



NINDS Normal Pressure Hydrocephalus Information Page

Synonym(s): Hydrocephalus - Normal Pressure

Table of Contents (click to jump to sections)

- [What is Normal Pressure Hydrocephalus?](#)
- [Is there any treatment?](#)
- [What is the prognosis?](#)
- [What research is being done?](#)
- [Clinical Trials](#)
- [Organizations](#)
- [Additional resources from MedlinePlus](#)



What is Normal Pressure Hydrocephalus?

Normal pressure hydrocephalus (NPH) is an abnormal buildup of cerebrospinal fluid (CSF) in the brain's ventricles, or cavities. It occurs if the normal flow of CSF throughout the brain and spinal cord is blocked in some way. This causes the ventricles to enlarge, putting pressure on the brain. Normal pressure hydrocephalus can occur in people of any age, but it is most common in the elderly. It may result from a subarachnoid hemorrhage, head trauma, infection, tumor, or complications of surgery. However, many people develop NPH even when none of these factors are present. In these cases the cause of the disorder is unknown.

Symptoms of NPH include progressive mental impairment and dementia, problems with walking, and impaired bladder control. The person also may have a general slowing of movements or may complain that his or her feet feel "stuck." Because these symptoms are similar to those of other disorders such as Alzheimer's disease, Parkinson's disease, and Creutzfeldt-Jakob disease, the disorder is often misdiagnosed. Many cases go unrecognized and are never properly treated. Doctors may use a variety of tests, including brain scans (CT and/or MRI), a spinal tap or lumbar catheter, intracranial pressure monitoring, and neuropsychological tests, to help them diagnose NPH and rule out other conditions.

Is there any treatment?

Treatment for NPH involves surgical placement of a shunt in the brain to drain excess CSF into the abdomen where it can be absorbed as part of the normal circulatory process. This allows the brain ventricles to return to their normal size. Regular follow-up care by a physician is important in order to identify subtle changes that might indicate problems with the shunt.

What is the prognosis?

The symptoms of NPH usually get worse over time if the condition is not treated, although some people may experience temporary improvements. While the success of treatment with shunts varies from person to person, some people recover almost completely after treatment and have a good quality of life. Early diagnosis and treatment improves the chance of a good recovery. Without treatment, symptoms may worsen and cause death.

What research is being done?

The NINDS conducts and supports research on neurological disorders, including normal pressure hydrocephalus. Research on disorders such as normal pressure hydrocephalus focuses on increasing knowledge and understanding of the disorder, improving diagnostic techniques and neuroimaging, and finding improved treatments and preventions.

NIH Patient Recruitment for Normal Pressure Hydrocephalus Clinical Trials

- ▶ [At NIH Clinical Center](#)
- ▶ [Throughout the U.S. and Worldwide](#)
- ▶ [NINDS Clinical Trials](#)

Organizations

[Hydrocephalus Association](#)

4340 East West Highway
Suite 905
Bethesda, MD 20814
info@hydroassoc.org
<http://www.hydroassoc.org>

Tel: 301-202-3811 888-598-3789
Fax: 301-202-3813

[National Hydrocephalus Foundation](#)

12413 Centralia Road
Lakewood, CA 90715-1653
debbifields@nhfonline.org
<http://nhfonline.org>

Tel: 562-924-6666 888-857-3434

Related NINDS Publications and Information

- ▶ [Hydrocephalus Fact Sheet](#)
Hydrocephalus fact sheet produced by the National Institute of Neurological Disorders and Stroke (NINDS).
- ▶ [Syringomyelia Fact Sheet](#)
Syringomyelia fact sheet compiled by the National Institute of Neurological Disorders and Stroke (NINDS).

Publicaciones en Español

► [Hidrocefalia de presión normal](#)

Prepared by:

Office of Communications and Public Liaison
National Institute of Neurological Disorders and Stroke
National Institutes of Health
Bethesda, MD 20892

NINDS health-related material is provided for information purposes only and does not necessarily represent endorsement by or an official position of the National Institute of Neurological Disorders and Stroke or any other Federal agency. Advice on the treatment or care of an individual patient should be obtained through consultation with a physician who has examined that patient or is familiar with that patient's medical history.

All NINDS-prepared information is in the public domain and may be freely copied. Credit to the NINDS or the NIH is appreciated.

Last updated September 30, 2013

[National Institute of Neurological Disorders and Stroke](#)

[Home](#) | [About NINDS](#) | [Disorders A - Z](#) | [Research Funding](#) | [News From NINDS](#) | [Find People](#) | [Training](#) | [Research](#) | [American Recovery and Reinvestment Act](#) | [Enhancing Diversity](#)

[Careers@NINDS](#) | [FOIA](#) | [Accessibility Policy](#) | [Contact Us](#) | [Privacy Statement](#)



NIH...Turning Discovery Into Health®