

# Concussions – The Role of the School Nurse



## Position Statement

### SUMMARY

It is the position of the National Association of School Nurses (NASN) that the registered professional school nurse (hereinafter referred to as school nurse) is an essential member of the school health team to address student concussions. The school nurse has the knowledge and skills to provide concussion prevention education to parents/guardians, students, and school staff; identify suspected concussions; and help guide the student's post-concussion graduated academic and activity re-entry process.

### BACKGROUND

Concussions are considered a type of traumatic brain injury (TBI). The potential for the occurrence of concussions in children is greatest during activities where collisions can occur, such as during physical education class, playground time, or school-sponsored sports activities (Centers for Disease Control and Prevention [CDC], 2015a).

In 2010, TBI related injuries, either alone or in combination with other injuries, resulted in about 2.5 million emergency department (ED) visits, hospital visits, or deaths in the United States (CDC, 2015b). In 2009, an estimated 248,418 children (age 19 or younger) were treated in U.S. EDs for sports and recreation-related injuries that included a diagnosis of concussion or TBI (CDC, 2011). From 2001 to 2009, the rate of ED visits for sports-related injuries rose 57% among children (age 19 or younger) (CDC, 2015b). While falls are the most common cause of concussions in children, between 2001-2009 emergency room visits for sports-related TBI diagnosis increased by 57% in school-age children (CDC, 2011). The actual incidence of concussions may be higher than is currently reported due to underreporting (Register-Mihalik et al., 2013a). In one study, researchers indicated that over 50% of concussions in high school football players go unreported with the two most common reasons being players do not consider their injury as serious enough and they do not want to be removed from the play (Register-Mihalik et al., 2013b.)

Recognition of a concussion and immediate assessment is critical in preventing further injury and for post-concussion management. Any force or blow to the head and/or symptoms of a concussion in a student or athlete should be immediately evaluated by either the school nurse or designated trained school personnel. Several concussion management guidelines are available; CDC's *Heads Up Campaign for Concussion Prevention and Management* (2015c) and the Rocky Mountain Hospital for Children *REAP Concussion Management Program* (Rocky Mountain Hospital, n.d.) are examples of evidence-based resources available for the school nurse.

Research has demonstrated that recovery for the school-age student generally occurs within three weeks from the injury, but school adjustments during this recovery period may be necessary (Halstead et al., 2013). However, for some, symptoms may last for months or longer and can lead to short- and long- term problems affecting how a young person thinks, acts, learns, and feels (CDC, 2015d). Although a concussion can have obvious direct effects on learning, there is also increasing evidence that using a concussed brain to learn may worsen concussion symptoms and perhaps even prolong recovery (Halstead et al., 2013).

During this recovery phase, the student may have an array of physical, mental, and emotional symptoms, which can affect the student in the school setting. Children with diagnosed concussions require cognitive rest and a graduated re-entry plan to pre-concussion activities, as determined by the healthcare provider (Brown et al., 2014). In addition, students are at a risk for increased emotional symptoms following a concussion, especially if concussion was associated with assault or bullying incident (Halstead et al., 2013). Recognizing the potential for

these emotional symptoms in recovering students, the school nurse can provide encouragement and information for the students, parents, and school staff.

## **RATIONALE**

It is imperative that appropriate preventative guidelines and post-concussion accommodations are followed at school. The school nurse advocates for the prevention of concussions by educating families and school staff about the risks for concussion, adverse outcomes when a concussion occurs, and the importance of creating a safe school environment. According to the National Council of State Legislatures (NCSL), since 2007, all 50 states have enacted legislation to address youth sports-related concussions (NCIL, 2015). School nurses are identified as key stakeholders in policy development and implementation because of their unique position to be a liaison between the health and education communities (CDC, 2015b; Braine, 2013).

It is essential that school nurses are made aware when a student sustains a concussion (Weber, Parsons, & McLeon, 2015). Educating parents, teachers, coaches, and students about concussion is key as not all concussions are reported. If a student is not acting normally, referral should be made to the school nurse. Proper management of a student with a suspected concussion includes assessment for symptoms, notification to parents/guardians, referral to a healthcare professional if symptoms are noted, and -- if no symptoms are present -- instructions to parents/guardians and school staff for continued observation (CDC, 2015b).

As a student returns to school after a concussion, the school nurse works in collaboration with the healthcare provider, athletic trainer, and other school staff to support the return-to-learn process (Weber, Parsons, & McLeon, 2015; Hossler, McAvoy, Rossen, Schoessler, & Thompson, 2014). The school nurse can provide on-going monitoring of post-concussion symptoms and act as a liaison with the student's healthcare team. For students who have persistent symptoms, the school nurse develops an individualized healthcare plan based on healthcare provider orders. If it is determined Section 504 plan is needed, the school nurse contributes to the development of plan to provide accommodations such as allowing rest during the school day, postponing testing until symptom-free, pacing (or modifying) homework or assignments, limiting screen time including use of electronics (smart boards, chrome books, etc.) in classrooms, and/or limiting physical school activities (Halstead et al., 2013).

## **CONCLUSION**

The school nurse is in a pivotal position to implement evidence-based concussion prevention and management protocols at school. The school nurse identifies students with possible concussion, makes appropriate referrals, and assists students and families through the school and activity re-entry process. The school nurse collaborates with the team of stakeholders including healthcare providers, school staff, athletic trainers, parents and students to ensure that the physical and psychosocial needs of the students are met. School nurses provide support for the prevention of concussions by advocating for safe environments and education of students, parents/guardians and staff on concussions.

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**See also:**

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