

## Epidural and Subdural Hematoma

### What is a hematoma?

**Hematomas** [hee-muh-TOE-muhz] are bruises that are caused by injuries to blood vessels underneath the skin. When an injury happens to the head and brain, this trauma may be called epidural and subdural hematomas. This type of injury can be very serious.

### Epidural hematoma

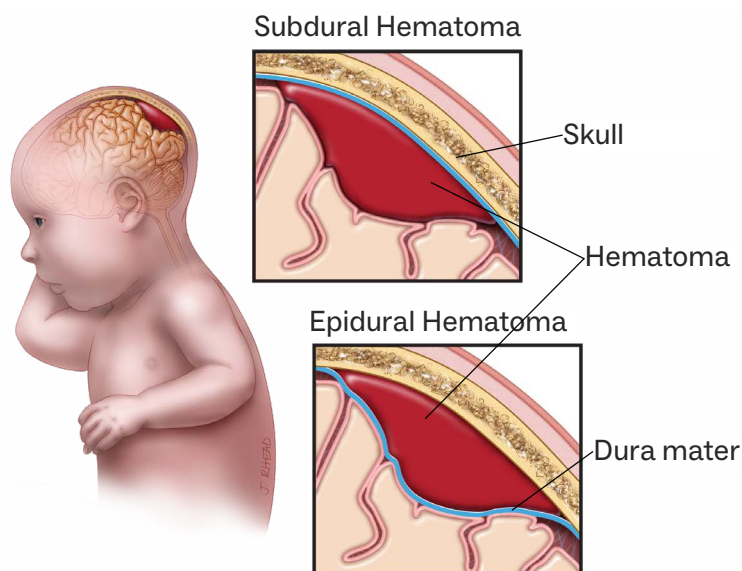
An **epidural** [ep-eh-DUR-ral] **hematoma** is a collection of blood that forms above the **dura mater** [DUR-rah MAH-ter]. The dura mater is a tough, fibrous membrane that surrounds the brain. An epidural hematoma is usually caused by a torn artery. The blood that leaks from the artery forms a pocket that bulges out and puts pressure on the brain. If an epidural hematoma is removed quickly, your child is more likely to recover because the brain will not be bruised or permanently damaged.

### Subdural hematoma

A subdural [sub-DUR-ral] hematoma is a collection of blood that forms underneath the dura mater. The blood comes from small veins that are torn and bleed. It forms a pocket that bulges out and puts pressure on the brain. If the pocket is big enough, it can cause more trauma and may bruise or tear the brain tissue near it. If this happens, it may take longer to heal.

### What causes an epidural or subdural hematoma?

Your child can get a hematoma from any trauma to the head, including a car or bicycle accident, a fall, or being shaken.



### What are the signs of an epidural or subdural hematoma?

Signs of hematomas include:

- Headache
- Vomiting
- Unusual sleepiness
- Fussiness
- Confusion
- Disorientation
- Seizures
- Unconsciousness (unable to wake up)
- Repeated questioning

### How are hematomas diagnosed?

Your child will need a CT scan of their brain. This is a special type of x-ray that produces more detailed images than a traditional x-ray. The images will help your child's doctors know if they have an injury, where it is, what size it is, and how much bleeding there is.

### How are hematomas treated?

Your child's healthcare provider may choose to watch the hematoma closely. However, your child may need surgery to remove the blood and to make sure the bleeding has stopped.

### **If surgery is needed:**

- Your child will be given general anesthesia to help them relax and sleep.
- The surgeon will remove a portion of the skull to get to the hematoma and remove the blood.
- The skull bone is replaced and held in place with tiny screws.
- The skin over the surgical area will be closed with sutures [SOOT-churs] or skin staples.

### **What happens after the surgery?**

After the surgery, your child will stay in the hospital for 2 to 3 days. The care team will regularly check your child's temperature, pulse, blood pressure, and alertness. It is common for a child to develop a low fever and vomit. If they become dehydrated (not have enough fluids in their body), they may be given fluids through an IV (a tiny tube placed into a vein).

You can take your child home when they:

- Stop vomiting
- Are alert
- Can walk
- No longer have a fever
- Are able to eat normal food
- Can take medicine by mouth

Some children may have brain problems, memory loss, trouble walking, or speaking. The rehabilitation team will evaluate your child and tell you what to expect. The team will talk with you about any continuing care your child may need before you leave the hospital.

### **What can my child do at home?**

Once home, **your child should not do any active sports such as:**

- Soccer, skiing, or football
- Riding a bike
- Jumping on a trampoline

### **Your child should stay home from school until:**

- Their symptoms are gone
- They have successfully completed a few short days at school without any problems (they will be given a doctor's note)

Your child may have headaches or mood swings and tire easily. Talk to your child's healthcare provider if these continue or interfere with getting back to school.

A child life specialist can help find quiet activities for your child. They can also help your child with self-image, anxiety, stress, and other emotions.

### **How do I care for my child at home?**

- **Keep the surgery site dry and clean.** If the wound area becomes wet, carefully pat it dry with a clean towel. Follow the healthcare provider's instructions for bathing your child.
- **Follow the instructions for removing your child's staples or stitches.** This is usually 7 to 10 days after surgery. Call the surgeon's office to arrange a time to have them removed. If you live far away from the hospital, your child's local healthcare provider can do this.
- **Call your child's healthcare provider if your child has these symptoms:**
  - Is more sleepy or difficult to wake
  - Can't stay awake for a short time
  - A severe headache
  - Trouble seeing or blurred vision
  - Trouble talking or walking
  - Nausea and vomiting
  - Seizures
  - The surgery site is red and tender
  - The surgery site has yellow, green, clear, or bloody fluid or it smells foul