

Normal Pressure Hydrocephalus

Causes, symptoms, and treatments

This handout provides basic information about normal pressure hydrocephalus and the steps involved in receiving treatment at UW Medicine. Your neurosurgeon or neurologist has also given you the booklet, "About Normal Pressure Hydrocephalus," which provides more details on the condition and how it is diagnosed and treated.

What is normal pressure hydrocephalus?

Normal pressure hydrocephalus (NPH) occurs when the flow of cerebrospinal fluid (CSF) in the brain and spinal cord is blocked in some way. CSF is a clear liquid that cushions the brain and spinal column.

What are the symptoms?

Common symptoms of NPH are:

- Problems walking
- Problems thinking clearly
- Problems with bladder control

What causes NPH?

Most times, the cause of NPH is not known. But, trauma to the head, infection, and bleeding in and around the brain can cause NPH.

How is it treated?

At UW Medicine, we take a careful approach in diagnosing and treating NPH. This includes tests and appointments to help determine whether surgery will improve your symptoms.

These are the steps involved in diagnosing and treating NPH:

Step 1

- Visit with your neurosurgeon or neurologist (or both) to talk about your plan of care and review your brain scans.



Neurology and Neurosurgery specialists work together to diagnose and treat NPH.

Step 2

- Visits with other specialists. These specialists will run tests to:
 - Make sure there are no other *neurological* (nervous system) conditions that are causing your symptoms
 - Find out your baseline functional status, which includes your ability to do physical and mental tasks.

These special tests will include:

- Neurological evaluation (this may include testing your motor skills and reflexes)
- Neuropsychological testing evaluation (this tests your mental functions)
- Brain and full spine *magnetic resonance imaging* (MRI) – to get pictures of your brain and spine

Step 3

In the 3rd step, you will have:

- An external *lumbar drain procedure trial* (to see if putting in a permanent drain, called a *shunt*, will help you). You will need to stay in the hospital 3 days for this test.
- Physical therapy evaluation for baseline function **before** the drain is placed and again **after** the drain is removed, to see if your physical function has improved.
- Neuropsychological testing **after** the drain is removed, to see if your mental function has improved.

Step 4

- While you are still in the hospital and for 1 to 2 weeks after the drain trial, you, your family, and your health care providers will monitor your improvement.
- If the trial shows enough improvement, your neurosurgeon may recommend that you have a permanent shunt placed. This is called a *ventriculoperitoneal* shunt.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

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