

Sport-Related Concussion

What is a concussion?

A concussion is a brain injury caused by a blow or force to the head or body that changes the way the brain functions. Most concussions do not involve loss of consciousness or getting “knocked out.” Signs and symptoms of a concussion typically develop soon after the injury but may be delayed by hours or even days. Symptoms may evolve and worsen over the first 24-48 hours. **The athlete should be removed immediately and not allowed to play on the same day.**

How is a concussion diagnosed?

There is not a specific test to diagnose a concussion. A health care provider should perform a thorough exam that includes assessment of various brain functions, such as balance, eye movements, memory, reaction time, etc. Computerized neurocognitive testing (i.e. ImPACT® test) may also be performed as an additional tool in concussion assessment. Imaging studies, such as a CT scan do not show a concussion and are usually not required.

Signs observed by others

The athlete may:

- Be slow to get up after a hit or blow to the head
- Grab their head following a fall or collision
- Appear dazed or stunned
- Be unsure of game details
- Look unsteady or move clumsily
- Answer questions slowly
- Seem confused
- Lose consciousness
- Have memory loss
- Be more tired than usual
- Seem sad, nervous or anxious
- Be irritable, easily frustrated or upset

Symptoms reported by the athlete

The athlete may complain of:

- Headaches
- Concentration or memory problems
- Nausea
- Balance problems or dizziness
- Double or blurred vision
- Feeling “in a fog” or slowed down
- Sensitivity to light or noise.
- Confusion
- Feeling tired or sleep problems
- Just “not feeling right” or “feeling down”

Immediately seek medical attention at the nearest ER, if any of these occur:

- Severe or worsening headache
- Trouble walking or talking
- Increasing confusion
- Loss of consciousness
- Vomiting (more than once)
- Irregular pulse or breathing rate
- Difference in pupil size (right versus left eye)
- Weak or numb arms or legs
- Sudden change in behavior or thinking
- Seizure



What should the athlete do after the injury?

- Notify athletic trainer/school nurse/school administrator of the injury.
- Schedule an appointment with a concussion specialist (see back for resources) to assist with concussion treatment, return to school and return to sport.
- Sleep. There is no need to wake the athlete up every hour.
- Treat symptoms for comfort.
 - Take acetaminophen (Tylenol®) for headaches.
 - Use an ice pack on the head and neck area as needed.
- Slowly return to normal daily activities, school and light physical activity as tolerated.
- Avoid strenuous physical activity and sports until symptoms improve and cleared by a concussion specialist.

What should the athlete **NOT** do after the injury?

- Do not take ibuprofen, aspirin, naproxen or other non-steroidal anti-inflammatory drugs (NSAIDs) until seen by a concussion specialist.
- Do not drive.
- Do not do strenuous exercise, lift weights or play sports until symptoms improve and cleared by a concussion specialist.
- Do not do any activities that worsen symptoms. For example:
 - Listening to loud music.
 - Playing video games.
 - Attending sporting events or concerts.

What to expect in the days or weeks following a concussion:

- Symptoms may worsen with increased mental activity, such as reading or doing homework.
- Physical activity or stimulation, like watching a movie or sitting in a crowded room, can also make symptoms worse.
- Symptoms gradually improve over time and most young athletes recover within 3 to 4 weeks.
- Return to Learn – Your athletic trainer or concussion specialist should assist with returning to school.
- Return to Play – This requires clearance by a physician AND following a graduated return-to-play protocol.