

Concussion is a *traumatic brain injury*

It can range from mild to severe.

A concussion is caused by a force, jolt, or blow to the head, neck, or face. This can happen after a fall, car accident, or sports injury.

Children and teenagers have rapidly growing brains that are more vulnerable to injury. A blow to the head causes brain tissue to swell, bruise, or bleed.

This *disturbs* the way the brain works. The brain has to work longer and harder to process and understand even simple information.

Activities that require thinking or concentration will add stress to an injured brain. These activities include schoolwork, reading, watching TV, using electronic devices, playing video games, etc.

Each year there are approximately 3.8 million sports related concussions.

Symptoms of concussion

It is possible to have concussion and not know it.

Symptoms can appear immediately or show up days later after the initial injury. Symptoms may last for hours, days, weeks, or longer.

- Most concussions do not cause you to lose consciousness.
- Sometimes you may not notice problems until returning to school or normal activities.
- Symptoms such as irritability, may be mistaken as a behavioral problem.
- Small children may not be able to tell you how they feel.

Not everyone will have the same symptoms or have the same degree of symptoms.

Children: May experience prolonged symptoms. This can interfere with their daily activities.

Teen athletes: May deny or downplay symptoms so they can continue to play sports.

Your Child has a Concussion

Evaluation of concussion

If left untreated, can have serious consequences.

The most concerning effects of a concussion usually appear within 24 to 72 hours after the injury.

A complete evaluation is important to:

1. Determine the effects of the concussion.
2. Develop the best treatment plan.
3. Decide when your child is ready to return to normal activities at home, school, and sports.

Treatment for concussion

Immediately remove child from source of injury.

The best initial treatment for all concussions:

- Rest the body and brain for the first 24 to 72 hours.
- Prevent another injury: A small, minor blow to the head can easily cause a second concussion.

MOST IMPORTANT AFTER A CONCUSSION

Prevent another injury

Slower reaction times and poor concentration skills increase the risk of developing another brain injury.

A second injury, before the injured brain has healed:

- Is *even more damaging* to the brain and can leave long-lasting effects on the brain.
- This includes recurrent seizures, on-going physical problems, personality changes, or even death.

Return to play protocol very specific

We use test results to develop the necessary plans for treatment, recovery, and for returning to usual activities.

Recovery time for a concussion

Concussions in youth heal more slowly than adults.

Goal for resting the brain:

- Reduce mental activities until symptoms improve.
- Gradually begin increasing the length and difficulty of these activities as symptoms allow.



Average Recovery Time	
Adults	10 to 14 days
Teenagers and older children	3 to 4 weeks
Younger children	1 month or longer
Children and teens with a second concussion or history of depression, migraines, anxiety or learning problems	1 month or longer

Physical Rest for Brain and Body

Follow Daily Routine	<ul style="list-style-type: none"> • Have child get up and do a few low demand activities during the day. • No late nights. • Keep same bedtime with a quiet room and soft lighting. • Take naps when tired but not longer than 1 to 2 hours. • Take rest breaks as needed.
No busy environments	This includes shopping malls, noisy restaurants, concerts, sporting events, and parties.
No sports or active play	<ul style="list-style-type: none"> • No activities that require a helmet or can result in falling or another injury. This includes running, jumping, jogging, tumbling, bike riding, skating, swimming, weight training, etc. • No activities that require quick decision-making, such as driving a car.
Turn off all screens	<ul style="list-style-type: none"> • Limit the use of TVs, cell phones, tablets, and computer screens during recovery. • Schoolwork, instant messaging, texting, video games, etc. require mental concentration. • Screens also introduce lights and motion. This may slow down recovery or aggravate symptoms.

Who to notify:

- Coaches
- Teachers
- School Nurse
- Athletic Trainer
- Employer
- School Administrators
- Guidance Counselors

Notify this group as soon as possible.

- Explain type of injury and recovery time.
- Discuss ways each person can help your child during recovery.

Clear communication is important for your child.

- Make sure everyone understands the *Recovery Plan*.
- Mixed messages can cause unnecessary distress and confusion.

School Attendance	Some children are not able to attend full school days while they are recovering from a concussion.
School accommodations	Changing or making adjustments in classes, homework and testing can help while recovering.
Returning to Sports	Your child will be excluded from all organized sports as well as any recreational activity that can cause another concussion injury.

A return to play protocol or clearance from the medical team is required in order to resume sports.

These instructions are only general guidelines. Your doctors may give you special instructions. If you have any questions or concerns, please call your doctor.