Skull fracture



What is a skull fracture?

The skull is made up of many small bones. It covers and protects the brain. A skull fracture is a break in one or more of these bones.

What are the types of skull fractures?

There are 4 main types of skull fractures. Your child's doctor will talk with you about your child's type. Some information about each type is listed below.

- A linear fracture is the most common type of skull fracture.
 - It causes a break in the bone that looks like a thin line. The bone itself does not move.
 - Children with this type of fracture most often have a short hospital stay.
 - Most often, surgery is not needed.
- A depressed skull fracture is when part of the skull bones press inward on the brain.
 - Surgery may be needed to prevent damage to the brain.
 - Doctors repair the break by lifting pieces of the bone back into its usual place, if needed.
 - Children may also need antibiotics to help prevent infection.
- A diastatic skull fracture is seen more in newborns and older babies.
 - This type of fracture occurs along the suture lines in the skull.
 - Suture lines are the spaces in between the skull bones. They make room for the brain to grow. As children grow, the spaces get smaller.
- A basilar fracture is the most serious type of skull fracture.
 - It is a break in the bone in the back of the head and at the bottom of the skull.
 - It can cause bruises around the eyes and behind the ears.
 - Cerebrospinal fluid (CSF) is a clear liquid that surrounds and cushions the brain. CSF might drain from the nose or ears with this type of break.

What causes a skull fracture?

Many things can cause skull fractures, such as:

- Car, motorcycle, bike, skateboard or ATV (all terrain vehicle) accidents
- Falls
- A hit to the head, such as during a fight
- Sports injuries
- Physical abuse
- Injuries during birth

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

What are the symptoms of a skull fracture?

Symptoms for mild and severe skull fractures are listed below.

Mild skull fracture	More severe skull fracture
• Small cut, bruise or swelling to head. It can	These may occur in addition to the mild symptoms:
take up to 24 hours to see bruises and	• Headache that does not go away
bumps.	• Nausea or vomiting that does not go away
• Pain or tenderness at the site of injury	• Cannot think, concentrate or remember
• Headache	Slurred speech
Upset stomach	Trouble walking
• Vomiting (throwing up)	• Weakness on one side or area of the body
• Sensitivity to noise and light	• Clear fluid or blood leaking from nose or ear
• More fussy than normal	• Bruises around the eyes (called raccoon eyes)
• Have no memory of the event	• Bruises behind the ears (called Battle's sign)
Dizziness or loss of balance	• Ringing in the ears
	Trouble seeing
	May pass out
	• Seizure
	Problems waking up
	• Coma

What medical tests could my child have?

Your child might have any of these tests:

- X-rays
- Computed tomography (CT scan)
- Magnetic resonance imaging (MRI)
- Blood tests
- Neurological exam (check of the brain and nervous system). This includes a brief eye exam with a flashlight.
- Electroencephalogram (EEG). This test checks for abnormal electrical activity in the brain that may cause seizures.

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What is the treatment?

Treatment depends on the type of fracture and how severe it is. Some guidelines are listed below:

Mild skull fracture	More severe skull fracture
 Ice Rest Medicines by mouth (to swallow) to help with discomfort Ointment for small cuts and scrapes Stitches for larger cuts Observation in the hospital for 24 to 48 hours 	 These may occur in addition to treatments for mild skull fractures: Oxygen Special monitoring in the intensive care unit (ICU) for increased pressure inside the skull Medicines and fluids through an intravenous (I.V.) line Other treatments to: Support breathing, blood pressure and heart rate Reduce brain swelling Prevent or stop seizures Fight infection Stop stomach upset and vomiting Relieve pain and discomfort Surgery Rehabilitation (rehab)

When should I call the doctor?

Most children with mild skull fractures can be cared for at home after being watched in the hospital for the first 24 to 48 hours. After your child goes home, call a doctor **<u>right away</u>** if your child:

- Is not eating or drinking well.
- Vomits more than 2 times.
- Has trouble seeing.
- Acts differently than usual (does not play, acts fussy or seems confused).
- Cannot think clearly or remember things.
- Has a severe headache.
- Has clear fluid or blood coming from his nose or ears.
- Is hard to wake up.
- Is clumsy, dizzy or unsteady.
- Has weakness in the arms or legs or does not move them as usual.
- Has slurred speech.
- Has a seizure.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Will my child need any follow-up treatment?

The time it will take for your child's skull fracture to heal depends on the type of fracture and how severe it is.

- Skull fractures can take 3 to 6 months to heal completely. Most often, they heal faster in younger children.
- Have your child avoid rough sports until the doctor tells you it is OK to begin again.

Your child may need a follow-up CT scan to make sure the skull fracture is healing properly.

This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.