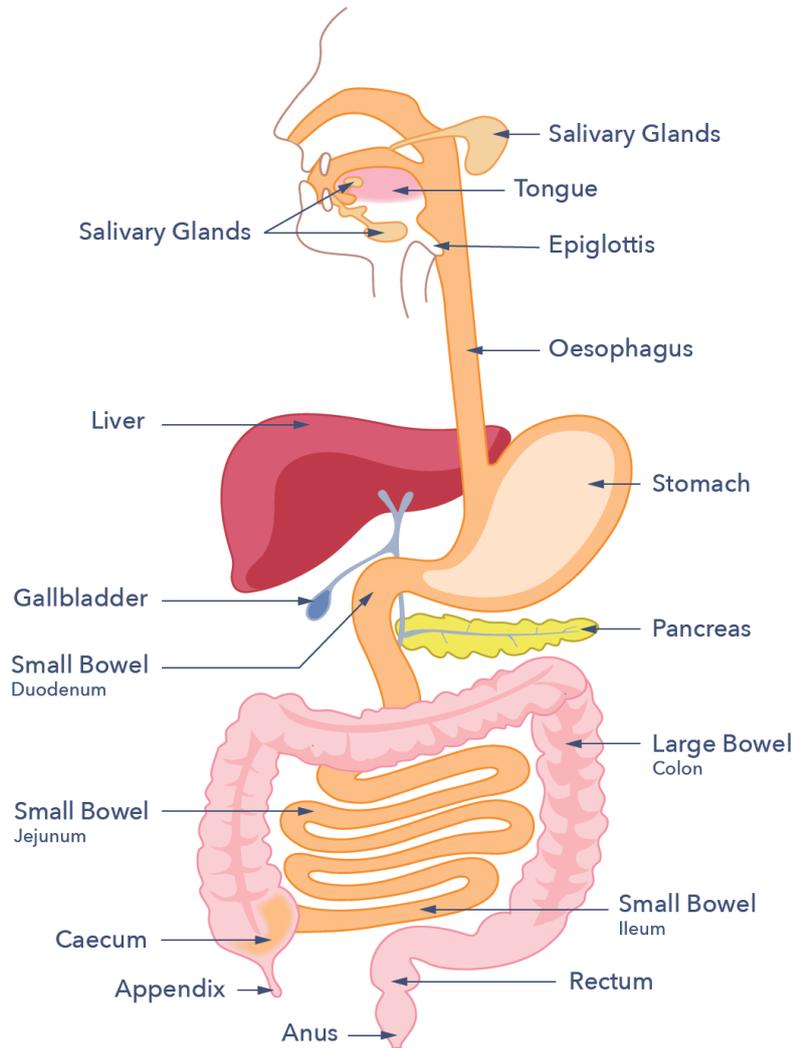




FUNDING RESEARCH TO FIGHT DISEASES OF THE GUT, LIVER & PANCREAS

THE DIGESTIVE SYSTEM



THIS FACTSHEET IS ABOUT FUNCTIONAL DYSPEPSIA

OVERVIEW

The term "dyspepsia" refers to a group of symptoms, for example upper belly pain, belching, bloating and feeling full. It is also known as indigestion. The oesophagus (gullet), stomach and first part of the small intestine (duodenum) are all affected by dyspepsia symptoms. When a disease cannot be found to explain symptoms, functional dyspepsia is the diagnosis given to a person with dyspepsia symptoms. This does not mean that the person's symptoms are not real, but rather that there is a communication issue between the brain and the gut. The symptoms listed below are brought on by the oversensitivity of the stomach's nerves. Functional dyspepsia, the most common cause of dyspepsia symptoms, is ultimately diagnosed in 8 out of 10 cases of indigestion. Around the world, 7 in every 100 people have functional dyspepsia. There are more women than men living with functional dyspepsia in the UK. There are a slightly higher number of adults diagnosed between the ages of 18 to 39 years, compared with older age groups.

SYMPTOMS

WHAT ARE THE USUAL SYMPTOMS OF FUNCTIONAL DYSPEPSIA?

Functional dyspepsia symptoms include:

- Upper belly (abdominal) pain that ranges from mild to severe and might feel like burning.
- Feeling sick (nausea)
- Belching (burping)
- Bloating
- An uncomfortable feeling of being full after eating regular-sized meals.

Being sick (vomiting) is not normally a symptom of functional dyspepsia and your doctor may need to perform more tests if this is a symptom.

Some people with functional dyspepsia may experience heartburn (pain under the breastbone). If heartburn symptoms worsen with exercise or activity, you should contact your general practitioner (GP.)

Some people experience pain soon after eating (this symptom is called post-prandial distress syndrome). Others may experience symptoms unrelated to food. This may be referred to by your doctor as epigastric pain syndrome. In 1 in 3 people with functional dyspepsia, there is an overlap of these syndromes. Functional dyspepsia can cause severe symptoms in some people.

CAUSES

CAUSES OF FUNCTIONAL DYSPEPSIA

There is no known single cause of functional dyspepsia. To make sure symptoms are not being caused by other diseases with similar symptoms, it is important to do a few investigations. See the 'how is functional dyspepsia diagnosed' section for more details.

The gut and brain are linked, and they constantly communicate with one another through our nerves. The gut and brain might overshare information and then this connection becomes more sensitive, which can cause symptoms. A disorder of the gut-brain interaction is the term used to describe an illness where tests do not reveal a medical known cause for the symptoms. This occurs when the gut nerves become more sensitive to normal function and the stomach is not emptying properly.

There are several different causes that can contribute to symptoms. These include alterations to the variety of bacteria that normally live in the digestive system because of a gut infection. Other factors include stress, lifestyle factors and the emotional response to symptoms. Living with these symptoms can reduce a person's quality of life and may have a negative impact on a person's mental health.

Diet and lifestyle: Foods can worsen symptoms, especially if symptoms occur with eating. Food sensitivity varies, therefore it's important to keep in mind that many people with functional dyspepsia may tolerate some or all foods. For more details, go to the section on 'diet therapy'. People may choose to concentrate on diet treatment because they believe it to be a more natural form of treatment. But treatment for alternative causes should be looked at too. Foods should be reintroduced if you have cut many items from your diet without symptoms improving. This is because diet is not always the cause of symptoms.

Individuals with functional dyspepsia might avoid or restrict certain foods if they suspect a food triggers symptoms, and this situation could lead to malnourishment. To avoid this, you can request a referral from your doctor to a dietitian for advice. Having a larger body size than is considered healthy can also impact symptoms. You can check if you have a healthy weight on the NHS website: <https://www.nhs.uk/live-well/healthy-weight/bmi-calculator/>

Other lifestyle factors that can affect symptoms are:

- Smoking.

- Alcohol intake above recommended levels.

High levels of anxiety or stress can make symptoms worse and are an important consideration.

Medicines: Codeine, tramadol, morphine, buprenorphine, tapentadol, and fentanyl are examples of opioid-based painkillers. These kinds of medicines are not generally effective for treating chronic pain and have negative effects on the digestive system. They may result in intensified discomfort, heartburn, and reflux symptoms. They may also slow the rate of stomach emptying. These medications may also result in gastroparesis (stomach paralysis). You can learn more about the effects of painkillers on the digestive system in Guts UK's information on painkillers and the digestive system: <https://gutscharity.org.uk/advice-and-information/symptoms/opioid-induced-bowel-dysfunction/>

This is not a full list of medicines that cause symptoms. If there are concerns that your medication could be causing symptoms, consult your doctor. Always read the medication leaflet and it is important not to stop your medicine before speaking to your doctor or pharmacist first.

Irritable Bowel Syndrome (IBS) affects roughly 1 in 3 people who have functional dyspepsia. Possible symptoms of IBS are:

- Belly pain.
- Bloating.
- A change in the frequency of opening the bowel.
- A change in consistency of poo.
- Having a sensation of still needing to poo after opening the bowels.

Testing for coeliac disease should also be completed in people with functional dyspepsia and IBS symptoms. There are other tests that might be needed depending on the change in bowel habits - see Guts UK's Poo-Torial to check your poo here: <https://gutscharity.org.uk/poo-torial/>

HOW IS FUNCTIONAL DYSPEPSIA DIAGNOSED?

When additional tests (if needed) do not reveal a disease causing the symptoms, functional dyspepsia is diagnosed based on the pattern of symptoms.

Testing should be done for the microscopic germ (bacteria) known as *Helicobacter Pylori* (*H. Pylori*) because it can occasionally cause symptoms. Your GP can do the *H. Pylori* test. Simple blood, stool, or breath tests are used for the investigation. Your GP should provide treatment if the test is positive. Additionally, functional

dyspepsia and *H. pylori* are both conditions that potentially could occur at the same time. If the bacteria are discovered, treatment is important to erase *H. Pylori*, but some individuals may continue to experience dyspepsia symptoms. In this situation a test should be done to ensure that the *H. Pylori* bacteria has been eradicated.

The doctor may decide to do more tests, for people aged over 40, or those with a family history of a digestive cancer. Examples of these cancers include oesophageal, stomach or pancreatic cancer. Contact your doctor if you have, or go on to develop, the following red-flag symptoms:

- Unintentional weight loss.
- Low levels of iron in the blood (your GP can check for this by taking a blood sample). Symptoms of low iron might include feeling tired and breathless.
- Any pain or sensation of food sticking when swallowing.
- Belly pain travelling through to the back.
- Yellowing of the whites of the eyes, dark urine and pale poo.

Tests might include blood tests, a camera to check the oesophagus and stomach (gastroscopy), or scans. Scans may include X-rays, ultrasound or CT scans. These tests may look for cancer, ulcers or gallstones. It is worth noting that most people will not have cancer, but sooner diagnosis helps to treat these conditions quicker.

In functional dyspepsia, the lining of the gut will look normal on a gastroscopy test. Other test results will also be normal.

HOW CAN FUNCTIONAL DYSPEPSIA AFFECT YOUR LIFE?

Functional dyspepsia symptoms can change. Sometimes symptoms happen less often and sometimes more frequently. People who are diagnosed with symptoms for which no disease has been found may experience a low quality of life and a sense of hopelessness. It is crucial to tell your doctor if you are feeling any of these things so that the right care may be provided, especially because stress might make your symptoms worse.

TREATMENT

WHAT TREATMENT IS AVAILABLE FOR FUNCTIONAL DYSPEPSIA?

Some medication treatments are available from your GP and are called first line medicine treatments (see below.) If this course of treatment is ineffective, you could ask to be sent for specialised care. This could be with a psychologist or a gut doctor (gastroenterologist). Although there is currently no cure for functional dyspepsia, most therapies can help to reduce symptoms to a manageable level. It might be helpful to know that only a small number of people still have severe symptoms after treatment.

Lifestyle changes: Intentional weight loss may be one of the lifestyle modifications you choose, if your weight is higher than what is considered healthy. If your symptoms happen when you lie down at night, avoid eating three hours before bedtime. It's a good idea to consume less alcohol and to stop smoking (especially if symptoms worsen with meals). Other health gains may also happen because of these improvements.

Activity: There is a small amount of evidence that exercise that increases both heart rate and breathing rate (aerobic exercise) can improve symptoms. This can have other health benefits.

All these lifestyle changes mentioned above can sometimes be challenging to do by yourself. Your GP can give details of your local NHS services where needed, and help you decide if the treatment is good for you. Making these changes with help can be more effective.

Diet: For some people, cutting back on caffeine-containing food and drinks, spicy foods, fatty foods like chocolate and pastries, citrus fruit juices, peppermint, fizzy drinks, and tomatoes can be helpful. Eating smaller, more frequent meals can also be beneficial in reducing symptoms. There is no evidence currently to support the use of an elimination diet (cutting out full food groups), as a treatment, but research is continuing. However, if you also have an IBS diagnosis, added diet therapy for your IBS symptoms could be considered. If this applies to you, ask your doctor for a referral to an NHS dietitian.

Eating disorders: Ask your doctor about nearby eating disorders services if you think you might have an eating disorder, because treatment is important. There are several eating disorders, someone may experience some of the following behaviours (this is not a complete list):

- Restricted eating and increasing amounts of exercise.
- Eating large volumes of food quickly then the person making themselves sick.
- Overuse of laxatives to 'get rid of food.'
- A restricted diet because of avoiding certain types of food. This may be because of taste, texture, appearance, or a fear of eating due to symptoms.

- Obsession with a supposed healthy diet and being unable to relax diet rules.

Information about how to recognise an eating disorder is available at the charity BEAT: [The UK's Eating Disorder Charity - Beat \(beateatingdisorders.org.uk\)](http://beateatingdisorders.org.uk).

Psychological factors: The symptoms of functional dyspepsia may be greatly influenced by psychological factors. You could ask for a referral from your doctor for local services that provide advice and support from a mind therapist (psychotherapist). If you want to try this treatment and it is offered in your region, cognitive-behavioural therapy (CBT), gut-directed hypnotherapy, or interpersonal psychodynamic psychotherapy may be useful to consider. Gut-directed hypnotherapy might be difficult to access in the NHS.

Probiotics/prebiotics: There is no proof that a specific probiotic (food containing live bacteria) or prebiotic supplement (fibre that is food for gut bacteria), is an effective treatment for functional dyspepsia.

Medication: A variety of medicines can be used to treat functional dyspepsia. These consist of:

- **Antacids:** Aluminium hydroxide, magnesium carbonate, magnesium trisilicate, and other components are found in antacids. They are sold at pharmacies under a variety of brand names and are available as tablets or liquids. They help to neutralise the stomach acid and may have added substances to lessen excessive gas. It's important to read the information booklet, as some medications have side effects that can affect the digestive system. Treatments containing aluminium can cause constipation and those containing magnesium can cause diarrhoea.
- **Proton Pump Inhibitors (PPI):** These drugs, for example omeprazole or lansoprazole (there are several options), work by stopping the acid production in the stomach to reduce the amount of acid present. The lowest dose to treat symptoms should be considered. If they do not work, stopping them should be considered. Ask your GP about how to reduce these medicines to reduce rebound reflux symptoms. Rebound reflux happens when PPIs are stopped suddenly, which can cause worse symptoms initially.
- **H₂ antagonists:** These drugs, such as cimetidine and famotidine, reduce the amount of acid produced in the stomach. They work differently to proton pump inhibitors. They are sometimes used in combination with proton pump inhibitors. If they are not effective for symptoms, stopping them should be considered on the advice of your GP or pharmacist.

- **Antidepressants:** These may be used at a very low dose, as they have the effect of calming the muscles of the gut and reduce pain sensation. If you already have a diagnosis of depression and/or anxiety, these drugs may be needed at higher doses to treat the underlying cause. Your doctor will advise you about the correct dose to take.

SUPPORT

DOES FUNCTIONAL DYSPEPSIA NEED TO BE MONITORED AND IF SO, HOW?

It's a good idea to keep track of how your dyspepsia symptoms may change over time. However, routine visits to the doctor are not typically necessary. If your symptoms change, it's important to visit your GP. You should consult your doctor right away if you experience any of the red-flag symptoms noted earlier.

HOW CAN FUNCTIONAL DYSPEPSIA AFFECT YOU OVER TIME?

Most people's symptoms become better over time and with treatment. However, a small number of individuals might continue to have dyspepsia long term.

WHAT TO ASK YOUR DOCTOR ABOUT YOUR FUNCTIONAL DYSPEPSIA?

Could I be referred to a dietitian to see if there are any changes to my diet that may help?

Please could you refer me to a specialist so they can consider additional therapies? I've tried medications and simple fixes, but my problems are still present.

Do I take the medication on a regular basis or only when needed?

RESEARCH

IS THERE A NEED FOR FURTHER RESEARCH INTO FUNCTIONAL DYSPEPSIA?

Functional dyspepsia has no known cause, and more research into underlying causes and variables that worsen symptoms may lead to future breakthroughs in treatment options.

The most recent British Society of Gastroenterology guidelines for functional dyspepsia include more information:

[British Society of Gastroenterology guidelines on the management of functional dyspepsia | Gut \(bmj.com\)](#)

References available on request.

We have information available on request for the following conditions mentioned in this information leaflet:

- Indigestion
- Heartburn and reflux
- Gastroparesis
- Painkillers causing constipation and other digestive symptoms.
- IBS
- Coeliac disease
- Poo-Torial – a bowel symptom checker tool [Poo-Torial - Guts UK \(gutscharity.org.uk\)](#)
- *H. Pylori*
- Oesophageal cancer
- Stomach cancer
- Prebiotics and probiotics
- Constipation
- Diarrhoea

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