

# Concussion

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## What is a Concussion?

A concussion is a type of traumatic brain injury, or TBI, caused by a bump, blow, or jolt to the head that can change the way your brain normally works. Concussions can also occur from a fall or a blow to the body that causes the head and brain to move quickly back and forth.

## When should I seek medical care?

Anyone with a suspected concussion should be removed from physical activities until assessed by a medical professional such as a physician or athletic trainer.

Emergent issues may arise over the first 24-72 hours. Patients should not be left alone during this time period, and you should go to a hospital immediately if the patient has:

- Worsening headache
- Increased drowsiness or difficulty waking up
- Difficulty recognizing people or places
- Repeated vomiting
- Unusual behavior
- Seizures
- Weakness/numbness in arms or legs
- Slurred speech

## What are symptoms of a concussion?

### Symptoms reported by patient:

- Headache or "pressure" in head
- Nausea or vomiting
- Balance problems or dizziness
- Double or blurry vision
- Sensitivity to light
- Sensitivity to noise
- Feeling sluggish, hazy, foggy or groggy
- Concentration or memory problems
- Confusion
- Does not "feel right" or is "feeling down"

### Signs observed by others:

- Appears dazed or stunned
- Is confused about assignment or position
- Forgets an instruction
- Is unsure of game, score or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness (even briefly)
- Shows mood, behavior or personality changes
- Can't recall events prior to hit or fall
- Can't recall events after hit or fall

### How long do concussion symptoms last?

Most people with a concussion recover quickly and fully, most are recovered by three weeks. But for some people, symptoms can last longer. In general, recovery may be slower among older adults, young children, and teens.

Those who have had a concussion in the past are also at risk of having another one and may find that it takes longer to recover if they have another concussion.

Thinking/Remembering	Physical	Emotional/Mood	Sleep
<ul style="list-style-type: none"> <li>• Difficulty thinking clearly</li> <li>• Feeling slowed down</li> <li>• Difficulty concentrating</li> <li>• Difficulty remembering new information</li> </ul>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Fuzzy or blurry vision</li> <li>• Nausea or vomiting (early on)</li> <li>• Dizziness</li> <li>• Sensitivity to noise or light</li> <li>• Balance problems</li> <li>• Feeling tired, having no energy</li> </ul>	<ul style="list-style-type: none"> <li>• Irritability</li> <li>• Sadness</li> <li>• More emotional</li> <li>• Nervousness or anxiety</li> </ul>	<ul style="list-style-type: none"> <li>• Sleeping more than usual</li> <li>• Sleep less than usual</li> <li>• Trouble falling asleep</li> </ul>

### How do you treat concussions?

Unfortunately, there are no medications specifically for concussions. Most concussions will resolve with proper physical and mental rest. Your physician should be able to offer further guidance on returning to your regular activities. All imaging (X-rays, MRI's and CT scans) appear normal in patients with concussions and are not always necessary.

### What should I avoid?

- Driving a vehicle, bike or other heavy machinery
- Alcohol
- Sleeping tablets
- Aspirin or anti-inflammatory medication (Ibuprofen, Naproxen, Aleve) for first 3-5 days

### What are some tips for brain rest?

Avoid activities that are physically demanding (e.g., sports, heavy housecleaning, working-out) or require a lot of concentration (e.g., sustained computer use, video games, talking on the telephone, texting, listening to music or watching television)

### Academic relief?

Symptoms may worsen when initially returning to school. Testing, classroom, and homework may need to be modified until fully recovered. Consider returning for half day initially, then progressing to full day. Parents should keep in close contact with student's teachers to monitor progress.

**If I play a sport, WHEN can I return?**

Anyone with a Suspected concussion should NEVER return to play on the same day of injury. It is critical to rest (mentally and physically) until ALL symptoms have resolved. Once all symptoms have resolved, may start the gradual return-to-play protocol below.

**Return to play protocol**

REST UNTIL ASYMPTOMATIC (may be 2-3 weeks). Then may progress through each step, which takes at least 1-2 days:

Step 1: Light aerobic exercise for 20 minutes (stationary cycling/brisk walking)

Step 2: Sport-specific aerobic exercise for 20 minutes (skating in hockey/running in soccer)

Step 3: Non-contact drills (shooting, dribbling, catching, etc)

Step 4: Return to full-contact practice AFTER MEDICAL CLEARANCE BY PHYSICIAN

Step 5: Return to full competition

If any symptoms return during ANY step, the patient should rest for 24 hours, then restart the protocol with the previous step.