Surgical Treatment of Intracranial Hypertension

Intracranial hypertension, also called pseudotumor cerebri (su-do-toomer ser-a-bri), is a build up of pressure in the brain that can cause headaches and vision problems. The pressure is caused by the build up of cerebral spinal fluid (CSF) around the brain and eye nerves. If medical treatments have not controlled the pressure, surgery may be needed. These surgeries are done under a general anesthetic.

Optic Nerve Sheath Fenestration

This procedure helps to reduce pressure on the eye nerves to prevent vision loss. It does not decrease the pressure around the brain. Other treatments may still be needed.

- The eyelid is held open and a cut is made above and below the eye. The optic nerve is exposed. A small hole is made to drain CSF around the eye.
- You may spend 1 to 2 days in the hospital.
- Eye drops and eye ointments are used to prevent infection after surgery.
- Your eyes will be sore for 2 to 3 days.
- Double or blurry vision is common with recovery.
- You will need to have a follow up visit 2 to 3 weeks after surgery with a neuro-opthamologist.

Shunt Procedures

Shunts are drain tubes used to move CSF off of the brain and eye nerves. There are two types of shunts that can be used. Your doctor will help you decide which is best. Sometimes, both are used.

LP Shunt (Lumbar-Peritoneal Shunt):
- One end of the drain tube is placed in the back at the spine (lumbar space) through a small cut.
- The other end of the drain tube is placed in the abdomen (peritoneal cavity) through a small cut where it drains.
• The tube is placed under the skin and connected by a valve that regulates CSF flow.
• Staples or stitches are used to close the skin in the back and abdomen.
• You will spend 1 to 2 days in the hospital.
• The stitches or staples will be removed 10 days after surgery.

**VP Shunt (Ventricular-Peritoneal Shunt):**
• One end of the drain tube is placed in the fluid filled spaces of the brain (ventricle) through a small cut.
• The other end of the drain tube is placed under the skin behind the ear, past the collar bone and down to the abdomen (peritoneal cavity) where it drains.
• The two drain tubes are connected by a valve that regulates CSF flow.
• Stitches or staples are used to close the skin on the head, collar bone and abdomen.
• You will spend 1 to 2 days in the hospital.
• The stitches or staples will be removed 10 days after surgery.

**After Surgery**
The body needs to adjust to the change in CSF pressure and drain tube surgery. Tell your health care team how you are feeling. There may be treatment to help. You may have:
• A poking sensation from the tube in the abdomen
• Pain from surgery
• Headaches
Call your doctor if you have:

- Headaches or vision problems that become worse
- Fever
- Pain or swelling that occurs along the shunt track
- Drainage from your incision
- Loss of coordination or balance
- Problems waking up or staying awake
- Nausea or vomiting
- Any questions

Worsening vision or increased headaches may be a sign that the shunt is not working. **Contact your doctor right away to be checked.** The doctor can order a test to see if the shunt has moved or become blocked. The shunt may need to be redone if problems occur.

*Seek medical care right away* if you have a fever, increased pain, redness along the shunt track or drainage. These may be signs of infection.

**Long-Term Care**

Ongoing care is needed to manage this disease. Several treatments for management may be needed. Talk with your doctor and do not miss follow-up visits. Missed visits can delay treatment and lead to vision loss and other long-term problems.

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**Talk to your doctor or health care team if you have any questions about your care.**

For more health information, contact the Library for Health Information at **614-293-3707** or e-mail **health-info@osu.edu**.

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