

Shunt Implementation

For Patients with Normal Pressure Hydrocephalus

What is Normal Pressure Hydrocephalus?

Hydrocephalus is a condition in which an abnormal accumulation of cerebrospinal fluid (CSF) within ventricles inside the brain occurs. With Normal Pressure Hydrocephalus (NPH), the ventricles inside the brain become enlarged. Sometimes, a patient's intracranial pressure (ICP) has a very little or no increase at all. This makes NPH very hard to diagnose. Most often, patient symptoms include memory loss, urinary incontinence, and gait disturbance; which are all symptoms of dementia.

How is NPH diagnosed?

After clinical exams and scans, Dr. Paul most often does a lumbar drain to measure the amount of CSF outflow resistance and to monitor the patient's ICP. This test is very similar to the effects that a shunt implementation would have, and is often considered as a "test drive" of a shunt, without actually doing the surgical procedure. After 24 hours, an assessment is done, which can tell Dr. Paul whether or not a shunt implementation would be beneficial.

What is Shunt Implementation? How does it work?

With this procedure, a three-part shunt system is used. A collection catheter is placed within the cerebral ventricles or the lumbar spinal canal. There is a valve mechanism used to control the outflow of CSF, and finally, there is an exit catheter to drain the CSF into another part of the body. Most often, Dr. Paul uses a ventriculoperitoneal (VP) shunt. With this shunt, the CSF fluid is drained into the abdomen. During this surgery, a small incision is made on the head, as well as one small incision in the abdomen. After surgery, Dr. Paul follows up with the patients using CT scans.

****For more information about Shunt Implementation, please consult our office. Dr. Paul and his staff would be happy to answer any questions you may have. ****