

## **Concussions**

### **What is a concussion?**

In medical terms, a concussion is a mild traumatic brain injury (TBI). It occurs from either a direct blow to the head or elsewhere on the body that results in an impulsive force transmitted to the head (indirect blow). A TBI can cause a disturbance in brain function and information processing. Brain functions that control one's coordination, learning, memory, and emotions are most commonly affected by a concussion injury.

### **Signs and Symptoms**

A concussion can present with a wide array of symptoms that may or may not include:

- Altered mental status including confusion, inappropriate emotions, agitation or abrupt change in personality
- Blurred vision/double vision/seeing stars or black spots
- Dizziness, poor balance or unsteadiness
- Excessive or persistent headache
- Excessive fatigue/feel slowed down
- Feel "in a fog"
- Loss of consciousness
- Amnesia/memory problems
- Loss of orientation
- Vomiting
- Poor balance/coordination
- Ringing in ears
- Excessive sensitivity to light or loud noise
- Vacant stare/glassy eyed

### **Concussion - So What?**

It is true that most concussions heal without issues or complications if handled properly. However, like any other injury, a brain injury should be given time to heal. Time to heal includes both physical and mental rest (free from mental straining and visual stimuli like video gaming and texting).

One of the most severe complications of brain trauma is intracranial bleeding or the development of a hematoma. The skull has no ability to expand to allow for brain swelling. If bleeding or swelling of the brain occurs, pressure in the skull rises and can cause brain injury. Hematomas develop immediately after an injury or hours later, so monitoring symptoms is critical. Bleeding from a brain injury can be life threatening.

## **Why do a baseline computer test (ImPACT)?**

Neuropsychological tests, such as ImPACT, are helpful in providing objective information about how the brain is responding to injury. ImPACT has two components: a pre and post concussion test. The pre-test is very valuable as the scoring represents one's baseline (normal) brain function. The ImPACT test is then repeated post concussion. Results of the pre and post concussion tests are compared and care plans are then developed. If a pre-test was not completed prior to a concussion, an ImPACT post concussion test is still a reliable tool in the assessment of brain function. In addition, it is recommended that the ImPACT test be completed on an annual basis due to natural maturing of the brain which can lead to scoring changes over time.

## **What can I expect from Fairview's Concussion Program?**

### **Athletic trainers –**

- Will facilitate completion of baseline tests
- Will refer to expert physicians who specialize in concussion management

### **Fairview Sports and Orthopedic Care Physicians**

- Will manage concussion symptoms and make recommendations for return to previous activity level
- Will facilitate post-concussion testing
- Will refer to other healthcare providers as needed, including neuropsychologists, neurologists and therapists who specialize in concussion management

## **When am I safe to return to activity?**

A concussion patient should be free of symptoms and have returned to their normal sleeping and eating patterns as well as typical concentration levels at school and work before resuming high levels of activity. Once normal activities have resumed and there are no symptoms at rest, he/she is ready to try more demanding activities that increase his/her heart rate. Over time, activities will be increased as long as symptoms do not return. Progressive or graded return to participation allows the opportunity to assess brain healing and is the current recommended standard of care for concussion management.

**Under no circumstances should anyone return to activity while experiencing concussion signs or symptoms. There should be no return to activity on the same day concussion symptoms are noted or a formal diagnosis of a concussion is made.**

### **For More Information –**

Fairview Sports and Orthopedic Care's concussion hotline: 952-460-4440

Appointment Scheduling for Fairview Sports and Orthopedic Care: 612-672-7100

## **Cost of Computer Testing (ImPACT)-**

Pretesting - \$5

Post testing – Option 1: \$20 includes all post testing

Option 2: Included in FSOC physician visit