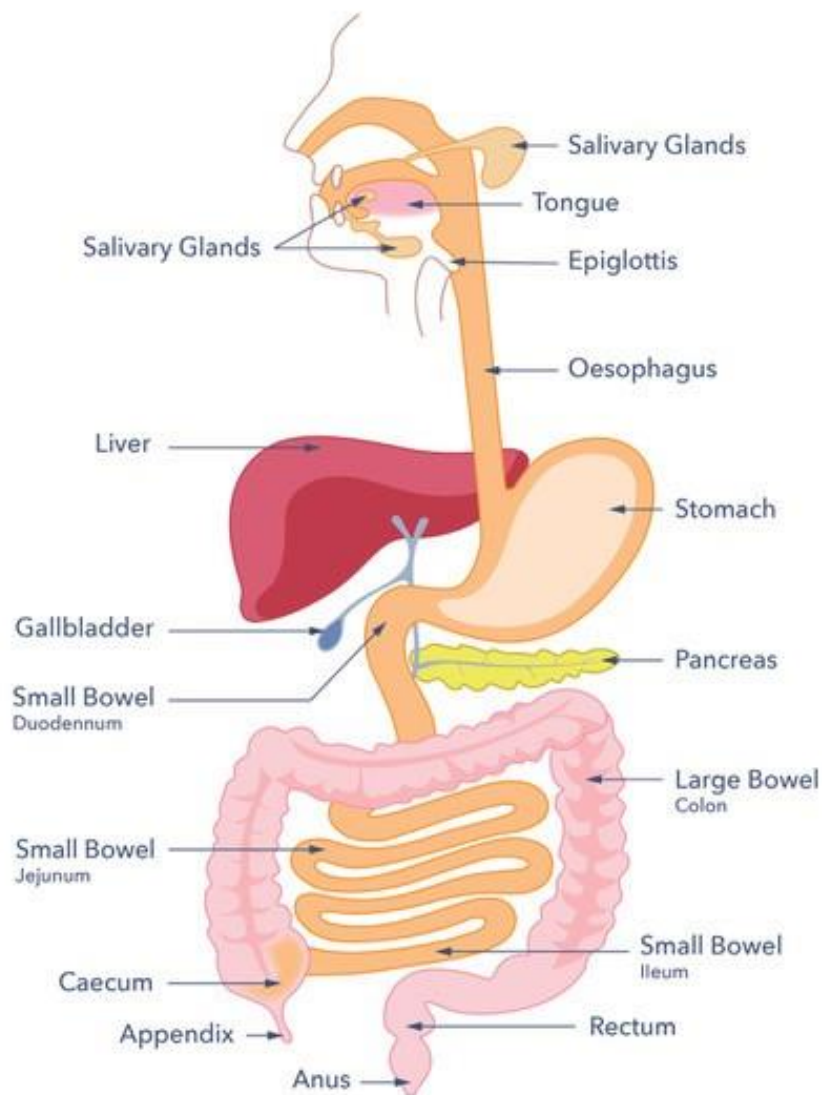


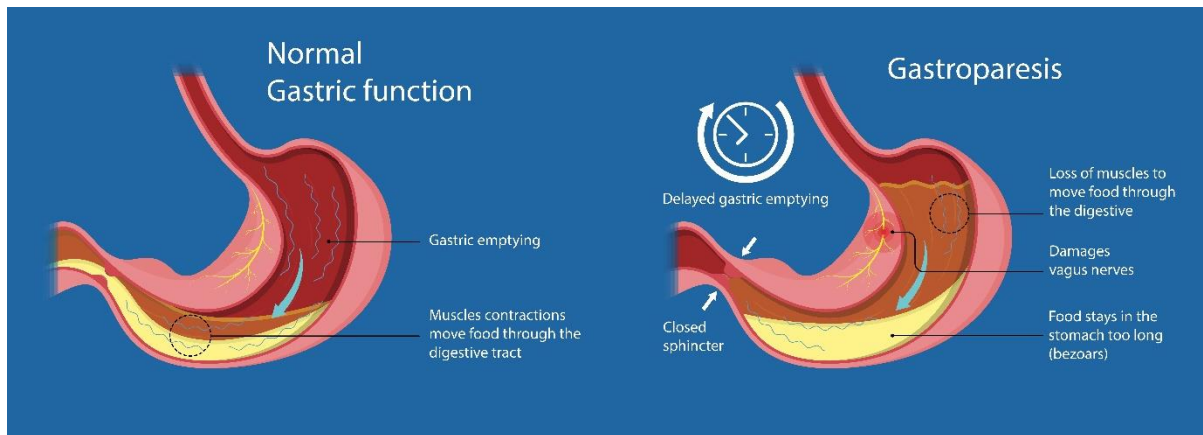


FUNDING RESEARCH TO FIGHT DISEASES OF THE GUT, LIVER & PANCREAS

THE DIGESTIVE SYSTEM

Our Digestive System





THIS FACTSHEET IS ABOUT GASTROPARESIS

Gastroparesis is a condition that affects the stomach. The name means stomach (gastro) paralysis (paresis) Gastroparesis is a chronic (long lasting) disorder where the stomach does not empty the contents in a normal way, without there being an obstruction or structural abnormality. The nerves that help the stomach muscles to move food out of the stomach don't work effectively, so the stomach empties too slowly. It can affect people of all ages but is more common in adults and women.

CAUSES

CAUSES OF GASTROPARESIS

In adults the most common cause is diabetes. When diabetes is challenging to manage this can lead to high blood sugar and over time this can cause damage to the stomach nerves. This is called diabetic gastroparesis and occurs in a maximum of 3 people in 25 people diagnosed with diabetes. Gastroparesis can occur equally in type 1 or type 2 diabetes.

In many people, the cause is unknown and this is called idiopathic gastroparesis. It is the next commonest type.

Gastroparesis can also occur for a variety of other reasons. These include medications, neurological conditions such as multiple sclerosis and Parkinson's disease, amyloidosis, and dysautonomia (where the autonomic nervous system (ANS) does not work properly). It can also happen after surgery to the oesophagus (food pipe), surgery for acid reflux (known as fundoplication), gastric bypass surgery, or partial gastrectomy. There is also some evidence that gastroparesis can occur after a viral infection (herpes, Cytomegalovirus, Norovirus or Epstein-Barr) or bacterial infection (typically Salmonella). Finally, it also can occur in people with rarer connective tissue disorders such as diffuse systemic sclerosis.

In children, the most common cause of gastroparesis is idiopathic for 7 out of 10 children diagnosed. The next most common cause is medication. This occurs in 9 children in 50, post viral infection occurs in 1 child in 20 and diabetic gastroparesis in 1 in 25 children diagnosed. It is most common during school age, and more frequent in male infants and female adolescents.

There is a big overlap between gastroparesis and a condition called *functional dyspepsia* and it is not always possible to entirely tell them apart, as the symptoms can be very similar. Functional dyspepsia is usually characterised by less vomiting, more pain and other sensory symptoms than pure gastroparesis (<https://gutscharity.org.uk/advice-and-information/conditions/non-ulcer-dyspepsia/>). There are other conditions which can cause similar symptoms such as gastro-oesophageal reflux, cyclical vomiting syndrome and chronic functional nausea and vomiting.

SYMPTOMS

WHAT ARE THE USUAL SYMPTOMS?

Symptoms include:

- Nausea (feeling sick)
- Vomiting (being sick)
- Vomiting undigested food hours after eating
- Abdominal pain
- Feeling full after few mouthfuls of a normal sized meal (early satiety)
- An inability to finish a meal.

Other common symptoms:

- Bloating
- Belching
- Weight loss

It is possible that people can be dehydrated due to being sick and some people can even experience malnutrition. Heartburn can also occur, due to delayed stomach emptying. Symptoms can range from mild to severe, depending on the person.

HOW IS GASTROPARESIS DIAGNOSED?

Where gastroparesis is suspected, your doctor will order tests to see how well the stomach is emptying.

A **gastroscopy** (a camera inserted into the stomach with a thin tube) is usually performed first to exclude other causes for symptoms. In gastroparesis this would usually be normal.

Gastric emptying scintigraphy (GES): The doctor will request a test to see how your stomach is emptying and ask you to consume a solid meal (usually scrambled egg with bread). This contains a small amount of a radioactive substance, called an isotope and is usually done in the nuclear medicine department. The isotope has a very short half-life, so it disappears from the body rapidly. Progress of the meal is monitored by special external cameras to see how long it takes to progress through the stomach.

If you cannot tolerate a solid meal, have a medically diagnosed food allergy to egg or wheat, have coeliac disease, or follow a specific diet for religious reasons please discuss this with your doctor. It is important to stop medications which can affect the result when this test is

performed, particularly opioid based medications such as codeine, tramadol, morphine and buprenorphine, discuss this with your doctor.

Abnormalities can also be seen in functional dyspepsia and there is not an exact relationship between the test results and symptoms, so an abnormal GES result does not necessarily mean you have gastroparesis.

Stable Isotope Breath test: This is similar to the gastric emptying scintigraphy test and involves either a solid or liquid meal. The meal includes a small amount of a short life isotope that is digested into the body and converted to carbon dioxide (gas) by the body's own metabolism. The gas is then measured in the breath. This test may not be as accurate in people who have liver disease (as this may affect isotope metabolism) or coeliac disease (as this may affect isotope absorption).

Ultrasound or MRI: These may be considered by your doctor, but the above tests are more frequently used.

HOW CAN GASTROPARESIS AFFECT YOU?

Nausea is common and may be associated with vomiting. Bloating, abdominal pain, and weight loss, are also common. In diabetic and idiopathic gastroparesis the symptoms can be heartburn with bloating, feeling full soon after starting a meal, nausea/vomiting and regurgitation of food are also common. Pain is more frequently experienced with people diagnosed with idiopathic gastroparesis. You may feel full very quickly during eating and be unable to finish eating a normal size meal, but symptoms can also occur in-between meals and symptoms occurring during the night have also been reported. Usually symptoms occur in combination and not in isolation.

Children commonly experience symptoms of vomiting, abdominal pain, weight loss, feeling full soon after starting a meal and feeling very full after eating a normal sized meal.

Weight loss can occur, so supporting your nutrition is essential to try and prevent further weight loss. Severe symptoms that result in dehydration and severe malnutrition may require hospitalisation for treatment.

You may feel that you have a food intolerance, but this is not usually the case. As symptoms are caused by the physical action of slow stomach emptying and not by food intolerance, elimination diets do not generally help with gastroparesis and should be avoided as they can lead to malnutrition. See below for dietary advice which may be helpful.

Long term symptoms can affect quality of life and mood - if you are feeling low in mood because of your symptoms you should discuss this with your doctor.

TREATMENT

WHAT TREATMENT IS AVAILABLE FOR GASTROPARESIS?

Symptoms can improve with time (over at least 12 months) for some people, particularly those with gastroparesis after an infection. The outlook for this group of people is therefore slightly better.

Management of high blood sugars: is important for people who have been diagnosed with diabetic gastroparesis. The NICE Guidelines for people with type 1 diabetes suggest consideration of continuous subcutaneous insulin infusion (CSII or insulin pump) therapy, discuss this with your diabetes team.

Diet: Dietary modification may help control symptoms but there is no specific diet to treat gastroparesis. Chewing food well is important to facilitate better texture in promoting stomach emptying.

As large meals are often poorly tolerated, having six small meals or, alternatively, three small meals and three snacks can be helpful to reduce symptoms and maintain weight.

Avoidance of tough fibrous food is also important, for example raw vegetables, citrus fruits, celery, pumpkin, grapes, prunes and raisins. Tough fibres are slow to empty from the stomach and may form a compact indigestible mass called a bezoar.

Avoidance of carbonated or fizzy drinks may help reduce symptoms of bloating. Ask your doctor for a referral to a dietitian if you are considering any dietary changes.

Some people with more severe symptoms may need to change the texture of their diet to a smooth or liquid diet, but it is strongly advised that this is done with the help of a trained and registered dietitian, (<https://www.bda.uk.com/about-dietetics/what-is-dietitian/dietitian-or-nutritionist.html>) to ensure the diet still provides all the essential nutrients that are needed for health.

Lower fat diets can also help reduce symptoms, but again professional advice needs to be sought as low-fat diets can make malnutrition worse. Sometimes, dietitians will prescribe oral supplements such as nutrition drinks which can help get essential nutrients and calories into your body without having to eat solid food. Some people use nutrition drinks in combination with solid food to maintain weight. Ask your doctor for a referral to a dietitian.

Anti-sickness medications: These generally work by increasing the speed of stomach emptying (prokinetic action) and reducing nausea, so can therefore reduce symptoms by this mechanism. Examples are metoclopramide, domperidone, and erythromycin. However, there can be safety issues with their long-term use and they should ideally only be used intermittently or otherwise with careful monitoring. Other anti-sickness drugs which don't affect stomach emptying may still help symptoms in some people.

Newer medications: Your doctor may consider mirtazapine or prucalopride (unlicensed use) these are newer medications that might be suggested as a trial by your doctor but research of these medications for gastroparesis treatment is continuing.

Gastric electrical stimulation: This is often referred to as a gastric pacemaker, which is surgically implanted. This may be a consideration for people with diabetic gastroparesis, but research is continuing, and outcomes are very variable and subject to complication risks of surgery. Availability and funding for this procedure may also be variable.

Other treatments which may be considered in carefully selected individuals: botox (botulinum toxin) is where a toxin is injected into the stomach and it can provide some

symptom relief in a minority of people. However, any improvement gained is generally only temporary and repeated treatment may be needed for people who have a good response to initial treatment.

There is an endoscopic procedure called G-POEM (a thin tube with a camera that is inserted through the mouth and passed to the stomach and used to provide treatment). The treatment is called a gastro peroral endoscopy myotomy. The procedure cuts a muscle in the stomach to help it empty more easily. Otherwise surgical options, such as surgical pyloroplasty might be considered.

Tube Feeding: For people with severe symptoms and malnutrition, where foods and fluids are poorly tolerated, your doctor may advise a trial of feeding through a tube if oral liquid supplements are insufficient. The tube is either inserted via the nose into the stomach, feed is run at a very slow rate to make sure it can be tolerated, when oral diet may not be. Feeding may need a tube to be placed via the nose then passed into the small bowel, bypassing the problematic area, the stomach. Sometimes people may have a surgically/endoscopically inserted feeding tube as a last resort.

Usually your doctor will need evidence that the tube feeding is an effective treatment before considering any more invasive treatment such as surgery. You will be required to go into hospital for a few days for the tube placement and to see if tube feeding helps maintain your nutrition. You and/or a carer will then be given training to provide the feed at home.

Feeding into a vein: This route of feeding would not usually be required in gastroparesis, as the small bowel is working. There would need to be evidence of small bowel intestinal failure to support the use of this high-risk option.

DOES GASTROPARESIS NEED TO BE MONITORED AND, IF SO, HOW?

Your doctor will monitor your symptoms and weight to see if treatment is effective so that other options can be tried in situations where symptoms are continuing and are moderate to severe.

If you need a feeding tube, this is usually suitable (with training) for home feeding and a community dietitian will follow up to alter the feed as necessary. You are usually provided with a 24-hour available emergency contact number in the event of problems with the equipment. Usually home tube feeding companies also have a contact for specialist nutrition nurses who can advise on equipment problems – they may not be available as a 24-hour service.

SUPPORT

For artificial feeding information and support please see the link here:

<https://pinnt.com/Home.aspx>

WHAT TO ASK YOUR DOCTOR WHEN YOU SEE THEM?

- | Are there any medications that can cause these symptoms and if so, what alternatives can I try?
- | What treatments are available to my situation and what are the benefits and drawbacks of them?
- | Can I be referred to a dietitian to help me with my diet?
- | Can I see a diabetes specialist to help me with my diabetes control?
- | Can I talk to someone about my feelings at having to manage my symptoms?

RESEARCH

WHAT MORE RESEARCH NEEDS TO BE DONE ON GASTROPARESIS?

Further research to help understand and treat gastroparesis is crucial.

Guts UK is the only UK charity funding research and providing crucial information for the digestive system top to tail; the gut, liver and pancreas.

Our guts have been underfunded, undervalued and underrepresented for decades. In the UK alone, millions suffer from digestive diseases and often have little or no treatment options. Guts UK exists to change that.

Join us today; help us get to grips with guts and change the lives of millions of people in the UK by [supporting our work](#) today.

[For further information, visit gutscharity.org.uk](https://gutscharity.org.uk)

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