

# Handy Handouts®

Free informational handouts for educators, parents, and students

## Hydrocephalus

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Cerebrospinal fluid (CSF) is a liquid that is made in the spaces inside the brain called “ventricles.” CSF moves throughout the brain and provides the brain with the nutrients it needs to function. CSF also surrounds the brain and acts as a cushion to protect it from injury. Hydrocephalus is an abnormal condition in which CSF builds up in the ventricles. When this happens, the ventricles get bigger and the pressure inside the head increases. This increased pressure on the brain can cause many issues such as visual impairments, headaches, hearing loss, muscle weakness, seizures, and learning disabilities.

### Language and Learning Disabilities

Most children with hydrocephalus have normal intelligence and can learn and do well in school. However, hydrocephalus can affect language skills in a variety of ways. Here are some areas that could be impacted:



- **Auditory Processing** – It may take a student a longer time to process information that is presented orally. It might also be more difficult for the student to keep information in his/her working memory long enough to recall it later. When this happens, the student may demonstrate difficulty focusing or may seem inattentive. These difficulties are multiplied when things are happening quickly or when there are many things happening all at once.



- **Social Skills** – Some students with hydrocephalus may have difficulty understanding nonverbal cues, such as facial expressions and body language. This may cause them to act inappropriately or appear to lack good judgment.



- **Narratives (stories)** – A student with hydrocephalus may produce stories or sequences that are missing information, difficult to understand, or contain extra, unrelated information.



- **Reading** – It may take a student with hydrocephalus longer to put information together when reading larger sections of text. He/she may also struggle when determining which bits of information in a text are important and/or using context clues to determine the meaning of unfamiliar words.



- **Inferencing** – Figurative language, critical thinking, and abstract concepts may be difficult for a student with hydrocephalus to grasp. This can make drawing conclusions and making inferences difficult.



### Tips and Strategies

If language delays in students with hydrocephalus are not identified and addressed quickly, they can have lasting effects. Here are some tips and suggestions for working with students with hydrocephalus:



- Be sure the student is paying attention before giving directions or information.






- Give the student extra time to complete tasks and assignments. This will allow for the additional time he/she needs in order to understand the information.

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-  • Break activities down into smaller, easier-to-achieve steps.
-  • Adapt assignments to allow the student to respond in ways that suit his/her strengths (e.g., if a student has better verbal than written skills, allow him/her to take tests orally).
-  • Use lists and/or schedules to help with organizational skills.

There is no “one size fits all” approach to helping students with hydrocephalus. Different students will exhibit different strengths and weaknesses. Understanding the difficulties that your students with hydrocephalus face is a key component to helping them learn and succeed in school and in life. For additional information about hydrocephalus, visit the Hydrocephalus Association’s website: <https://www.hydroassoc.org/>.

Resources:

“About Hydrocephalus” accessed May 18, 2020, [http://www.hydrocephaluskids.org/wordpress/?page\\_id=8](http://www.hydrocephaluskids.org/wordpress/?page_id=8)  
Dennis, M. (2010). Language disorders in children with central nervous system injury. *Journal of Clinical and Experimental Neuropsychology*, 32(4), 417-432  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3057107/>  
“Hydrocephalus” accessed May 18, 2020, <https://www.hydroassoc.org/hydrocephalus/>  
Hydrocephalus Association. (2002). A Teacher’s Guide to Hydrocephalus. [https://www.hydroassoc.org/docs/A\\_Teachers\\_Guide\\_to\\_Hydrocephalus.pdf](https://www.hydroassoc.org/docs/A_Teachers_Guide_to_Hydrocephalus.pdf)

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