Epidural Blood Patch

What is it?
An epidural blood patch is a procedure to treat a headache caused by leaking cerebrospinal fluid (CSF). This complication can happen after a spinal tap, an epidural for labor and delivery, or another procedure that requires a spinal puncture. To create a blood patch, a doctor injects a small amount of blood into the epidural space around the spinal canal, near the site of the previous puncture. As the blood clots, it forms a “patch” that seals the site and stops the leak of CSF.

Why do I need it?
A blood patch may be needed if you have a severe headache after a spinal tap or epidural. Severe headaches are caused by low pressure in the spinal canal. This happens when a leak at the injection site allows CSF to drain into the body faster than it can be replenished.

To diagnose a low-pressure headache, your healthcare provider will look for these common symptoms:
• A headache that began 12 to 96 hours after a spinal tap, epidural, or other spinal puncture procedure.
• The pain is worse when you sit up or stand, and gets better when you lie flat.

How is a blood patch done?
A healthcare provider takes a small amount of blood from your arm and injects it into your spine near the CSF leak. The procedure usually takes about 30 minutes, and most people report feeling pressure or some pain. You may be given medicine to help you relax, but you’ll stay awake throughout the procedure.

What happens before my blood patch procedure?
• Your healthcare provider will explain the procedure, its potential benefits, risks, and alternatives. (See the table on the back of this handout.) If you are unsure about anything, ask any questions.
• Tell your healthcare team about any allergies and all of the medicines you take. Be sure to include all prescriptions, over-the-counter remedies (allergy pills or cough syrup), patches, vitamins, or herbs.
• You healthcare provider will make sure you don’t have an infection. If you do, the procedure will be delayed. (Since the procedure uses your own blood, this check helps make sure an infection in your blood won’t be spread.)
• You may be asked to stop eating and drinking for a few hours before the procedure.
• If you’re not staying in the hospital, you’ll need to arrange a ride home.
What happens during your blood patch procedure?

The blood patch procedure takes place in the hospital. During the procedure, the medical team will monitor your blood pressure, heart rate, and breathing. Although specific steps may differ by facility and department, here’s what you can generally expect:

- **Preparing the site.** You’ll be asked to lie on your side or sit on the edge of a bed or table. The healthcare provider will carefully clean the insertion site and apply a local anesthesia (numbing medicine).
- **Drawing blood.** A small amount of your blood will be drawn, probably from a vein in your arm.
- **Insertion.** The provider will insert a thin needle into your back and will guide it to the area of the CSF leak. In some cases, this is done using an x-ray and injected contrast dye. You’ll be asked to keep very still during this part of the procedure. If you feel any back or leg pain, let your healthcare provider know. The provider will inject your blood into your spine. As the blood clots, it should seal the leak.

What happens after my blood patch procedure?

After the blood patch is placed, you’ll need to stay in the hospital for a short time so that the medical team can monitor you.

- You will need to lay flat at first. The team will tell you when you can slowly sit up.
- You may have something to eat and drink.
- Before you go home, the team may do some repeat checks to make sure you’re doing well. Your headache may already be gone by the time you go home.

How do I care for myself at home?

- **For the first 24 hours after the procedure,** don’t drive. Don’t lift anything heavy or do any vigorous exercise. You may take a shower, but don’t take a bath, use a hot tub, or go swimming.
- **For a few days,** your back may feel stiff and sore. Drink plenty of fluids.
- **Watch for signs of infection.** Call your healthcare provider right away if you notice any of the following:
  - Fever or chills
  - Increased redness, swelling around the blood patch site, or any drainage from the site
  - Extremely stiff neck
  - Problems thinking clearly

<table>
<thead>
<tr>
<th>Potential benefits</th>
<th>Risks and potential complications</th>
<th>Alternatives</th>
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| Relief of headache caused by leaking cerebrospinal fluid | • Infection  
• Bleeding  
• Reaction to any contrast dye or to any medicine used in the procedure | • Epidural injection of saline  
• Caffeine given through an IV |