

# Concussions



## What is a concussion?

A concussion is a mild traumatic brain injury from a jolt or blow to the head causing the brain to bounce or twist within the skull from this movement and causing the brain to hit various parts of the skull. Most children with a concussion feel better within a few weeks even without intervention.

## How is a concussion diagnosed?

Your healthcare provider will review your child's medical history, evaluate your child's symptoms, and conduct a neurological examination. They may also use a neurocognitive assessment tool such as ImPACT testing as part of your child's evaluation. Healthcare providers should not routinely order brain imaging, unless they have identified your child as being high risk for intracranial injury.

## What concussion symptoms will my child experience?

Concussion symptoms appear as part of the normal healing process. Symptoms vary and may change or evolve as your child gets back to their regular activities.

### HERE ARE SYMPTOMS YOUR CHILD MAY HAVE:

Physical	Thinking or Remembering	Social or Emotional	Sleep
Bothered by light or noise	Attention or concentration problems	Anxiety or nervousness	Sleeping less than usual
Dizziness or balance problems	Feeling slowed down	Irritability or easily angered	Sleeping more than usual
Feeling tired, no energy	Foggy or groggy	Feeling more emotional	Trouble falling asleep
Headaches	Problems with short- or long-term memory	Sadness	
Nausea or vomiting (early on)	Trouble thinking clearly		
Vision problems			

## How can I help my child recover?

Although it may be necessary to reduce activity and stimulation in the first couple of days after concussion, total inactivity may cause anxiety, deconditioning, headaches, and sleep problems. Adding low impact activity with mild heart rate increase can help to increase blood flow to the brain and help improve recovery and symptoms. Use your child's symptoms to guide their return to normal activities.

## When can my child return to school?

In most cases, children may return to school immediately with accommodations such as fewer hours at school or more time to take tests. Your healthcare provider may give your child an individualized return-to-school plan.

## When can my child return to sports?

A repeat concussion that occurs before the brain has fully healed can increase the chance for long-term recovery and symptoms. Studies have shown that starting light, low-impact exercise, at a level that does not cause worsening of symptoms, can be beneficial for recovery. Your child should receive a return-to-play protocol, which is a stepwise progression into athletics to ensure complete concussion recovery. Exercise can be gradually increased if it is not making symptoms worse. Here is an example of a return-to-play protocol.

**STEP 1:** very light, low-impact exercise, with minimal movement, such as pedaling on a stationary bike, light walking

**STEP 2:** moderate exercise, such as fast pedaling, brisk walking, dance, light cheer or gymnastics without tumbling or stunting

**STEP 3:** full speed/intensity, non-contact exertion such as agility training, sport-specific drills, running, swimming, weight training

**STEP 4:** full participation in team practice including contact sports, with monitoring for return of symptoms

**STEP 5:** fully released for any and all participation in sports without restriction, including competitive game play

## What are the symptoms of a more serious brain injury?

You should seek immediate care if your child develops any of the following:

- Uncontrolled vomiting
- Loss of consciousness >1 minute
- Unusual behavior or increased confusion lasting longer than 15 minutes after injury
- Drowsiness or inability to wake up
- Seizures
- Slurred speech or decreased coordination

## Additional Resources:

This handout was adapted from the CDC based on CDC's Guideline on the Diagnosis and Management of Mild Traumatic Brain Injury Among Children.

Centers for Disease Control and Prevention  
[cdc.gov/HEADSUP](https://cdc.gov/HEADSUP)

South Austin | Central Austin | Cedar Park  
[pediatrix.com/SpecialtyCareAustin](https://pediatrix.com/SpecialtyCareAustin)

## QUICK TIPS

**Take breaks as needed:** Allow your child to rest from activities that make them feel worse, such as concentration or physical activity. If your child's symptoms do not worsen during an activity, then that activity is OK to do.

**Stay positive:** Help your child maintain a positive attitude. Keeping children in school and participating in sports, even if not practicing, maintains their social support system.

**Avoid further injury:** Skip activities that can put them at risk for another injury to the head, especially returning to athletics too quickly.

## What if my child isn't getting better?

If you feel like that your child is not improving, keep track of your child's concussion symptoms and share them with your healthcare provider. You may need to take your child to see a specialist experienced in treating brain injuries.