

What is a Concussion?

A concussion is a type of brain injury. It's the most minor form. Technically, a concussion is a short loss of normal brain function in response to a head injury. But people often use it to describe any minor injury to the head or brain.

Concussions are a common type of sports injury. You can also have one if you suffer a blow to the head or hit your head after a fall.

Symptoms of a concussion may not start right away; they may start days or weeks after the injury. Symptoms may include a headache or neck pain. You may also have nausea, ringing in your ears, dizziness, or tiredness. You may feel dazed or not your normal self for several days or weeks after the injury. Consult your health care professional if any of your symptoms get worse, or if you have more serious symptoms such as

- Seizures
- Trouble walking or sleeping
- Weakness, numbness, or decreased coordination
- Repeated vomiting or nausea
- Confusion
- Slurred speech

Doctors use a neurologic exam and imaging tests to diagnose a concussion. Most people recover fully after a concussion, but it can take some time. Rest is very important after a concussion because it helps the brain to heal.

Definition

A concussion is a minor traumatic brain injury that may occur when the head hits an object, or a moving object strikes the head.

It can affect how the brain works for a while. A concussion can lead to a bad headache, changes in alertness, or loss of consciousness.

Causes

A concussion can result from a fall, sports activities, or car accidents. A big movement of the brain (called jarring) in any direction can cause a person to lose alertness (become unconscious). How long the person stays unconscious may be a sign of the severity of the concussion.

Concussions do not always result in loss of consciousness. Most people who have a concussion never pass out. But they may describe seeing all white, black, or stars. A person can also have a concussion and not realize it.

Symptoms

Symptoms of a concussion range from mild to severe. They can include:

- Acting confused, feeling spacey, or not thinking straight
- Being drowsy, hard to wake up, or similar changes
- Headache
- Loss of consciousness
- Memory loss (amnesia) of events before the injury or right after
- Nausea and vomiting
- Seeing flashing lights
- Feeling like you have "lost time"

The following are emergency symptoms of a concussion. Seek medical care right away if there are:

- Changes in alertness and consciousness
- Confusion that does not go away
- Convulsions (seizures)
- Muscle weakness on one or both sides
- Persistent confusion
- Pupils of the eyes that are not equal in size
- Remaining unconsciousness (coma)
- Repeated vomiting
- Unequal pupils
- Unusual eye movements
- Walking or balance problems
- Unconsciousness (coma) that continues

Head injuries that cause a concussion often occur with injury to the neck and spine. Take special care when moving people who have had a head injury.

While recovering from a concussion, the person may:

- Be withdrawn, easily upset, or confused
- Have a hard time with tasks that require remembering or concentrating
- Have mild headaches

- Be less tolerant of noise
- Be very tired

Exams and Tests

The doctor will perform a physical exam. The person's nervous system will be checked. There may be changes in the person's pupil size, thinking ability, coordination, and reflexes.

Tests that may be ordered include:

- EEG (brain wave test) may be needed if seizures continue
- Head CT scan
- MRI of the brain

Treatment

A more serious head injury that involves bleeding or brain damage must be treated in a hospital.

For a mild head injury no treatment may be needed. But be aware that the symptoms of a head injury can show up later.

- Friends or family may need to keep an eye on adults for symptoms after they are released from the emergency room or doctor's office.
- Parents or caregivers of children need to keep an eye on a child for symptoms after a head injury.
- Both adults and children must follow the health care provider's instructions about when the person can return to sports.

After even a mild concussion:

- Do not do activities that can cause further head injury.
- Avoid tasks that require concentration or complicated thinking. These include reading, homework, and preparing reports.
- Avoid bright lights and loud sounds. These can overstimulate the brain.

Outlook (Prognosis)

Recovering from a concussion takes time.

- It may take days, weeks, or even months.
- The person have trouble concentrating and may be unable to remember things. The person may be irritable, have headaches, dizziness, blurry vision, and nausea that comes and goes.
- Adults should get help from family or friends before making important decisions. This is because reasoning and thinking processes may be impaired.

In a small group of patients, symptoms of the concussion do not go away. The risk of long-term changes in the brain is high if the person has more than one brain injury

Seizures may occur after more severe head injuries.

When to Contact a Medical Professional

Call the health care provider if a head injury causes changes in alertness or produces any other worrisome symptoms.

If symptoms do not go away or are not improving after 2 or 3 weeks, talk to the doctor.

Call the doctor right away if the following symptoms occur:

- Changes in behavior or unusual behavior
- Changes in speech (slurred, difficult to understand, does not make sense)
- Confusion
- Difficulty waking up or becoming more sleepy
- Double vision or blurred vision
- Fever
- Fluid or blood leaking from the nose or ears
- Headache that is getting worse, lasts a long time, or does not get better with over-the-counter pain relievers
- Problems walking or talking
- Seizures (jerking of the arms or legs without control)
- Vomiting more than three times

Prevention

Not all head injuries can be prevented. But the following simple steps can help keep you and your child safe:

- Always use safety equipment during activities that could cause a head injury. These include seat belts, bicycle or motorcycle helmets, and hard hats.
- Learn and follow bicycle safety recommendations.
- Do not drink and drive. Do not allow yourself to be driven by someone who you know or suspect has been drinking alcohol or is otherwise impaired.

CONCUSSION-ADULTS-DISCHARGE

Healing or recovering from a concussion takes time. It may take days to weeks, or even months. You may be irritable, have trouble concentrating, be unable to remember things, have headaches, dizziness, and blurry vision. These problems will probably recover slowly. You may want to get help from family or friends for making important decisions.

When You First Go Home

You may use acetaminophen (Tylenol) for a headache. Do NOT use aspirin, ibuprofen (Motrin or Advil), naproxen, or other similar drugs unless your doctor told you to.

Eat a light diet. Light activity around the home is okay. You do not need to stay in bed. However, avoid exercise, lifting weights, or other heavy activity.

Have an adult stay with you for the first 12 - 24 hours after you are home from an emergency room.

- Going to sleep is okay. For at least the first 12 hours, someone should wake you up every 2 or 3 hours. They can ask a simple question, such as your name, and then look for any other changes in the way you look or act.

- Ask your doctor how long you need to do this.

Do not drink alcohol until you have recovered all the way. Alcohol may slow down how quickly you recover, increase your risk for another injury, and make it harder than it already is to make decisions.

Activity

As long as symptoms are present, avoid sports activities, operating machines, being overly active, and hard labor. Ask your doctor when you can return to your activities.

Make sure friends, people you work with, and family members are aware of your recent injury.

Talk to your employer about the timing of important projects. Consider having others check your work. You should not perform work activities that may place others in danger until all symptoms are gone.

Family, workmates, and friends should understand that you may be more tired, withdrawn, easily upset or confused, may have a hard time with tasks that require remembering or concentrating, and may have mild headaches and less tolerance for noise.

Consider asking for more breaks when you return to work.

Talk with your employer about:

- Reducing your workload for a while
- Allowing rest times during the day
- Having extra time to complete projects

A doctor should tell you when you can:

- Do heavy labor or operate machines

- Play contact sports, such as football, hockey, and soccer
- Ride a bicycle, motorcycle, or off-road vehicle
- Drive a car
- Ski, snowboard, skate, skateboard, or do gymnastics or martial arts
- Participate in any activity where there is a risk of hitting your head or jolt to the head

When to Call the Doctor

If symptoms do not go away or are not improving a lot after 2 or 3 weeks, talk to your doctor.

Call the doctor if you have:

- A stiff neck
- Fluid and blood leaking from your nose or ears
- A hard time waking up or have become more sleepy
- A headache that is getting worse, lasts a long time, or is not relieved by over-the-counter pain relievers
- Fever
- Vomiting more than 3 times
- Problems walking or talking
- Changes in speech (slurred, difficult to understand, does not make sense)
- Problems thinking straight
- Seizures (jerking your arms or legs without control)
- Changes in behavior or unusual behavior
- Double vision