









STUDENT CONCUSSIONS
Fact Sheet

The Role of School Nurses in Managing Students with Mild Brain Injury (Concussion)

Registered professional school nurses are uniquely positioned at the intersection of student health and education; they are trained to understand the complexity of the relationship between physical and mental wellbeing and academic achievement. The National Association of School Nurses has issued a position statement that the school nurse is an "essential member of the school health team to address student concussions." While there are various models in use in schools across the country for managing a student's return to school after mild brain injury—from no formal process to assembling a comprehensive concussion management team—leadership within the school is critical to ensuring that post-concussion accommodations and clinical care instructions are followed at school. School nurses are uniquely situated to provide that leadership.

As a school-based healthcare professional, the school nurse is likely to be the school staff member with the most comprehensive knowledge of mild brain injury. They are, therefore, best equipped to educate teachers, administration, students, and families about the signs and symptoms of mild brain injury and how to manage a student's reentry to academics and physical activity. School nurses can also provide leadership by communicating with health care providers about a student's management plan, necessary academic accommodations, and progress.

Symptom Monitoring

The school nurse is in a prime position to monitor a student's recovery after he or she returns to school.³ The school nurse can monitor symptoms throughout the school day and act as a liaison with the student's health care provider and family to ensure continuity of care.⁴ For students with persistent symptoms, the school nurse can devise an individualized health care plan and contribute to development of a Section 504 plan. Section 504 of Rehabilitation Act, which is a civil rights law designed to protect students with disabilities from discrimination, requires schools to provide a free and appropriate public education to students with physical or mental impairments that substantially limit one or more major life activities.⁵ In some cases, if a school determines that a student's impairment is of sufficient duration and substantially limits a major life activity, a 504 plan may be established to formalize necessary educational accommodations. Such determinations are made by an evaluation team comprised of individuals with knowledge of the student, assessment data, teacher recommendations, aptitude tests, physical condition, and behavior.⁶ Due to their unique training and familiarity with the students, school nurses often serve on these evaluation teams.

Primary Prevention

School nurses can also serve as school leaders in preventing concussions from happening on school property by promoting policies and procedures that create safe school environments.⁷ For example, school policies should ensure that stairs and hallways are kept free of clutter, foot traffic is orderly and not overly crowded, rugs are secured to the floor, and playground and athletic field surfaces are maintained and designed to minimize risk of injury.

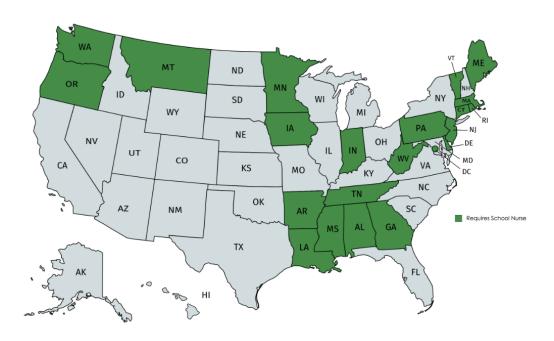


Figure 1. States Requiring School Nurses by Statute or Regulation as of October 2017

Access to School Nursing Services

While school nurses are critical leaders and advocates for student health in schools, and could play a key role in successful concussion management processes in schools, coverage of school nursing services across the country is patchy. According to Willgerodt and Brock, 25.2 percent of schools in the U.S. have no part- or full-time nursing support, with cost and school size cited as reasons for this shortage. Healthy People 2020 set an objective to increase the proportion of elementary, middle, and high schools that have a full-time registered school nurse-to-student ratio of at least 1:750. According to Healthy People 2020 Educational and Community-Based Programs Data Details, the baseline proportion of schools with a 1:750 nurse-to-student ratio was 40.6 in 2006. As of April 2017, only 22 states had statutes or administrative regulations requiring school nurses (see Figure 1)¹¹, and 15 states required certain staffing ratios. For example, Georgia law requires one school nurse per 750 elementary school students and one school nurse per 1,500 middle and high school students. Achieving Healthy People 2020's nurse-to-student ratio objective would improve access to school nursing services for all students and ensure that students with mild brain injuries have skilled management of their return to school regardless of where they live.

Conclusion

While research strongly suggests that the presence of full-time registered nurses in schools significantly increases vaccination rates¹², decreases absenteeism¹³, and leads to early detection and treatment of mental health conditions¹⁴, more outcomes research is needed to support efforts to increase access to school nursing services. Specifically, research is needed on the current role of school nurses in concussion management, and whether student outcomes (e.g., instructional hours missed, number of days with symptoms and academic performance) improve when a school nurse is involved in the student's care after returning to school.

Resources for School Nurses

The CDC's Heads Up to Schools resources for school nurses¹⁵ list the steps that school nurses can take when a student comes into the office after a possible mild head injury, as well as the role that school nurses play when a student returns to school after concussion—supporting the student as part of a school-based team, preparing a concussion action plan¹⁶, educating other school personnel about concussion, encouraging teachers and coaches to monitor students' symptoms, and participating in a Section 504 plan meeting if symptoms persist.

As more schools utilize the potential of school nurses as leaders in managing students with mild brain injuries, mechanisms for sharing successful models, best practices, and resources will be important.



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SUPPORTERS

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- ¹ National Association of School Nurses. (2016). *Concussions –the role of the school nurse (Position Statement).* Silver Spring, MD: Author.
- ² Id.
- ³ Braine, M.E. (2013) Traumatic brain injury in children part 2: Recovery process and outcomes. *British Journal of School Nursing.* 8 (7), 330-335.
- ⁴ Centers for Disease Control and Prevention. (2015). Traumatic Brain Injury & Concussion: Fact Sheet, http://www.cdc.gov/traumaticbraininjury/get_the_facts.html.
- ⁵ 34 C.F.R. § 104.3(j).
- ⁶ 34 CFR 104.35(b). See also, U.S. Department of Education, Protecting Students with Disabilities, 2015.
- ⁷ Centers for Disease Control and Prevention, Heads Up to Schools, A Fact Sheet for School Nurses, at page 8.
- ⁸ National Association of School Nurses; Praeger, S., and B. Zimmerman (2009). State regulations for school nursing practice. *Journal of School Nursing* 25:466–77. *See also*, Robert Wood Johnson Foundation, Unlocking the Potential of School Nursing: Keeping Children Healthy, In School, and Ready to Learn, *Charting Nursing's Future*, August 2010, https://campaignforaction.org/wp-content/uploads/2016/06/rwjf64263.pdf
- ⁹ Willgerodt, M. & Brock, D. (2016). NASN School Nurse Workforce Study. University of Washington.
- ¹⁰ Healthy People 2020, ECBP-5.1, Increase the proportion of elementary, middle, and senior high schools that have a full-time registered school nurse-to-student ratio of at least 1:750, https://www.healthypeople.gov/node/4258/data_details.
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- ¹² Wilson, D., Sanchez, K., Blackwell, S., Weinstein, E., & Amin, A. (2013). Implementing and sustaining school-located influenza vaccination programs: Perspectives from five diverse school districts. *Journal of School Nursing*, *29*(*4*), 303-314 and Keck, PC, Ynalvez, MA, Gonzalez, HF, & Castillo, KD. (2013). School-located influenza vaccination and absenteeism among elementary school students in a Hispanic community, *Journal of School Nursing*, *29*(4), 271-83.
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- ¹⁴ Bohnenkemp, J.H., Stephan, S.H., & Bobo, N. (2015). Supporting student mental health: The role of the school nurse in coordinated school mental health care. *Psychology in the Schools, 52*(7), 714-727.
- ¹⁵ Centers for Disease Control and Prevention (2015), A Fact Sheet for School Nurses, https://www.cdc.gov/headsup/pdfs/schools/tbi_factsheet_nurse-508-a.pdf.
- ¹⁶ A concussion action plan is a tool developed to guide parents, coaches, school personnel, and others through the steps necessary to ensure proper management of a concussion. As an example, CDC's Heads Up Concussion Action Plan can be accessed online at https://www.cdc.gov/headsup/pdfs/custom/headsupconcussion_actionplan.pdf