

# Stomach Cancer

Stomach cancer is an abnormal growth of cells that begins in the stomach. The stomach is a muscular sac located in the upper middle of your abdomen, just below your ribs. Your stomach receives and holds the food you eat and then helps to break down and digest it.

Stomach cancer, also known as gastric cancer, can affect any part of the stomach. In most of the world, stomach cancers form in the main part of the stomach (stomach body).

But in the United States, stomach cancer is more likely to affect the area where the long tube (esophagus) that carries food you swallow meets the stomach. This area is called the gastroesophageal junction.

Where the cancer occurs in the stomach is one factor doctors consider when determining your treatment options. Treatment usually includes surgery to remove the stomach cancer. Other treatments may be recommended before and after surgery.

## **Symptoms**

Signs and symptoms of stomach cancer may include:

- Difficulty swallowing
- Feeling bloated after eating
- Feeling full after eating small amounts of food
- Heartburn
- Indigestion
- Nausea
- Stomach pain
- Unintentional weight loss
- Vomiting

## When to see a doctor

If you have signs and symptoms that worry you, make an appointment with your doctor. Your doctor will likely investigate more-common causes of these signs and symptoms first.

## Causes

It's not clear what causes stomach cancer, though research has identified many factors that can increase the risk.

Doctors know that stomach cancer begins when a cell in the stomach develops changes in its DNA. A cell's DNA contains the instructions that tell the cell what to do. The changes tell the cell to grow quickly and to continue living when healthy cells would die. The accumulating cells form a tumor that can invade and destroy healthy tissue. With time, cells can break off and spread (metastasize) to other areas of the body.

## Risk factors

Factors that increase the risk of stomach cancer include:

- Gastroesophageal reflux disease
- Obesity
- A diet high in salty and smoked foods
- A diet low in fruits and vegetables
- Family history of stomach cancer
- Infection with *Helicobacter pylori*
- Long-term stomach inflammation (gastritis)
- Smoking
- Stomach polyps

## Prevention

To reduce the risk of stomach cancer, you can:

- **Maintain a healthy weight.** If you're overweight or obese, talk to your doctor about strategies to help you lose weight. Aim for a slow and steady weight loss of 1 or 2 pounds a week.
- **Choose a diet full of fruits and vegetables.** Try to incorporate more fruits and vegetables into your diet each day. Choose a wide variety of colorful fruits and vegetables.
- **Reduce the amount of salty and smoked foods you eat.** Protect your stomach by limiting these foods.
- **Stop smoking.** If you smoke, quit. If you don't smoke, don't start. Smoking increases your risk of stomach cancer, as well as many other types of cancer. Quitting smoking can be very difficult, so ask your doctor for help.
- **Ask your doctor about your risk of stomach cancer.** Talk with your doctor if you have an increased risk of stomach cancer. People with a strong family history of stomach cancer might consider tests, such as endoscopy, to look for signs of stomach cancer.

## Diagnosis

Tests and procedures used to diagnose stomach cancer include:

- **A tiny camera to see inside your stomach (upper endoscopy).** A thin tube containing a tiny camera is passed down your throat and into your stomach. Your doctor can use it to look for signs of cancer.
- **Removing a sample of tissue for testing (biopsy).** If any suspicious areas are found during the upper endoscopy, special tools can be used to remove a sample of tissue for testing. The sample is sent to a lab for analysis.
- **Imaging tests.** Imaging tests used to look for stomach cancer include CT scans and a special type of X-ray exam called a barium swallow.

## Determining the extent (stage) of stomach cancer

The stage of your stomach cancer helps your doctor decide which treatments may be best for you. Tests and procedures used to determine the stage of cancer include:

- **Blood tests.** Blood tests to measure organ function may indicate whether other organs in your body, such as your liver, may be affected by cancer.
- **Endoscopic ultrasound.** During an endoscopic ultrasound, a thin tube with a camera on the tip is passed down your throat and into your stomach. A special ultrasound tool is used to create pictures of your stomach. Endoscopic ultrasound helps doctors determine how deeply a cancer penetrates the stomach wall.
- **Imaging tests.** Tests may include CT and positron emission tomography (PET).
- **Exploratory surgery.** Your doctor may recommend surgery to look for signs that your cancer has spread beyond your stomach, within your chest or abdomen. Exploratory surgery is usually done laparoscopically. This means the surgeon makes several small incisions in your abdomen and inserts a special camera that transmits images to a monitor in the operating room.

Other staging tests may be used, depending on your situation.

Your doctor uses the information from these procedures to assign a stage to your cancer. The stages of stomach cancer are indicated by Roman numerals that range from 0 to IV, with the lowest stages indicating that the cancer is small and affects only the inner layers of your stomach. By stage IV. The cancer is considered advanced and may have spread to other areas of the body.

## Treatment

Treatment options for stomach cancer depend on the cancer's location, stage and aggressiveness. Your doctor also considers your overall health and your preferences when creating a treatment plan.

## Surgery

The goal of surgery is to remove all of the cancer and some of the healthy tissue around it.

## Operations used for stomach cancer include:

- **Removing early-stage tumors from the stomach lining.** Very small cancers limited to the inside lining of the stomach may be removed by passing special tools through an endoscope. Procedures to cut away cancer from the inside lining of the stomach include endoscopic mucosal resection and endoscopic submucosal resection.
- **Removing part of the stomach (subtotal gastrectomy).** During subtotal gastrectomy, the surgeon removes the part of the stomach affected by cancer and some of the healthy tissue around it. This operation may be an option if your stomach cancer is located in the part of the stomach nearest the small intestine.
- **Removing the entire stomach (total gastrectomy).** Total gastrectomy involves removing the entire stomach and some surrounding tissue. The esophagus is then connected directly to the small intestine to allow food to move through your digestive system. Total gastrectomy is used most often for stomach cancers that affect the body of the stomach and those that are located in the gastroesophageal junction.
- **Removing lymph nodes to look for cancer.** The surgeon may remove lymph nodes in your abdomen to test them for cancer.
- **Surgery to relieve signs and symptoms.** An operation to remove part of the stomach may relieve signs and symptoms of a growing cancer in people with advanced stomach cancer.

## Chemotherapy

Chemotherapy is a drug treatment that uses chemicals to kill cancer cells.

Chemotherapy drugs travel throughout your body, killing cancer cells that may have spread beyond the stomach.

Chemotherapy can be given before surgery to help shrink the cancer so that it can be more easily removed. Chemotherapy is also used after surgery to kill any cancer cells that might remain in the body. Chemotherapy is often combined with radiation therapy.

Chemotherapy may be used alone or with targeted drug therapy in people with advanced stomach cancer.

## **Radiation therapy**

Radiation therapy uses high-powered beams of energy, such as X-rays and protons, to kill cancer cells. The energy beams come from a machine that moves around you as you lie on a table.

For stomach cancer, radiation therapy can be used before surgery to shrink the cancer so that it's more easily removed. Radiation therapy can also be used after surgery to kill any cancer cells that might remain. Radiation therapy is often combined with chemotherapy.

For advanced stomach cancer that can't be removed with surgery, radiation therapy may be used to relieve side effects, such as pain or bleeding, caused by a growing cancer.

## **Targeted drug therapy**

Targeted drug treatments focus on specific weaknesses present within cancer cells. By blocking these weaknesses, targeted drug treatments can cause cancer cells to die. For stomach cancer, targeted drugs are usually combined with chemotherapy for advanced cancers or cancer that comes back after treatment.

Your doctor may test your cancer cells to see which targeted drugs are most likely to work for you.

## **Immunotherapy**

Immunotherapy is a drug treatment that helps your immune system to fight cancer. Your body's disease-fighting immune system might not attack cancer because the cancer cells produce proteins that make it hard for the immune system cells to recognize the cancer cells as dangerous. Immunotherapy works by interfering with that process.

For stomach cancer, immunotherapy might be used when the cancer is advanced, if it comes back or if it spreads to other parts of the body.

## Supportive (palliative) care

Palliative care is specialized medical care that focuses on providing relief from pain and other symptoms of a serious illness. Palliative care specialists work with you, your family and your other doctors to provide an extra layer of support that complements your ongoing care. Palliative care can be used while undergoing aggressive treatments, such as surgery, chemotherapy or radiation therapy.

When palliative care is used along with all of the other appropriate treatments, people with cancer may feel better and live longer.

Palliative care is provided by a team of doctors, nurses and other specially trained professionals. Palliative care teams aim to improve quality of life for people with cancer and their families. This form of care is offered alongside curative or other treatments you may be receiving.

## Coping and support

A cancer diagnosis can be overwhelming and frightening. Once you start to adjust after the initial shock of your diagnosis, you may find that it helps to stay focused on tasks that help you cope. For example, try to:

- **Learn enough to make decisions about your care.** Ask your doctor to write down the details of your cancer — the type, the stage and your treatment options. Use those details to find more information about stomach cancer and the benefits and risks of each treatment option.
- **Connect with other cancer survivors.** Ask your doctor about support groups in your area. Or go online and connect with cancer survivors on message boards, such as those run by the American Cancer Society.
- **Stay active.** Being diagnosed with cancer doesn't mean you have to stop doing the things you enjoy or normally do. For the most part, if you feel well enough to do something, go ahead and do it.

## Long-term Outlook

Your chances of recovery are better if the diagnosis is made in the early stages. According to the National Cancer Institute (NCI), around 30 percent of all people with stomach cancer survive at least five years after being diagnosed.

The majority of these survivors have a localized diagnosis. This means that the stomach was the original source of the cancer. When the origin is unknown, it can be difficult to diagnose and stage the cancer. This makes the cancer harder to treat.

It's also more difficult to treat stomach cancer once it reaches the later stages. If your cancer is more advanced, you may want to consider participating in a clinical trial.

Clinical trials help determine whether a new medical procedure, device, or other treatment is effective for treating certain diseases and conditions. You can see if there are any clinical trials of treatments for stomach cancer on the National Cancer Institute (NCI).

For more information go to:

<https://www.healthline.com/health/gastric-cancer>

<https://www.mayoclinic.org/diseases-conditions/stomach-cancer/diagnosis-treatment/drc-20352443>