



# Concussion

A concussion is a type of mild traumatic brain injury that results from a bump, blow or jolt to the head. Concussions can also occur from a powerful force applied to another area of the body that causes the head and brain to move quickly back and forth. Even a mild bump or blow can be serious and cause significant injury. Loss of consciousness is not required to be diagnosed with a concussion.

## Signs and Symptoms of a Concussion

The following signs and symptoms can show up immediately following an injury or may not appear for days to weeks following the injury.

- Headache or complaints of “pressure in the head”
- Nausea or vomiting
- Balance problems of dizziness, moving clumsily
- Double or blurry vision
- Sensitivity to light or noise
- Concentration or memory problems
- Answers questions slowly
- Forgets instruction
- Feeling confused, sluggish, hazy, foggy or groggy
- Appearing dazed or stunned
- Mood, behavior or personality changes

## Concussion Management at the Children’s Health<sup>SM</sup> Andrews Institute for Orthopaedics & Sports Medicine

The concussion providers at the Children’s Health Andrews Institute make up a unique, multidisciplinary team composed of pediatric-trained specialists proficient in the treatment of concussions. Our providers include a sports medicine pediatrician, pediatric sports neuropsychologist and pediatric nurse practitioner. The team’s specialty-driven management approach focuses on the whole patient and oversight of an active recovery process, recognizing that every patient is unique and requires individualized treatment plans. Concussion management plans include parallel academic and athletic progressions with active provider oversight throughout the duration of the recovery process.

Diagnostic procedures are consistent with the most recent Centers for Disease Control and Prevention (CDC) guidelines, including:

- Head CT is not routinely recommended if intracranial injury is not suspected
- Brain MRI is not recommended for acute evaluation of concussion
- Skull X-rays do not show concussion or screen for intracranial injury
- Age-appropriate symptom rating scales should be part of the evaluation
- Age-appropriate cognitive testing should be a component of assessment

The goal of the Concussion Clinic at Children’s Health Andrews Institute is to always safely return your child to their pre-injury level of functioning.

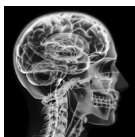
## Recovery Tips

Concussions take time to heal. No two concussions are alike, and the recovery process varies from person to person.

- Rest from physical and cognitive activity is very important. Doing too much or doing nothing at all can often complicate the concussion and lengthen recovery. A gradual return to both cognitive and physical activity overseen by a health care professional with experience in managing concussions is the recommended course of action.
- Following a concussion, the primary concern is avoiding further injury. Symptoms may vary in terms of presentation, duration and severity; however, further injury to the brain is the biggest risk factor for making a concussion worse.

## There are five important cornerstones of concussion recovery.

- **Sleep.** Night sleep is crucial to recovery, as it allows for replenishment of glucose, which the brain and body use for healing. Your child should get eight hours of sleep each night and avoid napping throughout the day. If they are having difficulty sleeping, try 3-6 mg of melatonin 30 minutes to one hour before sleep. Create a healthy sleep environment by minimizing exposure to electronics and keeping a cool temperature.
- **Nutrition.** Don't skip meals. Your child should eat three healthy meals per day or five small meals per day. Meals should be well-rounded, including fruits, vegetables, lean proteins (chicken, fish, nuts and seeds), low-fat dairy and whole grains (brown rice, quinoa, steel-cut oats and whole wheat). Processed and high-sugar foods should be avoided.
- **Hydration.** Your child should be drinking at least half of their body weight in ounces of water. There is no drink that replaces water. As your child starts to increase physical activity at the direction of their treatment provider, their water intake should increase as well. Sodas, energy drinks and other caffeinated beverages should be avoided. Energy drinks can increase headaches.
- **Stress.** Management and reduction of stress is beneficial even if it may not seem necessary. Stress consumes energy, increases symptoms and can prolong your recovery. Encourage a consistent daily routine. Communicate with the school regarding a plan for accommodation implementation and make-up work. Develop a list to prioritize tasks. It is important to remember that getting behind in school is temporary.
- **Physical activity.** While your child is recovering from a concussion, some physical activity is beneficial to the recovery process. As your child recovers, gradual physical activity recommendations will be made that are appropriate for their stage of recovery.



## Possible Emergency Signs and Symptoms of a Concussion

Sometimes, concussions can be accompanied by more serious injuries that require immediate evaluation. If your child is experiencing any of the following signs and symptoms, please take them to the Emergency Room.

- Increasing drowsiness or cannot be awakened
- Headache that worsens and does not go away with rest
- Weakness, numbness or decreased coordination
- Increasing confusion, restlessness, agitation or unusual behavior
- Repeated vomiting
- Slurred speech
- Convulsions or seizures

## Clinic Contact Information

The Children's Health Andrews Institute can be reached at **469-303-3000**. Normal clinic hours are Monday through Friday from 8 a.m. to 5 p.m. Should questions or concerns arise during these times, please call our clinic, and we will be happy to assist you. If you have questions or concerns occur after normal clinic hours, please call our main clinic number to reach the 24-hour nurse advice line. The nurse advice line is available in English and Spanish.

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