CONDITION

Gastric cancer

Gastric cancer is cancer that begins in the stomach, usually in its inner lining.

WHAT IT IS
Cancer beginning in the stomach lining

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Indigestion, upper abdominal pain, weight loss, trouble swallowing

WHAT CAUSES IT
Cell changes, often linked to H. pylori infection

HOW IT IS DIAGNOSED
Upper endoscopy with biopsy

MAIN TREATMENT
Surgery, chemotherapy, radiotherapy, targeted therapy, or immunotherapy

CAN IT BE CURED?
Sometimes - mainly when found before spreading

IS IT AN EMERGENCY?
Sometimes - vomiting blood or passing black stools

LONG-TERM OUTLOOK
Better when found early; advanced cancer is harder to control

Overview

Gastric cancer, also called stomach cancer, begins when cells in the stomach grow out of control. Most cases are adenocarcinomas, which start in gland-forming cells in the stomach's inner lining.

Other cancers can arise in the stomach, including lymphomas and gastrointestinal stromal tumours. These behave differently and require different treatment. This article focuses on gastric adenocarcinoma.

Early gastric cancer may cause mild symptoms or none. When symptoms occur, they can resemble indigestion or an ulcer, which may delay diagnosis.

The stage describes how deeply the cancer has grown, whether lymph nodes are affected, and whether it has spread. Cancer limited to the stomach and nearby tissues may be treated with

the aim of curing it. Cancer that has spread to distant organs is usually treated to slow its growth, relieve symptoms, and maintain quality of life.

Symptoms

Possible early symptoms include:

As the cancer grows, it may cause unplanned weight loss, repeated vomiting, trouble swallowing, or worsening pain. Slow bleeding can cause iron-deficiency anaemia, leading to tiredness, weakness, pale skin, or shortness of breath.

Bleeding may produce black, tar-like stools or vomit containing blood. A large tumour may partly block the stomach, causing persistent vomiting and difficulty eating.

Most people with indigestion do not have gastric cancer. However, persistent or worsening symptoms, especially with weight loss, swallowing problems, bleeding, or anaemia, should be medically assessed.

- Persistent indigestion or heartburn
- Upper abdominal discomfort or pain
- Feeling full after eating a small amount
- Loss of appetite
- Nausea or frequent burping

Causes and risk factors

Gastric cancer develops when DNA changes allow stomach cells to grow and survive abnormally. The reason for these changes is not always known.

Long-term infection with Helicobacter pylori (H. pylori) is an important risk factor. It can cause chronic inflammation and abnormal changes in the stomach lining, although most infected people do not develop cancer.

Other risk factors include:

A small proportion of cases are linked to inherited changes, including CDH1 changes associated with hereditary diffuse gastric cancer and conditions such as Lynch syndrome. A family history does not necessarily mean an inherited cancer-causing change is present.

Some gastric cancers are associated with Epstein-Barr virus.

- Smoking
- A diet high in heavily salted or preserved foods
- Long-term inflammation or thinning of the stomach lining
- Pernicious anaemia
- Previous stomach surgery
- Increasing age
- A close relative with gastric cancer
- Certain inherited conditions
- Excess body weight, particularly for cancer near the top of the stomach

Diagnosis

Assessment usually includes questions about symptoms, medical and family history, and medicines. An examination and blood tests may identify anaemia or other problems, but blood tests cannot confirm gastric cancer.

Diagnosis requires an upper endoscopy, or gastroscopy. A thin, flexible camera is passed through the mouth into the stomach. Sedation and throat-numbing medicine may be offered. The clinician examines the lining and removes tissue samples.

A laboratory checks these samples for cancer cells. This biopsy confirms the diagnosis and identifies the cancer type.

If cancer is found, tests such as CT scans help establish its stage. Endoscopic ultrasound may show how deeply it has entered the stomach wall and whether nearby lymph nodes look abnormal.

Before major surgery, some people have a laparoscopy. A camera is inserted through small abdominal cuts to look for cancer not visible on scans. Abdominal fluid may also be checked for cancer cells.

The biopsy may be tested for biomarkers including HER2, PD-L1, mismatch repair or microsatellite instability, and CLDN18.2. Results can help determine whether targeted therapy or immunotherapy may be useful.

Treatment and management

Treatment depends on the cancer's stage, location, biomarkers, and your health and preferences. Care may involve surgeons, cancer specialists, gastroenterologists, dietitians, specialist nurses, and symptom-control teams.

A very small, shallow cancer that has not spread may sometimes be removed through an endoscope. This is suitable only for carefully selected early cancers.

Other cancers may require removal of part or all of the stomach and nearby lymph nodes. The digestive tract is reconnected so food can pass through it. Recovery involves gradual changes to how and what you eat.

Chemotherapy may be given before and after surgery. In some situations, treatment after surgery includes chemotherapy, radiotherapy, or both.

For cancer that cannot be removed or has spread, chemotherapy, targeted therapy, or immunotherapy may slow growth and relieve symptoms. Biomarker results help guide drug choices.

Radiotherapy may be combined with chemotherapy in selected cases or used to relieve bleeding, pain, or blockage.

Supportive care can address nausea, pain, appetite, nutrition, fatigue, and emotional wellbeing. A stent may hold open a narrowed area. Some people need a feeding tube or an operation to bypass a blockage.

Palliative care focuses on comfort, symptom control, and quality of life. It can be given alongside cancer treatment and is not limited to end-of-life care.

Complications

Gastric cancer can cause bleeding, anaemia, pain, or blockage. Rarely, it creates a hole in the stomach wall, called a perforation. Sudden severe pain from a possible perforation requires emergency treatment.

Cancer may spread to the liver, abdominal lining, lungs, or bones. Spread within the abdomen can cause fluid called ascites, leading to swelling and discomfort.

After stomach surgery, food may enter the small intestine too quickly. This dumping syndrome can cause cramps, diarrhoea, dizziness, sweating, or a racing heartbeat after eating.

Surgery may also reduce absorption of iron, vitamin B12, calcium, vitamin D, and other nutrients. Regular blood tests, dietary support, supplements, or vitamin B12 treatment may be required.

Drug treatment can cause infection risk, tiredness, nausea, diarrhoea, or nerve symptoms.

Your cancer team should explain what to watch for and how to contact them between appointments.

Prevention

Gastric cancer cannot always be prevented, particularly when risk is related to age, inherited changes, or existing abnormalities in the stomach lining.

Treating H. pylori can reduce future risk. Treatment usually involves antibiotics and acid-lowering medicine. Complete the full course and any recommended follow-up test.

Not smoking, maintaining a healthy weight, eating fruit and vegetables, and limiting heavily salted or preserved foods may also reduce risk.

Routine screening is not offered everywhere. It is more common where gastric cancer rates are high. People with significant inherited risk or abnormal stomach-lining changes may be offered specialist surveillance.

Genetic counselling can explain testing, screening, and risk-reducing options. For some people with a harmful CDH1 change, specialists may discuss preventive stomach removal because ordinary endoscopy can miss early diffuse cancer.

Living with it and what to expect

Outlook depends strongly on the stage at diagnosis and response to treatment. Early cancer may be treated successfully, although surgery can permanently affect eating and nutrition. Advanced cancer is harder to cure, but treatment may control it and reduce symptoms.

After surgery, you may need several small meals rather than three large ones. Drinking separately from meals and reducing sugary foods may help with dumping syndrome. A specialist dietitian can help you maintain weight and find tolerable foods.

You can still eat and digest food after total stomach removal, but your body needs time to adapt. Lifelong vitamin B12 replacement is generally required. Other supplements depend on blood tests and nutritional assessment.

Follow-up may include appointments, symptom reviews, blood tests, nutrition checks, and scans. Report new or persistent symptoms rather than waiting for the next routine visit.

Treatment may affect work, relationships, sleep, body image, and mood. Rehabilitation, practical assistance, cancer support services, and psychological care can help at any stage.

When to get medical help

Arrange a routine appointment if indigestion, upper abdominal discomfort, early fullness, poor appetite, or nausea persists or keeps returning. Seek earlier assessment if symptoms worsen or occur with weight loss, swallowing difficulty, repeated vomiting, or unexplained tiredness.

Seek urgent same-day medical advice if you cannot keep fluids down, have increasing trouble swallowing, show signs of dehydration, or develop rapidly worsening symptoms.

Seek emergency help for:

If you are receiving chemotherapy or another cancer treatment, contact your cancer team immediately for fever, chills, or signs of infection. Follow the urgent instructions and temperature thresholds they have given you.

- Vomiting blood or material resembling coffee grounds
- Black, tar-like stools, especially with weakness or dizziness
- Fainting, severe shortness of breath, or confusion
- Sudden severe abdominal pain or a rigid, very tender abdomen

Common questions

Is gastric cancer the same as stomach cancer?

Yes. Gastric means related to the stomach. Most stomach cancers are adenocarcinomas arising from the inner lining.

Can gastric cancer be cured?

Sometimes. Cure is more likely when the cancer is found early and completely removed. Cancer that has spread to distant organs is usually treated to control it rather than cure it.

* Does having H. pylori mean I will get gastric cancer? *

No. Most infected people never develop gastric cancer. However, confirmed infection should be treated as advised because it increases long-term risk.

Is indigestion usually a sign of gastric cancer?

No. Indigestion is more often caused by reflux, medicines, ulcers, or other non-cancerous problems. Persistent, worsening, or unexplained symptoms still need assessment.

Can you live without a stomach?

Yes. After total gastrectomy, the oesophagus is connected to the small intestine. Eating

patterns must change, and ongoing nutritional monitoring and vitamin B12 replacement are needed.

What do survival statistics mean for me?

Survival figures describe groups of people and are influenced by stage, cancer type, treatment, general health, and the population studied. They cannot predict exactly what will happen to one person.

Sources

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