Christ The Redeemer CATHOLIC SCHOOLS

ADMINISTRATIVE PROCEDURE

Student Administration	Concussion Prevention and Response	STU #36

Approved: **August 2022**

Background

The Board of Trustees of Christ The Redeemer Catholic School Division (Board) endeavors to provide a safe environment for all students. The Division believes the health, safety, and overall well-being of its students, staff, parents, volunteers, and visitors is important and is taking steps to reduce the risk of injury. These procedures, based on current research evidence and knowledge, deal with concussion prevention, symptoms, and signs of a concussion, response for a suspected concussion, and management for a diagnosed concussion, including a plan to help a student return to learning and physical activity.

Definition

Concussion:

- A brain injury that causes changes in how the brain functions, leading to symptoms that can be physical (i.e. headache, dizziness), cognitive (i.e. difficulty concentrating or remembering), emotional/behavioral (i.e. depression, irritability) and/or relates to sleep (i.e. drowsiness, difficulty falling asleep);
- May be caused either by a direct blow to the head, face or neck, or a blow to the body that transmits a force to the head that causes the brain to move rapidly within the skull;
- Can occur even if there has been no loss of consciousness (in fact most concussions occur without a loss of consciousness); and,
- Cannot normally be seen on x-rays, standard CT scans, or MRIs.

Diagnosis

Concussion is the term for a clinical diagnosis that is made by a medical professional. Since a medical professional is the only person qualified to diagnose concussions, no one else can make the diagnosis of concussion. In the best interest of the student, it is critical that staff refer a suspected concussion to a medical professional for a proper diagnosis. Without medical documentation, the student's participation in learning or physical activities will be restricted. This decision resides with the School Administrator(s) or appointed designate.

Note: Injuries that result from a second concussion may lead to "Second Impact Syndrome", which is a rare condition that causes rapid and severe brain swelling and often catastrophic results if an individual suffers a second concussion before he or she is free from symptoms sustained from the first concussion.

Procedures

1. Prevention and Minimizing the Risk of Concussions

Education is the prime factor in supporting the prevention of a concussion. Any time a student/athlete is involved in physical activity, there is a chance of sustaining a concussion; therefore, it is important to take a preventative approach. Prior to any activity, administration, teachers, school support staff, coaches, substitute teachers, volunteers, etc. must meet with participants to provide instruction on strategies for preventing and minimizing the risk of sustaining a concussion and other head injuries. See Appendices attached.

Safety Guidelines for Physical Activity in Alberta Schools should always be adhered to in the interests of preventing student injuries.

2. Potential Concussion Injury Response

2.1. School staff shall follow the procedures outlined in the *Concussion Recognition Tool* (Appendix A) and *Concussion Emergency Action Plan* (Appendix B) to ensure an appropriate response to any injury that could result in a concussion.

2.2. The parent/guardian of any student experiencing concussion symptoms shall be contacted immediately so they can be referred to a medical professional. In addition, school administration shall be informed so the referral can be documented in the accident report.

2.3. Prior to student return to school/activity after a diagnosed concussion by a medical professional, administration shall ensure completion and collection of

- *Return to School after a Concussion Strategy* (Appendix C)
- *Return to Sport after a Concussion Strategy* (Appendix D)

Once received, these documents shall be filed in student records.

2.4. A final note signed by a medical doctor/nurse practitioner must be presented before the student participates fully in physical activity/play.

3. Post-Concussion Response

After a concussion - *Return to School after a Concussion Strategy (*Appendix C) and *Return to Sports after a Concussion Strategy* (Appendix D) is a collaborative effort between home and school to support the student's progress through a documented plan following a diagnosed concussion. These six step plans are necessary and identify the sequence of supporting a return to school/sport. A minimum of 24 hours is necessary for EACH step. There is no set timeline for a student's progression through each of the steps.

4. Responsibilities of the School Administrator(s):

4.1. Ensure school staff (including substitutes), volunteers, parents/guardians, and students are aware of and follow these procedures and understand their roles/responsibilities.

4.2. Facilitate attendance and/or completion of concussion in-servicing/training for necessary school staff (school administrators, PE/gym teachers and coaches) and coaching volunteers and repeat as necessary. Acceptable training includes those sessions completed through recognized coaching groups and associations. All coaches and site-based certified first aid trained staff must complete concussion training through Alberta Schools Athletic Association (ASAA) or Public School Works. Public School Works online concussion training is available to all staff. This training may be accessed through the Occupational Health and Safety Officer.

4.3. Ensure these procedures are available to all school staff, coaches, and volunteers.

4.4. Ensure that the Safety Guidelines for Physical Activity in Alberta Schools is being followed and implement risk management and injury prevention strategies specific to each sport/activity.

4.5. Parental authorization to participate in extracurricular sports is distributed to all parents/guardians via the applicable informed consent forms and is collected through School Cash Online. Remind staff

that this form must be completed prior to student participation in athletic clubs or interschool athletics.

4.6. Ensure that all student incidents are recorded and entered in Public School Works as per AP STU #07.

4.7. Alert appropriate staff about students with a suspected or diagnosed concussion.

4.8. Work closely with students, parents/guardians, staff, coaches, volunteers, and medical professionals to support concussed students with their recovery and academic success.

4.9. Coordinate the development of an individual learning plan for students with a diagnosed concussion using the Concussion – Return to School/Return to Sport Strategies. Approve any adjustments to the student's schedule as required.

4.10. Encourage parent/guardian cooperation in reporting all non-school related concussions.

5. Responsibilities of Designated School Staff:

5.1. Complete concussion training (i.e. in-servicing/training, online concussion training through Public School Works, ASAA, review this Administrative Procedure) and read the attached Appendices.

5.2. Prior to students participating in interschool athletics (per each athletic season), ensure the applicable informed consent form is completed by parents/guardians prior to student participation.

5.3. Provide the concussion resources (Appendix G) to parents/guardians, students, and coaches.

5.4. Be able to recognize signs and symptoms and respond appropriately in the event of a suspected concussion, using the *Concussion Recognition Tool* (Appendix A).

5.5. If a concussion is suspected:

5.5.1. Follow Concussion - *Emergency Action Plan* (Appendix B); and,

5.5.2. Complete and send *Concussion Recognition Tool* (Appendix A) home to parent/guardian.

5.6. When a diagnosed student concussion has occurred, implement and track the Concussion – *Return to School after a Concussion Strategy* (Appendix C); and *Return to Sport Strategy* (Appendix D). This should be done in conjunction with the School Administrator(s).

Appendix A	*Concussion Recognition Tool*
Appendix B	*Concussion Emergency Action Plan*
Appendix C	*Return to School after a Concussion Strategy*
Appendix D	*Return to Sport after a Concussion Strategy*
Appendix E	*Concussion Guidelines for The Athlete*
Appendix F	*Concussion Guidelines for Coaches & Trainers*
Appendix G	*Concussion Guidelines for Parents and Caregivers*
Appendix H	*Concussion Guidelines for Teachers*

CONCUSSION RECOGNITION TOOL 5 ©

To help identify concussion in children, adolescents and adults

Supported by

RECOGNISE & REMOVE

Head impacts can be associated with serious and potentially fatal brain injuries. The Concussion Recognition Tool 5 (CRT5) is to be used for the identification of suspected concussion. It is not designed to diagnose concussion.

STEP 1: RED FLAGS — CALL AN AMBULANCE

If there is concern after an injury including whether ANY of the following signs are observed or complaints are reported then the player should be safely and immediately removed from play/game/activity. If no licensed healthcare professional is available, call an ambulance for urgent medical assessment:

- **Neck pain or tenderness**
- **Double vision**
- **Weakness or tingling/ burning in arms or legs**
- **Severe or increasing headache**
- **Seizure or convulsion**
- **Loss of consciousness**
- **Deteriorating conscious state**
- **Vomiting**
- **Increasingly restless, agitated or combative**

Remember:

- In all cases, the basic principles of first aid (danger, response, airway, breathing, circulation) should be followed.
- Assessment for a spinal cord injury is critical.
- Do not attempt to move the player (other than required for airway support) unless trained to so do.
- Do not remove a helmet or any other equipment unless trained to do so safely.

If there are no Red Flags, identification of possible concussion should proceed to the following steps:

STEP 2: OBSERVABLE SIGNS

Visual clues that suggest possible concussion include:

- Lying motionless on the playing surface
- Slow to get up after a direct or indirect hit to the head
- Disorientation or confusion, or an inability to respond appropriately to questions
- Blank or vacant look
- Balance, gait difficulties, motor incoordination, stumbling, slow laboured movements
- Facial injury after head trauma

STEP 3: SYMPTOMS

- Headache
- "Pressure in head"
- Balance problems
- Nausea or vomiting
- Drowsiness
- Dizziness
- Blurred vision
- Sensitivity to light
- Sensitivity to noise
- Fatigue or low energy
- "Don't feel right"
- More emotional
- More Irritable
- Sadness
- Nervous or anxious
- Neck Pain
- Difficulty concentrating
- Difficulty remembering
- Feeling slowed down
- Feeling like "in a fog"

STEP 4: MEMORY ASSESSMENT

(IN ATHLETES OLDER THAN 12 YEARS)

Failure to answer any of these questions (modified appropriately for each sport) correctly may suggest a concussion:

- "What venue are we at today?"
- "Which half is it now?"
- "Who scored last in this game?"
- "What team did you play last week/game?"
- "Did your team win the last game?"

Athletes with suspected concussion should:

- Not be left alone initially (at least for the first 1-2 hours).
- Not drink alcohol.
- Not use recreational/ prescription drugs.
- Not be sent home by themselves. They need to be with a responsible adult.
- Not drive a motor vehicle until cleared to do so by a healthcare professional.

ANY ATHLETE WITH A SUSPECTED CONCUSSION SHOULD BE IMMEDIATELY REMOVED FROM PRACTICE OR PLAY AND SHOULD NOT RETURN TO ACTIVITY UNTIL ASSESSED MEDICALLY, EVEN IF THE SYMPTOMS RESOLVE

Echemendia RJ, *et al*. *Br J Sports Med* 2017;**51**:872. doi:10.1136/bjsports-2017-097508CRT5

Appendix B

CONCUSSION
EMERGENCY ACTION PLAN

If a student receives a bump, blow or jolt to the head, face, neck or body that may have resulted in a concussion, the individual (i.e.) teacher/coach responsible for that student must take immediate action as follows:

UNCONSIOUS STUDENT
(or where there was any loss of consciousness)

- Stop all activity immediately – assume there is a concussion
- Call 911
- Assume there is a possible neck injury – only if trained, immobilize the student before emergency medical personnel arrive
  - DO NOT remove athletic equipment unless there is difficulty breathing
- Stay with the student until emergency medical personnel arrive
- Contact the student's parent/ guardian/ emergency contact to inform them of the incident
- Monitor for any changes
- If the student regains consciousness, encourage him/ her to remain calm and still
- Do not administer medication (unless needed for other condition (i.e.) insulin for diabetes
- Complete *Student Accident Report*

CONSCIOUS STUDENT

- Stop all activity immediately
- When the student can be safely moved, remove him/her from the current activity or game
- Conduct a concussion assessment of the student using the *Pocket Concussion Recognition Tool*
- Follow steps regarding signs and symptoms
- Complete *Student Accident Report*

IF SIGNS ARE OBSERVED OR SYMPTOMS REPORTED

- A concussion should be suspected – do not allow the student to return to play in the activity, game or practice that day – even if the student states that he/she is feeling better
- Contact the student's parent/ guardian/ emergency contact to inform them:
  - Of the incident
  - That they need to come and pick up the student
  - That the student needs to be examined by a medical doctor as soon as possible that day
- Monitor and document any changes in the student. If any signs or symptoms worsen, call 911
- Do not administer medication (unless needed for other condition (i.e.) insulin for diabetes
- Stay with the student until his/ her parent/ guardian/ emergency contact arrives
- The student CAN NOT leave the premises without parent/ guardian/ emergency contact supervision

IF SIGNS ARE NOT OBSERVED OR SYMPTOMS NOT REPORTED

- A concussion is not suspected – precautionary removal from physical activity is recommended
- The student's parent/ guardian/ emergency contact must be contacted and informed of the incident

IF IN DOUBT, SIT THEM OUT

Appendix C

Parachute
Concussion Series

Strategy for RETURN TO SCHOOL after a Concussion

1. **Each stage is at least 24 hours. Move to the next stage only when activities are tolerated without new or worsening symptoms.**
2. **If symptoms re-appear, return to the previous stage for at least 24 hours.**
3. **If symptoms don't improve, but continue to get worse, contact your doctor or get medical help immediately.**

AT HOME

Cognitive & physical rest (24-48 hours)

OK if tolerated
- ✔ Short board games
- ✔ Short phone calls
- ✔ Camera photography
- ✔ Crafts

Not OK
- ✘ School
- ✘ Physical exertion/ stair climbing
- ✘ Organized sports

If tolerated, limited amounts of
- TV
- Computer/cell phone use
- Reading

READY FOR NEXT STAGE? Symptoms start to improve OR after resting for 48 hours max.

Stage 1 — Light cognitive activity

OK if tolerated
- ✔ Easy reading
- ✔ Limited TV
- ✔ Drawing/LEGO/ board games
- ✔ Some peer contact

Not OK
- ✘ School
- ✘ Work
- ✘ Physical exertion/ stair climbing
- ✘ Organized sports

If tolerated, limited amounts of
- Computer/cell phone use

READY FOR NEXT STAGE? Tolerate 30 mins. of cognitive activity at home

Stage 2 — School-type work/ Light physical activity

OK if tolerated
- ✔ School-type work in 30 min. chunks
- ✔ Light physical activity
- ✔ Some peer contact

Not OK
- ✘ School attendance
- ✘ Work
- ✘ Physical exertion/ stair climbing
- ✘ Organized sports

READY FOR NEXT STAGE? Tolerate up to 60 mins. of cognitive activity in 2-3 chunks

AT SCHOOL

Stage 3a — Part-time school Light load

OK if tolerated
- ✔ Up to 120 mins. of cognitive activity in chunks
- ✔ Half-days at school, 1-2 times a week
- ✔ Some light physical activity

Not OK
- ✘ Music/Phys. Ed class
- ✘ Tests/exams
- ✘ Homework
- ✘ Heavy physical loads (e.g. backpack)
- ✘ Organized sports

READY FOR NEXT STAGE? Tolerate school work up to 120 mins. a day for 1-2 days/week

Stage 3b — Part-time school Moderate load

OK if tolerated
- ✔ Limited testing
- ✔ School work for 4-5 hours/day in chunks
- ✔ Homework up to 30 mins./day
- ✔ 3-5 days of school/week
- ✔ Decrease learning accommodations

Not OK
- ✘ Phys. Ed class/ physical exertion
- ✘ Standardized tests/exams
- ✘ Organized sports

READY FOR NEXT STAGE? Tolerate school work 4-5 hours/ day in chunks for 2-4 days/week

Stage 4a — Nearly normal workload

OK if tolerated
- ✔ Nearly normal cognitive activities
- ✔ Routine school work as tolerated
- ✔ Homework up to 60 mins./day
- ✔ Minimal learning accommodations

Not OK
- ✘ Phys. Ed class
- ✘ Standardized tests/exams
- ✘ Full participation in organized sports

READY FOR NEXT STAGE? Tolerate full-time academic load without worsening symptoms

Stage 4b — Full time

OK if tolerated
- ✔ Normal cognitive activities
- ✔ Routine school work
- ✔ Full curriculum load
- ✔ No learning accommodations

Not OK
- ✘ Full participation in sports until medically cleared. (See Return-to-Sport Strategy)

READY FOR NEXT STAGE? Stages 5-6 of the *Return-to-Sport Strategy*

Adapted from: Parachute's Canadian Guideline on Concussion in Sport (2017) • Consensus Statement on Concussion in Sport (McCrory et al., 2017) • CATT Return To School • McMasterU's CanChild Return to School Guideline • Ophea's Ontario Physical Education Safety Guidelines

After a Concussion:

RETURN-TO-SPORT STRATEGY

Parachute
Concussion Series

A concussion is a serious injury, but you can recover fully if your brain is given enough time to rest and recuperate.

Returning to normal activities, including sport participation, is a step-wise process that requires patience, attention, and caution.

In the Return-to-Sport Strategy:

- **Each stage is at least 24 hours.**
- **Move on to the next stage when activities are tolerated without new or worsening symptoms.**
- **If any symptoms worsen, stop and go back to the previous stage for at least 24 hours.**
- **If symptoms return after medical clearance, follow up with a doctor for re-assessment.**

Stage 1: Symptom-limiting activities

After an initial short period of rest of 24 to 48 hours, light cognitive and physical activity can begin, as long as these don't worsen symptoms. You can start with daily activities like moving around the house, simple chores, and gradually introducing school and work activities at home.

Stage 2: Light aerobic activity

Light exercise such as walking or stationary cycling, for 10 to 15 minutes. The duration and intensity of the aerobic exercise can be gradually increased over time if symptoms don't worsen and no new symptoms appear during the exercise or in the hours that follow. No resistance training or other heavy lifting.

Stage 3: Individual sport-specific exercise with no contact

Activities such as skating, running, or throwing can begin for 20 to 30 minutes. There should be no body contact or other jarring motions, such as high-speed stops or hitting a ball with a bat. No resistance training.

Stage 4: Begin training drills with no contact

Add in more challenging drills like passing drills. There should be no impact activities (no checking, no heading the ball, etc.). Start to add in progressive resistance training.

Stage 5: Full contact practice following clearance by a doctor.

Stage 6: Return to Sport

Full game play or competition.

How long does this process take?

Each stage is a minimum of 24 hours, but could take longer, depending on how activities affect the way you feel. Since each concussion is unique, people will progress at different rates. For most people, symptoms improve within 1 to 4 weeks. If you have had a concussion before, you may take longer to heal the next time.

If symptoms are persistent (i.e., last longer than two weeks in adults or longer than four weeks in youth), your doctor should consider referring you to a healthcare professional who is an expert in the management of concussion.

How do I find the right doctor?

When dealing with concussions, it is important to see a doctor who is knowledgeable in concussion management. This might include your family doctor or a specialist like a sports medicine physician. Your family doctor may be required to submit a referral for you to see a specialist.

Contact the Canadian Academy of Sport and Exercise Medicine (CASEM) to find a sports medicine physician in your area. Visit www.casem-acmse.org for more information. You can also refer your doctor to parachute.ca/concussion for more information.

What if my symptoms return or get worse during this process?

If symptoms return or get worse, or new symptoms appear, return to the previous stage for at least 24 hours. Continue with activities that you can tolerate.

If symptoms return after medical clearance (Stages 5 and 6) you should be re-assessed by your doctor before resuming activities. Remember, symptoms may return later that day or the next, not necessarily during the activity!

Never return to sport until cleared by a doctor!

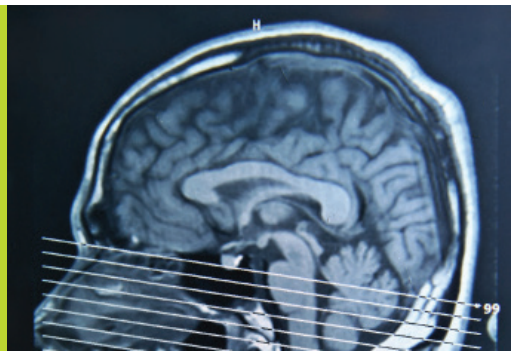
Returning to active play before full recovery from concussion puts you at higher risk of sustaining another concussion, with symptoms that may be more severe and last longer.

Additional Resources

Available at parachute.ca/concussion:

- **Return-to-School Strategy**
- **Canadian Guideline on Concussion in Sport**
- **Concussion: Baseline Testing**

Concussion Guidelines for THE ATHLETE



WHAT IS A CONCUSSION?

A concussion is a brain injury that cannot be seen on routine x-rays, CT scans, or MRIs. It affects the way a person may think and remember things for a short time, and can cause a variety of symptoms.

WHAT ARE THE SYMPTOMS AND SIGNS OF CONCUSSION?

YOU DON'T NEED TO BE KNOCKED OUT (LOSE CONSCIOUSNESS) TO HAVE HAD A CONCUSSION.

THINKING PROBLEMS	ATHLETE'S COMPLAINTS	OTHER PROBLEMS
• Does not know time, date, place, period of game, opposing team, score of game • General confusion • Cannot remember things that happened before and after the injury • Knocked out	• Headache • Dizziness • Feels dazed • Feels "dinged" or stunned; "having my bell rung" • Sees stars, flashing lights • Ringing in the ears • Sleepiness • Loss of vision • Sees double or blurry • Stomachache, stomach pain, nausea	• Poor coordination or balance • Blank stare/glassy eyed • Vomiting • Slurred speech • Slow to answer questions or follow directions • Easily distracted • Poor concentration • Strange or inappropriate emotions (ie. laughing, crying, getting mad easily) • Not playing as well

WHAT CAUSES A CONCUSSION?

Any blow to the head, face or neck, or a blow to the body which causes a sudden jarring of the head may cause a concussion (ie. a ball to the head, being checked into the boards in hockey).

WHAT SHOULD YOU DO IF YOU GET A CONCUSSION?

You should stop playing the sport right away.
Continuing to play increases your risk of more severe, longer lasting concussion symptoms, as well as increases your risk of other injury. You should tell your coach, trainer, parent or other responsible person that you are concerned you have had a concussion, and should not return to play that day. You should not be left alone and should be seen by a doctor as soon as possible that day. You should not drive. If someone is knocked out, call an ambulance to take them to a hospital immediately. Do not move them or remove athletic equipment such as a helmet until the paramedics arrive.

CONCUSSION GUIDELINES FOR **THE ATHLETE**

HOW LONG WILL IT TAKE TO GET BETTER?

The signs and symptoms of a concussion often last for 7-10 days but may last much longer. In some cases, athletes may take many weeks or months to heal. Having had previous concussions may increase the chance that a person may take longer to heal.

HOW IS A CONCUSSION TREATED?

CONCUSSION SYMPTOMS ARE MADE WORSE BY EXERTION, BOTH PHYSICAL AND MENTAL. THE MOST IMPORTANT TREATMENT FOR A CONCUSSION IS REST.

You should not exercise or do any activities that may make you worse, like driving a car, reading, working on the computer or playing video games. No snow shoveling, cutting the lawn, moving heavy objects, etc. If mental activities (eg: reading, concentrating, using the computer) worsen your symptoms, you may have to stay home from school. You may also have to miss work, depending on what type of job you have, and whether it worsens your symptoms. If you go back to activities before you are completely better, you are more likely to get worse, and to have symptoms last longer. Even though it is very hard for an active person to rest, this is the most important step.

Return to school should not happen until you feel better, and these activities do not aggravate your symptoms. It is best to return to school part-time at first, moving to full time if you have no problems. Once you are completely better at rest, you can start a step-wise increase in activities (see "When can I return to sport?") It is important that you are seen by a doctor before you begin the steps needed to return to activity, to make sure you are completely better. If possible, you should be seen by a doctor with experience in treating concussions.

WHEN SHOULD I GO TO THE DOCTOR?

Anyone who gets a head injury should be seen by a doctor as soon as possible. You should go back to the doctor IMMEDIATELY if, after being told you have a concussion, you have worsening of symptoms like:

1. being more confused
2. headache that is getting worse
3. vomiting more than twice
4. not waking up
5. having any trouble walking
6. having a seizure
7. strange behaviour

WHEN CAN I RETURN TO SPORT?

It is very important that you do not go back to sports if you have any concussion symptoms or signs. Return to sport and activity must follow a step-wise approach:

STEP 1) No activity, complete rest. Once back to normal and cleared by a doctor, go to step 2.

STEP 2) Light exercise such as walking or stationary cycling, for 10-15 minutes.

STEP 3) Sport specific aerobic activity (ie. skating in hockey, running in soccer), for 20-30 minutes. NO CONTACT.

STEP 4) "On field" practice such as ball drills, shooting drills, and other activities with NO CONTACT (ie. no checking, no heading the ball, etc.).

STEP 5) "On field" practice with body contact, once cleared by a doctor.

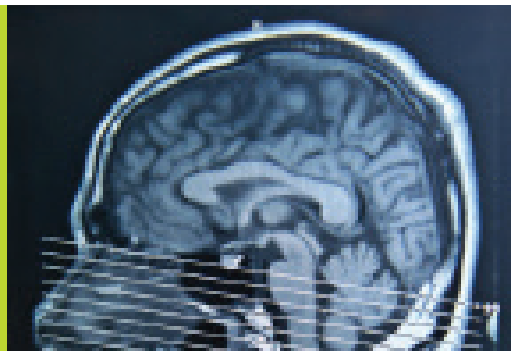
STEP 6) Game play.

Note: **Each step must take a minimum of one day.** If you have any symptoms of a concussion (e.g. headache, feeling sick to your stomach) that come back either with activity, or later that day, stop the activity immediately and rest until symptoms resolve, for a minimum of 24 hours. See a doctor and be cleared before starting the step wise protocol again.

You should not go back to sport until you have been cleared to do so by a doctor.

Concussion Guidelines for

COACHES & TRAINERS



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WHAT ARE THE SYMPTOMS AND SIGNS OF CONCUSSION?

A STUDENT DOES NOT NEED TO BE KNOCKED OUT (LOSE CONSCIOUSNESS) TO HAVE HAD A CONCUSSION.

THINKING PROBLEMS	ATHLETE'S COMPLAINTS	OTHER PROBLEMS
• Does not know time, date, place, period of game, opposing team, score of game • General confusion • Cannot remember things that happened before and after the injury • Knocked out	• Headache • Dizziness • Feels dazed • Feels "dinged" or stunned; "having my bell rung" • Sees stars, flashing lights • Ringing in the ears • Sleepiness • Loss of vision • Sees double or blurry • Stomachache, stomach pain, nausea	• Poor coordination or balance • Blank stare/glassy eyed • Vomiting • Slurred speech • Slow to answer questions or follow directions • Easily distracted • Poor concentration • Strange or inappropriate emotions (ie. laughing, crying, getting mad easily) • Not playing as well

WHAT CAUSES A CONCUSSION?

Any blow to the head, face or neck, or a blow to the body which causes a sudden jarring of the head may cause a concussion (ie. a ball to the head, being checked into the boards in hockey).

WHAT SHOULD YOU DO IF AN ATHLETE GETS A CONCUSSION?

The athlete should stop playing the sport right away. They should not be left alone and should be seen by a doctor as soon as possible that day. If an athlete is knocked out, call an ambulance to take them to a

hospital immediately. Do not move the athlete or remove athletic equipment like a helmet as there may also be a cervical spine injury; wait for paramedics to arrive.

An athlete with a concussion should not go back to play that day, even if they say they are feeling better. Problems caused by a head injury can get worse later that day or night. They should not return to sports until he/she has been seen by a doctor.

HOW LONG WILL IT TAKE FOR THE STUDENT TO GET BETTER?

The signs and symptoms of a concussion often last for 7-10 days but may last much longer. In some cases, athletes may take many weeks or months to heal. Having had previous concussions may increase the chance that a person may take longer to heal.

HOW IS A CONCUSSION TREATED?

IT IS VERY IMPORTANT THAT AN ATHLETE DOES NOT GO BACK TO SPORTS IF THEY HAVE ANY CONCUSSION SYMPTOMS OR SIGNS.

Return to sport and activity must follow a step-wise approach:

STEP 1) No activity, complete rest. Once back to normal and cleared by a doctor, go to step 2.

STEP 2) Light exercise such as walking or stationary cycling, for 10-15 minutes.

STEP 3) Sport specific aerobic activity (ie. skating in hockey, running in soccer), for about 20-30 minutes. NO CONTACT.

STEP 4) "On field" practice such as ball drills, shooting drills, and other activities with NO CONTACT (ie. no checking, no heading the ball, etc.).

STEP 5) "On field" practice with body contact, once cleared by a doctor.

STEP 6) Game play.

Note: Each step must take a minimum of one day. If the athlete has any symptoms of a concussion (e.g. headache, feeling sick to his/her stomach) that come back at any step, STOP activity, wait 24-48 hours, and resume activity at previous step. This protocol must be individualized to the athlete, their injury and the sport they are returning to.

WHEN CAN AN ATHLETE WITH A CONCUSSION RETURN TO SPORT?

It is very important that an athlete not play any sports if they have any signs or symptoms of concussion. The athlete must rest until he/she is completely back to normal. When he/she is back to normal and has been seen by a doctor, he/she can then go through the steps of increasing activity described above. When the athlete has progressed through these steps with no symptoms or problems, and has received clearance from a doctor, he/she may return to play. If you are unsure if an athlete should play, remember...

when in doubt, sit them out!

A parent's guide to dealing with concussions

Heads Up!

Be Alert: Know that concussions are brain injuries

Concussions pose a significant injury risk to Canadians. They are often viewed as minor events that are tacitly accepted as part of sports. In reality, concussions are injuries to the brain that can have lasting effects. A group of world-renowned researchers recently defined concussion as a complex issue, in which one's brain is injured as the result of a direct force to the body, such as a blow to the head or elsewhere that causes a shaking or jarring to the brain[1].

As a busy parent, you may not understand the full complexity of concussions – they are a tricky topic! It's easy to identify your child's bruise or scrape, but it's not always as simple to identify an injury inside the head. If your child has experienced a sudden blow or impact, some signs of concussion include: headache, nausea, difficulty concentrating and various emotional issues – a full list of symptoms is available on the Parachute website[2]. You need to be alert to these symptoms – just as you would treat a sprained ankle, you also need to make sure you treat and respond to "sprained brains"!

Another way to be alert is to understand your role – parents are key influences on children's risk-taking patterns, particularly through the knowledge they have about their children's lives and experiences[3,4,5]. As a parent, you may wonder how you can help reduce your child's risk of concussion. First, be aware of the behaviours you display to your children as they are constantly looking to you for examples. In fact, research has demonstrated that parents' risk-taking behaviours are strong predictors of children's behaviours in the present and future[6]. Setting proper examples and encouraging safe practices will help ensure your children are learning and viewing the best ways to keep their most important body part safe and healthy!

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Be Safe: Have the tools that help to prevent and identify concussions

Beyond being alert to the symptoms and being a good role model, parents can also find the tools and information to prevent, identify and manage concussions. These tools are available online and include:

- Pocket Concussion Recognition Tool[7]
- Hockey Canada's Concussion App[8]
- Things to Know About Concussions Tip Sheet[2]

Another important way to prevent concussions is ensuring that you teach children to respect the rules of sports and the players. As a parent, you should talk with your children about the meaning of good sportsmanship. One helpful example is the *Player Code of Conduct* form[9], which was developed for hockey players but could be adapted for other activities.

Here are some common myths about concussions that might surprise you...

Concussions: Myths and Facts

Myth	Fact
Helmets can protect against concussions	There is no helmet available to make your child concussion-proof
My child didn't get hit on the head, so there's no way he has a concussion	A hit does not have to be directly to the head in order to result in a concussion
As long as I keep my child out of sports until she's better, she can do anything else	Concussions require mental and physical rest, beyond avoiding the activity where the concussion occurred
As long as my child rests, it is not necessary to see a doctor	Concussions are injuries - they are best treated by someone with experience
If my child did not lose consciousness, he probably doesn't have a concussion	Concussions do not always include a loss of consciousness and symptoms can take time to emerge

Be Aware: Know how to manage concussions

Even when following the rules of fair play, concussions can still happen. In the event that your child suffers a concussion, you need to be aware of how to best manage and treat this injury. First, it's always better to be safe than sorry – ***when in doubt, sit them out***. It's better to miss a few games or classes and have a healed brain! Second, if you are unsure whether your child may have suffered a concussion or if they are healing properly, see a doctor – ***when in doubt, check them out***.

Even if your child says they feel better, specific guidelines and recommendations outline how best to return to sports and education:

- Return to Play Guidelines[10]
- Return to school: information for teachers and parents[11]

Concussions are not always a one-time event: symptoms may reappear or get worse, and after the first concussion, a child may be more susceptible to a second and subsequent concussions. It is important to be aware that multiple concussions can add increased strain to your child. Repeated concussions should be taken seriously and activities may need to be altered or even permanently stopped. The advice of a physician is important to consider when making these decisions.

References

1 McCrory, P., Meeuwisse, W.H., Aubry, M. et al. (2013). Consensus statement on concussion in sport: the 4th international conference on concussion in sport held in Zurich, November 2012. *British Journal of Sports Medicine, 47*, 250-258.

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7 *Pocket Concussion Recognition Tool*. Retrieved May 6, 2013, at: http://www.parachutecanada.org/downloads/programs/safekidsweek/Pocket-Concussion-Recognition-Tool2013.pdf

8 Hockey Canada Concussion Mobile App. Information retreived May 6, 2013, at: http://www.hockeycanada.ca/en-ca/mobile-apps.aspx,

9 Smart Hockey Pledge Form. Retrieved May 6, 2013, at http://www.parachutecanada.org/downloads/programs/activeandsafe/Concussion_PlayerPledge.pdf,

10 Return to Play Guidelines. Retrieved May 6, 2013, at http://www.parachutecanada.org/downloads/programs/activeandsafe/Concussion_Guidelines_for_the_Coach:Trainer.pdf

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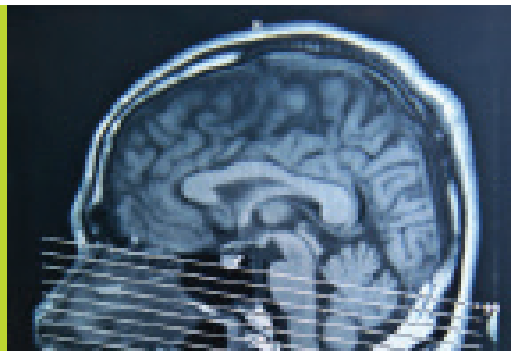
Concussion Guidelines for

PARENTS & CAREGIVERS



WHAT IS A CONCUSSION?

A concussion is a brain injury that cannot be seen on routine x-rays, CT scans, or MRIs. It affects the way a child may think and remember things, and can cause a variety of symptoms.

WHAT ARE THE SYMPTOMS AND SIGNS OF CONCUSSION?

A CHILD DOES NOT NEED TO BE KNOCKED OUT (LOSE CONSCIOUSNESS) TO HAVE HAD A CONCUSSION.

THINKING PROBLEMS	CHILD'S COMPLAINTS	OTHER PROBLEMS
• Does not know time, date, place, period of game, opposing team, score of game • General confusion • Cannot remember things that happened before and after the injury • Knocked out	• Headache • Dizziness • Feels dazed • Feels "dinged" or stunned; "having my bell rung" • Sees stars, flashing lights • Ringing in the ears • Sleepiness • Loss of vision • Sees double or blurry • Stomachache, stomach pain, nausea	• Poor coordination or balance • Blank stare/glassy eyed • Vomiting • Slurred speech • Slow to answer questions or follow directions • Easily distracted • Poor concentration • Strange or inappropriate emotions (ie. laughing, crying, getting mad easily) • Not playing as well

WHAT CAUSES A CONCUSSION?

Any blow to the head, face or neck, or a blow to the body which causes a sudden jarring of the head may cause a concussion (ie. a ball to the head, being checked into the boards in hockey).

WHAT SHOULD YOU DO IF YOUR CHILD GETS A CONCUSSION?

Your child should stop playing the sport right away.
They should not be left alone and should be seen by a doctor as soon as possible that day. If your child is knocked out, call an ambulance to take him/her to the hospital immediately. Do not move your child or remove any equipment such as helmet, in case of a cervical spine injury. Wait for paramedics to arrive.

HOW LONG WILL IT TAKE FOR MY CHILD TO GET BETTER?

The signs and symptoms of a concussion often last for 7-10 days but may last much longer. In some cases, children may take many weeks or months to heal. Having had previous concussions may increase the chance that a person may take longer to heal.

HOW IS A CONCUSSION TREATED?

THE MOST IMPORTANT TREATMENT FOR A CONCUSSION IS REST.

The child should not exercise, go to school or do any activities that may make them worse, like riding a bike, play wrestling, reading, working on the computer or playing video games. If your child goes back to activities before they are completely better, they are more likely to get worse, and to have symptoms longer. Even though it is very hard for an active child to rest, this is the most important step.

Once your child is completely better at rest (all symptoms have resolved), they can start a step-wise increase in activities. It is important that your child is seen by a doctor before he/she begins the steps needed to return to activity, to make sure he/she is completely better. If possible, your child should be seen by a doctor with experience in treating concussions.

WHEN CAN MY CHILD RETURN TO SCHOOL?

Sometimes children who have a concussion may find it hard to concentrate in school and may get a worse headache or feel sick to their stomach if they are in school. Children should stay home from school if their symptoms get worse while they are in class. Once they feel better, they can try going back to school part time to start (eg. for half days initially) and if they are okay with that, then they can go back full time.

WHEN CAN MY CHILD RETURN TO SPORT?

It is very important that your child not go back to sports if he/she has any concussion symptoms or signs. Return to sport and activity must follow a step-wise approach:

STEP 1) No activity, complete rest. Once back to normal and cleared by a doctor, go to step 2.

STEP 2) Light exercise such as walking or stationary cycling, for 10-15 minutes.

STEP 3) Sport specific aerobic activity (ie. skating in hockey, running in soccer), for 20-30 minutes. NO CONTACT.

STEP 4) "On field" practice such as ball drills, shooting drills, and other activities with NO CONTACT (ie. no checking, no heading the ball, etc.).

STEP 5) "On field" practice with body contact, once cleared by a doctor.

STEP 6) Game play.

Note: **Each step must take a minimum of one day.** If your child has any symptoms of a concussion (e.g. headache, feeling sick to his/her stomach) that come back at any step, STOP activity, wait 24-48 hours, and resume activity at previous step.

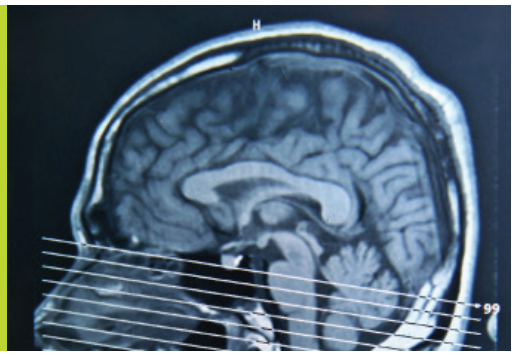
When should I take my child to the doctor?

Every child who gets a head injury should be seen by a doctor as soon as possible. Your child should go back to the doctor IMMEDIATELY if, after being told he/she has a concussion, he/she has worsening of symptoms such as:

1. being more confused
2. headache that is getting worse
3. vomiting more than twice
4. strange behaviour
5. not waking up
6. having any trouble walking
7. having a seizure

Problems caused by a head injury can get worse later that day or night. The child should not be left alone and should be checked throughout the night. If you have any concerns about the child's breathing or how they are sleeping, wake them up. Otherwise, let them sleep. If they seem to be getting worse, you should see your doctor immediately. **NO CHILD SHOULD GO BACK TO SPORT UNTIL THEY HAVE BEEN CLEARED TO DO SO BY A DOCTOR.**

Concussion Guidelines for TEACHERS



WHAT IS A CONCUSSION?

A concussion is a brain injury that cannot be seen on routine x-rays, CT scans, or MRIs. It affects the way a person may think and remember things, and can cause a variety of symptoms.

WHAT ARE THE SYMPTOMS AND SIGNS OF CONCUSSION?

A STUDENT DOES NOT NEED TO BE KNOCKED OUT (LOSE CONSCIOUSNESS) TO HAVE HAD A CONCUSSION.

THINKING PROBLEMS	STUDENT'S COMPLAINTS	OTHER PROBLEMS
• Does not know time, date, place, period of game, opposing team, score of game • General confusion • Cannot remember things that happened before and after the injury • Knocked out	• Headache • Dizziness • Feels dazed • Feels "dinged" or stunned; "having my bell rung"	• Poor coordination or balance • Blank stare/glassy eyed • Vomiting • Slurred speech • Slow to answer questions or follow directions • Easily distracted • Poor concentration • Strange or inappropriate emotions (ie. laughing, crying, getting mad easily) • Not playing as well

WHAT CAUSES A CONCUSSION?

Any blow to the head, face or neck, or a blow to the body which causes a sudden jarring of the head may cause a concussion (ie. a ball to the head, being checked into the boards in hockey).

WHAT SHOULD YOU DO IF A STUDENT GETS A CONCUSSION?

You will most often have students who have sustained a concussion outside of school, but it is important to know how to deal with a student whom you suspect has sustained a concussion while participating in

a sport or activity at school. IF YOU SUSPECT A CONCUSSION, THE STUDENT SHOULD STOP PLAYING THE SPORT OR ACTIVITY RIGHT AWAY. He/she should not be left alone and should be seen by a doctor as soon as possible that day. If a student is knocked out for more than a minute, call an ambulance to take him/her to a hospital immediately. Do not move him/her or remove athletic equipment like a helmet;; wait for paramedics to arrive.

Anyone with a concussion should not go back to play that day, even if he/she says he/she is feeling better. Problems caused by a head injury can get worse later that day or night. He/she should not return to activity until he/she has been seen by a doctor.

HOW LONG WILL IT TAKE FOR THE STUDENT TO GET BETTER?

The signs and symptoms of a concussion often last for 7-10 days but may last much longer. In some cases, children may take many weeks or months to heal. Having had previous concussions may increase the chance that a person may take longer to heal.

HOW IS A CONCUSSION TREATED?

IT IS CLEAR THAT EXERTION, BOTH PHYSICAL AND MENTAL, WORSENS CONCUSSION SYMPTOMS AND MAY DELAY RECOVERY. THUS, THE MOST IMPORTANT TREATMENTFOR CONCUSSION IS REST.

Many students find that attending school aggravates their symptoms, and may have to stay home and rest. It is not possible to know when symptoms will improve, as each concussion is unique. Therefore, a specific return date to school may not initially be possible for the student, their parents, or doctor to provide. Once they feel better, they can try going back to school, initially part time (e.g. half days at first) and, if their symptoms do not return, full time. Remember that mental exertion can make symptoms worse, so the student's workload may need to be adjusted accordingly.

IT IS VERY IMPORTANT THAT A STUDENT DOES NOT GO BACK TO ACTIVITY IF HE/SHE HAS ANY CONCUSSION SYMPTOMS OR SIGNS.

Return to sport and activity must follow a step-wise approach:

STEP 1) No activity, complete rest. Once back to normal and cleared by a doctor, go to step 2.

STEP 2) Light exercise such as walking or stationary cycling, for 10-15 minutes.

STEP 3) Sport specific aerobic activity (ie. skating in hockey, running in soccer), for about 20-30 minutes. NO CONTACT.

STEP 4) "On field" practice such as ball drills, shooting drills, and other activities with NO CONTACT (ie. no checking, no heading the ball, etc.).

STEP 5) "On field" practice with body contact, once cleared by a doctor.

STEP 6) Game play.

WHEN CAN A STUDENT WITH A CONCUSSION RETURN TO SPORT?

It is very important that a student not play any sports, including P.E. class activities if he/she has any signs or symptoms of concussion. The student must rest until he/she is completely back to normal. When he/she has been back to normal and has been seen by a doctor, he/she can then go through the steps of increasing activity described above. When the student has progressed through these steps with no symptoms or problems, and has received clearance from a doctor, he/she may return to play. If you are unsure if a student should participate, remember...

when in doubt, sit them out!