According to the Centers for Disease Control and Prevention, an estimated 1.6 million to 3.8 million concussions occur in the United States each year. Of those, 65% are estimated to occur in the pediatric and adolescent population.

Although concussions dominate the sports literature, 50% of the concussions in the 11- to 15-year-old population are not sports-related. Therefore, concussions are not just a sports injury; they are a major pediatric public health problem.

In the last few years, basic science and clinical research have contributed greatly to our understanding of how concussion affects the pediatric and adolescent populations, but we have much to learn about the long-term implications of concussion on a patient’s school and cognitive function, as well as how concussion may contribute to mood and attention disorders.

Awareness of concussion and concussion-related problems continues to increase. Within the Children’s Hospital of Philadelphia Care Network, subspecialist concussion visits have increased by 400% in the past 4 years, with 1,800 concussion patients and 4,000 concussion visits for fiscal year 2012. Our primary care pediatricians have seen a similar increase. This has been observed by many colleagues across the country as well, and based on our collective experience, we believe the trend is growing.

It is essential that general pediatricians stay current in the diagnosis and management of concussions in children and adolescents to provide timely, and appropriate, up-to-date care that maximizes recovery outcomes.

We propose an important paradigm shift: a focus on the return-to-learn before pivoting to return-to-play.

International concussion guidelines have been developed primarily with adult athletes in mind. Return-to-play guidelines emphasize the physical activity restrictions for recovering athletes, but they do not address the fundamental dilemma of concussion for the student athlete: return to school. For those of us who care primarily for student-athletes, we propose an important paradigm shift: a focus on the return-to-learn before pivoting to return-to-play.

In this issue, we review the developing medical literature of the pathophysiology of concussion and the rationale for cognitive rest immediately after a concussion. We describe a practical and effective medical home model, based on the available current evidence and clinical best practices, for the outpatient office evaluation of concussion and the role of computerized neurocognitive testing. We conclude with an overview of rehabilitation strategies for those patients suffering from atypical prolonged recovery from concussion.

Across the nation, many states have enacted sports concussion laws requiring a medical evaluation before return-to-play. Thousands of pediatric student-athletes will be evaluated by their primary care physicians this coming academic school year for concussion.

As student-athletes return to school this fall, it is our sincere hope that these articles will give the practicing pediatrician a solid footing in the practical aspects of concussion management in the pediatric and adolescent patient, improving both the care and the outcomes for all of our kids.

For this issue of Pediatric Annals, we are pleased to have collaborated with international experts in school re-entry, computerized neurocognitive testing, and long-term rehabilitation for concussion patients to address the concerns fundamental to the student-athlete. Many thanks as well to our collaborating authors from the Children’s Hospital of Philadelphia Care Network.

doi: 10.3928/00904481-20120827-07
About the Guest Editors

**Christina L. Master, MD**, is an academic general pediatrician who also specializes in primary care sports medicine. Dr. Master completed her undergraduate studies at Princeton University before graduating summa cum laude from The State University of New York at Buffalo School of Medicine. She completed her pediatric residency at The Children’s Hospital of Philadelphia (CHOP) where she also served as Chief Resident. Dr. Master spent 17 years with the Pediatric Residency Program at CHOP, 11 of which were as the Associate and Vice Program Director. She recently completed a sabbatical year of fellowship training in primary care sports medicine at The Hospital of the University of Pennsylvania. Her research and clinical interests are in the area of pediatric and adolescent concussion. Dr. Master is an Associate Professor of Clinical Pediatrics at The Perelman School of Medicine at the University of Pennsylvania and an attending physician in Pediatrics and Orthopedics/Sports Medicine at The Children’s Hospital of Philadelphia. She is also the mother of three children, two of whom play ice hockey and are part of the reason for her avid interest in concussion.

**Matthew F. Grady, MD**, is a board-certified pediatrician with a CAQ in primary care sports medicine. He joined the Department of Orthopedic Surgery at the Children’s Hospital of Philadelphia (CHOP) in 2007, and is an Assistant Professor of Clinical Pediatrics at the Perelman School of Medicine at the University of Pennsylvania. Dr. Grady is the Director of the Primary Care Sports Medicine Fellowship, the Director of the Outpatient Sports Medicine requirement for the CHOP emergency department fellows, and the Director of Sports Medicine electives for pediatric residents and medical students in the CHOP/Penn system.

He currently serves on the American Medical Society for Sports Medicine educational committee and reviews articles for several journals, is a member of the American Academy of Pediatrics (AAP) section on sports medicine, and was the AAP representative on the National Activity Plan. He serves as the concussion consultant for several high schools and has teamed with county and state officials to develop return to school guidelines after concussion injuries.

In addition to his professional interests, Dr. Grady is very involved in youth sports at the community level. He serves on a local community youth sports board, is the commissioner of the basketball program, and is a youth soccer coach.