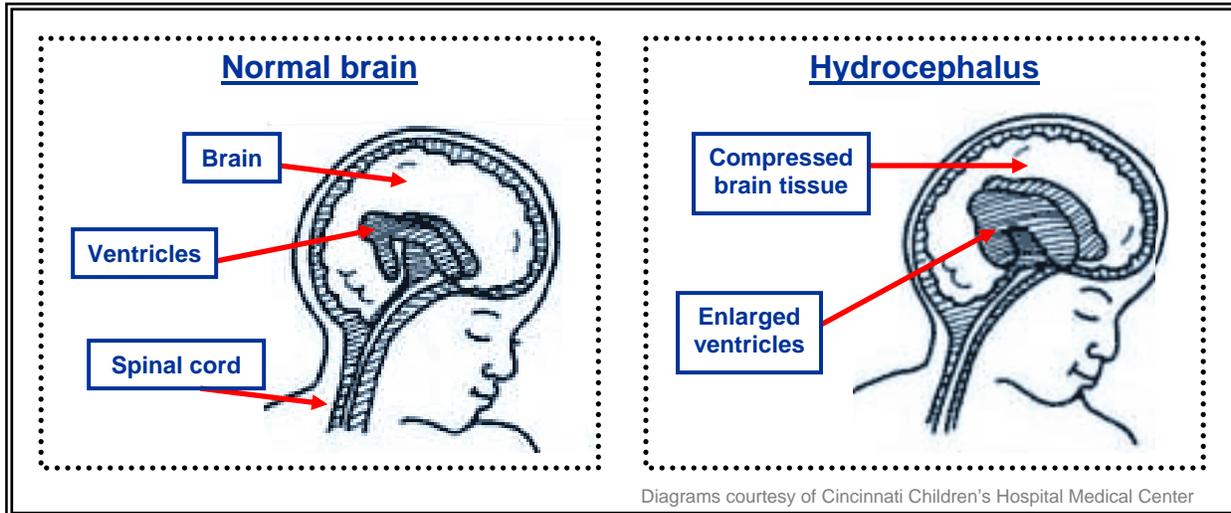


# Hydrocephalus

## What is hydrocephalus?

Hydrocephalus (also called “water on the brain”) occurs when there is extra **cerebrospinal fluid** (also called CSF) surrounding the brain. Normally, CSF surrounds the **brain** and **spinal cord**; CSF helps cushion the brain and spinal cord, as well as delivers nutrients to the brain and removes waste. Excess CSF results in **dilation** (opening) of the four **ventricles** (spaces around the brain) and increases the pressure on the brain.



There are several different types of hydrocephalus. **Communicating** hydrocephalus occurs when CSF is blocked after leaving the ventricles. **Non-communicating** (or **obstructive**) hydrocephalus occurs when CSF is blocked somewhere between the ventricles.

## What causes hydrocephalus?

Hydrocephalus can be **congenital** (present at birth) or **acquired** (develops at or after birth). Congenital hydrocephalus may be caused by genetic conditions or environmental factors during the baby's development. One of the most common causes of hydrocephalus is **aqueductal stenosis** (narrowing of the path between the third and fourth ventricles). Other possible causes of hydrocephalus include **neural tube defects** (NTD, an opening along the neck or spine), certain viruses, a tumor, or hemorrhage (bleeding) near the brain. For some babies with hydrocephalus, an exact cause may not be identified. Acquired hydrocephalus may be caused by injury or disease. Approximately 1 out of every 500 babies born each year have hydrocephalus.

## How is hydrocephalus treated?

Hydrocephalus is most often treated by surgically placing a **shunt** near the brain or spinal cord. The shunt allows the extra CSF to flow from the brain to another part of the body (such as the abdomen), where it is naturally absorbed back into the body's circulation. Your child's doctor(s) will discuss appropriate treatment options with you.

## For more information

**Cincinnati Children's Hospital -**

<http://www.cincinnatichildrens.org/health/info/neurology/diagnose/hydrocephalus.htm>

**Hydrocephalus Association -** <http://www.hydroassoc.org>

**MedlinePlus Medical Encyclopedia -** <http://www.nlm.nih.gov/medlineplus/hydrocephalus.html>

**National Institute of Neurological Disorders and Stroke -**

[http://www.ninds.nih.gov/disorders/hydrocephalus/detail\\_hydrocephalus.htm](http://www.ninds.nih.gov/disorders/hydrocephalus/detail_hydrocephalus.htm)

**Sources:** Hydrocephalus Association, National Institute of Neurological Disorders and Stroke