CONDITION

Gastroparesis

Gastroparesis is delayed stomach emptying without a physical blockage.

WHAT IT IS
Delayed stomach emptying without a physical blockage

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Nausea, vomiting, early fullness, upper abdominal discomfort

WHAT CAUSES IT
Diabetes, nerve injury, medicines, or unknown causes

HOW IT IS DIAGNOSED
Gastric emptying scintigraphy or approved breath testing

MAIN TREATMENT
Dietary changes, symptom medicines, and nutrition support

CAN IT BE CURED?
Sometimes - reversible causes may resolve

IS IT AN EMERGENCY?
Sometimes - severe dehydration or vomiting blood

LONG-TERM OUTLOOK
Symptoms often fluctuate; long-term management may be needed

Overview

Gastroparesis is a condition in which food moves from the stomach into the small intestine more slowly than normal, without a physical blockage.

Normally, stomach muscles grind food and push it onward. Nerves, including the vagus nerve, coordinate this process. In gastroparesis, these muscles or nerves may not work properly.

The condition can cause nausea, vomiting, prolonged fullness, and difficulty eating enough food. In people with diabetes, unpredictable food absorption can also make blood glucose harder to manage.

Symptoms do not always match the amount of delay found on a stomach-emptying test. Similar symptoms occur in other digestive conditions, so testing is important.

Symptoms

Symptoms often begin during or after eating and may be constant or occur in flares.

Common symptoms include:

Not everyone vomits. Pain can occur, but severe or sudden abdominal pain is not typical and needs medical assessment.

Symptoms may worsen after large, high-fat, or coarse high-fibre meals. Liquids often leave the stomach more easily than solid food, although individual tolerance varies.

- Feeling full soon after starting a meal
- Staying full for a long time after eating
- Nausea or vomiting, sometimes of food eaten hours earlier
- Upper abdominal discomfort, pain, or bloating
- Heartburn or food coming back up
- Reduced appetite
- Unplanned weight loss
- Unpredictable blood glucose levels in people with diabetes

Causes and risk factors

Diabetes is a well-recognised cause. Long-term high blood glucose can damage nerves controlling the stomach, while short-term high glucose may also slow emptying.

Surgery involving the stomach, oesophagus, or nearby structures can injure the vagus nerve. Gastroparesis can also occur with conditions affecting nerves or muscles, including Parkinson's disease and some connective tissue conditions.

Medicines that may slow stomach emptying or cause similar symptoms include opioid pain medicines, some anticholinergic medicines, and medicines acting on the GLP-1 pathway. Do not stop a prescribed medicine without discussing it with the prescriber.

A temporary delay may follow some viral illnesses. In many people, no cause is found; this is called idiopathic gastroparesis.

Risk factors include:

Gastroparesis is not caused by a physical narrowing, tumour, or scar blocking the stomach outlet. These problems can cause similar symptoms and must be considered separately.

- Long-standing diabetes, especially with nerve complications
- Previous upper digestive tract surgery
- Conditions affecting nerves or smooth muscle
- Medicines that slow stomach movement

Diagnosis

Diagnosis usually requires typical symptoms, evidence of delayed stomach emptying, and confirmation that there is no physical blockage.

A clinician may ask about symptoms, surgery, diabetes, weight changes, and medicines or supplements. Blood tests can check for dehydration, abnormal salts, poor nutrition, diabetes, thyroid problems, and other causes.

Upper endoscopy may be used to inspect the oesophagus, stomach, and first part of the small intestine. A thin camera is passed through the mouth while you are sedated. Imaging may also be needed to exclude a blockage. Food remaining in the stomach during endoscopy can raise concern but does not confirm gastroparesis by itself.

The standard confirmation test is gastric emptying scintigraphy. You eat a test meal containing a safe trace amount of radioactive material, and a scanner measures how much remains in the stomach over several hours. Solid-food testing for up to four hours is more reliable than a brief scan.

An approved gastric emptying breath test can estimate emptying by measuring substances in your breath after a labelled meal.

Medicines, smoking, cannabis, recent blood glucose levels, and not finishing the test meal can affect results. Follow the testing service's preparation instructions carefully. Only change medicines when instructed.

Treatment and management

Treatment aims to maintain nutrition and hydration, reduce symptoms, improve stomach emptying when appropriate, and manage the underlying cause.

Dietary changes are often the first step. Small meals may be easier to tolerate than large ones. Soft, well-cooked, blended, or liquid foods may pass through the stomach more readily. Lower-fat foods may help because fat can slow emptying. Large amounts of coarse or insoluble fibre may be difficult to process and can contribute to a hardened mass of food called

a bezoar.

A dietitian can help you get enough calories, protein, vitamins, and minerals while adjusting food texture. A highly restricted diet without professional support can cause nutritional deficiencies.

For people with diabetes, glucose management is important. Food may be absorbed later than expected, causing glucose to rise or fall at unusual times. A diabetes team can help review monitoring and treatment timing.

Medicines may include:

In the United States, metoclopramide is the only medicine approved specifically for gastroparesis. It can cause movement-related side effects, including tardive dyskinesia, which involves involuntary movements and may be lasting. Discuss its risks and expected benefits before treatment, and seek prompt medical review for new abnormal movements.

Other medicines may be used under specialist supervision. Availability varies by country, and some have important heart rhythm or antibiotic-related risks.

If eating does not provide enough nutrition, tube feeding into the small intestine may be considered. Nutrition through a vein is generally reserved for situations in which the digestive tract cannot be used adequately.

For severe symptoms that continue despite treatment, specialists may consider procedures that open the pylorus, the muscular valve at the stomach outlet, or implanted gastric electrical stimulation. These treatments require careful assessment and do not help everyone.

- Anti-nausea medicines
- Prokinetic medicines that help move food forward
- Short-term treatments for symptom flares

Complications

Repeated vomiting or poor fluid intake can cause dehydration and abnormal body salt levels. Poor nutrition may lead to weight loss, muscle loss, and vitamin or mineral deficiencies.

Food remaining in the stomach can harden into a bezoar, which may worsen symptoms or block the stomach outlet.

In diabetes, delayed absorption may cause low glucose if medicine acts before food is absorbed and high glucose later. High glucose can then slow stomach emptying further.

Symptoms can disrupt work, school, sleep, travel, and social meals. Avoiding increasing

numbers of foods can raise the risk of malnutrition. A dietitian or mental health professional may help when symptoms significantly affect daily life.

Prevention

Many cases cannot be prevented, including those with no identified cause or caused by unavoidable nerve injury or another condition.

If you have diabetes, working toward an agreed glucose target may reduce the risk of nerve damage, although it cannot guarantee prevention. Avoiding tobacco and attending routine diabetes reviews also support overall health.

Medicines that slow stomach emptying should be used only when their expected benefits justify their risks. Do not stop them suddenly on your own. Ask the prescriber about alternatives if symptoms begin after a medicine is started or changed.

Living with it and what to expect

Gastroparesis may last for months or years. Symptoms often fluctuate, with manageable periods and occasional flares. The rate of stomach emptying can also change over time.

Cases linked to a temporary illness or reversible medicine effect may improve when the cause resolves. Gastroparesis related to diabetes, nerve injury, surgery, or an unknown cause may need long-term management. No test can predict an individual's course with certainty.

Many people find a workable pattern by adjusting meal size and texture, treating nausea, and monitoring nutrition. During a flare, you may need softer or more liquid foods, then broaden your diet as symptoms settle. Regular weight checks and occasional blood tests can identify nutritional problems early.

Continue routine follow-up if symptoms affect eating, weight, glucose control, or daily activities. Treatment should be reviewed if a medicine stops helping, side effects appear, or the range of foods you tolerate becomes increasingly limited.

A brief record of meals, symptoms, vomiting, weight, and glucose patterns can help identify trends.

When to get medical help

Arrange a routine medical appointment if you often feel full after a few bites, have repeated

nausea after meals, vomit undigested food, lose weight without trying, or struggle to maintain nutrition. These symptoms have several possible causes and should not be assumed to be gastroparesis.

Seek prompt same-day medical advice if vomiting is persistent, you cannot keep medicines down, urine output is much lower than usual, or glucose levels are repeatedly outside your agreed range.

Get urgent or emergency help for:

These signs may indicate a complication or another condition and need rapid assessment.

- Vomit containing blood or material that looks like coffee grounds
- Severe or rapidly worsening abdominal pain
- Fainting, confusion, marked weakness, or difficulty staying awake
- Inability to keep fluids down with signs of significant dehydration
- Symptoms of diabetic ketoacidosis, such as vomiting, deep breathing, confusion, or fruity-smelling breath
- Very low blood glucose that does not improve with your usual emergency plan

Common questions

Can gastroparesis go away?

Sometimes. A delay related to a temporary infection or medicine may improve when the trigger resolves. Other forms can be long-lasting and require ongoing symptom and nutrition management.

What foods make gastroparesis worse?

Large, high-fat meals and coarse, high-fibre foods commonly cause difficulty. Individual tolerance differs. Soft, blended, or liquid foods may be easier during a flare.

Is gastroparesis the same as a blocked stomach?

No. Gastroparesis means the stomach empties slowly without a physical blockage. Because blockage can cause similar symptoms, it must be excluded during diagnosis.

Can I have gastroparesis without vomiting?

Yes. Some people mainly have early or prolonged fullness, nausea, bloating, or upper abdominal discomfort.

Does gastroparesis cause weight gain or weight loss?

Weight loss can occur when symptoms limit food intake. Some people maintain or gain weight, particularly if they use calorie-dense liquids or have other factors affecting weight. Weight alone cannot confirm or exclude gastroparesis.

Can stress cause gastroparesis?

Stress does not establish the diagnosis, although it may worsen nausea, pain, appetite, and other digestive symptoms. Diagnosis still requires objective evidence of delayed stomach emptying without a physical blockage.

Sources

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