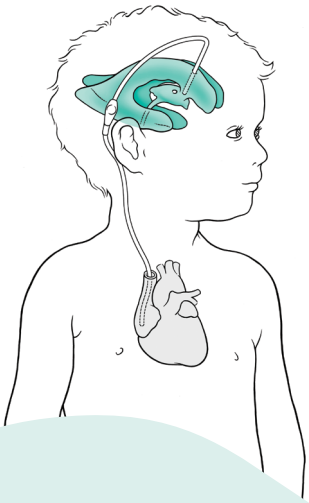
Teacher's Guide to HYDROCEPHALUS

Hydrocephalus Association

Early Elementary School (Grades K-2)



What is hydrocephalus?

Hydrocephalus is an abnormal accumulation of fluid in the brain, causing pressure on the brain. There is no cure. The predominant treatment is the insertion of a medical device called a shunt that drains fluid from the brain to another part of the body. Some children have a procedure called an ETV that allows many to live without a shunt. Both treatments can fail at any time.

Every child is unique.

This holds true for their hydrocephalus, related conditions, symptoms, strengths, needs, and challenges. In some cases, a child may excel academically without any classroom accommodations. In other cases, a child may require a 504, IEP, or ESP (private school).

Signs and symptoms of a medical complication.

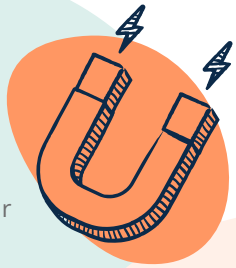
Teachers must be aware of potential medical complications related to the treatment of the child's hydrocephalus. Complications can appear over time or suddenly, creating an emergency medical situation. If not recognized in a timely manner, a child could sustain brain damage. Signs to be aware of include:

- Vomiting
- Headache
- Vision problems
- Irritability
- Tiredness
- Personality changes
- Loss of coordination or balance
- Fever
- Redness or swelling along the shunt tract

Teachers may also notice subtle, unexplained changes in the behavior that is normal or typical for that student. These changes may be noticed possibly over days or weeks, such as:

- Decline in academic performance
- Changes in attention span, focus, and level of engagement
- Difficulty grasping and/or retaining new concepts
- Decline in motivation
- Difficulty following directions
- Increase sensitivity - emotional, vision, and/or sound

It is the teacher's responsibility to communicate observations with parents and the school nurse.



Hydrocephalus can be present with these conditions.

- Spina Bifida
- Cerebral Palsy
- Seizures/Epilepsy
- Brain Tumor
- Dandy Walker Malformation
- Chiari Malformation
- Autism

MAGNETS! Educational devices (e.g. tablets and their covers) and toys with magnets should be supervised with children with shunts. Shunts are designed to resist strong magnetic fields. However, the FDA recommends keeping products that contain magnets two or more inches away from the location of magnetic externally programmable CSF shunt valves. This includes ensuring young children do not take these devices with them during nap time.

How can it impact their physical time in the classroom?

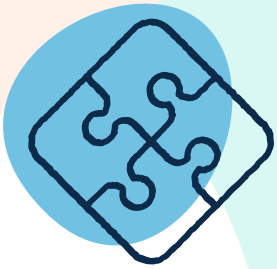
- Migraines and/or chronic headaches
- Vision problems
- Fatigue
- ADHD
- Chronic pain
- Neck stiffness
- Balance and/or coordination
- Absences due to medical appointments

All of these can make it hard for a student to perform each day. Each day can also be different depending on how the child is feeling and how well the fluid is draining from their brain.

How can hydrocephalus impact learning?

It's not uncommon for the challenges children with hydrocephalus face to appear similar to those faced by peers diagnosed with ADHD and/or Autism. Common challenges can include:

- Sustained Attention
- Working memory
- Self-monitoring
- Problem-solving
- Initiation
- Organization
- Sequencing
- Transitioning
- Motor functioning
- Comprehension
- Developmental Delays

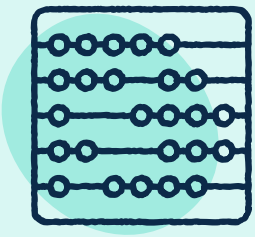


Helpful tips for teaching your student

- Learning through a combination of seeing, hearing, and doing. For example, use images and graphics, verbal presentations, and a physical, hands-on approach.
- Repetition to learn a concept.
- Providing graphic organizers to help with organization.
- Verbalizing what's been taught. Allow the student to teach or show someone what they have learned. This can be a good testing tool, as well.
- Providing clear structure and predictable routines.
- Reteaching. Children may not remember what they were taught and will need to be retaught material. Often a paraeducator can help.
- Cueing often but in a way that does not attract unnecessary attention.
- Scaffolding - break things down.
- Providing recognition formats (e.g., picture cues, word banks, etc.) if a student struggles to recall information they have learned.
- Providing opportunities for personal space and "brain breaks."

What can the impact look like?

- Forgetfulness; challenges engaging consistently in daily routine and structure
- Difficulty following directions
- Inconsistent academic performance
- Trouble retaining information taught (short term memory)
- Inability or confusion on how to start a task or worksheet
- Hard time letting go of a thought (rigidity of thinking which can appear stubborn or argumentative)
- Difficulty making transitions
- Getting lost frequently or easily, both physically and academically
- Deficits in fine motor and gross motor skills
- Conversing excessively and freely but lacking depth in conversation
- Difficulty making or keeping friends



Language-based Classes

Reading speed (fluency)

Decoding

Can decode the words on a page without grasping the meaning

Relies heavily on picture cues

Poor reading comprehension

Difficulty summarizing

Difficulty with higher-level thinking questions

Challenges inferencing

Lack insight and/or has difficulty reading between the lines or "catching on," particularly with figurative language

Math and Science

Extreme difficulty solving problems mentally (mental math)

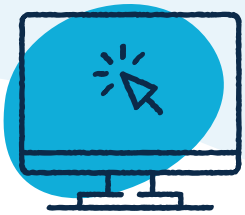
Difficulties with multi-step problem solving

Difficulties with sequential tasks

Challenges brainstorming

About My Child

NAME



My Child's Treatment: (shunt/etv):

Signs something is not right: (signs of shunt or ETV failure):

Last brain surgery/# of surgeries/frequency:

My child's academic strengths:

My child's academic struggles:

My child has been diagnosed with (learning disabilities) or receives therapy for:

My child's social strengths:

My child's social struggles:

My child's physical struggles:

Strategies that work for my child:

My child's interests and activities outside of school:

To learn more about hydrocephalus, visit the Hydrocephalus Association website at www.hydroassoc.org