Epidural and subdural hematomas

Hematomas are bruises that are caused by injuries to blood vessels underneath the skin, known as a bruise. 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.

**What is a epidural hematoma?**
An epidural hematoma (ep-ih-D0O-ral heem-uh-TOE-ma) is a collection of blood that forms above the dura mater (D0O-ra MAT-en). 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 will likely recover because the brain will not be bruised or permanently damaged.

**What is a subdural hematoma?**
A subdural hematoma (sub-D0O-ral heme-uh-TOE-muh) 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 bruise or tear the brain tissue near it, damaging the brain. 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
- Unconsciousness (unable to wake up)
- Seizures

**How are hematomas diagnosed?**
Your child will receive a CT scan (a machine that takes pictures of your brain) to find out where the injury is, what size it is, and how much bleeding there is.
How are hematomas treated?

Your child’s healthcare provider may decide 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, a healthcare provider will give them general anesthesia to help them relax and sleep.

During surgery, the surgeon removes an area of the skull to get to the hematoma. After the surgeon removes the blood, they put the skull bone back and hold it in place with tiny screws. The skin over the surgical area will be closed with sutures (soo-churs) or skin staples.

After the surgery, your child will stay in the hospital for further care. The nurses will frequently check your child’s temperature, pulse, blood pressure, and alertness.

What happens after the surgery?

Your child may stay in the hospital for 2–3 days. Many children will have a low fever and vomit. If your child becomes dehydrated (does not have enough fluid in their body), they may receive fluids through an IV (a tiny tube placed into a vein).

You can take your child home when they:

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

Be sure to schedule a follow-up appointment before you leave the hospital.

Some children may have brain problems and may have 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 will be given special instructions from their healthcare providers. You can help your child by not allowing them to:

• Participate in contact sports or vigorous activities such as:
  – Soccer, skiing, or football
  – Ride their bicycle (even with a helmet)
  – Jump on a trampoline
• Go to school until symptoms go away completely (your child will be provided with a school note)
• Go to school for a full day without starting with a short day and gradually increasing the time

Once your child is home, they 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?**

1. Keep the area where the surgery was performed dry and clean.
2. Call the surgeon’s office if the surgical area becomes red or tender, if any yellow, green, clear, or bloody fluid leaks from the surgical area, or if your child has a fever.
3. Follow the healthcare provider’s instructions when bathing your child.
4. If the wound area becomes wet, carefully pat it dry with a clean towel.
5. Follow the discharge instructions to know when your child’s staples or stitches need to be removed. This is usually 7–10 days after surgery. Call the surgeon’s office to arrange a time to have the stitches or staples removed. If you live outside the area, your child’s local healthcare provider can do this.

**When should I call my child’s healthcare provider?**

Call your child’s healthcare provider if your child:
- More sleepy or it’s difficult to wake your child
- Can’t stay awake for a short time
- Has a severe headache
- Trouble seeing or blurred vision
- Trouble talking or walking
- Find fluid (yellow, green, clear, or bloody) and may have an odor from the suture or staple site
- Seizures
- Nausea and vomiting