

Hydrocephalus

What is Hydrocephalus and what causes it?

The brain has cerebrospinal fluid both inside and around it. The cerebrospinal fluid is created within the brain and usually flows through and around the brain. It is recycled towards the top of the brain, underneath the skull. Under certain circumstances, this circulation is impaired. This results in a build up of cerebrospinal fluid and pressure on the brain. This condition is referred to as Hydrocephalus.

Hydrocephalus is often present in cases of Myelomeningocele (spina bifida), but can develop without Myelomeningocele. The factors that cause it may be genetic. Fortunately, there are very effective treatments that can reduce the complications caused by Hydrocephalus.

How is Hydrocephalus diagnosed during pregnancy?

During a prenatal ultrasound between 15 and 35 weeks gestation, the physician can see whether the ventricles in the baby's brain are enlarged and whether there is evidence of increased pressure within the brain. If so, then Hydrocephalus is diagnosed.

Usually, a fetal MRI is performed next to see more detailed images of the brain. This may reveal an anatomic reason for the Hydrocephalus. Occasionally, the ultrasound and MRI show increased levels of cerebrospinal fluid within the brain without evidence of increased pressure on the brain. This condition is referred to as Ventriculomegaly and is actually more common than Hydrocephalus. Ventriculomegaly is usually caused by a brain injury or improper development, so it is important to differentiate Hydrocephalus from Ventriculomegaly.



Baby With Hydrocephalus



Healthy Baby

A Cardinal Glennon St. Louis Fetal Care Institute nurse is available 24 hours a day, seven days a week to discuss referrals with physicians and potential families by calling 314-268-4037, option 2.

Phone 314-268-4037, option 2
Toll-free 1-877-SSM-FETL (776-3385)
Web stlouisfetalcare.com
Email fetalcare@ssmhealth.com
Facebook facebook.com/fetaldocs

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How is Hydrocephalus managed and treated during pregnancy?

Hydrocephalus during pregnancy is usually managed by observation. At this time, there is no fetal treatment for this disorder. The fetus is watched carefully for signs of distress, which may indicate a need for early delivery. The best way to improve the outcome for the baby is to delay delivery until the baby is as mature as possible. This timing will be determined by the mother and her prenatal care provider, along with recommendations from the SSM Health Cardinal Glennon St. Louis Fetal Care Institute team.

How does Hydrocephalus affect my baby after delivery?

In babies who have Hydrocephalus evaluation after delivery is extremely important. This evaluation will likely include imaging studies, such as a CT, MRI or ultrasound. A detailed neurological exam at birth, along with an examination of the head size and soft spots (fontanel) will be done to verify the diagnosis of Hydrocephalus.

If there is increased pressure on the brain at birth, it may be necessary to surgically place a shunt into the baby's brain. A shunt is a device that allows the pressure in the

brain to normalize by draining the fluid into the abdominal cavity, where the fluid can be reabsorbed. By placing this shunt, the pressure in the brain is decreased. The goal of placing this shunt is to allow for normal brain development. Unfortunately, shunts can have complications, such as blockage or infection. Children with ventricular shunts must be followed closely by the neurosurgery team during childhood.

The impact of Hydrocephalus on the baby is somewhat unpredictable and can vary in severity. Because it injures the brain, Hydrocephalus can cause complications and symptoms of brain damage. Individuals with Hydrocephalus may have epilepsy, learning disabilities, short-term memory loss, problems with coordination, vision problems, and/or early puberty. Because of these issues, babies with Hydrocephalus are provided with developmental therapy, such as physical therapy and occupational therapy, as early as possible. In milder cases, or cases that have had early treatment, a baby with Hydrocephalus may develop completely normally.

While we can't change the diagnosis, we can provide you expert care and support, helping your child get the most out of treatment and life. If you're facing a diagnosis, schedule an appointment with us at the Cardinal Glennon St. Louis Fetal Care Institute. You may call our team directly at 314-268-4037 or speak with your doctor about the potential of a referral.
