



Hydrocephalus Facts

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The term hydrocephalus is derived from two words: “hydro” meaning water, and “cephalus” referring to the head. Hydrocephalus is a condition in which excess cerebrospinal fluid (CSF) builds up within the ventricles (fluid-containing cavities) of the brain and may increase pressure within the head. Hydrocephalus affects approximately one in every 500 children, with the majority of cases diagnosed before birth, at the time of delivery, or in early childhood. There is no known way to prevent or cure hydrocephalus.

Common Causes

- Bleeding within the brain
- Brain tumors
- Head injuries
- Complications of premature birth
- Meningitis or other infections
- Developmental disorders such as spina bifida
- Genetic inheritance

Symptoms of hydrocephalus vary by age and individual. Many of the following symptoms may be associated with a host of other conditions or illnesses, but are listed to provide an overview.

Symptoms

In Infants

- Abnormal enlargement of the head
- Bulging fontanel (Soft spot)
- Thin-looking scalp
- Separated bones in the head
- Prominent scalp veins
- Downward deviation of eyes
- Seizures
- Vomiting
- Irritability
- Poor appetite
- Drowsiness

In Toddlers/Children

- Abnormal enlargement of the head
- Headaches
- Blurred or double vision
- Changes in sleeping patterns
- Unstable balance
- Delayed walking or talking
- Poor coordination
- Personality changes
- Inability to concentrate
- Loss of sensory or motor functions

- Seizures
- Vomiting or nausea
- Poor appetite

In Adults

- Headaches
- Impaired vision and cognitive skills
- Loss of coordination and balance
- Bladder control problems
- Changes in sleeping patterns
- Memory loss

Diagnosis

A neurosurgeon will obtain a medical history and perform a neurological examination. This will help determine the severity of the condition. Further tests such as an ultrasound (if patient is an infant), computed tomography (CT or CAT scan), or magnetic resonance imaging (MRI) may be ordered.

Treatment

Hydrocephalus can be treated in many ways. The problem can be treated directly, by removing the cause of CSF obstruction, if one can be found. Indirect treatment is performed by implanting a device known as a shunt to divert the excess CSF away from the brain. The place into which the CSF is diverted is usually the peritoneal cavity (the area surrounding the abdominal organs). An alternative operation called endoscopic third ventriculostomy utilizes a tiny camera to look inside the ventricles, allowing the surgeon to create a new pathway through which CSF can flow.

For more detailed information, visit www.NeurosurgeryToday.org.