CONDITION

Stomach cancer

Stomach cancer is abnormal cell growth that begins in the stomach lining.

WHAT IT IS
Cancer arising in the stomach lining

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Indigestion, upper abdominal pain, early fullness, weight loss

WHAT CAUSES IT
Cell changes linked to infection, exposures, or inherited risk

HOW IT IS DIAGNOSED
Upper endoscopy with tissue biopsy

MAIN TREATMENT
Surgery, medicines, and sometimes radiotherapy

CAN IT BE CURED?
Sometimes - when found early and removable

IS IT AN EMERGENCY?
Sometimes - vomiting blood, black stools, or severe sudden pain

LONG-TERM OUTLOOK
Best when localized; advanced cancer is usually not curable

Overview

Stomach cancer begins when cells in the stomach grow out of control. It is also called gastric cancer. Most stomach cancers are adenocarcinomas, which start in the gland-forming cells of the stomach lining.

Other cancers can develop in the stomach, including lymphomas, neuroendocrine tumours, and gastrointestinal stromal tumours. These behave differently and may need different treatment. This article focuses mainly on stomach adenocarcinoma.

Stomach cancer matters because it often causes vague symptoms at first. Indigestion, reduced appetite, or feeling full quickly can have many less serious causes. However, symptoms that persist, worsen, or occur with weight loss or bleeding should be assessed.

Cancer near the point where the food pipe meets the stomach may be classified and treated

differently from cancer farther down the stomach. The cancer's location, depth, spread, cell features, and biomarkers all help determine treatment.

Symptoms

Early stomach cancer may cause no symptoms. When symptoms occur, they may feel similar to indigestion, reflux, or a stomach ulcer.

Possible symptoms include:

Tiredness, shortness of breath, or pale skin can result from anaemia. Anaemia means there are too few healthy red blood cells, sometimes because the tumour is bleeding slowly.

These symptoms do not mean you have stomach cancer. Many are caused by common digestive conditions. Their pattern matters: symptoms that do not settle, keep returning, or occur with weight loss, swallowing problems, or bleeding need medical review.

- Persistent indigestion, heartburn, or upper abdominal discomfort
- Feeling full after eating a small amount
- Reduced appetite or unexplained weight loss
- Nausea or vomiting
- Difficulty or pain when swallowing
- Ongoing tiredness or weakness
- Pain in the upper abdomen
- Vomiting blood or passing black, tar-like stools

Causes and risk factors

Stomach cancer develops after genetic changes build up inside stomach cells. These changes allow cells to keep growing when they normally would stop. Usually, no single cause can be identified.

Long-term infection with Helicobacter pylori , often called H. pylori , is an important risk factor. This bacterium can inflame and damage the stomach lining over many years. Most people with the infection do not develop stomach cancer.

Other factors associated with increased risk include:

A small proportion of cases are linked to an inherited genetic change. Examples include

hereditary diffuse gastric cancer, Lynch syndrome, and familial adenomatous polyposis. An inherited risk is more likely when several close relatives have related cancers or stomach cancer occurs unusually young.

Having one or more risk factors does not mean that you will develop stomach cancer. Some people who develop it have no clear risk factors.

- Smoking
- Older age
- Long-standing inflammation or thinning of the stomach lining
- Pernicious anaemia, which affects vitamin B12 absorption
- Previous surgery that removed part of the stomach
- A close family history of stomach cancer
- Diets high in heavily salted or preserved foods
- Some stomach polyps
- Epstein-Barr virus infection

Diagnosis

The main test used to confirm stomach cancer is an upper endoscopy, also called gastroscopy. A thin, flexible camera passes through the mouth and into the stomach. Sedation or throat-numbing medicine may be offered to make the procedure more comfortable.

During the endoscopy, small tissue samples called biopsies are taken from suspicious areas. A pathologist examines the samples under a microscope. This confirms whether cancer is present and identifies its type.

If cancer is found, further tests establish its stage. Staging describes how deeply it has grown and whether it has spread to lymph nodes or other organs. Tests may include CT scans, endoscopic ultrasound, PET scanning in selected cases, and a small camera operation called staging laparoscopy.

Blood tests can check for anaemia and assess liver, kidney, and general health. The tumour may also be tested for biomarkers such as HER2, PD-L1, mismatch repair or microsatellite instability, and CLDN18.2. These are biological features that may affect which medicines could help.

Treatment and management

Treatment is planned around the cancer's location and stage, your general health, and what matters to you. A team may include surgeons, cancer specialists, dietitians, specialist nurses, and other healthcare professionals.

Very early cancers that are limited to the inner stomach lining can sometimes be removed through an endoscope. This avoids an abdominal operation but is suitable only when strict features suggest a low risk of spread.

For cancer that can be removed, treatment often involves surgery to remove part or all of the stomach and nearby lymph nodes. Removing part of the stomach is called a partial gastrectomy. Removing the whole stomach is a total gastrectomy. The digestive tract is then reconnected so food can continue to pass through.

Chemotherapy is commonly used before and after surgery. It uses medicines that damage cancer cells or stop them dividing. In some situations, chemotherapy and radiotherapy are combined. Radiotherapy uses focused high-energy beams to damage cancer cells.

Cancer that has spread to distant organs is usually not curable, but treatment may slow its growth, reduce symptoms, and help some people live longer. Options can include chemotherapy, targeted therapy, immunotherapy, or combinations of these. Biomarker results help identify whether certain targeted or immune treatments are suitable.

Procedures may also relieve a blockage or bleeding. A stent can hold open a narrowed area, while radiotherapy or endoscopic treatment may help control bleeding. Palliative care can be provided alongside cancer treatment to manage pain, nausea, appetite problems, tiredness, and emotional distress.

Eating often changes during treatment. A dietitian can help with smaller meals, supplements, and weight maintenance. After total gastrectomy, lifelong vitamin B12 replacement is generally needed because the stomach can no longer support normal absorption. Other vitamin and mineral levels may also need monitoring.

Complications

Stomach cancer can bleed, causing anaemia, black stools, or vomiting blood. It can narrow the stomach outlet or nearby digestive tract, leading to repeated vomiting and difficulty eating.

Cancer may spread to nearby lymph nodes or organs such as the liver, lungs, or the lining of the abdomen. Fluid can then collect in the abdomen, causing swelling or discomfort.

Treatment can also have lasting effects. Surgery may cause weight loss, reflux, diarrhoea, or

difficulty absorbing nutrients. Some people develop dumping syndrome, in which food moves too quickly into the small bowel. This can cause cramps, diarrhoea, dizziness, sweating, or a racing heartbeat after eating.

Chemotherapy, immunotherapy, targeted therapy, and radiotherapy have different possible side effects. Your treatment team should explain which effects are relevant and how they will be monitored.

Prevention

Not every stomach cancer can be prevented. This is especially true when risk comes from age, family history, or an inherited genetic change.

Not smoking can lower risk. Avoiding heavily salted and preserved foods may also help, while a balanced diet containing fruit and vegetables supports general health.

Finding and treating H. pylori infection can reduce the risk of stomach cancer in some people. Testing is not automatically needed for everyone, so it is usually considered according to symptoms, medical history, family history, and local practice.

People from families with an inherited cancer syndrome may be offered genetic counselling and testing. Those with a confirmed high-risk genetic change may need specialist surveillance or preventive treatment. This is different from routine screening, which is not used in many countries where stomach cancer is less common.

Living with it and what to expect

What happens over the following months and years is strongly influenced by the stage at diagnosis. Early cancer that can be completely removed may be cured, although follow-up is still needed. Cancer that has spread widely is usually managed as a long-term, life-limiting condition rather than cured.

Treatment may take several months. Surgery can require a gradual recovery, and chemotherapy may be given in cycles with rest periods. Follow-up can include appointments, blood tests, scans, symptom review, and nutritional monitoring.

After stomach surgery, eating usually remains possible, but habits often need to change. Smaller, more frequent meals may be easier than three large meals. Weight can take time to stabilize. Some people need ongoing supplements or treatment for anaemia.

Cancer and its treatment can affect work, relationships, sleep, and mood. Energy may change

from day to day. Practical help, psychological support, rehabilitation, and palliative care can all be used alongside medical treatment.

New symptoms do not always mean that cancer has returned or progressed. Report persistent changes so they can be assessed rather than waiting for the next routine appointment.

When to get medical help

Arrange a routine medical appointment if you have persistent or worsening indigestion, upper abdominal pain, reduced appetite, repeated nausea, or a new tendency to feel full quickly.

Seek prompt medical assessment if you have:

If you have been treated for stomach cancer, contact your cancer team between routine appointments if symptoms return, new symptoms persist, or treatment side effects are difficult to manage.

Seek emergency help for vomiting blood, black tar-like stools with weakness or dizziness, fainting, severe sudden abdominal pain, or an inability to keep fluids down. These can indicate major bleeding, a blockage, dehydration, or a hole in the stomach or bowel.

- Unexplained weight loss
- Difficulty or pain when swallowing
- Repeated vomiting
- Ongoing unusual tiredness, weakness, or shortness of breath
- Symptoms that continue despite usual indigestion treatment

Common questions

Can stomach cancer be cured?

Sometimes. The chance of cure is greatest when the cancer is found early and can be completely removed. Cancer that has spread to distant organs is usually not curable, but treatment may control it and relieve symptoms.

Is indigestion usually stomach cancer?

No. Indigestion is common and usually has another cause. It should be assessed if it persists, keeps worsening, or occurs with weight loss, swallowing difficulty, repeated vomiting, anaemia, or bleeding.

Can you live without a stomach?

Yes. After total gastrectomy, the food pipe is connected to the small bowel. Eating patterns must change, and vitamin B12 replacement and nutritional monitoring are needed. Recovery and adjustment take time.

Does stomach cancer run in families?

Most cases are not caused by a known inherited change. Family history can still increase risk. Genetic assessment may be considered when several relatives are affected, cancer occurs at a young age, or there is a pattern of related cancers.

How fast does stomach cancer spread?

There is no single rate. Growth depends on the cancer's type, location, cell features, and stage. Scans, biopsy findings, and changes over time give more useful information than a general estimate.

What foods should I eat during treatment?

There is no single stomach cancer diet. Small, frequent, energy-rich meals may be easier, especially after surgery. A cancer dietitian can tailor advice to weight changes, symptoms, surgery, and nutrient needs.

Sources

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