Concussion

Authors: Laura O. Morris, PT, NCS; Allison Nogi, PT, DPT, NCS

What is a Concussion?
Concussion, or mild traumatic brain injury, occurs after trauma to the head. It can occur with or without loss of consciousness. A concussion can affect physical, emotional, and mental well-being. MRIs and CT scans do not show evidence of this injury. Symptoms occur due to chemical and energy changes in the brain. It is important that the recommendations of all medical professionals be followed in order to maximize recovery.

Symptoms of concussion impair day-to-day function and are variable. Most people that experience a concussion have full recovery within a few days or weeks. Others have symptoms for a longer period of time. Medical teams including specialized physicians, neuropsychologists, and physical therapists can help manage symptoms and care.

Physical symptoms may include:
- Headache
- Imbalance/difficulty walking
- Nausea/vomiting
- Fatigue
- Difficulty sleeping
- Double or blurred vision
- Sensitivity to light and sound.

Emotional symptoms may include:
- Irritability
- Restlessness
- Anxiety
- Depression
- Mood swings
- Aggression, or decreased tolerance of stress

Cognitive symptoms may include:
- Short or long term memory loss
- Confusion
- Slowed processing
- “Fogginess”
- Difficulty concentrating

What should I do if I have a concussion?
- Allow the brain time to heal
  - Limit physical activities including sports and social activities
  - Limit cognitive demand, including school and work activities
Too much activity too soon may cause increased symptoms

- Increase activity and participation as symptoms begin to decrease
- Slowly return to normal activities as long as there is no significant increase in symptoms.

How can physical therapy help if I have a concussion?

- Physical therapy plan of care is different for each person and depends on your symptoms and goals.
- Your PT will perform an evaluation to assess symptoms and imbalance and how your problems interfere with daily life.
- Therapists guide activity and help individuals to safely return to daily life, without the brain becoming over loaded.

How does vestibular rehabilitation relate to concussions?

The vestibular system includes the inner ear, which is very small and fragile. It is located in the skull just behind the ear. This system helps balance and senses head movement. The inner ear also allows your eyes to stay focused while the head is moving. Trauma, like concussions, can cause damage to this system or the connections to the brain.

Symptoms of a damaged vestibular system include dizziness and imbalance. You will be able to return to your normal activities faster if you do the home exercises given to you to do by your PT.