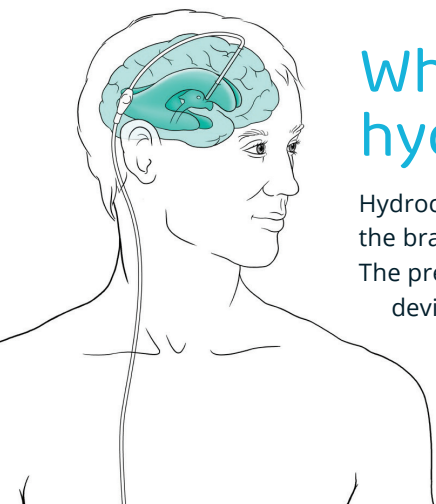


# Teacher's Guide to HYDROCEPHALUS

High School (Grades 9-12)



## 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 adolescents have a procedure called an ETV that allows many to live without a shunt. Both treatments can fail at any time.



## Every adolescent is unique.

This holds true for their hydrocephalus, related conditions, symptoms, strengths, needs, and challenges. In some cases, the adolescent may excel academically without any classroom accommodations.

In other cases, they may require a 504, IEP, or ESP (private school).

## Signs and symptoms of a medical complication.

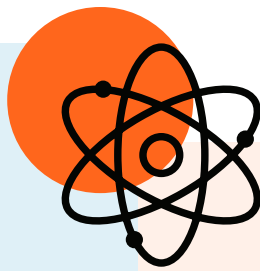
Teachers must be aware of potential medical complications related to the treatment of the adolescent's hydrocephalus. Complications can appear over time or suddenly, creating an emergency medical situation. If not recognized in a timely manner, a adolescent could sustain brain damage. Signs to be aware 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 normal behavior of a student, possibly over days or weeks, such as:

- Decline in academic performance
- Changes in the youth's ability to attend or concentrate
- Difficulty grasping and/or retaining new concepts
- Challenges with organization
- Difficulty with multi-step directions

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

## How can it impact their physical time in the classroom?

- Migraines and/or chronic headaches
- Vision problems
- Fatigue
- Anxiety/Depression
- ADHD
- Chronic pain
- 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 adolescent is feeling and how well the fluid is draining from their brain.

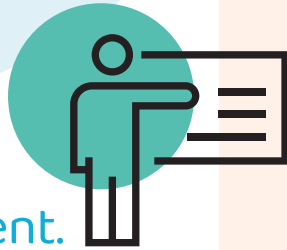




## How can hydrocephalus impact learning?

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

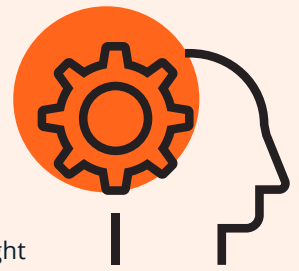
- Sustained Attention
- Memory (working and short-term)
- Self-monitoring
- Problem-solving
- Initiation
- Organization
- Sequencing
- Transitioning, including physically between classes



## Helpful tips for teaching your student.

- Learning through a combination of seeing, hearing, and doing. For example, doing a problem while the teacher is also doing it on the board and then explaining to a teacher how it was done.
- Repetition to learn a concept, which can also entail providing extra problems or resources (paper or online).
- 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. Adolescents may not remember what they were taught and will need to be retaught material. Often a paraeducator can reteach during resource.
- Cueing often but in a way that does not attract unnecessary attention.
- Allowing extra time for tests or longer assignments.
- Providing a separate room for exams, away from distractions.
- Scaffolding - break things down

## What can the impact look like?



- Inconsistent performance
- Not remembering information taught
- Losing track of what they are doing as they work
- Answering questions literally without expanding (can appear lazy or unmotivated)
- Completing but not turning in assignments
- Getting lost frequently or easily, both physically and academically
- Difficulty letting go of a thought (rigidity of thinking which can appear stubborn or argumentative)
- Difficulty shifting from a workbook/screen to writing an answer on a sheet of paper
- Struggling in group-based work due to overstimulation
- Difficulties planning and/or organizing long-range projects
- Conversing freely but lacking depth in conversation
- Difficulty picking up on social cues and complex adolescent social rules
- Difficulty making or keeping friends

## Language-based Classes

Poor reading comprehension and inference abilities

Struggles seeing the big picture or draw conclusions

Difficulties with abstract thinking

Difficulty summarizing

Difficulty organizing written work/constructing an essay

Challenges creating something instead of responding to something, particularly with expository writing

## Math and Science

Difficulty recalling math facts (math fluency)

Difficulty solving problems mentally (mental math)

Poor abstract and spatial skill reasoning

Difficulty with sequential tasks (applying procedural knowledge)

Difficulty seeing the relationship between concepts

Difficulty with word problems



# About My Child

NAME \_\_\_\_\_



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

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

Last brain surgery/# of surgeries/frequency:

My adolescent's academic strengths:

My adolescent's academic struggles:

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

My adolescent's social strengths:

My adolescent's social struggles:

My adolescent's physical struggles:

Strategies that work for my adolescent:

My adolescent's interests and activities outside of school:

To learn more about hydrocephalus, visit the Hydrocephalus Association website at [www.hydroassoc.org](http://www.hydroassoc.org)