About Your Nonprogrammable VP Shunt for Pediatric Patients

This information will help you learn about your nonprogrammable ventriculoperitoneal (VP) shunt. For the rest of this resource, our use of the words “you” and “your” refers to you or your child.

About Cerebrospinal Fluid (CSF)

A VP shunt is used to drain extra cerebrospinal fluid (CSF) from your brain. CSF is the fluid that surrounds your brain and spinal cord. It’s made in the ventricles (hollow spaces) inside your brain.

CSF protects your brain and spinal cord by acting like a cushion. However, when you have too much of it, it puts pressure on your brain and skull. This extra fluid also makes your ventricles grow bigger (see Figure 1). This is called hydrocephalus (hy-dro-ceph-a-lus).

To drain the extra CSF from your brain, a VP shunt can be inserted into your head. The shunt takes the fluid out of your brain and moves it into your
abdomen (belly), where it’s absorbed by your body. This decreases the pressure and swelling in your brain.

**About Your Nonprogrammable VP Shunt**

A VP shunt has 3 parts (see Figure 2):

- A one-way valve and reservoir that controls the flow of fluid.
- A short catheter (thin, flexible tube) that drains the fluid away from your brain. It’s attached to the valve and can be placed in the front, back, or side of your head.
- A long catheter that moves the fluid into your abdomen. It’s attached to the valve and tunneled under your skin, behind your ear, down your neck, and into your abdomen.

Your nonprogrammable VP shunt will be placed during surgery. Your nurse will give you more information about the surgery.

As the VP shunt drains extra CSF and decreases the pressure in your brain, it may relieve your symptoms. Some symptoms will disappear immediately after the VP shunt is inserted. Others will go away more slowly, sometimes over a few weeks.

**About your nonprogrammable VP shunt settings**

The amount of fluid drained by your VP shunt depends on the pressure settings on your shunt. Your doctor will make these settings in advance, and they can’t be changed after the shunt is placed. This is why it’s called a “nonprogrammable” VP shunt.
Check the box next to the pressure setting of your nonprogrammable VP shunt below.

- Low
- Medium
- High

Your nurse will also give you a wallet card that states you have hydrocephalus and a nonprogrammable VP shunt. Carry it with you at all times.

**Precautions While You Have a Nonprogrammable VP Shunt**

**MedicAlert® jewelry**

You should always wear a MedicAlert bracelet or necklace stating that you have hydrocephalus and a nonprogrammable VP shunt. If you’re ever seriously ill or hurt and need medical help, it will inform emergency services workers about your VP shunt.

You can buy a MedicAlert bracelet or necklace at most drug stores. For more information, visit the MedicAlert website at: [www.medicalert.org](http://www.medicalert.org)

**Imaging scans**

You don’t need to take any precautions if you have magnetic resonance imaging (MRI), a computed tomography (CT) scan, or x-rays.

**Abdominal surgery**

If you ever need to have abdominal surgery, tell the doctor doing the surgery and your neurosurgeon so that precautions can be taken.

Tell your neurosurgeon if you have peritonitis or diverticulitis requiring emergency surgery or antibiotic treatment.

**Physical activities**

Don’t participate in any contact (collision) sports such as football, boxing, and wrestling. You can participate in all noncontact sports such as swimming and running.
Remember to wear a helmet to decrease the risk of head injury, if needed. Ask your neurosurgeon for specific guidelines on wearing a helmet.

**Call Your Doctor or Nurse Practitioner If:**

- You have warning signs that your nonprogrammable shunt isn’t working properly. These signs include:
  - Vomiting with little or no nausea
  - A constant, unrelieved headache
  - Vision problems, such as blurry, double vision, or loss of vision
  - Irritability
  - Fatigue
  - Personality changes (not acting like your normal self)
  - Loss of coordination or balance
  - Swelling, redness, or both, along the shunt path
  - A bulging soft spot on an infant’s head
  - Difficulty waking up or staying awake
  - Decrease in school performance

- You have warning signs of a VP shunt infection. These signs include:
  - A temperature of 100.4° F (38° C) or higher
  - Redness, swelling, or both, of the skin that runs along the shunt path
  - Pain around the shunt or around the shunt tubing from the head to the abdomen

These warning signs can appear quickly. If any of these symptoms develop, call your doctor or NP immediately.

If you cannot wake your child, call 911 or go to the nearest emergency room immediately.
If you have any questions, contact a member of your healthcare team directly. If you're a patient at MSK and you need to reach a provider after 5:00 PM, during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.