Concussion, or mild traumatic brain injury, occurs after sustaining an injury to the head, with or without loss of consciousness. It encompasses many symptoms that impact physical, emotional, and mental well-being. Physical symptoms may include dizziness, headache, imbalance, nausea/vomiting, fatigue, difficulty sleeping, double or blurred vision, and sensitivity to light and sound. Emotional symptoms may include irritability, restlessness, anxiety, depression, mood swings, aggression, or decreased tolerance of stress. Cognitive (thinking) symptoms may include difficulty with short or long term memory, confusion, slowed processing, “fogginess,” and difficulty concentrating. Because of the variety of possible symptoms that can impair your day-to-day function, it is very important to see the appropriate healthcare professionals, including specialized physicians, neuropsychologists, and physical therapists. A concussion is a problem that can go undiagnosed because it is not something that can be found with diagnostic imaging, such as an MRI or a CT scan. Post-concussion symptoms occur because of chemical and energy changes that occur in the brain due to trauma. The brain becomes inefficient at carrying out normal physiologic processes which then results in symptoms. Most people that experience a concussion have full recovery within a few days or weeks. Others have symptoms for a longer period of time.

**What is a concussion?**

If you are experiencing symptoms after concussion, it is important to limit exertion, both physical and cognitive (thinking) because the brain cannot adequately respond to normal demands. Increased levels of physical exertion too soon, such as return to social activities or sports, or cognitive demand, such as returning to school or work, does not allow the brain to heal, and may cause increased symptoms. Once symptoms start to improve, you can slowly begin to resume normal activities as long as there is no significant increase in symptoms.

Physical therapy for those who have had a concussion varies from person to person depending on their symptoms and limitations. A physical therapist will complete a comprehensive evaluation to assess current problems. Physical therapy can play a role in reintroducing physical activity. This is a gradual process, as symptoms improve, so that a system that has been compromised by concussion is not overloaded.
If a person is dizzy or has difficulty maintaining balance, vestibular rehabilitation may be appropriate. The vestibular system, which includes the inner ear and its connections with the brain, is responsible for sensing head movement and helps to maintain balance. In addition, it is responsible for keeping your eyes focused while the head is moving. The inner ear is a very small and fragile structure located in the skull just behind the ear. Trauma to the head can cause inner ear damage. With specific exercise and management skills, dizziness can be reduced significantly or eliminated, and balance can be improved. It is important that the recommendations of all medical professionals be followed in order to maximize recovery in the shortest amount of time.