



Newsletter



▶ March / April



CONCUSSION



What is a concussion?

A concussion is a brain injury which can be caused by a direct blow or by transmitted forces from a blow elsewhere on the body. It is a functional injury, in that there are no abnormalities seen on traditional imaging modalities (MRI, CT).

What are the symptoms of concussion?

There are a variety of symptoms of concussion, but none are specific just to concussion. There does not need to be loss of consciousness. The more common symptoms are headache/head pressure, dizziness, feeling slowed down, irritability, and anxiety. Other symptoms include visual or sleep disturbances, depression, slowed reaction times, nausea, and balance problems.

How is concussion diagnosed?

Concussion can be diagnosed on the sideline or at a later time. On the sideline, a neck injury should be ruled out. The athlete should then be assessed for symptoms of concussion. Tools of assessment include the modified Maddocks score and the SCAT3 (sport concussion assessment tool). A key mantra with concussion is "if in doubt, sit them out".

Many concussions are diagnosed at a later time. The SCAT3 is often used in the office. Imaging, such as MRI or CT, is rarely indicated. Neuropsychological testing is often very useful. A shorter computerized neuropsychological test called ImPACT is readily available in many offices. It is most useful if a baseline test has been done prior to concussion.

How long do concussions last for?

The majority of patients with concussions (80-90%) recover in 7-10 days. Children and adolescent may take longer.

How long do concussions last for?

There is no easy "cure" for concussion. The mainstay of treatment is rest, both mental and physical. Mental rest includes limiting screen time (computer, TV, video games, phone) and reading. It may also include taking time off of school or work, or modifying the day (taking breaks, wearing sunglasses to reduce light sensitivity).

Physical rest means completely stopping physical activity until there are no symptoms. The athlete should then follow a graduated return to play protocol. A common protocol is:

- ▶ Complete rest
- ▶ Light aerobic exercise
- ▶ Sport-specific activities
- ▶ Non-contact training
- ▶ Contact training
- ▶ Return to games



What are the complications of concussion?

One possible complication is second impact syndrome, which results in catastrophic brain swelling. It can occur if a hit is received while the brain is recovering from an initial injury. It is very rare.

A more common complication is post-concussion syndrome, where the symptoms persist for a prolonged period of time. There are adjuvant treatments that can be tried for persistent symptoms. These include:

- ▶ Physiotherapy therapy
- ▶ Massage therapy
- ▶ Craniosacral therapy
- ▶ Vestibular rehab
- ▶ Sleep medications
- ▶ Antidepressants
- ▶ Headache medications

