Reservoir

What is a reservoir?
A reservoir is a device that is surgically placed under your child’s scalp and in the ventricles of the brain. A reservoir has two parts. One part is a small plastic dome-like container or port. The other part is a small tube or catheter that is connected to the dome-like container. A reservoir allows fluid to be removed from the ventricles to control pressure in the brain whenever necessary. Ventricles are spaces in the brain where cerebral spinal fluid is produced.

Why is a reservoir needed?
A reservoir is needed if your child develops hydrocephalus due to intraventricular hemorrhage or bleeding in the ventricles. Large amounts of bleeding can form clots. The clots may block the circulation of fluid in the brain. This blockage is called hydrocephalus. In your child’s body, fluid circulates through the brain and the spinal cord.

With hydrocephalus, the circulation of fluid is blocked and the fluid begins to build up in the brain. This causes the ventricles to swell. Reservoirs are usually a short-term solution. Your child most likely will later need a device called a shunt placed.

How is a reservoir placed?
Your child will have surgery to place the reservoir. A type of doctor called a neurosurgeon will place the reservoir. Your child will receive medicines to help her sleep during the surgery. The neurosurgeon will make a small half circle-shaped opening to place the container under the scalp. The end of the small tubing is then positioned in the ventricles. After the reservoir is placed, your child will have a small bump on her head. This is normal.
What happens during your child's reservoir tap procedure?

Tapping a reservoir is a sterile procedure to remove spinal fluid from your child's reservoir. Your child's medical provider will wear a hat, mask, and sterile gloves for this procedure. He will first clean the skin where the reservoir was placed and let it dry. Next he will insert a small needle into the reservoir container or port. Then your child's medical provider will pull spinal fluid from the reservoir using the syringe attached to the needle.

Are there complications or side effects?

There is possible risk of infection after reservoir placement. After surgery your child will be given antibiotics to try to prevent this. Watch for signs of redness, swelling or drainage from the incision where the opening was made. There is also a possibility that your child's reservoir will clot. If this happens, spinal fluid may not be able to be withdrawn and the reservoir may need to be removed.

What if I have more questions?

If you have more questions, ask your bedside nurse to locate the attending or nurse practitioner taking care of your child. They will be able to answer any additional questions.