

Concussion

What is a concussion?

A concussion is a type of mild traumatic brain injury that changes the way the brain works and functions. Concussion is caused when the head and brain move rapidly back and forth with force after a trauma to the head or blow or jolt to the body. A child does not have to lose consciousness (“be knocked out”) to have a concussion. Although concussions are usually not life-threatening, they can have serious effects on a child’s physical, emotional, and cognitive functioning.

While a child’s brain is healing, they are much more prone to having another concussion. Repeat concussions during the healing phase can lead to longer recovery times and, in very rare cases, permanent disability and even death. The effects of concussion are usually temporary, but proper evaluation and management of symptoms is important after a head injury to avoid complications, prolonged recovery, and repeat injuries.

Common Symptoms of Concussion*

Physical		Cognitive	Emotional	Sleep
Headache	Numbness or tingling in the body	“Foggy” thinking	Sadness	Difficulty falling asleep
Dizziness	Blurred or double vision	Feeling slowed down	Irritability	Difficulty staying asleep
Nausea or vomiting	Balance problems	Difficulty remembering	Anxiety or nervousness	Sleeping less than usual
Sensitivity to light or noise	Fatigue	Difficulty concentrating	More emotional than usual	Sleeping more than usual

**Symptoms of a concussion usually happen right away but can show up hours or days after an injury.*

When should I seek medical attention?

If your child has any of the above symptoms, they should be evaluated by a medical provider before being allowed to return to sports or other physical activity. A child who has a concussion may appear dazed, stunned, or confused. They may move clumsily and speak or answer questions slowly. They may have mood, behavior, or personality changes. They may have difficulty recalling events before or after the hit or fall. Even *one* of these behaviors should raise concern for concussion.

When is a concussion an emergency?

Sometimes a child with a blow to the head or body requires immediate medical attention to evaluate for a more serious brain injury.

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Red Flags That Should Prompt Emergency Medical Attention

Unequal pupils	<i>Worsening</i> confusion	Loss of consciousness	Numbness
Very drowsy or cannot be awakened	Slurred speech	<i>Repeated</i> episodes of vomiting	Persistent weakness
<i>Worsening</i> headache	Convulsions or seizures	Cannot recognize people or places	Decreased coordination

How long will it take for my child to recover?

Concussion affects every child differently. Some children will recover very quickly, while others may take many days, or even weeks or months, to recover fully. Proper rest is *crucial* to a full recovery. Your child should avoid any physical activity or athletics until cleared by a physician. Television, video games, computers, and other stimulating electronic devices should be avoided. Your child may need to rest quietly at home for a few days, particularly if the school environment or other outings and activities cause recurrent or worsening symptoms.

Returning to school and sports is usually a gradual process. Your child's medical provider will monitor any symptoms and may set limits to physical activity, suggesting modifications to your child's school routine during their recovery. Eventually, your child should be able to return to their normal activities. The decision to return to contact sports often requires careful consideration and input from your child's medical provider. Some children with prolonged or complicated recoveries, multiple concussions, or a history of more severe brain injury may be advised to avoid contact sports in the future.

How is concussion treated?

Your child's medical provider will carefully monitor your child's symptoms and functioning after head injury, tailoring a treatment plan to meet your child's unique needs. Proper rest and adequate recovery time are often the only treatments needed. However, your child's neurology provider may suggest dietary supplements and/or medications that can help relieve symptoms and support your child during recovery. Your child may also benefit from physical, emotional, or cognitive therapy.

Resources and References:

<https://www.cdc.gov/headsup/index.html>

<https://www.partnersincare.health/ut-health-austin-pediatric-neurosciences-at-dell-childrens/pediatric-neurology-clinic>

<https://www.kidshealth.org/en/parents/concussions.html#catbrain>