## SIGNS OF SHUNT MALFUNCTION IN INFANTS & TODDLERS

- Full or tense soft spot
- Being too irritable or too sleepy
- Stridor (raspy breathing noise)
- Rapid head growth
- Crossed eyes or inability to look up

- Vomiting
- Periods in which the baby stops breathing or slows
- Headache
- Worsening sensation or motor skill

## WHEN TO CALL THE DOCTOR

Most people with Spina Bifida and shunted hydrocephalus will need a shunt for life. Shunt problems can occur at any age and can vary with each individual. help your doctor determine possible symptoms by being aware of the symptoms listed above.

While the evaluation of a possible shunt malfunction should include an imaging study of the brain with a Computed Tomography (CT) or a Magnetic Resonance Imaging (MRI) or Ultrasound, it is important to note that shunt malfunction may be present even if it does not show up on any imaging test.



An annual vision screen is recommended as optic nerve changes may occur with shunt failure.

All patients with hydrocephalus should be evaluated by a neurosurgeon at least every 1-2 years.

## SIGNS OF SHUNT MALFUNCTION IN CHILDREN & ADULTS

- Headache
- Vision change
- Persistent vomiting/nausea
- Excessive irritability and/or tiredness
- Drop in IQ/decline in academic performance
- Worsening memory
- Loss of coordination or balance

- New onset of seizures or more frequent seizures
- speech or swallowing difficulties
- Changes in bowel or bladder functions
- Backpain at the Spina Bifida closure site
- Neck pain
- Sudden personality changes
- Worsening in sensory or motor skills

## WHEN TO CALL THE DOCTOR

Most people with Spina Bifida and shunted hydrocephalus will need a shunt for life. Shunt problems can occur at any age and can vary with each individual. help your doctor determine possible symptoms by being aware of the symptoms listed above.



Shunt malfunction can mimic symptoms of a Chiari malformation or spinal cord tethering. Any worsening of brain or spinal cord function without another obvious cause should prompt a search for a potential shunt malfunction.