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 // GASTROPARESIS

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## What is gastroparesis?

Gastroparesis is a stomach disorder. It happens when your stomach takes too long to empty out food.

If food stays in your stomach for too long, it can cause problems. Too much bacteria may grow.

The food can also harden into solid masses, called bezoars. These masses may upset your stomach and make you vomit. They can also create a blockage in your stomach. This can be dangerous if it stops food from passing into your small intestine.

In most cases gastroparesis is a long-term (chronic) condition.

## What causes gastroparesis?

Gastroparesis is caused when your vagus nerve is damaged or stops working. The vagus nerve controls how food moves through your digestive tract. When this nerve doesn't work well, food moves too slowly or stops moving.

The vagus nerve gets damaged if you have diabetes and your blood sugar or blood glucose levels stay high over a long period of time.

Other causes of gastroparesis include:

- Eating disorders, such as anorexia or bulimia
- Surgery on your stomach or vagus nerve
- Extreme tiredness that does not seem to be caused by a health problem (chronic fatigue syndrome)
- Some medicines, such as those that slow movement in your intestine
- Disorders involving smooth muscle that may affect the stomach, such as amyloidosis and scleroderma

- Nervous system disorders such as abdominal migraine and Parkinson's disease
- Metabolic disorders, which make the body have either too much or too little of essential things it needs to stay healthy. An example is having too much of the thyroid hormone (hyperthyroidism).

## Who is at risk for gastroparesis?

You are more likely to have gastroparesis if you have type 1 or type 2 diabetes.

## What are the symptoms of gastroparesis?

Each person's symptoms may vary. Symptoms may include:

- Upset stomach or nausea
- Vomiting
- Weight loss
- Feeling full too soon after you start eating
- Belly (abdominal) bloating or pain
- Heartburn or GERD (gastroesophageal reflux disease)

The symptoms of gastroparesis may look like other health problems. Always see your doctor to be sure.

## How is gastroparesis diagnosed?

Your healthcare provider will give you a physical exam and ask about your past health. He or she may also use other tests, including:

- **Blood tests.** These tests check your blood counts and measure your chemical and electrolyte (mineral) levels.
- **Upper GI (gastrointestinal) series or barium swallow.** This test checks the organs of the top part of your digestive system. These are your food pipe (esophagus), your stomach, and the first part of your small intestine (duodenum). You will swallow a metallic fluid called barium. Barium coats the organs so that they can be seen on an X-ray. X-rays are then taken to check your digestive organs.
- **Radioisotope gastric-emptying scan.** During this test, you will eat food containing a mildly radioactive substance, or radioisotope, that will show up on a scan. The amount of radiation is very small. It is not harmful. But it lets the radiologist see the food in your stomach during the scan. He or she

can also see how quickly food leaves your stomach.

- **Gastric manometry (antroduodenal manometry).** This test checks the muscle movement in your stomach and small intestine. A thin tube is passed down your throat into your stomach. This tube has a wire that measures the muscle movement of your stomach as it digests foods and liquids. This helps show how your stomach is working. It also shows if your digestion is slower than normal.
- **Upper endoscopy (EGD or esophagogastroduodenoscopy).** This test looks at the lining or inside of your esophagus, stomach, and duodenum. This test uses a thin, lighted tube, called an endoscope. The tube has a camera at one end. The tube is put into your mouth and throat. Then it goes into your esophagus, stomach, and duodenum. Your healthcare provider can see the inside of these organs. He or she can also take a small tissue sample (biopsy) if needed.
- **Wireless capsule study.** This test involves swallowing a wireless capsule that measures stomach emptying.
- **Carbon breath testing.**
- **Scintigraphic gastric accommodation.** This test measures your stomach contents before and after a meal. It also checks how well your stomach relaxes after you eat food.

## How is gastroparesis treated?

In most cases gastroparesis is a long-term or chronic health problem. It can't be cured. But you can manage the disease with a care plan.

If you have diabetes and gastroparesis, the main goal is to control your blood sugar levels.

Any medicines that can cause gastroparesis will likely be stopped.

Your healthcare provider will create a care plan for you based on:

- Your age, overall health, and past health
- How serious your case is
- How well you handle certain medicines, treatments, or therapies
- If your condition is expected to get worse
- What you would like to do

Your care plan may include:

- **Taking medicines.** Your healthcare provider may prescribe a few medicines to see which works best.
- **Changing your diet.** Changing your eating habits can also help control the disease. In some cases eating 6 smaller meals a day is more helpful than eating 3 larger ones. Some experts suggest having a few liquid meals a day. They suggest you do this until your blood glucose levels are stable and your gastroparesis is under control. You may also be told not to eat fatty and high-fiber foods. These can slow your digestion and be hard to digest. See your healthcare provider or a dietitian for the eating plan that is best for you.
- **Surgery.** In some cases you may need a type of surgery called a jejunostomy. A feeding tube is inserted through the skin on your abdomen into your small intestine. This tube lets nutrients go right into your small intestine instead of your stomach. This surgery is used only if your gastroparesis very severe.
- **Gastric neurotransmitter.** This device may help control any upset stomach and vomiting. It is put into your body by surgery.
- **Feeding by IV (intravenously), also called parenteral nutrition.** This is when nutrients are put right into your veins. This is done instead of eating and having food go through your digestive system. A tube or catheter is put into one of your chest veins. The tube has an opening on the outside of your skin. A bag with liquid nutrients or medicine is joined to the tube. The fluids go into your bloodstream through your vein.

## What are the complications of gastroparesis?

Gastroparesis can cause other health problems because food moves too slowly through your stomach. These health problems include:

- Having a hard time managing your blood sugar if you have diabetes
- Letting food sit too long in your stomach and creating more bacteria
- Having hard masses of food (bezoars) build up in your stomach. These can cause upset stomach, vomiting, and block food from passing into your small intestine.
- Losing too much weight and not getting enough nutrients (malnutrition)

## Living with gastroparesis

Gastroparesis can lead to weight loss and not getting enough nutrients (malnutrition). It is very important to follow your health care provider's diet instructions.

In most cases you will be given a special diet. This will have foods that are easier to digest and pass through your stomach. You may also be given medicines to take. Follow all instructions carefully.

## When should I call my healthcare provider?

Call your healthcare provider right away if your symptoms get worse or if you have new symptoms.

Problems such as a stomach blockage or high blood sugar need to be taken care of right away.

## Key points

- Gastroparesis is a stomach disorder. It happens when your stomach takes too long to empty out food.
- If food stays in your stomach for too long, too much bacteria may grow.
- The food can also harden into solid masses (bezoars). They may upset your stomach or create a blockage in your stomach.
- In most cases gastroparesis is a long-term (chronic) condition.
- You are more likely to have it if you have type 1 or type 2 diabetes.
- Symptoms may include upset stomach or nausea, vomiting, losing weight, feeling full too soon when eating, belly or abdominal pain or bloating, and heartburn.
- Your care plan may include taking medicines, changing your diet, having surgery, and feeding by IV (intravenously).
- Treatment will not cure gastroparesis, but it can help you manage the disease.

## Next steps

Tips to help you get the most from a visit to your healthcare provider:

- Before your visit, write down questions you want answered.
- Bring someone with you to help you ask questions and remember what your provider tells you.
- At the visit, write down the names of new medicines, treatments, or tests, and any new instructions your provider gives you.
- If you have a follow-up appointment, write down the date, time, and purpose for that visit.
- Know how you can contact your provider if you have questions.