Hydrocephalus and Shunt Obstruction

Hydrocephalus occurs when too much cerebrospinal fluid builds up in the cavities (ventricles) of the brain. The most common way to treat hydrocephalus is putting in a shunt.

What is hydrocephalus?

Hydrocephalus occurs when too much cerebrospinal fluid builds up in the cavities (ventricles) of the brain. It is sometimes called water on the brain, even though it is not actually water but instead cerebrospinal fluid. Too much spinal fluid puts pressure on the brain. This increased intracranial pressure can cause brain damage.

How is it treated?

The most common way to treat hydrocephalus is putting in a shunt. A shunt is a small tube or catheter that is placed in your child's head to drain the extra fluid. During surgery, one end of the tube is passed through a small hole into your child's skull and through the brain tissue into one of the ventricles. The other end of the tube is passed under the skin into the space around the organs in the stomach area. The spinal fluid is absorbed by the body and goes back into the bloodstream then passes through the kidneys. Whenever your child is ill for any reason, remind your medical provider that they have a shunt.

What are signs of increased pressure in the brain?

If the shunt stops working, your child's health is in danger. Your child will have symptoms and could get brain damage, or even die, if not treated. It is very important to watch for symptoms of increased brain (intracranial) pressure so that you know when to call the doctor.

Symptoms of increased brain pressure from shunt blockage or failure

Critical signs

- Unresponsive (does not wake up even to pain)
- Pupils dilated, not responsive to light or unequal pupil sizes
- Irregular breathing or changes in blood pressure or heart rate

Severe signs

- Difficult to wake up
- Pain or headache down neck
- Pupils still react to light, but may be sluggish

If your child has any of these critical or severe symptoms, **call 911 right away** and then call your child's nurse or doctor.

To Learn More

- Neurodevelopmental Clinic 206-987-2210
- Ask your child's healthcare provider
- www.seattlechildrens.org

Free Interpreter Services

- In the hospital, ask your child's nurse.
- From outside the hospital, call the toll-free Family Interpreting Line 1-866-583-1527. Tell the interpreter the name or extension you need.
- For Deaf and hard of hearing callers 206-987-2280 (TTY).

Moderate signs

- Headache behind the eyes that does not go away
- Vomiting
- Sleepier than usual
- More irritable than usual

Mild signs

- Decreased school performance (hand-eye coordination, visual motor skills worsen, grades decline)
- Confusion, memory or attention problems
- Sudden personality or emotional changes
- Recurring headache
- Decreased activity
- Change in speech/noisy breathing
- Increased dependence on caregivers
- Increased or decreased appetite or trouble swallowing
- Change in vision or eye alignment
- Increase or onset of tightness or stiffness in the legs
- Change in bowel or bladder control
- Worsening scoliosis
- Enlarging head size (seen only in young infants)

If your child has any of these **mild** or **moderate** symptoms, call your child's nurse or doctor right away.

Phone numbers

- Neurodevelopmental Clinic: 206-987-2210
- Neurosurgery Nurse Practitioner: 206-987-2000 (paging operator)
- Primary Care Provider: _____

If your child is not a patient of Seattle Children's Hospital, contact their private neurosurgeon immediately.

Early diagnosis and treatment is the key.

5/11
PE614