The Association québécoise des médecins du sport and the Conseil de médecine du sport du Québec recommend the following:

### Recommendations

It is recommended that a medical evaluation be conducted before activities are resumed. Once **all** the symptoms have disappeared for a minimum of 24 hours, the individual can move from step 1 to step 2. Each time, a minimum of 24 hours must have passed without the appearance of any symptoms before the individual can move on to the next step. If symptoms reappear, the individual must return to the previous step and only take up that activity 24 hours after the symptoms have completely disappeared.

**Step 1:** Rest (avoid all physical or intellectual activity)

Step 2: Light aerobic exercise (walking or stationary bicycle)

Step 3: Low-intensity sports activity (running, skating, throwing, etc.)

Step 4: Noncontact medium-intensity skill-based exercises. Progressive muscle-building exercises

Step 5: Return to regular training, including the possibility of contact

**Step 6:** Return to the game or sports activity



## Other tips

Declaration: Individuals who practise sports should never shrug off any blow to the head. Don't think you're indestructible or try to hide your injury from your coaches or parents.

Vigilance: Coaches, trainers, parents and athletes themselves should watch for possible cases of mild TBI and be aware of the symptoms to look for. Possible victims should be monitored for the development of danger signs and symptoms and should therefore never be left alone.

Protection: Everyone who practises a sport should wear a helmet made for his or her activity.









Sport, Concussion and Mild Traumatic Brain Injury





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# Sport, Concussion and Mild Traumatic Brain Injury

Individuals who play sports and the people close to them are increasingly concerned about mild traumatic brain injuries (TBI), commonly called concussions.

This document has been prepared in collaboration with the Ministère de la Santé et des Services sociaux, the Conseil de médecine du sport du Québec and the Association québécoise des médecins du sport to respond to this concern and provide information on what to do if a mild TBI is suspected.



### What causes a mild TBI?

A mild TBI is caused by a blow to the head or to a part of the body that causes the head to jerk back and forth. The brain bounces against the inside of the skull, which damages brain cells, whether the victim loses consciousness or not. A mild TBI can affect lifestyles, social relationships, and sports, academic or work performance.



The victim can experience the following kinds of difficulties:

- physical: headache, vision problems, problems with balance and coordination, nausea, sensitivity to noise, fatigue, sleep disturbances, difficulty speaking, etc.
- emotional: irritability, nervousness, anxiety, etc.
- **cognitive:** concentration and memory problems, etc.

# Signs that indicate the need for medical attention

The person who has received a blow or injury to the head should be pulled out of the activity and must get immediate medical attention if the following signs appear:

- loss of consciousness, even if brief
- convulsion (epileptic seizure)
- incoherent statements or repetitive questions
- disorientation (victims don't know where they are, don't recognize people they know)
- paralysis, weakness or numbness in an arm or leg
- speech difficulties
- vision problems (e.g. double vision)
- coordination problems (difficulty walking; victims look drunk)

The person who has received a severe blow should be pulled out of the activity, must never be left alone and must be constantly watched for the development of danger signs and symptoms. Mild TBI symptoms may only appear several hours after a blow. They are usually temporary and disappear within 7 to 10 days, but medical care should be sought if any of the following symptoms persist or recur:

- new loss of consciousness
- continuous or worsening headache
- continuous nausea or repeated vomiting
- increasing confusion or agitation
- abnormal behaviour
- concentration or memory problems, irritability (problems at school or work)

# Treatment and resuming activities after a mild TBI

Even though the injury may not be obvious, mild TBIs must be taken seriously and evaluated by qualified professionals because, if not properly treated, there can be long-term complications. An athlete who has had a mild TBI is more prone to trauma, even from a lesser impact.

A premature return to normal activities before the symptoms disappear completely can increase:

- the probability of a relapse
- the severity of the symptoms
- the recovery time

Rest is the only effective treatment for a mild TBI. This includes abstaining from sports and activities requiring a high level of concentration (reading, playing video games, etc.). The return to normal activities should be gradual, varying from one person to the next and depending on the severity of the injury. In the case of athletes, this return should be supervised by a sports medicine doctor.

