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Concussion: New Findings and Perspectives -- Functional Magnetic Resonance Imaging in Mild Traumatic Brain Injury -- Part IV. Pediatric Sport-Related Concussion -- Predicting Postconcussive Symptoms after Mild Traumatic Brain Injury in Children and Adolescents -- Long-Term Effects of Pediatric Mild Traumatic Brain Injury -- Neuropsychological Assessment of Sports-Related Concussion: Pediatric Challenges -- Advanced Neuroimaging of Subconcussive Impacts in Pediatric Population -- Part V. Clinical Management and Rehabilitation of Concussions -- Management of Collegiate Sport-Related Concussions -- The Role of the Quantitative EEG in the Diagnosis and Rehabilitation of Concussion -- Current Understanding of Concussion: Treatment Perspectives -- Narrowing Knowledge Gap between Basic Neuroscience Research and Clinical Management of Concussive Injury.

Sommario/riassunto

Now in a fully revised and expanded second edition, this comprehensive text remains a timely and major contribution to the literature that addresses the neuromechanisms, predispositions, and latest developments in the evaluation and management of concussive injuries. Concussion, also known as mild traumatic brain injury, continues to be a significant public health concern with increased attention focusing on treatment and management of this puzzling epidemic as well as controversies within the field. The book is comprised of five thematic sections: current developments in evaluation; biomechanical mechanisms; neural substrates, biomarkers, genetics and brain imaging; pediatric considerations; and clinical management and rehabilitation. Since the publication of the original edition in 2014, much has changed regarding the current understanding of mild traumatic brain injury including development of more precise imaging modalities, development and classification of new biomarkers, and updates to clinical treatment and management of athletic concussion. This new edition will include new chapters targeting the influence of genetics on concussive injury, as well as an expansion on the knowledge of pediatric response to concussion and the influence of repetitive subconcussive impacts on athlete health. An invaluable contribution to the literature, Concussions in Athletics: From Brain to Behavior reestablishes itself as a state-of-the-art reference that will be of significant interest to a wide range of clinicians, researchers, administrators, and policy makers, and this updated version aims to narrow the gap between research findings and clinical management of sports-related concussion and other mild traumatic brain injury. The second edition also attempts to broaden the scope of the knowledge to apply to more professionals and pre-professionals in the fields of neuroscience, neuropsychology, and other allied health professionals that closely work with athletes and sports medicine professionals.