Chiari I Malformation

What is Chiari I Malformation?
In this condition, the “cerebellar tonsils” in the back part of the brain extend down into the spinal canal. This may alter the normal flow of cerebral spinal fluid as it moves from the brain and down the spinal cord.

Many people with a Chiari I Malformation have a spinal cord cyst (an abnormal collection of fluid). This cyst is called a “syrinx.” This syrinx may also cause symptoms.

Common symptoms of a Chiari I Malformation
- Headaches
- Neck, shoulder or arm pain
- Weakness or changes in the feeling in your hands, arms, or legs
- Symptoms that become worse with straining or coughing

Treatment of the Chiari I Malformation
Your doctor may suggest surgery to make room for the cerebellar tonsils. Surgery often improves the symptoms or keeps them from getting worse.

During surgery, space is made for the back part of the brain by taking off the bone lying over the area and opening up the tissue that covers the brain (dura). A patch is placed to make the space larger. After surgery, the normal flow of cerebral spinal fluid (CSF) is restored. Often, the spinal cord cyst will go away in a few weeks or months after surgery.
Before Surgery

- You will have a physical exam and lab tests that include blood work and urinalysis.
- Please schedule this pre-operative appointment with your primary care provider or with a nurse practitioner in our department.
- This appointment should be done within 30 days of surgery—we may cancel surgery without an updated pre-operative exam.
- Please contact your insurance company to obtain any needed referrals.
- Please stop the following medicines for two weeks before surgery. It is alright to use acetaminophen (Tylenol®) if needed.
  - Aspirin, Excedrin®, Ascriptin®, and Ecotrin®
  - Vitamins and herbal supplements
  - Plavix®
  - Coumadin® or Warfarin
  - Ibuprofen, Advil®, Motrin®, Nuprin®, and Aleve®
- Wash your hair and neck twice before surgery. Please use an antibacterial soap. Wash (do not scrub) for 2-3 minutes. Rinse well. Do not use lotions, powders, or perfume.
- Please no smoking or exposure to cigarette smoke for two weeks prior to surgery. Smoking delays wound healing. Cigarette smoke contains a poison that lowers the level of oxygen in the blood.
- After midnight the night before surgery
  - You may not eat anything
  - You may not drink any milk or juice with pulp
- Up until 4 hours before surgery
  - It is alright to drink clear liquids
- You will be called the afternoon before surgery. At this time you will be told
  - What time you need to arrive at the hospital
  - The final details about how to get ready for the next day
- You will need to sign a consent form that states that you understand what the neurosurgeon explained to you about the procedure. The consent also states that you know about the risks and benefits of the surgery.
- Do not wear make-up, jewelry, or nail polish to surgery.

During Surgery

- This surgery may take about 3 to 5 hours.
- A small amount of hair on the back of your head is shaved.
- An up and down incision is made from the middle of the neck to the back of your head.
- After more room is made for the back of the brain, the tissue cover of the brain (dura) is stitched together.
- A dural patch graft is used which may come from your own tissue or from a man-made patch (Gore-Tex®).
After Surgery

- It is best to avoid coughing, lifting, and straining for the next 3 months.
- If you should become sick with a severe cough during this time, a doctor may prescribe a cough medicine.
- You and your doctor will decide when you should return to work.

When to Call the Doctor

Call if you have any of the following symptoms.

- Severe headache
- Fever greater than 101.5 F
- Redness, swelling or drainage at the incision site
- Nausea or vomiting

Phone Number

If you have any questions or need to schedule an appointment, please call pediatric neurosurgery: (608) 263-6420

After hours, nights, and weekend, call the paging operator (608) 262-0486. Ask for the neurosurgeon on call. Leave your name and phone number with the area code. The doctor will call you back.

The Spanish version of this Health Facts for You is #6884

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 2/2015 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#5310