



THE JEFFRAS' PROGRAM THAT PROMOTES  
A HEALTHY SCHOOL ENVIRONMENT  
FOR STUDENTS WITH SPINA BIFIDA

## HYDROCEPHALUS & SHUNTS

Most people with Spina Bifida also have hydrocephalus. Hydrocephalus means there is a build-up of cerebral spinal fluid (CSF) around the brain. Like a bathtub with the water on and a partially clogged drain, this CSF on the brain can't drain fast enough. This CSF is made by brain cells to protect the brain and spinal cord. When there is too much CSF, it can be dangerous.

Most of the time, it is easy for doctors to see that there is too much CSF on the brain by using imaging techniques to measure the CSF-filled pockets, or cavities, called ventricles. The ventricles of the brain get too big when there is too much CSF. The CSF must be drained regularly in order to prevent too much pressure on the brain. The most common treatment for hydrocephalus is to insert a tube, called a shunt, to drain excess CSF from the head to another space so the body can remove it naturally.

### Shunt Problems

The most common problem with shunts is that they can get blocked up, break or come apart. The signs of shunt problems in people with Spina Bifida are different for each person. This can make it hard for families and health care providers to know what's going on. The most common sign of a shunt problem is headache. Vomiting and nausea can happen, too, but not always.

Less common signs of a shunt problem include:

- seizures (either the onset of new seizures or an increase in the frequency of existing seizures)
- a significant change in intellect, personality, or school performance
- back pain at the Spina Bifida closure site
- worsening arm or leg function (increasing loss of sensation, weakness, worsening coordination or balance, worsening orthopedic deformities)
- increasing scoliosis
- worsening speech or swallowing difficulties
- changes in bowel or bladder function

### Infections

Infection is a major problem that can happen with shunt operation. Infections are commonly treated with antibiotics and with surgical removal and replacement of the shunt system.

Signs and symptoms of an infection include:

- fever
- neck stiffness
- pain
- redness
- drainage tenderness
- from the shunt incisions or tract

## Making decisions

The opinion of a health care provider is very important when working with someone with Spina Bifida and shunted hydrocephalus.

When making decisions, here is some helpful advice:

- Abdominal pain
- Pay attention to a parent's gut feeling about shunt problems — these feelings are usually right
- Be aware that shunt problems can cause many symptoms that may not be obviously shunt-related but doctors will always check the shunt to be sure
- Be on the lookout for shunt problems, and when the child shows suspicious behavioral or physical changes, contact parents, guardian or physician

## Physical Activity & Hydrocephalus

Children with hydrocephalus are encouraged to live and play normally with other children their developmental age. Therefore, sports, swimming and most other activities are allowed unless a physician states otherwise.

Tips for safe play with shunt:

- Avoid putting the child in an upside down position because shunts drain best with gravity and head up positioning
- Protect the child's neck with safety equipment (helmets)
- Shunt tubing goes down the side of the head and neck, just under the skin. Try to prevent damage to the tubing through rough play, and discourage activities that are likely to injure the head or neck



This information does not constitute medical advice for any individual. As specific cases may vary from the general information presented here, SBA advises readers to consult a qualified medical or other professional on an individual basis.  
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