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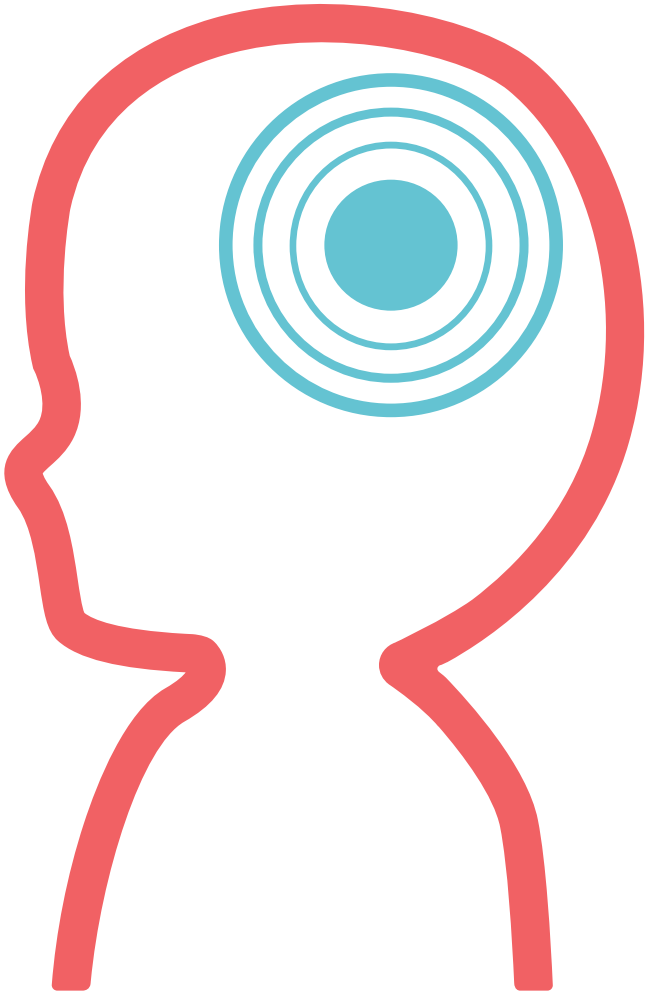
Spina Bifida Hydrocephalus Scotland

Slit Ventricle Syndrome in Hydrocephalus



What is hydrocephalus?

The brain and spinal cord are surrounded by a clear fluid called cerebrospinal fluid (CSF). This fluid is produced and stored in cavities (called 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. In order to relieve this pressure and enable the fluid to drain away a shunt is inserted.

What is slit ventricle syndrome?

Occasionally the drainage of fluid by the shunt causes the ventricles to collapse. This is now unusual due to the design of modern shunts but may occur with some older shunts. The ventricle closes on the top end of the shunt and blocks the exit route of the CSF causing the ventricles to become abnormally small. The pressure in the brain rises very quickly but after a while, the ventricles become slightly larger and drainage resumes but after years of the ventricles being small, they cannot expand when obstructed because the walls have become rigid. These changes in the shape and size of the ventricles may not be easy to detect.

What are the symptoms?

The symptoms consist of headaches, vomiting and drowsiness. These often happen in cycles – for example the person is well for 3 weeks then violently ill and sleepy for 24 hours and then well again. There is often no reason for the symptoms although a minor viral illness can produce them. If a scan is carried out the findings may be falsely reassuring to a Doctor inexperienced in dealing with the condition as the ventricles are so small that they are not visible.

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How is it treated?

The most important point is to make sure the shunt is working properly. Often this can be done by Intracranial Pressure Monitoring (ICP) and by a Computerised Tomography (CT) scan or Magnetic Resonance Imaging (MRI).

If the shunt is functioning properly there are several options available. A subtemporal decompression can be carried out which allows the ventricles and the tubing of the catheter at the top end some extra space by removing a piece of bone on the side of the skull. This simple procedure carries very little risk and often resolves the problem. Other procedures involve moving larger portions of the skull to allow more space. This type is very elaborate and is suitable for very young children.

If the shunt has failed and the ventricles are enlarged however, there is a procedure which can be effective called Endoscopic Third Ventriculostomy. A thin tube with a lit camera on the end (endoscope) is used to create a small hole in the floor of the ventricles which enables the fluid to drain away, however the ventricles must be large enough to allow access.

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**

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