

<u>Cerebral palsy (CP)</u> is often most immediately recognizable due to effects on the limbs, but in many cases muscles in the mouth, neck, esophagus, and other parts of the digestive system are also affected. The following are a few examples of feeding and digestive issues associated with cerebral palsy:

- Dysphagia: Dysphagia refers to difficulty with swallowing, which can cause food to stay in the mouth longer than usual and may lead to pulmonary aspiration.
- Drooling: There are two main types of drooling: anterior and posterior. Anterior drooling involves loss of saliva from the mouth. It can create dental problems such as peri-oral infections. Posterior drooling is a situation in which saliva spills over the tongue and through the faucial isthmus.
- Pulmonary aspiration: Children with dysphagia or gastro-oesophageal reflux (GOR) are at risk of saliva aspiration to the lungs, which can lead to chronic coughing, breathing difficulties during sleep, bacteria colonizing the respiratory tract, serious lung damage (which often occurs in the absence of obvious symptoms like choking or coughing), and other issues.
- Malnourishment: Feeding problems such as dysphagia can lead to inadequate nutritional intake. About one third of children with cerebral palsy are undernourished; this is especially dangerous in those with cognitive impairments, who may be unable to communicate when they are hungry, full, or in pain.
- Gastrointestinal issues such as gastroesophageal reflux disease (GERD): This happens when a muscle at the end of the esophagus is not able to properly close, allowing stomach contents (acid) to leak back (reflux) into the esophagus, causing irritation.
- Constipation: This occurs in over 50% of children with severe generalized cerebral palsy, and is often an overlooked issue.

In some cases, interventions such as dietary changes (e.g. increased intake of fluids and/or fiber) and suppository assistance can alleviate these issues. However, some children may require gastroenterology surgeries.

Common surgical interventions for gastroenterological problems can include:





- <u>Nasogastric tube</u> (NG tube) insertion for short-term food delivery directly to the stomach.
- <u>Gastrostomy tube</u> (G-tube) placement through the abdomen to the stomach for nutrient supplementation without interrupting oral feeding.
- <u>Fundoplication</u> (placement of a valve at the top of the stomach to prevent GERD and reduce recurrent vomiting and chest infection)
- <u>Submandibular duct relocation</u> for <u>reducing drooling</u> (in situations where adaptive devices, medication, and therapy are ineffective)
- <u>Bladder augmentation</u> (augmentation cystoplasty) helps provide urinary continence for people with low bladder capacity or other bladder dysfunction.

Learn More About Gastroenterology Surgery:

- Gastrointestinal and Nutritional Issues in Cerebral Palsy
- Feeding Tubes: A General Overview [CP Family Network]
- [Research] Nutrition in Neurologically Impaired Children
- Tube Feeding: Overview



• [Research] Nutritional Management of Children with Cerebral Palsy