



Children with cerebral palsy and HIE have been found to be at increased risk of nutritional deficiencies, gastrointestinal dysfunctions and feeding problems (1). These children may require specialized dietary plans due to a wide variety of reasons – some cannot chew or swallow properly, some are at risk of malnutrition due to physical difficulty eating, and others may sometimes have dysfunctional reflexes that can pose a choking hazard.

Roughly 92% of children with CP have gastrointestinal system symptoms that are clinically significant (1). Additionally, one third of children with CP have been shown to have poor nutrition.

These children's growth and quality of life are affected by such feeding and GI issues as (1):

- Frequent vomiting
- Gastroesophageal reflux disease (GERD): Poor posture resulting from abnormal neurological maturation can lead to GERD.
- Difficulty swallowing and chewing: Oral motor function and swallowing can be affected by CP.
- Constipation
- Poor appetite: Certain neurogenic drugs used for epilepsy and bladder control affect the appetite and motility of the gastrointestinal system.
- Pulmonary aspiration episodes

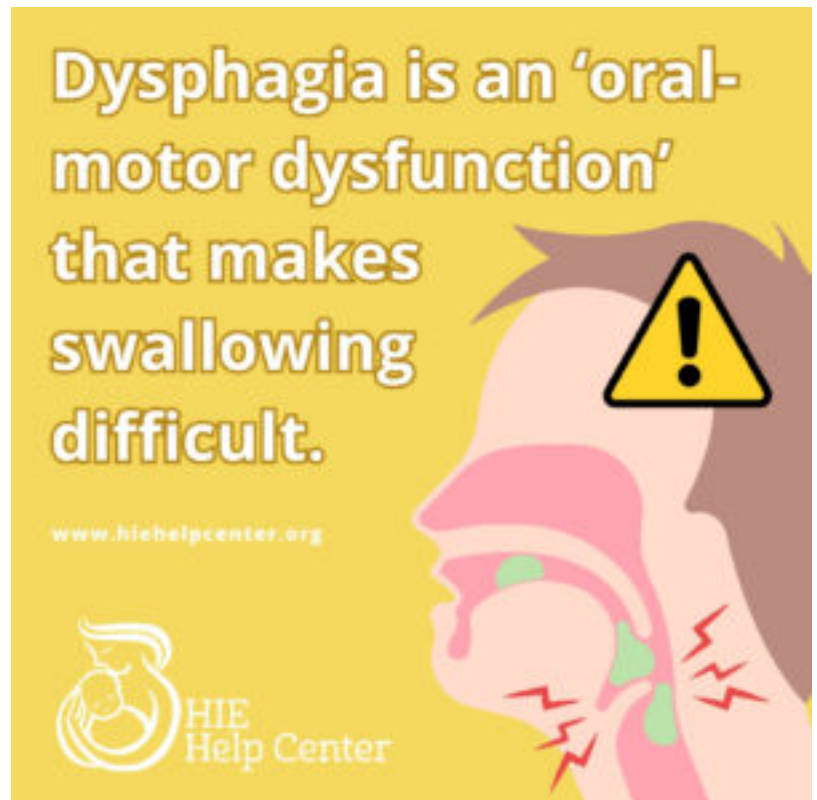
Jump to:

- [Dysphagia](#)
- [Categories of dysphagia](#)
- [Secondary malnutrition](#)
- [Secondary dehydration](#)
- [Respiratory issues](#)

- [Consulting with nutritional specialists](#)
- [About the HIE Help Center](#)
- [Sources](#)

Dysphagia

Dysphagia is an 'oral-motor dysfunction' that makes swallowing difficult. When a child has dysphagia, they are at increased risk of choking and/or aspirating their food. Dysphagia occurs most commonly in individuals with central nervous system injury, which can include individuals with HIE, cerebral palsy, stroke, or traumatic head injury.



For these children, it may be necessary to modify the calorie density of their meals, change the form in which they are provided, or change mealtime strategies to maximize eating efficiency. This should be done under the supervision of a physician, nutritional counselor, and/or registered dietician, who can provide help and advice regarding numerous nutritional concerns.

Categories of dysphagia

There are two different kinds of dysphagia, including (2):



- Oropharyngeal dysphagia: The result of abnormalities in the muscles and nerves of the oral cavity, pharynx and esophageal sphincter. This is most often related to nerve and muscle malfunctions that weaken the throat muscles, making it difficult to move food from mouth to throat.
- Esophageal dysphagia: A result of the muscle malformations or a malfunction of the lower esophageal sphincter. This type of dysphagia involves issues with the movement of food down the esophagus to the stomach.

Dysphagia can manifest in different ways. While the most common sign of dysphagia is difficulties with eating, it can also cause problems with speaking, which involves the same muscles as eating and chewing. Often, the physical difficulty of eating can reduce the amount



of food a child will be able to eat, as dysphagia can also make a child tire easily during eating.

Some signs of dysphagia include (2):

- Falling asleep during feeding
- Aspirating food
- Delayed and/or absent swallowing reflex
- Difficulty and/or unwillingness to feed
- Spasms in the esophagus
- Sensation of throat obstruction
- Pain while swallowing
- Taking a long time to eat
- Ataxic dysarthria
- Difficulty controlling vocal cords (resulting in nasal speech)
- Difficulty voicing or articulating speech
- Spastic dysarthria
- Verbal apraxia
- Back or chest pain
- Choking
- Constant cough
- Drooling
- Dry mouth
- Fatigue
- Heartburn
- Nasal regurgitation
- Sluggishness, lack of energy
- Sore throat
- Tongue thrust
- Unexplained weight loss



Secondary malnutrition

Because dysphagia often means that children with HIE eat smaller quantities of food, they are at risk of not receiving enough nutrients. Food intake should be closely monitored and parents should work with a nutritionist to ensure the child has adequate macronutrients, vitamins, minerals, and other dietary components. Sometimes this might mean supplementation or consultation with a [dietary specialist](#) to help figure out the best way to ensure the child's intake is sufficient. Malnutrition can increase the risk of a child failing to thrive, grow or develop according to expected values, and can exacerbate existing conditions.

Secondary dehydration

If a person loses more fluid than they retain, brain swelling, low blood volume shock, kidney failure, and other adverse events may occur. Low fluid intake (due to fear of choking, aspiration, or breathing issues) must be monitored and remedied.

Respiratory issues

Respiratory issues may stem from dysphagia-related aspiration. Aspiration of food or liquid into the lungs can cause pneumonia, a serious infection of the lungs.

Consulting with nutrition specialists

Parents who are concerned about their child's nutritional intake can consult with one of several specialists trained in helping to recognize, understand, and mitigate nutrition-related health concerns.



Often, this requires assessment and evaluation by multiple specialists, including clinical dietitians, occupational therapists, speech-language pathologists, pediatricians, radiologists, neurologists, and otolaryngologists (ear/nose/throat doctors), each of which plays a different role in developing a comprehensive nutritional plan.

To learn more about the concrete steps that specialists and parents can take to mitigate the risks of malnutrition with HIE, visit our [Care Considerations > Eating, Feeding, and Meal Planning](#) page.



About HIE Help Center

The HIE Help Center is run by [ABC Law Centers](#), a medical malpractice firm exclusively handling cases involving HIE, cerebral palsy and related birth injuries since the firm's inception in 1997.

If you suspect your child's HIE may have been caused by medical negligence, please [contact us](#) today to learn more about pursuing a case. We provide free legal consultations, during which we will inform you of your [legal options](#) and answer any questions you have. Moreover, you would pay nothing throughout the entire legal process unless we obtain a favorable settlement.

You are also welcome to reach out to us with inquiries that are not related to malpractice. We cannot provide individualized medical advice, but we're happy to track down informational resources for you.

Related Reading

- [HIE and Speech Delays/Language Disorders](#)
- [HIE and Respiratory Health](#)

Sources

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Nutritional Concerns, Feeding & Digestion