

## ***NORMAL PRESSURE HYDROCEPHALUS***

According to experts, one quarter million Americans with some of the same symptoms as dementia, Alzheimer's or Parkinson's may actually have normal pressure hydrocephalus (NPH). It's often difficult to tell the difference because the symptoms of NPH are in many ways similar to those of Alzheimer's or Parkinson's. However, the feeling of feet glued to the floor or difficulty walking is the first symptom to appear in NPH. It's different from, for example, Parkinson's tremors. In Alzheimer's, memory loss and confusion tend to be early symptoms, whereas in NPH these appear later. Fortunately, once NPH is confirmed, chances are it can be treated.

Sometimes referred to as "water on the brain," NPH is a buildup of cerebrospinal fluid (CSF) in the brain of older adults that leads to a gradual deterioration of motor skills and/or cognitive function. When diagnosed correctly, procedures to drain the excess CSF fluid can be performed and patients can often return to a normal life.

Because the symptoms are often associated with the aging process in general, and a majority of the NPH population is older than 60 years, people often assume that they must live with the problems or adapt to the changes occurring within their bodies. Symptoms can be present for months or even years before a person sees a physician. The symptoms of NPH seem to progress with time. The rate of progress is variable, and it is often a critical loss of function or disability that brings patients to their doctors. It seems that the longer the symptoms have been present, the less likely it is that treatment will be successful. As a general rule, the earlier the diagnosis, the better the chance for successful treatment, but some people experiencing symptoms for years can improve with treatment.

Elana Farace, a neuropsychologist and director of clinical research for Penn State Neurosurgery, evaluates patients who may be suffering from NPH at Penn State Milton S. Hershey Medical Center. She was recently invited to speak on the subject on "Retirement Living-Healthline," a Comcast Network cable program seen in 12 eastern states.

During the program, Farace explained how patients who may be suffering from a loss of motor, cognitive and bladder function can have a diagnostic procedure to look for excess cerebrospinal fluid in their brains. If such a buildup is found, Farace then evaluates their cognitive ability before and after the excess fluid is surgically drained.

Patients confirmed to have NPH and not Alzheimer's or another neurological condition may then become candidates for a surgical procedure to implant a shunt -- a tube that drains excess CSF fluid away from the brain. The fluid drains into the abdomen where it is easily absorbed. This technique is very effective in improving the troubling symptoms of NPH.

Joseph Palese, one of Farace's NPH patients, had a shunt implanted by Penn State Neurosurgery Chair Robert Harbaugh, last year. Palese was also a guest on the "Healthline" program and talked about how he did not fear brain surgery, but instead focused on how it would reduce his symptoms and return his quality of life.

"I didn't think twice about it," he recalled. "All I heard was that it would improve my condition, and I said 'let's go for it.'"