

# HYDROCEPHALUS

Hydrocephalus describes conditions in which fluid in the head and spine, the Cerebro Spinal Fluid (CSF) accumulates in the head and raises the pressure on the brain. Hydrocephalus comes from the Greek 'hydro' meaning water and 'cephalie', meaning brain. Hydrocephalus can be congenital (born with it) or acquired.

Hydrocephalus is caused by an inability of Cerebro-Spinal Fluid (CSF) to drain away into the bloodstream. There are many reasons why this can happen; differences in the way the brain develops, failure of fluid absorption in an otherwise typical brain, damage to brain tissue through head injury, haemorrhage or infection.

The usual treatment is to insert a shunt - a tube-like device which controls the pressure by draining excess CSF, preventing the condition from worsening:

**Ventriculo-Peritoneal (VP)** - the proximal (head end) catheter placed in the ventricles (usually lateral ventricle) and the other (distal) end in the space surrounding the intestines.

**Ventriculo-Atrial (VA)** - shunt drains from the ventricles into the heart.

Lumbar Peritoneal (LP) - drains from the CSF space around the lumbar spine to the abdomen

**Ventriculo-Pleural (VPL)** - drains from the ventricles to a thin, fluid-filled layer between the coverings of the lungs. The CSF mixes with this fluid and is absorbed into the bloodstream

**External shunts** - the proximal end in the space between the brain and the skull (subarachnoid space), and the distal end is usually placed in the peritoneum.

Hydrocephalus can be associated with learning difficulties affecting concentration, reasoning, short-term memory, co-ordination, motivation, organisational skills and language. Physical effects may include visual problems, or early puberty in children. Some children benefit from dyslexia friendly teaching. There are links with epilepsy.

*Children's needs are **individual** - some children may require additional support:*

- The shunt may become blocked or infected, which can be life threatening. Medical treatment must be sought immediately if the child shows signs of: vomiting, headache, dizziness, photophobia (sensitivity to light) and other visual disturbances, drowsiness and fits.
- Body and spatial awareness, e.g. help to recognise and avoid obstacles
- Mobility, i.e. moving around the classroom and in the playground
- Organising themselves to complete a task, e.g. sequencing activities
- Remembering information, keeping lists can be useful
- Verbal instructions may need to be presented clearly and precisely.

**FURTHER INFORMATION:** SHINE <https://www.shinecharity.org.uk>