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Patient education: Head injury in children and teens (The **Basics**)

Written by the doctors and editors at UpToDate

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What causes head injuries in children and teens?

A head injury can happen when a person hits their head on a hard surface or is hit in the head with something. The most common causes of head injuries in young people are:

- Falls
- Car accidents
- Bicycle accidents
- Sports
- Beatings or other kinds of physical abuse

Children recover from most bumps on the head without problems. But children who hit their head really hard can have serious problems, including brain injury. A "concussion" is the medical term for a mild brain injury.

This article discusses head injuries in children 2 to 18 years old. Head injuries in babies and children younger than 2 years might be managed differently.

Should my child see a doctor?

Even if your child's injury seems minor, they should see a doctor or nurse right away if they:

- Fell from a height taller than 5 feet
- Were hit very hard or with something moving very fast

Some children pass out or lose consciousness when they get a head injury. If a child does not wake up quickly, or blacks out several minutes or hours after a head injury, they might have bleeding in the brain and need **emergency help**.

What are the symptoms of a head injury?

Symptoms depend on the type of injury and how severe it is. Children with a minor head injury might not have any symptoms.

Other symptoms a child can have after a head injury include:

- Headache
- Nausea or vomiting
- Swelling, bleeding, or bruising on the scalp
- Dizziness
- Confusion or memory problems
- Vision problems
- Feeling tired or sleepy
- Mood or behavior changes, or not acting like themselves
- Trouble walking or talking
- Seizures Seizures are waves of abnormal electrical activity in the brain. They can make a person pass out, or move or behave strangely.

A head injury that involves a broken skull or face bone can also cause:

- Bruising around the eyes or behind the ear
- Blood or clear fluid draining from the nose or ear

Symptoms can start right after a head injury, or a few hours or days later.

Will my child need tests?

Your child's doctor or nurse will decide which tests your child should have based on their age, symptoms, and individual situation.

Most children with head injuries do not need an imaging test. But if the doctor or nurse suspects serious injury, they might order a special kind of X-ray called a CT scan. CT scans create detailed pictures of the brain and skull.

If available, a test called an MRI can be done instead of a CT scan. An MRI takes longer and might require your child to be sedated. This means that they get medicines to make them very sleepy.

How are head injuries in children and teens treated?

That depends on how serious the injury is and what symptoms the child has. Often, the doctor will just want to wait and watch the child.

Usually, minor head injuries do not need treatment. But your child's doctor might recommend things like:

- Watching the child for 24 hours after their injury You should watch for new symptoms or the symptoms listed above. You should also make sure that the child can wake up at a normal time after they fall asleep. It is not usually necessary to wake them up during the night.
- Giving over-the-counter pain medicines Acetaminophen (sample brand name: Tylenol) might help relieve a headache. Never give aspirin to a child younger than 18 years old.
- Rest It can be important for children to rest if they have symptoms after a concussion.
 This means resting their body and avoiding physical activities that make them feel worse.
 It can also help to rest their brain by avoiding reading, video games, or other screens if these things make them feel worse.
- Ice If your child bumped their head, ice can help with pain and swelling. Apply a cold gel pack, bag of ice, or bag of frozen vegetables on the area every 1 to 2 hours, for 15 minutes each time. Put a thin towel between the ice (or other cold object) and the child's head. Use the ice (or other cold object) for at least 6 hours after the injury.

When should I call for help?

If your child had a head injury, there are certain problems that you should watch for.

Call for an ambulance (in the US and Canada, call 9-1-1) if the child:

- Cannot be fully woken up
- Is acting confused or disoriented
- Has a sudden and persistent change in their behavior

- Cannot walk normally
- Has trouble speaking or slurred speech
- Has severe weakness or cannot move an arm, leg, or 1 side of their face
- Has a seizure, or jerking of their arms or legs they cannot control

Call the doctor or nurse for advice right away if the child:

- Has trouble concentrating, thinking clearly, or remembering things
- Has trouble waking from sleep or staying awake
- Has nausea or vomiting that is not improving
- Has blurry eyesight, double vision, or other problems seeing
- Has blood or clear liquid draining from their ears or nose
- Feels dizzy or faints
- Seems weak or has numbness in an arm, leg, or other body part
- Has a stiff neck
- Has a headache that is severe, gets worse, feels different, or does not get better with overthe-counter medicines

If **any** of the above symptoms seem severe, or if you are concerned about the child but cannot reach the doctor or nurse, seek emergency help. These things don't always mean there is a serious problem, but seeing a doctor or nurse is the only way to know for sure.

Can my child go back to normal activities after a head injury?

That depends on how serious the injury is. If your child has a concussion, they should not do sports until a doctor says it's OK. If your child has had 2 concussions in a row, check with your child's doctor before letting them go back to normal activities.

Can head injuries in children and teens be prevented?

Here are some safety tips that can reduce your child's chances of getting a head injury. Make sure that they:

- Always wear a helmet when sitting in a bicycle seat or when being towed behind a bicycle in a trailer. The helmet should fit well (figure 1). If the helmet has been in a crash, throw it away and get a new one.
- Are watched closely while biking until they are old enough to ride a bicycle alone

- Do not bike in the street unless they can control a bicycle. The child should also be able to follow traffic rules.
- Always sit in a car seat or booster seat until they are 4 feet, 9 inches (145 centimeters) tall.
 Make sure that the seat is secured and set up correctly.
- Cannot fall down stairs or out of windows higher than the first floor. Gates and guards can protect young children.
- Know how to cross streets by looking both ways for cars. Young children should never cross streets alone.
- Wear safety gear while skateboarding, skiing, or doing other sports. Gear includes helmets, mouth guards, and eyewear (glasses or goggles).

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Patient education: Head injury in babies and children under 2 years (The Basics)

Patient education: Mouth and dental injuries in children (The Basics)

Patient education: Concussion in adults (The Basics)

Patient education: Skull fractures (The Basics)

Patient education: Headaches in children (The Basics)

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GRAPHICS

Bicycle helmet fit



A properly fitting bicycle helmet should rest just above the eyebrows and not slide around on the head. The straps of the helmet should be adjusted to form a "Y" just under the ear of the child. The chin strap should be snug enough to pull down on the helmet when the child opens the mouth wide.

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