GOVERNMENT OF ONTARIO

CONCUSSION AWARENESS RESOURCE

ROWAN'S LAW

E-BOOKLET: AGES 11-14

Ontario

Preventing injuries will help you stay active throughout your life. Some injuries are easy to see and treat, but what about an injury inside your head? Brain injuries, such as concussions, don't show on the outside and are not always obvious. Even though others can't see your concussion, you will feel the effects and need the proper care to get better.

This resource will help you learn more about concussions, so you can stay active and safe.

WHAT IS **A CONCUSSION?**

A concussion is a brain injury. It can't be seen on X-rays or through other medical procedures such as CT scans or MRIs. Having a concussion may affect the way you think, feel and act.

Any blow to your head, face or neck may cause a concussion. A concussion may also be caused by a blow to your body if the force of the blow causes your brain to move around inside your skull. Examples include being hit in the head with a ball or falling hard onto the floor.

A concussion is a serious injury. While the effects are typically short-term, a concussion can lead to long-lasting symptoms and even long-term effects, such as memory problems or depression.

PREVENTING A CONCUSSION

First, educate yourself about concussions.

You should also:

- Make sure your sports equipment is in good condition;
- Make sure your equipment fits properly;
- Respect the rules of your sport;

- Follow your sport club/school's Concussion Code of Conduct; and
- Report injuries to an adult you trust, such as a parent, coach or teacher. Understand the importance of speaking up to avoid risks of further injury.

RECOGNIZING A CONCUSSION

HIT. STOP. SIT.

If you have a concussion you might have one or more of the signs or symptoms listed below. They might show up right away or hours, even days, later. Just one sign or symptom is enough to suspect a concussion. Most people with a concussion **do not** lose consciousness.

Common signs and symptoms of a concussion:

PHYSICAL:

- Headache
- Pressure in the head
- Dizziness
- Nausea or vomiting
- Blurred vision
- Sensitivity to light or sound
- Ringing in the ears
- Balance problems
- Tired or low energy
- Drowsiness
- "Don't feel right"

EMOTIONAL:

- Irritability (easily upset or angered)
- Depression
- Sadness
- Nervous or anxious

COGNITIVE (THINKING):

- Not thinking clearly
- Slower thinking
- Feeling confused
- Problems concentrating
- Problems remembering

SLEEP-RELATED:

- Sleeping more or less than usual
- Having a hard time falling asleep

RED FLAGS:

"Red flags" may mean you have a more serious injury. Treat red flags as an emergency and call 911.

- Neck pain or tenderness
- Double vision
- Weakness or tingling in arms or legs
- Severe or increasing headache
- Seizure or convulsion
- Loss of consciousness (knocked out)
- Vomiting more than once
- Increasingly restless, agitated or aggressive
- Getting more and more confused

WHAT TO DO NEXT?

If you think you have a concussion, stop the activity right away. Tell a parent, coach, teacher or another trusted adult how you feel. If you're not with your parent or guardian, have someone call them to come get you. You should not be left alone.

See a physician or nurse practitioner as soon as possible. You should not return to sport until you have received medical clearance to do so even if you think you are OK.

If a friend, classmate or teammate tells you about their symptoms, or if you see signs they might have a concussion, tell an adult you trust so they can help.

GETTING BETTER

Most people with a concussion get better in one to four weeks. Some people take longer. Each concussion is unique. Don't compare your recovery to someone else's, or to another concussion you've had before.

It's possible for a concussion to have long-term effects. People may experience symptoms, such as headaches, neck pain or vision problems, that last for months, or even years. Some may have lasting changes in their brain that lead to issues such as memory loss, concentration problems or depression. In rare cases, a person who suffers multiple brain injuries without healing in between may develop dangerous swelling in their brain, a condition known as second impact syndrome, that can result in severe disability or death.

While you're recovering, you shouldn't do activities that may make your symptoms worse. This may mean limiting activities such as exercising, school work, or time on your phone, computer or TV.

Healing from a concussion takes patience. It can be tough to wait but rushing back to activities can make your symptoms worse and can make recovery longer.

If you have a concussion, tell your parents, all sport teams/clubs, schools, coaches and teachers.

And remember, returning to school comes before returning to sport.

RETURNING TO SCHOOL AND SPORT

If you are diagnosed by a physician or nurse practitioner as having a concussion, you must follow your sport club's return-to-sport protocol and/or your school's return-to-school plan, where applicable. The return-to-sport protocol is a list of steps that you must follow before you can return to sport. You must not go back to participating in training, practice or competition until a physician or nurse practitioner says it's OK for you to do so.

You should work with your health care professional and sport club/school to establish a plan for you to return to sport and to school safely. Contact your school for more information.

Most return-to-sport protocols suggest that athletes should rest for 24 to 48 hours before starting any gradual return to sport.

The table below provides a list of steps and activities that are commonly found in most return-to-sport protocols and return-to-school plans.

Table: Common Steps in Graduated Return-to-Sport Protocols

Step	Aim	Activities	Goal of Step
1	Symptom-limiting activities	Daily activities that don't make symptoms worse, such as moving around the home and simple chores	Gradual re-introduction of daily school and work activities
2	Light aerobic activity	Light activities that increase the heart rate just a little, such as walking or a stationary bicycle for 10 to 15 minutes	Increase heart rate
3	Sport-specific exercise	Individual physical activity such as running or skating No contact or head impact activities	Add movement
4	Non-contact training, practice, drills	Harder training drills Add resistance training (if appropriate)	Exercise, co-ordination and increased thinking
5	Unrestricted practice	Unrestricted practice - with contact where applicable	Restore confidence and assess functional skills
6	Return to sport	Unrestricted game play or competition	

Medical clearance is always required prior to the athlete's return to unrestricted practice, training or competition.

Check with your sport club and school for the specific steps that you should follow.

You are ready to move to the next step when you can do the activities at your current step without feeling worse or getting new symptoms. If at any step your symptoms get worse, you should stop and go back to the previous step. Each step should take at least 24 hours to complete. If symptoms do not improve or if they continue to get worse, you should return to the physician or nurse practitioner.

REMINDER

It's important to stay safe when you play sports. When it comes to concussions, remember:

1. **Recognize signs and symptoms of a concussion and stop** activity immediately, even if you think you might be OK. Tell an adult.

2. **Get checked out** by a physician or nurse practitioner.

3. **Gradually return** to school and sport.

Rowan Stringer

ROWAN'S LAW

This e-booklet is part of a series of Rowan's Law concussion awareness resources. Rowan's Law was named for Rowan Stringer, a high school rugby player from Ottawa, who died in the spring of 2013 from a condition known as second impact syndrome (swelling of the brain caused by a subsequent injury that occurred before a previous injury healed). Rowan is believed to have experienced three concussions over six days while playing rugby. She had a concussion, but didn't know her brain needed time to heal. Neither did her parents, teachers or coaches.

This resource is not meant to provide medical advice about your health care. For advice on health care for concussion symptoms, please consult with a physician or nurse practitioner.