The increasing recognition of concussion and its associated consequences has focused international attention on mild traumatic brain injury. The need for early diagnosis, evaluation, and management has expanded dramatically. This volume includes the experience of leading experts who describe the recent advances in the pathophysiology, biomechanics, imaging definition, and management of concussion. Advanced imaging and electrophysiological techniques are being used to help delineate the underlying metabolic and ultrastructural effects of concussive injuries. Papers in this volume review the role of emerging techniques including fMRI, SPECT, PET, DTI, MRS, and MEG, as well as report on multimodality concussion management programs which offer guidelines for selecting relevant team members, assessing community needs, and implementing management strategies that align with current practice standards.

This publication provides neurosurgeons, neurologists, trauma and sports medicine specialists, physiatrists, neuropsychologists, and neuroscientists with a comprehensive overview of the current understanding of the causes of mild traumatic brain injury or concussion, newer methods to evaluate it, and current and evolving multimodality management strategies.

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