



Gastroparesis In Children

By Mohamad Abi Nassif, Neha Santucci MD., Pediatric Gastroenterology, Cincinnati Children's Hospital; Department of Pediatrics, University of Cincinnati College of Medicine
Edited by Jose M Garza MD, Medical director, Neurogastroenterology and Motility, Children's Healthcare of Atlanta. Partner at Gi Care for Kids, Atlanta, GA

850



International Foundation for Gastrointestinal Disorders (www.iffgd.org)

 Reading time: 5 minutes © Copyright 2026 by the International Foundation for Gastrointestinal Disorders

What is Gastroparesis?

Gastroparesis (GP) is a condition where the stomach takes too long to empty food and liquids. Instead of moving into the small intestine at the normal pace, food lingers in the stomach. This can cause nausea, vomiting, abdominal pain, bloating, early fullness, and weight loss. Sometimes called delayed gastric emptying, gastroparesis has no cure. With treatment, many children's symptoms improve over time — though for some, it may be a lifelong condition.

What causes gastroparesis?

Experts do not fully understand why some children develop gastroparesis. Possible reasons include:

- Nerves in the stomach wall not working properly
- Pacemaker cells (specialized cells in the stomach muscle layers that create rhythmic electrical impulses to signal movement) in the stomach not functioning
- Dysfunction of the stomach wall itself

Risk factors can include:

- Viral infections, diabetes, hypothyroidism, neurologic or metabolic disorders
- Certain GI surgeries (such as anti-reflux surgery)
- Medications, including some chemotherapy drugs
- Birth defects involving the stomach or abdomen

What Are the Signs and Symptoms?

- Nausea- A feeling of sickness with an urge to vomit
- Vomiting- bringing food back up from the stomach
- Upper abdominal pain or discomfort- pain varying from dull to sharp that occurs inside the stomach or intestines
- Feeling full after only a few bites (early satiety)
- Bloating- a buildup of gas or swollen feeling in the stomach or intestines

- Belching- loud gas passing from the stomach and out the mouth

Some children avoid eating to prevent symptoms, which can cause

- weight loss
- dehydration- an excessive loss of fluids in the body.
- Malnutrition- a condition that occurs when the body does not get enough nutrients.

How is Gastroparesis Diagnosed?

A pediatric gastroenterologist will review your child's history, perform a physical exam, and may order tests. Because many conditions can mimic gastroparesis, careful evaluation is important.

Diagnostic testing may include:

- **Gastric emptying scintigraphy:** This is a 2-to-4-hour test that measures the speed at which food leaves the stomach. For this test, a small amount of radioactive compound is added to a meal (often cooked eggs and toast). Afterwards, images of the stomach are taken using an x-ray at different time intervals to determine how slowly or quickly the food is moving through the stomach. This test is considered the "gold standard", which means it is considered the best way to diagnose gastroparesis.

- **Endoscopy:** This test checks for blockages at the end of the stomach where food enters the intestine. An endoscopy is a simple test that does not involve cutting into the body. A physician uses a long flexible tube called an endoscope. It is placed into the mouth, down the esophagus, and into the stomach and beginning of the small intestine. This tube has a camera and light on the end. This tool allows your physician to see inside your GI tract during the test.
- **X-ray studies:** An X-ray is a quick, painless test that uses radiation to capture images of the structures inside the body. It is used to rule out obstruction in the stomach.
- **Antroduodenal manometry:** Manometry is the study of pressure. Antroduodenal manometry is a way to measure and identify any abnormalities in the coordination and strength of the muscle contractions in the stomach and the duodenum.
- **Spirulina breath test:** This is a non-radioactive test for assessing gastric emptying similar to gastric emptying scintigraphy. It involves eating a meal that includes cooked eggs that contain *Spirulina platensis* (a bacteria). Afterwards, you will breathe into tubes for 5 hours, offering a non-invasive alternative to scintigraphy to measure how fast the stomach empties.
- **Body surface gastric mapping:** A new, noninvasive test that involves placing a sticky patch of sensors and a recording device onto the skin over the stomach area. During the test, patients will eat a meal to stimulate stomach activity then record their symptoms into an app while the body surface mapping device records activity of the stomach. The data allows doctors to see patterns in stomach activity that may relate to the symptoms recorded. This is still experimental and needs further evaluation.
- Treating underlying conditions (e.g., thyroid disease, diabetes)
- Diet changes: small frequent meals, more liquids, avoiding fatty and high-fiber foods
- Medicines to relieve nausea, pain, and improve stomach emptying
- Endoscopic procedures (Botox injections, balloon dilation)
- Auricular neurostimulation: a non-invasive, low-risk technique that uses a special device placed on the ear to apply electrical pulses to activate the vagus nerve.
- Behavioral interventions (such as GI-focused cognitive behavioral therapy, relaxation, or guided imagery)
- Feeding tubes into the small intestine, if food/liquid cannot be tolerated
- Gastric electrical stimulation — an implanted device that uses mild pulses to help stomach emptying

Vagus nerve – the longest nerve in the body. This is a major communication pathway between the brain and the digestive tract. It helps with digestion and stress.

The Long-Term Outlook

Most children improve over time. For most, symptoms are resolved completely; others may experience symptoms for years. Post-viral gastroparesis often improves within 3 months to 3 years. Children with joint hypermobility may improve after adolescence. Severe cases (gastric failure) are rare but may require feeding tubes or IV nutrition.

7 Additional Things to Know About Gastroparesis in Kids

1. How the Stomach Functions

The stomach has five parts (cardia, fundus, body, antrum, pylorus). Normally, they work together to store, mix, digest, and move food. In gastroparesis, one or more parts may not work properly.

Healthcare providers cannot yet test each part directly, so treatment often involves trial-and-error with medicines that act on different

What are the Treatment Options?

Treatment is tailored to each child, and may include:

stomach functions.

2. **The Incidence**

Gastroparesis is uncommon in children. It most often follows a viral infection. Other causes include idiopathic (unknown), diabetes, neurologic conditions, or connective tissue hypermobility.

3. **How It Looks in Different Ages**

- Infants/toddlers: Often present with feeding disorders — refusing to eat, vomiting, fussiness.
- Older children: Can describe nausea, bloating, fullness, and abdominal pain. Diagnosis is easier.

4. **Varying Severity**

- Mild/moderate symptoms:
 - Nausea- feeling the urge to vomit
 - early satiety- feeling full quickly after eating
 - weight changes
- Severe (“gastric failure”): Persistent vomiting, inability to eat, severe dehydration, malnutrition. May require feeding tube or IV nutrition (rare).

5. **Quality of Life Impact**

Children may miss school, sports, and activities. Some are home-schooled. Recovery can take months to years. A small percentage of children may continue to have long-term symptoms.

6. **Best Course of Treatment**

Treatment often combines:

- **Medications** (to help emptying or reduce nausea)
- **Dietary changes** (frequent small meals, more liquids)

- **Psychological therapies** (coping skills from GI psychologists to reduce pain/nausea and improve appetite)
- **Team-based care** (GI, nutrition, psychology, social work)

7. **When to See a Specialist**

If your child had a recent illness and continues to have vomiting, bloating, nausea, or fullness — or if current treatments are not working — talk to your pediatrician. Referral to a pediatric gastroenterologist may be needed.

About IFFGD

The International Foundation for Gastrointestinal Disorders (IFFGD) is a 501(c)(3) nonprofit education and research organization. We work to promote awareness, scientific advancement, and improved care for people affected by chronic digestive conditions. Our mission is to inform, assist, and support people affected by gastrointestinal disorders. Founded in 1991, we rely on donors to carry out our mission. Visit our website at: www.iffgd.org and www.aboutkidsgi.org.

IFFGD

537 Long Point Rd. Suite 101
Mt Pleasant, SC 29464

About the Publication

Opinions expressed are an author’s own and not necessarily those of the International Foundation for Gastrointestinal Disorders (IFFGD). IFFGD does not guarantee or endorse any product in this publication or any claim made by an author and disclaims all liability relating thereto. This article is in no way intended to replace the knowledge or diagnosis of your healthcare provider. We advise seeing a healthcare provider whenever a health problem arises requiring an expert’s care.

For more information, or permission to reprint this article, contact IFFGD by phone at 414-964-1799 or by email at iffgd@iffgd.org

This Fact Sheet is being provided in part, by Ironwood Pharmaceuticals, and donors of IFFGD