
POLICY, PROCEDURE, PRACTICES

CONCUSSION MANAGEMENT PROTOCOL (I'm not sure if this was ever communicated to the club.)

Barrie Royals Basketball Club Concussion Management Protocol

Baseline Testing

Baseline testing involves testing athletes prior to starting their sporting season to assess numerous physical and cognitive systems that could potentially become affected by a concussion. It is only in rare situations that baseline test results are needed to make a diagnosis. Instead, the true value of having baseline test results is on the back-end, when making return-to-play decisions. Having access to sound test results as compared to an individual's healthy state scores provides clinicians with a set of objective data that can be utilized to make better informed, and therefore safer, return-to-play decisions. This is a recommended first step in concussion management.

A concussion is a type of traumatic brain injury caused by a bump, blow or jolt to the head (or by a blow to the body) that causes the head to move quickly back and forth. This movement can cause the brain to move around or twist in the skull, stretching and causing damage to brain cells and chemical changes in the brain. This type of injury can affect the health and long term well-being of an individual. While most children and teens with a concussion recover quickly and fully, some will have concussion symptoms that last for days, weeks, months, or even years.

Concussions are serious because of the impact damage (primary injury) but also due to the secondary injuries that can develop after the impact. These include hemorrhage, cerebral swelling, decreased circulation, increased fatigue, mental confusion and failed memory, among other symptoms. The brain may take days, weeks, or months to be restored to normal activity.

Once an individual has had a concussion, they are at increased risk for another concussion. Repeat concussions that occur before the brain recovers from the first incident can slow recovery or increase the likelihood of long term problems. Second Impact Syndrome is a rare but serious condition which occurs when an individual experiences a second concussion before the symptoms of the initial concussion have resolved. Second Impact Syndrome may result in long-term brain damage or rapid potentially fatal brain swelling.

It is incumbent upon Coaches, Trainers, Parents and/or Guardians to recognize the symptoms of a concussion. And, therefore these individuals must take responsibility for the medical treatment and recovery of a young athlete suffering from a concussion.

The Barrie Royals Basketball Club has set the following as a protocol for treating athletes with concussion.

Symptoms of a concussion:

Signs and symptoms can appear immediately after the injury or may take hours or days to emerge. Signs and symptoms may be different for everyone. A player may be reluctant to report symptoms because of a fear that her/his status on a team or in a game could be jeopardized. Subjective and unseen symptoms can only be detected or sensed by the injured player i.e. headache. Outward, objective evidence of the injury is loss of consciousness.

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Administer first aid if necessary but do not administer medication. Do not leave the player alone and be alert for symptoms that deteriorate or worsen over time and the development of any new symptoms. Contact parent/guardian for further action.

Seek immediate emergency medical assistance if an injured player exhibits one or more of the following signs of concussion:

- One pupil (the black part in the middle of the eye) is larger than the other;
- Drowsiness is experienced or cannot be awakened;
- Constant severe or worsening headache;
- Feelings of weakness in arms or legs, numbness or decreased coordination, inability to move parts of the body, or clumsiness
- Repeated vomiting or nausea;
- Slurred speech or blurred vision;
- Acting strange, saying odd or incoherent things (change in behaviour);
- Convulsions or seizures;
- Difficulty recognizing people or places;
- Increasing confusion, restlessness, or agitation;
- Loss of consciousness (fainting or blacking out)
- Cannot remember new events (asking same questions: "why are we here?", etc.)
- Continual fluid or bleeding from the ear or nose

Physicians and/or other health care professionals are responsible for providing an individualized plan for returning to play; to assist in managing cognitive and physical exertion following a concussion.

Coaches are responsible for interacting with the player's parents or guardians to obtain; and share information about progress and challenges, when possible.

Parents are responsible for informing the coach of concussions sustained by a player outside of the Barrie Royals team activities; Monitoring their child's progress through return to play processes; Interacting with the coach to share information about progress and challenges; Providing initial diagnosis/accommodations and final physician clearance to the coach for return to play.

Players are responsible for sharing information about their progress with respect to ongoing or worsening symptoms of concussion.

Return to Play

It is recommended that the following Recovery stages of concussion are followed as a player recovers and progresses to fitness for return to play. Concussed individuals are to remain in each of the stages for at least 24 hours.

Stage 1 – Absolute Rest **

Once the athlete has received a diagnosis of concussion the first step is *absolute* rest. During this stage it is extremely important that the athlete refrain from any activity that could burn energy (a concussion is an energy deficit within the brain). This means no

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exercise, no school, no homework, no studying, no video games, no cell phones, no TV. Once the athlete has had at least 24 hours of *SYMPTOM-FREE* rest, they can progress on to stage 2. If the athlete has rested for 3 or more days and is still experiencing symptoms, please book a follow-up appointment with your practitioner to discuss a potential treatment strategy which could speed your recovery.

Stage 2 – Light ‘Cognitive’ Activity

“Cognitive” means mental. After the athlete is completely symptom free for a period of 24-hours with no mental stimulation, try incorporating 30-45 minutes (MAX) of light reading, homework, TV viewing etc. If the athlete has no symptoms with the addition of light cognitive activity, they can be permitted to move on to stage 3 the following day. If the athlete starts to feel symptoms with the addition of light cognitive activity, they are to drop back to stage 1 for another 24 hour rest period (Stage 1) before attempting stage 2 again.

Stage 3 – Half-Day of School with Modifications

The athlete is now permitted to attend a half-day of school with modifications. Typical modifications include but are not limited to: No tests, No gym, No homework, No music class, Frequent breaks etc. If the athlete experiences a return of symptoms they are to drop back to stage 2 for 24-hours (and be symptom free) prior to attempting stage 3 again. If the athlete has no return of symptoms with a half-day of school, they are permitted to advance to stage 4 the following day.

Stage 4 – Full Day of School with Modifications

The athlete is now permitted to attend a full day of school. A modified schedule should eliminate physical activities.

Stage 5 – Light Physical Activity **

If the athlete had no return of symptoms at stage 4, they should be evaluated by a trained professional to determine their readiness to begin light physical activity. This stage incorporates the addition of light physical exertion to see how your brain responds to an increased demand for blood flow.

Stage 6 – Non-Contact Practice – Phase I (Low Intensity)

Upon successful completion of stage 5, the athlete will be permitted to return to sport specific activity with the team in a **NON-CONTACT** format. The athlete will be asked to complete various simple “sport-specific” drills that do not involve contact or the chance of contact. These drills will be individually based and will involve fairly low physical stress as well as low heart rates.

A list of suggested drills for every sport can be found in a coach/trainer smartphone app by selecting Profile → Team → the athlete in question → select a sport from the dropdown menus to view drills.

If any increase in symptoms the athlete is to be removed from practice and attempt again at the next practice.

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Stage 7 – Non-Contact Practice – Phase II (Higher Intensity)

This stage will once again be administered by your coach and/or trainer. The athlete is now permitted to take place in 'dryland' training and weight training. Sport-specific drills can now be conducted at higher intensity and be more *team-based* (3-man weave, breakouts, etc.). At this stage, athletes are still NOT permitted to participate in any drills that involve contact or that have the chance for potential contact.

If any increase in symptoms the athlete is to be removed from practice and attempt again at the next practice.

Stage 8 – Medical Clearance **

This stage must be conducted by a qualified healthcare professional, to ensure that the athlete remains symptom-free while his/her cardiovascular system as well as their balance (vestibular system) is tested.

Many athletes reach this stage believing that they are fully recovered because they are no longer experiencing symptoms. Keep in mind that symptoms (how you feel) do not coincide with brain recovery. If the individual does not successfully complete this stage, do not be discouraged; it simply means that the brain has not fully recovered.

Upon successful completion of this stage, the athlete will be cleared for full contact.

Stage 9 – Full Practice

Upon successful completion of stage 8, it is strongly encouraged that you participate in at least 1 practice at full intensity, including contact drills, prior to participating in a game. The intensity of practice is generally less than the intensity of game play and therefore it is encouraged that the athlete complete this step so that they are more prepared for high-intensity game play.

Stage 10 – Full Game-Play

Upon full return to competition the athlete must be monitored by the coach or trainer.

It is incumbent upon Coaches, Trainers, Parents and/or Guardians to recognize the symptoms of a concussion. And, therefore these individuals have the responsibility for the medical treatment and recovery of a young athlete who has a concussion.

The Barrie Royals Basketball Club has set the following protocol for all young athletes with concussion.

Symptoms of a concussion:

Signs and symptoms can appear immediately and the athlete may not be aware of them to emerge. Signs and symptoms may be observed by everyone. A person who has a concussion is report symptoms because of a fear that he/she will be on a team or in a game that is not jeopardized. Subjective and/or observed symptoms can only be identified or sorted by the person who has the headache. Outward, objective symptoms of the injury or loss of consciousness.