

Concussion Management

Concussions occur both in helmeted and non-helmeted sports and account for a significant number of time loss injuries. A violent blow to the head can cause injury at the site of contact or on the opposite side due to the brain sliding forcefully against the inner wall of the skull. Concussions, contrary to common belief, frequently occur with no loss of consciousness and their severity is independent of loss of consciousness.

Signs and Symptoms of a Concussion:

- Headaches
- Confusion
- Loss of consciousness
- Retrograde amnesia and/or anterograde amnesia
- Dizziness
- Nausea and/or vomiting
- Mood changes
- Lack of motor coordination
- Difficulty balancing and/or difficulty concentrating
- Blurred vision
- Ringing in the ears
- Increased sensitivity to light
- Sleep disturbance

Signs and Symptoms that merit immediate Emergency Transport include but are not limited to:

- Prolonged loss of consciousness
- Neck pain with point tenderness to palpation
- Neurologic symptoms down both arms
- Bleeding and/or fluid coming from the ear
- Rapid decline in symptoms (Pupillary changes, respiratory changes, or abrupt change in consciousness)
- Lucid period followed by acute worsening of symptoms

When a player demonstrates signs and symptoms concerning for a concussion the following steps are recommended:

- The player should not be allowed to return to play in the current game or practice.
- The player should not be left alone; and regular monitoring for deterioration is essential over the initial few hours following injury.
- The player should be evaluated by a physician prior to return to activity.
- Return to play must follow a medically supervised stepwise progression.

Once an athlete is asymptomatic they should follow use this Return to Play Protocol: Ea

1. No activity, complete rest until asymptomatic
2. Day 1: Light aerobic exercise such as walking or stationary cycling, no resistance training.
3. Day 2: Sport specific exercise (eg, skating in hockey, running in soccer), progressive addition of resistance training at steps 3 or 4.
4. Day 3: Non-contact training drills.
5. Day 4: Full contact training after medical clearance.
6. Day 5: Game play.

The athlete should continue to proceed to the next level if asymptomatic at current level. If any post concussion symptoms recur, the patient should drop back to the previous asymptomatic level and try to progress again after 24 hours.

Impact Test:

1. What is it?

The Impact test is a baseline and post-injury neurocognitive test. It can provide objective data following a concussion and assist in the safe return to play.

2. How is the test best utilized?

Prior to the season baseline data is collected on all high-risk athletes (soccer, Lacrosse, football). If a concussion occurs during the season, the test is repeated and followed until the athlete is asymptomatic and their IMPACT test has normalized to their baseline. The test consists of a battery of sub tests that evaluate cognitive function, memory, vision and reaction time.

3. Where can I be tested

The test is available at Towson Sports Medicine. Those interested in having a baseline Impact Test should contact Stephanie Adams, Med, ATC at 410-337-7900 x1273 for their Impact Baseline Test. After suffering a concussion, athletes can use the same contact information in order to retake the test.

Suffering a second concussion before the symptoms of a previous concussion have resolved can be lethal in the immature brain (under 24 years of age). The cumulative effects of concussions over many years have been postulated to increase the risk of some degenerative brain diseases, depression, and post-concussive syndrome. Coaches, parents, athletes, and medical professionals all need to stay alert and educated on proper concussion management in order to prevent further injury or permanent damage to an athlete.

Related Links:

Centers for Disease Control and Prevention

www.cdc.gov/ncipc/

Brain Injury Association of America

www.biausa.org

Prague Guidelines

http://www.upstate.edu/uh/pmr/concussion/pdf/prague_guidelines.pdf

New Jersey Football Player Dies from Second Impact Syndrome

www.nj.com/news/index.ssf/2008/10/montclair_hs_football_player_d.html

Panel Tightens Rules on Players Concussions

<http://www.wral.com/news/local/story/3702942/>