



FALL 2016

HALDIMAND-NORFOLK HEALTH UNIT

Student Health CONNECTION

A resource for school staff and teachers

As the school year begins, so do all the extracurricular activities, including sports. Fall & winter sports, such as football, field hockey and ice hockey are considered high risk sports and athletes have a greater risk of sustaining a concussion. Some students may also suffer a concussion while playing sports outside of school. Occasionally, a concussion can happen from a simple fall not related to sports at all. Knowing how to manage a concussion, what to look for, and knowing when to return to learning and play is key in the recovery process.

In Canada, approximately 30,000 concussions a year happen in the 12-19 year age group. 60% of those are sports related. In Ontario from 2003 to 2010, the rates of concussions for both males and females increased.

A concussion is a brain injury caused by a blow to the head and/or upper body that changes the way the brain normally functions. Concussions are increasingly being recognized and understood. Unfortunately, many that sustain concussions are missed and suffer in silence.

Concussion in SPORTS

Haldimand-Norfolk (2009-2012)

Sport	% Concussion
Hockey	31%
Football/Rugby	15%
Cycling	8%

Preventing a Concussion

- Create awareness, educate youth and parents on the effects of brain injury
- Ensure players use the right equipment and the playing area is safe
- Be sure participants wear certified/approved equipment that fits correctly
- Promote rules for safe play
- Promote fair play and good sportsmanship

Concussion Myths

- Helmets and mouth guards prevent concussion
- Concussions occur only in certain sports
- Signs and symptoms of concussion will show up right away
- Some concussions are more serious than others
- Loss of consciousness will occur with a concussion
- Athletes will bounce back from a concussion quickly

Did You Know?

- Injury is the #1 cause of death in children and youth in Canada.
- Concussions can result in long term problems
- Signs/symptoms of a concussion in younger athletes may present differently
- Concussions are an evolving injury
- Athletes who have had a previous concussion, are at an increased risk of another one
- Brain injury in sports can happen to anyone

There are differences between kids and adults when it comes to sustaining a concussion. A few of these differences would be:

- The relative size of the head compared to body size
- Brain water content
- Shape of the skull

Another important difference is that recovery is much slower and often incomplete in children and adolescents.

Child and adult brains are in different phases of development. The child brain is growing and needs to acquire high volumes of new learning at a much faster pace. This also includes adolescents.



These are some signs and symptoms of a concussion:

- Headaches (most common)
- Dizziness/lightheadedness
- Visual symptoms such as: light sensitivity, double vision, blurred vision
- Noise sensitivity
- Difficulty concentrating or remembering
- Sleep disturbance

Student athletes may not recognize the signs/symptoms of a concussion and therefore have underlying symptoms. The reasons for this may be:

- Competitiveness
- Fear of viewing injury as a weakness
- Fear of being removed from the competition
- Fear of letting down/disappointing the team

According to Dr. Michael Cosimano, Neurosurgeon at St. Michael's Hospital, Toronto:

"The motivation to win, the wish to advance in their sport and gain acceptance of their teammates often outweighs the need to play it safe"

Sustaining a concussion may have an effect on learning. The students learning is affected both directly and indirectly.

Learning is affected directly by:

- Decreasing the processing of information
- Attention dysfunction
- Decreased working memory and retrieval

Learning is affected indirectly by:

- Headaches may worsen cognitive effects
- Blurred vision
- Light/noise sensitivity
- Fatigue
- Anxiety/depression

Although teachers and coaches are not expected to diagnose a concussion, they do play a role in preventative and proper response related to:

- Recognizing signs/symptoms
- Taking appropriate initial response
- Implementing proper interventions
- Assuring initial management is performed

Students may need to be accommodated upon re-entry into learning

School Accommodations Upon Re-Entry

- Breaks as needed in a quiet place
- Preprinted class notes
- Additional time for assignments
- Excuse nonessential work, no double workload of make-up work and new work
- Additional help and tutoring as needed
- No testing until tolerating a full day of school, then untimed testing

Source: Adapted from www.cdc.gov/concussion/headsup/pdf/ACE_care_plan_school_version_a.pdf



The best treatment for concussions in children and adolescents is prevention. This includes ensuring/mandating safer play and strictly enforcing the rules. Some cautions to keep in mind are that helmets and mouth guards do not prevent concussions. Education to students and parents help to decrease this myth.

Concussion Recovery

Of those that sustain a concussion, 80-90% will recover fully. The remaining 10-20% will develop Post-Concussion Syndrome (PCS). PCS is defined as concussion symptoms lasting more than one month. It takes longer to recover if:

- This is a repeat injury
- Return to activity/school too early
- Having co-morbidities-previous anxiety, depression, migraines, ADHD, sleep disorders

Important Points to Remember

- Return to learn must occur before return to play
- Return to learn/return to physical activity steps must be followed regardless of where the diagnosed concussion occurred
- Players should never return to sport until they are symptom free and have been medically cleared
- It's imperative to teach students what to look for
- OPHEA safety guidelines outline the minimum standards for safety in each specified sport

Communication is key at all times!

Become familiar with and always follow your school boards concussion protocol!



References:

Centres for Disease Control and Prevention (2016). *Heads UP Concussion in High School Sports Guide for Coaches*. Retrieved from www.cdc.gov.

Daneshvar, D. H., et al (2011). Helmets and Mouth Guards: The Role of Personal Equipment in Preventing Sport-Related Concussions. *Clinical Sports Medicine*; 30(1); 145-163.

Fridman, L., Fraser-Thomas, J.L., McFaul, S.R. and Macpherson, A.K. (2013). Epidemiology of Sports-Related Injuries in Children and Youth Presenting to Canadian Emergency Departments from 2007 – 2010. *BMS Sports Science, Medicine and Rehabilitation*: 2052-1847/5/30.

Grand Erie District School Board (2015). *SO28 – Student Concussion and Head Injury Policy*. Retrieved from www.granderie.ca.

Macpherson, A., Fridman, L., Scolnik, M., Corallo, A., and Guttman A., (2014). A Population-based Study of Paediatric Emergency Department and Office Visits for Concussions from 2003 to 2010. *Paediatric Child Health*: 19(10), 543-546.

McCrory et al (2013). Consensus statement on concussion in sport – The 4rd International Conference on concussion in sport, held in Zurich, November 2012. *BJSM*;47:250-258.

Ophea (2015). *Secondary Interscholastic Ontario Physical Education Safety Guidelines*. Retrieved from safety.ophea.net.

Pike, I., Richmond, S., Rothman, L., Macpherson, A. (eds.) (2015). *Canadian Injury Prevention Resource*. Parachute, Publisher: Toronto, ON.

Purcell, L.K. (2014). Sport-Related Concussion: Evaluation and Management. *Paediatric Child Health*; 19(3); 153-8.

Tator C.H. (2012). Sport Concussion Education and Prevention. *Journal of Clinical Sport Psychology*; 6, 293 – 301.

The Steve Moore foundation (2016). *Facts: Concussion Statistics*. Retrieved from <http://www.stevemoorefoundation.org/about-concussions.html>.



Your School Health Team

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Community Sexual Health Services are available in various locations throughout Haldimand and Norfolk counties including Caledonia, Dunnville, Langton and Simcoe.

We provide:

- Birth control counselling and low cost birth control
- Pregnancy testing and referral
- Emergency contraceptive pills (Plan B)
- Needle Syringe Program
- Sexually Transmitted Infection (STI)/HIV testing
- Cervical screening
- Sexuality/sexual orientation information

Appointments preferred.

Contact 519-426-6170 or 905-318-6623 Ext. 3225 or 905-318-6623 Ext. 3346 to book an appointment



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