Record Nr. UNINA9910300447103321 ACL Injuries in the Female Athlete: Causes, Impacts, and Conditioning **Titolo** Programs / / edited by Frank R. Noyes, Sue Barber-Westin Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2018 **ISBN** 3-662-56558-7 Edizione [2nd ed. 2018.] Descrizione fisica 1 online resource (658 pages) 617.582044 Disciplina Soggetti **Orthopedics** Sports medicine Rehabilitation Sports Medicine

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Nota di contenuto

The Impact of ACL Injuries: Short- and Long-Term Effects on the Knee Joint: The ACL: Anatomy, Biomechanics, Mechanisms of Injury, and the Gender Disparity: Consequences of Complete ACL Ruptures -- Muscle Dysfunction after ACL Rupture and Reconstruction: Implications for Successful Recovery -- Risks of Future Joint Arthritis and Reinjury after ACL Reconstruction. Proposed Risk Factors of Noncontact ACL Injuries: Analysis of Risk Factors for Noncontact ACL Injuries -- Role of Shoe-Surface Interaction and Noncontact ACL Injuries -- Gender Differences in Muscular Protection of the Knee -- Neuromuscular Differences Between Men and Women -- Effects of Alterations in Gait Mechanics on the Development of Osteoarthritis in the ACL-Deficient Knee -- Role of the Foot and Ankle in ACL Noncontact Injuries -- Analysis of Muscle Activation Patterns During Running, Cutting, and Jumping -- Role of Core Stability in Preventing Noncontact ACL Injuries -- Role of Hip Strength and Motion in Noncontact ACL Injuries -- Recovery of Hip Muscle Strength after ACL Injury and Reconstruction: Implications for Reducing the Risk of Reinjury -- Gender Differences in Core Strength and Lower Extremity Function During the Single-leg Squat Test --Gender Effect of Fatigue on Lower Extremity Kinematics and Kinetics During Athletic Tasks -- Tools to Identify Female Athletes at Increased

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Sommario/riassunto

This successful book, now in a revised and updated second edition. reviews all aspects of anterior cruciate ligament (ACL) injuries in female athletes, with the focus on complete, noncontact ACL injuries. The opening section discusses anatomy and biomechanics and explains the short- and long-term impacts of complete ACL ruptures, including long-term muscle dysfunction and joint arthritis. Risk factors and possible causes of the higher noncontact ACL injury rates in female athletes compared with male athletes are then discussed in depth. Detailed attention is devoted to neuromuscular training programs and their effectiveness in reducing noncontact ACL injury rates in female athletes, as well as to sports-specific ACL injury prevention and conditioning programs of proven value. Rehabilitation programs after ACL injury and reconstruction that reduce the risk of a future injury are explored, and the concluding section looks at worldwide implementation of neuromuscular ACL injury prevention training and future research directions. The book will be of value to orthopedic surgeons, physical therapists, athletic trainers, sports medicine primary care physicians, and strength and conditioning specialists.