

# Gfeller-Waller Concussion Awareness Act

*O. Josh Bloom*

The Gfeller-Waller Concussion Awareness Act was signed into law on June 16, 2011 as part of an effort to protect student-athletes in North Carolina [1]. The primary focus of the act is to address sports-related concussions. An additional component of the act calls for the implementation of an emergency action plan (EAP) for each of North Carolina's public middle schools and high schools. While the Gfeller-Waller Act followed precedents set by other states (the first being the Zackery Lystedt Law passed in Washington State in 2009), strong motivation for the Gfeller-Waller Act came from the deaths of 5 North Carolina student-athletes during athletic competition or practice during the 2008-2009 academic year. Two of these student-athletes, Matthew Gfeller and Jaquan Waller, are the namesakes of the law. Gfeller and Waller both died from head injuries they suffered while playing high school football.

The Gfeller-Waller Act is comprised of 3 primary components: an educational program aimed at raising awareness and understanding of concussions among student-athletes, coaches, parents, and school officials; direction for appropriate identification and acute management of suspected sports-related concussions (to include designation of return-to-play privileges); and implementation of EAPs [2]. The act charged the Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center (Matthew Gfeller Center) at the University of North Carolina at Chapel Hill—in conjunction with the North Carolina Medical Society, the North Carolina Athletic Trainers' As-

sociation, the Brain Injury Association of North Carolina, the North Carolina Neuropsychological Society, the North Carolina High School Athletic Association, and the North Carolina Department of Public Instruction—with developing an athletic concussion safety training program to be used by student-athletes, parents, coaches, and school officials at all North Carolina public high schools and middle schools. In collaboration with several sports medicine professionals from around the state, the Matthew Gfeller Center subsequently developed a series of materials that provide education about concussions for athletes, parents, and coaches. Resources for athletes, schools, coaches, school officials, medical providers, and parents—along with the Gfeller-Waller Act itself—can be found at a comprehensive webpage maintained by the Matthew Gfeller Center [3].

At its core, appropriate management of sports concussions is, first and foremost, about awareness. Accordingly, the Gfeller-Waller Act provides a vehicle to educate athletes, parents, coaches, school officials, health care providers, and the public about sports-related concussions. The crucial first step in management of a concussion is identifying a potential injury. Recognizing signs and symptoms of a concussion and subsequently removing any athlete exhibiting any of these signs and symptoms from continued play and/or practice is paramount to facilitate appropriate care and prevent worsening of the injury. The Gfeller-Waller Act specifically calls for removal from play of any athlete with signs and symptoms of a potential con-

ussion. The act also mandates that the athlete is restricted from returning to play until evaluation and clearance by an appropriate medical provider. A fundamental and widely accepted tenet in the management of sports-related concussions is that an athlete not be returned to "harm's way" (ie, participation in sports or activities with risk of head trauma) until the concussion has been deemed entirely resolved by an appropriate medical provider. In order to confidently make this assertion, an athlete must be asymptomatic at rest and under conditions of physical and cognitive stress. The North Carolina High School Athletic Association has worked with the Matthew Gfeller Center to create a return-to-play form that facilitates appropriate progression and safe return to play [4].

The Gfeller-Waller Act also mandates that each school have a written EAP. An EAP is a venue-specific plan that provides simple and clear instructions for the management of any onsite medical emergency. The Gfeller-Waller Act calls for an EAP to be posted conspicuously; distributed to all appropriate school personnel; and reviewed or rehearsed by all licensed athletic trainers, first responders, coaches, school nurses, personnel, and volunteers for extracurricular activities. Sample EAPs can be found online [5].

It is important to note that the Gfeller-Waller Act applies only to public high schools and middle schools. However, it has also been adopted officially and unofficially by several youth sports programs, as well as by independent school associations, as their de facto concussion management framework. As of 2014, all 50 states and the District of Columbia had enacted similar legislation [6].

Evaluation, management, and general understanding of sports-related concussions is a dynamic and rapidly expanding area of medical research and remains of keen interest to the general public. With the rapid evolution of our understanding of this subset of brain injury, it is reasonable to expect that further provisions (legislative or otherwise) will be forthcoming in the future, thus adding to the foundation laid by the Gfeller-Waller Act. **NCMJ**

**O. Josh Bloom, MD, MPH, CAQ** partner physician, Carolina Family Practice & Sports Medicine, Raleigh, North Carolina; medical director, Carolina Sports Concussion Clinic, Raleigh, North Carolina; adjunct instructor, Department of Family Medicine, University of North Carolina School of Medicine, Chapel Hill, North Carolina; adjunct instructor, Department of Family and Community Medicine, Duke University School of Medicine, Durham, North Carolina.

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Address correspondence to Dr. O. Josh Bloom, Carolina Family Practice & Sports Medicine, 3700 NW Cary Pkwy, Ste 110, Cary, NC 27513 (josh.bloom@duke.edu).

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