introductory chapters provide essential background on basic anatomy, imaging, physiology, and pathomechanics, and subsequent sections cover the spectrum of Achilles tendon injuries. Acute and chronic conditions are addressed both in young adults and in elderly patients who are limited by Achilles symptoms. The book also takes a very practical approach to rehabilitation of the Achilles tendon postinjury and postsurgery. Athletic training, as it relates to the role of the Achilles complex, is highlighted with an emphasis on a faster return to play. Finally, case studies tie each chapter together and demonstrate the application of concepts to daily practice.

The text is further enhanced with high-definition photos and artwork, which include illustrated anatomy, MRIs, physical therapy tips, and surgical techniques and tools. Dr. Nunley has succeeded in compiling this information in a concise, understandable format.

I find this textbook to be extremely timely, given the complexities of the Achilles tendon and the large number of patients affected. This book will serve as a valuable reference—one that every orthopedic surgeon who manages such disorders will refer to often. I congratulate Dr. Nunley for the successful completion of this valuable endeavor.

February 5, 2008

Robert B. Anderson, MD

Preface

For many years, I participated in an instructional course lecture series for the American Academy of Orthopaedic Surgeons that addressed problems of the Achilles tendon. Through this lecture series it became apparent to me that there were numerous methods to treat the various pathologies associated with the Achilles tendon, but that there was no text available to guide surgeons in how to select the appropriate treatment. Thus, I felt that there was a need for a book to address not only historical issues associated with the Achilles tendon, but also the innovative ideas. A number of the authors of this text met at an international meeting where we discussed the possibility of a textbook. As we discussed a topic as simple as the weight-bearing status of a patient after an acute repair of the Achilles tendon, I saw that there was a wide and diverse group of opinions among the experts. This textbook consolidates these opinions to help guide students, patients, therapists, and surgeons in deciding on a course of treatment.

I have had many friends ask why a topic as simple as the Achilles tendon requires a textbook. I think the reader will agree that the amount of information available today concerning injury and repair of the Achilles justifies a textbook dedicated to the topic. The book addresses the anatomy and imaging characteristics of the Achilles tendon, as well as the assessment of acute and chronic injuries, which over the years has seen numerous refinements in surgical technique for repair and rehabilitation. The last section of the book addresses chronic tendinopathy, which is a vast area and incorporates many degenerative and athletic injuries.

The chapters in this text were written by experts who have been recognized worldwide for their contributions. The text presents the most common surgical procedure for any given condition, as well as any debate that might still exist. This text can help practitioners decide if they should treat the acute rupture of the Achilles tendon nonoperatively or with a percutaneous technique, with a mini-open procedure or with a formal open repair. The text also discusses the pros, cons, risks, and benefits of each of these surgical techniques. A case-based example in each chapter helps provide the reader with a greater understanding of the possible solutions available for any given problem.

My hope is that this text will provide a stimulus for the improved treatment of the many types of injuries to the Achilles, and guidance for those who are in the trenches treating the pathologies relating to Achilles tendon disorders.

February 7, 2008

James A. Nunley, MD

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