Nationwide Children's
When your child needs a hospital, everything matters.℠

Helping Hand™

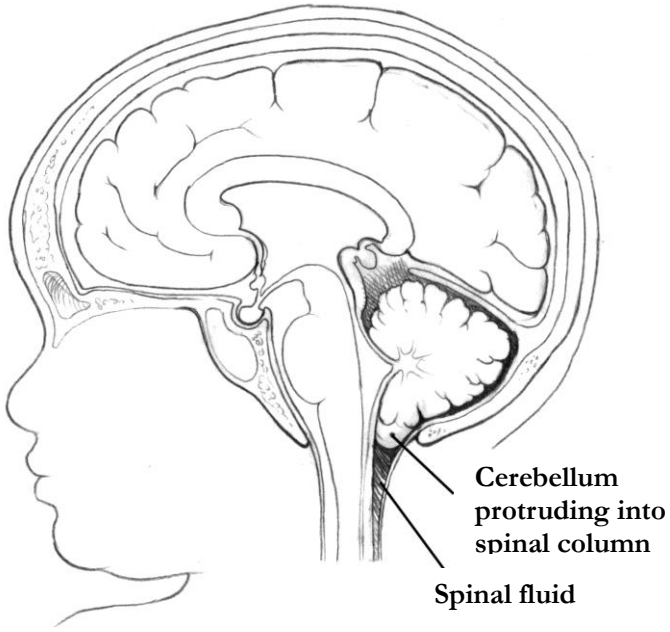
Arnold-Chiari Malformation (ACM) Surgery

Arnold-Chiari (kee-AR-ee) malformation (ACM) is a rare condition of the brain. It is present at birth. With ACM, the back part of the brain (cerebellum) pushes through the opening in the back of the skull. When this part of the brain bulges into the spinal canal, it can block the flow of cerebral spinal fluid (CSF) to and from the brain (Picture 1). The exact cause of ACM is not known. Surgery can be done to correct this defect.

Symptoms of ACM

The signs of ACM usually appear in infancy, but may not be seen until the teen years. Your child may have one or all of these symptoms:

- Headache; feeling dizzy
- Neck pain
- Extreme tiredness
- Loss of vision
- Tingling in fingers and toes
- Nausea; trouble swallowing
- Muscle weakness



Picture 1 In children who have ACM, part of the brain pushes through an opening in the back of the skull to the spinal cord.

Tests

One or more of these tests may be done before surgery. Refer to these Helping Hands:

- *X-ray,* HH-III-17
- *MRI (Magnetic Resonance Imaging),* HH-III-69
- *Blood Counts,* HH-III-58

Before Surgery

- **Food and drink** - Your child should have nothing to eat or drink after midnight the night before surgery.
- **Bathing** – Give your child a bath with Phisoderm®. Wash the hair 2 times with Phisoderm® the night before or the morning of surgery.
- **Medicines** – Be sure to tell the doctor or nurse about any medicine your child is taking. They will let you know if you should give any medicine the day of surgery.

Surgery

Bring your child to Outpatient Surgery to register. You and one other family member may go with your child to the Pre-Op holding area.

- Your child will have a physical exam and a medical history will be taken. The neurosurgeon and anesthesiologist will talk with you about your child's surgery.
- You will be given a Consent for Surgery form to read and sign. Be sure to ask the doctor or nurse if you have trouble reading or understanding the form.
- When your child is taken to surgery, you may stay in the Surgery Waiting Room. Every 1 to 2 hours someone will let you know how the surgery is going. When it is over, the neurosurgeon will come out and talk with you.
- After surgery, your child will be taken to the PACU (Post Anesthesia Care Unit) for about one hour. Then, depending on the kind of surgery, your child will be taken to Tower 3 South (T3S) or the PICU (Pediatric Intensive Care Unit). After the first day and night, patients in the PICU are moved to T3S.

Care After Surgery

- Fluids and pain medicine will be given to your child, either by mouth or by IV.
- Your child may have a heart monitor and a pulse oximeter to check his heart rate and breathing.
- The head of your child's bed or crib will be raised. He or she may not be allowed to have a pillow. Your child will be turned or changed position every 2 to 3 hours to prevent lying on the sutures for long periods.

During the Hospital Stay

- The average hospital stay is 2 to 4 days.
- Clear liquids will be given at first. Then regular foods will be added slowly when your child can keep them down. Laxatives or stool softeners will be given if needed.
- If your child is old enough, he or she may be allowed to walk slowly around the room and in the hall.
- Tylenol® or ibuprofen (Advil® or Motrin®) may be given for pain. Refer to the Helping Hand, *Acetaminophen*, HH-V-58, or *Ibuprofen (Advil, Motrin) General Use*, HH-V-206.

Going Home

Your child will be able to go home when:

- There are no signs of infection
- He or she is able to eat some solid food and fluids
- He or she can walk up and down the hall with help (if old enough).

Refer to the Helping Hand, *Arnold-Chiari Malformation: Care after Surgery*, HH-II-153.