Orthopedic Sports Medicine
Sports have become an important part of our civilization and of our social life. With the multitude of sports activities available to people of all ages, the number of injuries has increased dramatically, paralleled by modifications in their treatment. For example, in the field of knee surgery, when we started our careers some 30 years ago, treatment of a ligament injury usually consisted of rest and immobilization but the end of the sports activity was a frequent outcome.

Nowadays, the athlete can choose between a wide variety of therapeutic approaches, which in many cases will allow a resumption of the sport, e.g., anatomic arthroscopic ligament reconstruction, a specific rehabilitation program, or biological stimulation via the delivery of growth factors.

There is probably no other field in Orthopedics like Sports Medicine, in which the treatment options have so tremendously improved. This has been due not only to new medical technologies but also to better knowledge of the underlying science.

Today, Sports Medicine is not limited to surgery, but rather is an ever-changing and evolving field that encompasses many subspecialties. As such, it requires knowledge of the basic principles of Cardiology, Nutrition, and – especially given the widespread problem of doping among athletes – Sports Pharmacology.

In addition, the Sports Medicine specialist serving as team physician must be able to recognize and manage on-field emergencies and all the medical issues they encompass.

This book is a state-of-the-art guide for those starting in the field of Orthopedic Sports Medicine, as well as for experienced specialists. The reader will become acquainted with many aspects of basic science that have improved the treatment of sports injuries and which have established a foundation for the operative management of orthopedic pathologies.

Orthopedics is a fascinating area of medicine that will continue to grow. The Editors and contributors should be proud of their accomplishment in having provided an outstanding
compilation and reference for postgraduate researchers as well as practicing clinicians in the fields of Orthopedics and Sports Medicine.

Rome and Turin, September 2010

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Sports Medicine is a rapidly evolving interdisciplinary field that has benefited from recent scientific and clinical advances in many medical specialties, including Nutrition, Physiology, Biomechanics, and, of course, Orthopedics. The idea to create a text focused on the fields of Orthopedics and Sports Medicine with a specific orthopedics viewpoint that would present this wide range of information originated two years ago, while we were attending a conference on Sports Medicine.

To realize this book, we invited orthopedic surgeons, medical fellows and residents, and researchers from Italy, Europe, and the USA to share their personal experiences regarding the main principles and practice of Orthopedic Sports Medicine. The text includes sections on the pathophysiology of musculoskeletal structures, injury prevention, and the related medical issues. The second part focuses on the upper and lower extremities and the spine.

The goal of this book is to provide a novel global overview of sports-related pathologies and the many treatment options offered by the specialty of Sports Medicine. We are therefore pleased and honored to have assembled leading experts in the field and are indebted to them for their excellent contributions. We hope this book will allow established Sports Medicine specialists to further hone their skills, and novices in the field to improve their knowledge.

We would like to thank each of the contributors and to join them in expressing appreciation and gratitude to the publisher for the opportunity to develop and realize this ambitious project.

Rome and Turin, September 2010

Fabrizio Margheritini
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Fabrizio Margheritini was born in Rome, where he graduated from the University “La Sapienza” (1992). Honorary Observer in Orthopedics at Princess Elizabeth Orthopedic Hospital, Exeter, UK (1996); Clinical Research Fellow at the Cambridge Lea Hospital, Cambridge, UK (1997-1998); visiting physician at the Sports Medicine Department of the Cleveland Clinic Foundation, Cleveland, OH (1999); visiting physician at the Sports Medicine Department at the University of Pittsburgh, PA (2000), and post-doctoral research fellow in the university’s Department of Orthopedics (2001). In 1998 he completed his residency program cum laude in orthopedics and traumatology. Selected in 2005 for the ESSKA-AOSSM traveling fellowship in North America. He is currently Assistant Professor at the University of Rome “Foro Italico” and a member of scientific committees of different national and international professional societies. He has also served as Editorial Board Member of the Arthroscopy Journal and as a reviewer in several international journals. His main interest is in hip and knee surgery.

Roberto Rossi was born in Genova in 1972 and attended school in Torino. He graduated from the University of Torino and finished his residency in Orthopedics and Traumatology in 2003. He has completed two fellowships in the USA (2002) and in the UK (2005). During his career, he received several national and international awards in joint replacement, arthroscopy and sports medicine. In June 2010, he became Associate Professor of the University of Torino. He has authored over 60 articles in peer-reviewed journals, 14 book chapters in internationally published books, and over 100 Abstracts. His research interests are in the fields of sports injuries, arthroscopy surgery, and knee joint replacement.
Acknowledgments

Editing this book would have been impossible without the help of many people before and during its compilation. Many thanks to all those involved and many apologies to those whom I forget to mention. Specifically, I would like to thank my mentors, both in Italy (Prof. Pier Paolo Mariani) and abroad (Prof. Chris Harner and Prof. Freddie Fu), who have encouraged and supported me throughout my professional career.

Special thanks go to Dr. Richard Villar, who first introduced me to hip arthroscopy and thus allowed me to discover an exciting world, and to Prof. Savio Woo, who opened my narrow clinical mind to a wider biomechanical approach. Lastly, of course, I am grateful for the patience and tolerance of my family (Sabina, Filippo Maria, Tommaso Maria, and Costanza) who have long become accustomed to the locked study door and to the chaos on my desk, both meaning “Danger! Daddy is working”.

F.M.

This book is dedicated to my family: first and foremost to my mother and my father, who inspired me to enter Orthopedics and Sports Medicine, and then to my wife, Micaela, and two daughters, Francesca and Cecilia, for their constant support in all my endeavors.

R.R.
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