

Stomach (Gastric) Cancer

Although stomach (gastric) cancer is common worldwide, it is not so common in the UK. Most cases occur in people over the age of 55. If stomach cancer is diagnosed at an early stage, there is a good chance of a cure. In general, the more advanced the cancer (the more it has grown and spread), the less chance that treatment will be curative. However, treatment can often slow the progress of the cancer.

What is the stomach?

The stomach is in the upper tummy (abdomen). It is part of the gut (gastrointestinal tract). It lies in the upper part of the abdomen, just below the ribs. When we eat, food passes down the gullet (oesophagus) into the stomach.

The stomach makes acid and some chemicals (enzymes) which help to digest food. The muscles in the wall of the stomach tighten (contract) to mix up the food with the acid and enzymes.

Food then passes into the first part of the small intestine (the duodenum). Here food mixes with more enzymes which come from the pancreas and lining of the gut. The enzymes break down (digest) the food.

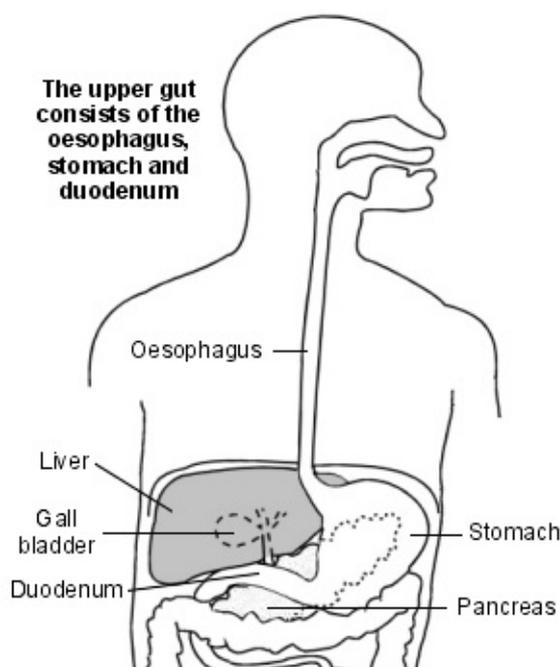
Digested food is then absorbed into the body from the small intestine.

What is cancer?

Cancer is a disease of the cells in the body. The body is made up from millions of tiny cells. There are many different types of cell in the body, and there are many different types of cancer which arise from different types of cell. What all types of cancer have in common is that the cancer cells are abnormal and multiply out of control.

A malignant tumour is a lump or growth of tissue made up from cancer cells which continue to multiply. As they grow, malignant tumours invade into nearby tissues and organs, which can cause damage. Malignant tumours may also spread to other parts of the body. This happens if some cells break off from the first (primary) tumour and are carried in the bloodstream or lymph channels to other parts of the body. These small groups of cells may then multiply to form secondary tumours (metastases) in one or more parts of the body. These secondary tumours may then grow, invade and damage nearby tissues, and spread again.

Some cancers are more serious than others, some are more easily treated than others (particularly if diagnosed at an early stage), some have a better outlook (prognosis) than others. So, cancer is not just one condition. In each case it is important to know exactly what type of cancer has developed, how large it has become, and whether it has spread. This will enable you to get reliable information on treatment options and outlook. (See separate leaflet called [What is Cancer?](#) for further details about cancer in general.)



What is stomach cancer?

Stomach cancer is sometimes called gastric cancer. Worldwide it is one of the most common cancers. It is common in Japan and China but is less common in the UK. About 5,000 people develop stomach cancer each year in the UK. Stomach cancer is more common in men than in women and tends to occur mainly in older people. Most people who develop stomach cancer are over the age of 55.

Adenocarcinoma of the stomach

In most cases, stomach cancer begins from a cell which is on the inside lining of the stomach (the mucosa). This type of stomach cancer is called adenocarcinoma of the stomach. As the cancer cells multiply:

- The tumour may invade deeper into the wall of the stomach. In time, it may pass through the wall of the stomach and invade nearby organs such as the pancreas or liver.
- The tumour may spread up or down the stomach into the gullet (oesophagus) or small intestine.
- Some cells may break off into the lymph channels or bloodstream. The cancer may then spread to nearby lymph nodes or spread to other areas of the body (metastasise).

Other types of stomach cancer

There are some less common and rare types of stomach cancer which include:

- Lymphomas. These are cancers which arise from the lymphatic tissue within the wall of the stomach.
- Sarcomas. These are cancers which arise from the muscle or connective tissue within the wall of the stomach.
- Carcinoid cancers. These are cancers which arise from cells in the stomach lining which make hormones.

The rest of this leaflet only discusses adenocarcinoma of the stomach.

What causes stomach cancer (adenocarcinoma of the stomach)?

A cancerous (malignant) tumour starts from one abnormal cell. The exact reason why a cell becomes cancerous is unclear. It is thought that something damages or alters certain genes in the cell. This makes the cell abnormal and multiply out of control. (See separate leaflet called [What Causes Cancer?](#) for more details.)

Many people develop stomach cancer for no apparent reason. However, certain risk factors increase the chance that stomach cancer may develop. These include:

- Ageing. Stomach cancer is more common in older people. Most cases are in people over the age of 55.
- Having a type of anaemia called pernicious anaemia, which causes a lack of vitamin B12, can very slightly increase your risk of stomach cancer.
- Diet is probably a factor:
 - Countries such as Japan, where people eat a lot of salt, and pickled and smoked foods, have a high rate of stomach cancer.
 - Eating a lot of fruit and green vegetables can reduce the risk.
- Smokers have a higher rate of stomach cancer compared with people who do not smoke.
- Long-term infection of the stomach lining with a germ (bacterium) called *Helicobacter pylori* (*H. pylori*) seems to lead to a slightly higher risk of stomach cancer. (This infection is very common in the UK, and most people with *H. pylori* infection do not develop stomach cancer. See separate leaflet called [Helicobacter Pylori and Stomach Pain](#) for more details.)
- Gender. Stomach cancer is twice as common in men as it is in women.
- If you have had part of your stomach removed in the past for any reason. For example, to treat a stomach ulcer or some other condition.
- Family history. For some cases, stomach cancer may run in the family. However, most cases of stomach cancer do not run in families and are not inherited.
- Blood group A. People who have this blood group have a slightly higher risk.

What are the symptoms of stomach cancer?

When a stomach (gastric) cancer first develops and is small, it usually causes no symptoms. Some do not cause symptoms until they are quite advanced. Initial symptoms may include:

- Pain or discomfort in the upper tummy (abdomen), especially after eating.
- Indigestion. (**Note:** most people who have indigestion do not have stomach cancer.)
- Feeling sick, and being off food. Some people have a sense of fullness after eating.
- Weight loss and/or loss of appetite.
- You may pass **blood** out with your stools (faeces). This usually presents as black faeces (called melaena) or dark blood rather than bright red bleeding - which is more unusual with stomach cancer - and implies very serious bleeding in the stomach or bowel.

As the cancer grows in the stomach, symptoms may become worse and may include:

- The same symptoms as above, but more severe.
- Feeling generally unwell and more tired than usual.
- Becoming anaemic if the tumour regularly bleeds. This can cause you to become more tired than usual.
- The cancer growing very large and causing a blockage to food and drink.

If the cancer spreads to other parts of the body, various other symptoms can develop.

Note: all the above symptoms can be due to other conditions, so tests are needed to confirm stomach cancer.

How is stomach cancer diagnosed and assessed?

Initial assessment and gastroscopy (endoscopy)

If a doctor suspects that you may have stomach (gastric) cancer, he or she may examine you. The examination is often normal, especially if the cancer is at an early stage. Therefore, a gastroscopy is usually arranged. A gastroscope (endoscope) is a thin, flexible, telescope. It is passed through the mouth, into the gullet (oesophagus) and down towards the stomach and the first part of the small intestine (the duodenum). The endoscope contains fibre-optic channels which allow light to shine down so the doctor or nurse can see inside your stomach and duodenum. (See separate leaflet called **Gastroscopy (Endoscopy)** for more details.)

Biopsy - to confirm the diagnosis

When a small sample of tissue is removed from a part of the body, the procedure is called a biopsy. The sample is then examined under the microscope to look for abnormal cells. When you have a gastroscopy, if anything abnormal is seen, then the doctor or nurse can take a biopsy. This is done by passing a thin grabbing instrument down a side channel of the gastroscope. It can take two weeks for the biopsy results.

Assessing the extent and spread

If you are confirmed to have stomach cancer, further tests may be done to assess if it has spread. For example, a **barium meal X-ray**, a **CT scan**, an **MRI scan**, an **ultrasound scan**, **laparoscopy** or other tests. This assessment is called staging of the cancer.

The aim of staging is to find out:

- How much the tumour in the stomach has grown, and whether it has grown partially or fully through the wall of the stomach.
- Whether the cancer has spread to local lymph nodes.
- Whether the cancer has spread to other areas of the body (metastasised).

By finding out the stage of the cancer it helps doctors to advise on the best treatment options. It also gives a reasonable indication of outlook (prognosis). (See separate leaflet called **Staging and Grading Cancer** for more details.)

What are the treatment options for stomach cancer?

Treatment options which may be considered include surgery, chemotherapy (and sometimes radiotherapy). The treatment advised for each case depends on various factors, such as:

- How large the cancer is.
- Whether it has spread (the stage of the cancer).
- Your general health.

It is important to make sure you get enough nutrition from your food and you will probably be asked to see a dietician to make sure you are on the best possible diet.

You should have a full discussion with a specialist who knows your case. They will be able to give the pros and cons, likely success rate, possible side-effects, and other details about the various possible treatment options for your type of cancer.

You should also discuss with your specialist the aims of treatment. For example:

- Treatment may aim to cure the cancer. Some stomach (gastric) cancers can be cured, particularly if they are treated in the early stages of the disease. (Doctors tend to use the word remission rather than the word cured. Remission means there is no evidence of cancer following treatment. If you are in remission, you may be cured. However, in some cases a cancer returns months or years later. This is why doctors are sometimes reluctant to use the word cured.)
- Treatment may aim to control the cancer. If a cure is not realistic, with treatment it is often possible to limit the growth or spread of the cancer so that it progresses less rapidly. This may keep you free of symptoms for some time.
- Treatment may aim to ease symptoms. If a cure is not possible, treatments may be used to reduce the size of a cancer, which may ease symptoms such as pain. If a cancer is advanced, you may require treatments such as:
 - Food supplements.
 - Painkillers.
 - Other techniques to help keep you free of pain or other symptoms.

Surgery

Removing the tumour may be curative if the cancer is in an early stage. The common operation is to cut out the affected part of the stomach. Sometimes the whole of the stomach is removed. Sometimes this is done laparoscopically (keyhole surgery). Even if the cancer is advanced and a cure is not possible, some surgical techniques may still have a place to ease symptoms. For example, a blockage may be eased by removing part of the stomach, or by using laser surgery or by a bypass operation.

Chemotherapy

Chemotherapy is a treatment of cancer by using anti-cancer medicines which kill cancer cells or stop them from multiplying. (See separate leaflet called [Chemotherapy with Cytotoxic Medicines](#) for more details.) When chemotherapy is used in addition to surgery it is known as adjuvant chemotherapy. For example, following surgery you may be given a course of chemotherapy. This aims to kill any cancer cells which may have spread away from the primary tumour. Sometimes, chemotherapy is given before surgery, to shrink a large tumour so that surgery is easier - this is known as neoadjuvant chemotherapy.

Radiotherapy

Radiotherapy is a treatment which uses high-energy beams of radiation which are focused on cancerous tissue. This kills cancer cells, or stops cancer cells from multiplying. (See separate leaflet called [Radiotherapy](#) for more details.) Radiotherapy is not commonly used to treat stomach cancer. It is sometimes used to reduce the size of a particular part of the cancer which is causing symptoms.

Chemoradiotherapy

In some cases, a combination of chemotherapy and radiotherapy - shortened to chemoradiotherapy - is offered, often as an addition to surgery. If you need to have this, it is usually done around the time of the operation.

What is the outlook (prognosis)?

Without treatment, a stomach (gastric) cancer is likely to get larger, and spread to other parts of the body. If it is diagnosed and treated at an early stage (before growing through the wall of the stomach or spreading to lymph nodes or other areas of the body) then there is a good chance of a cure with surgery. Unfortunately, most cases in the UK are not diagnosed at an early stage.

If the cancer is diagnosed when it has grown through the wall of the stomach, or spread to other parts of the body, a cure is less likely. However, treatment can often slow down the progression of the cancer, using chemotherapy medicines.

The treatment of cancer is a developing area of medicine. New treatments continue to be developed and the information on outlook above is very general. The specialist who knows your case can give more accurate information about your particular outlook, and how well your type and stage of cancer is likely to respond to treatment.

Further help & information

My Stomach Cancer

Web: www.mystomachcancersymptoms.com/

Cancer Research UK

Angel Building, 407 St John Street, London, EC1V 4AD

Tel: (Nurse team) 0808 800 4040, (Switchboard) 020 7242 0200

Web: www.cancerresearchuk.org

Macmillan Cancer Support

89 Albert Embankment, London, SE1 7UQ

Tel: (Support Line) 0808 808 00 00

Web: www.macmillan.org.uk

Further reading & references

- [Guidelines for the management of oesophageal and gastric cancer](#); British Society of Gastroenterology (June 2011)
- [Stomach cancer incidence statistics](#); Cancer Research UK
- [Gastric cancer: ESMO-ESSO-ESTRO Clinical Practice Guidelines for diagnosis treatment and follow-up](#); European Society for Medical Oncology and others (2013)

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