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Spina Bifida
Hydrocephalus
Scotland



Normal Pressure Hydrocephalus





What is Normal Pressure Hydrocephalus?

The brain and spinal cord are surrounded by a clear fluid called cerebrospinal fluid (CSF). This fluid is produced and stored in cavities (ventricles) in the brain. The CSF protects and nourishes the brain, supplies important chemicals and nutrients and carries away waste from the brain cells. Any excess fluid drains away and is absorbed by the body. Hydrocephalus is a condition where the CSF is unable to drain away. The ventricles then enlarge to accommodate the extra fluid which causes pressure on different parts of the brain.

Normal Pressure Hydrocephalus (NPH) is a type of hydrocephalus which occurs in adults usually over the age of 60 and differs from other types of hydrocephalus in that it develops slowly over time. The drainage of CSF is blocked gradually and the excess fluid builds up slowly. The slow enlargement of the ventricles means that the fluid pressure in the brain may not be as high as in other types of hydrocephalus. However there is still pressure on the brain which can cause symptoms.



What causes NPH?

It may occur without an identifiable cause or it may be caused by any condition where there is an obstruction to the flow of CSF.

These can include:

- Spina bifida
- Head injury
- Stroke
- Meningitis
- Brain tumour

However in most cases the cause is not known.

Continued on the next page





What are the symptoms?

The symptoms are very gradual and are often mistaken for dementia.

These include:

- Memory loss
- Apathy and withdrawn behaviour
- Speech problems
- Difficulties with reasoning, paying attention and judgement
- Changes in mood
- Headache
- Nausea



Physical symptoms can include:

- Unsteady walking and shuffling steps
- Getting “stuck” or “freezing” while walking
- Weakness of the legs and sudden falls
- Urinary difficulties such as frequency and inability to hold urine



How is NPH diagnosed?

If you suspect you or someone you know may have NPH, you should request a referral by your GP to a Neurologist. The Neurologist will discuss the symptoms and take a full medical history. A physical examination will then be carried out in order to rule out other medical conditions and referral for specialist investigations such as Magnetic Resonance Imaging (MRI) and Computerised Tomography scan (CT) may be made. These will show changes which indicate NPH although they are often not enough to confirm the diagnosis and tests to measure intracranial pressure (ICP) such as a lumbar puncture have to be carried out to confirm the diagnosis.

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Is there any treatment?

The aim of treatment is to improve symptoms, your Neurologist should discuss all the options with you. Occasionally the cause of the hydrocephalus, if known, can be treated by surgery which may be to remove the cause of the blockage. Another surgical option is to insert a device known as a shunt or valve. This is a thin tube which is implanted in the ventricles of the brain enabling the CSF to drain away. This is an enclosed system and not obvious to others. The shunt is not a cure and does not treat the underlying cause of NPH but it can however relieve the symptoms and remains in place indefinitely. Another operation which may help is Endoscopic Third Ventriculostomy where a thin tube with a lit camera on the end is used to create a small hole in the floor of the ventricles which enables the fluid to drain away.



Shunt Alert Cards

If you do have a shunt operation, Spina Bifida Hydrocephalus Scotland can provide you with a free medical alert card to keep with you at all times. This contains useful information for both you, your doctor and any medical staff who may need to care for you. Call SBH Scotland on 03455 211 300 to request your card.



If you have questions or would like further information, please call the **SBH Scotland Helpline** on **03455 211 300** or email **support@sbhscotland.org.uk**
For general enquiries call **03455 211 811** or visit **www.sbhscotland.org.uk**

This fact sheet is for informational purposes only. It is not intended to replace or be relied on as medical or professional advice. Contact us if you require this publication in another format or language.

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