



Canadian  
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# Stomach Cancer

*Understanding your diagnosis*



1 888 939-3333 | [cancer.ca](https://cancer.ca)

# Stomach Cancer

## *Understanding your diagnosis*

When you first hear that you have cancer, you may feel alone and afraid. You may be overwhelmed by the large amount of information you have to take in and the decisions you need to make.

“ *All I could hear was ‘cancer.’ I heard my doctor say something like, ‘We’re going to try to get the surgery done as soon as possible.’ I didn’t hear one word after that.* ”

The introductory information in this brochure can help you and your family take the first steps in learning about stomach cancer (also called gastric cancer). A better understanding may give you a feeling of control and help you work with your healthcare team to choose the best care for you.

### **For more information**

You can find more in-depth information about stomach cancer on [cancer.ca](http://cancer.ca). Or call us at 1-888-939-3333 to learn more about cancer, diagnosis, treatment, support and services near you.

## What is cancer?

Cancer is a disease that starts in our cells. Our bodies are made up of trillions of cells, grouped together to form tissues and organs such as muscles and bones, the lungs and the liver. Genes inside each cell order it to grow, work, reproduce and die. Normally, our cells obey these orders and we remain healthy.

But sometimes the instructions in some cells get mixed up, causing them to behave abnormally. These cells grow and divide uncontrollably. After a while, groups of abnormal cells form lumps, or tumours.

Tumours can be either benign (non-cancerous) or malignant (cancerous). Benign tumour cells stay in one place in the body and are not usually life-threatening. Malignant tumour cells are able to invade nearby tissues and spread to other parts of the body. It's important to find and treat malignant tumours as early as possible. In most cases, finding cancer early increases the chances of successful treatment.

Cancer cells that spread to other parts of the body are called metastases. The first sign that a malignant tumour has spread (metastasized) is often swelling of nearby lymph nodes, but cancer can spread to almost any part of the body.

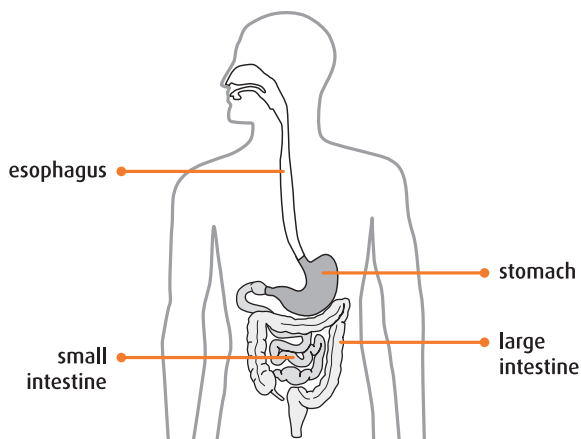
Cancers are named after the part of the body where they start. For example, cancer that starts in the stomach but spreads to the liver is called stomach cancer with liver metastases.

## What is stomach cancer?

The stomach is a muscular sac-like organ in the upper abdomen. It is part of the digestive system. The digestive system changes food into energy and helps pass waste from the body.

Food moves from the mouth through the esophagus to the stomach. In the stomach, the food is mixed with digestive juices (enzymes and acids). These juices are made by the glands in the lining of the stomach. This semi-solid mixture then passes into the small intestine. The small intestine continues to digest food. The food then goes to the large intestine, where digestion is finished.

The Digestive System



The wall of the stomach has 4 layers. Stomach cancer begins in the cells of the inner layer, which is called the mucosa.\* It can spread through the other layers of the stomach as it grows.

\* Stomach cancers that start in the lymphatic tissue (lymphoma), in the stomach's muscular tissue (sarcoma) or in the tissues that support the organs of the digestive system (gastrointestinal stromal tumour) are less common and are treated in different ways. For information on those cancers, contact our Cancer Information Service at 1-888-939-3333.

## Diagnosing stomach cancer

Your doctor may suspect you have stomach cancer after taking your medical history and doing a physical exam. To confirm the diagnosis, your doctor will arrange special tests. These tests may also be used to “stage” and “grade” the cancer and to help plan treatment.

**Symptoms of stomach cancer:** Stomach cancer often does not cause any signs or symptoms in its early stages. The most common signs and symptoms of stomach cancer include:

- abdominal pain or discomfort (may be mild)
- unexplained weight loss
- feeling very tired
- changes in digestion, such as loss of appetite, feeling full after a small meal or heartburn
- difficulty swallowing or pain when swallowing
- nausea, vomiting (with or without blood)
- anemia (a low red blood cell count)
- abdominal bloating
- blood in the stool
- jaundice
- a lump in the abdomen, ovary, pelvis, navel, left armpit or above the collar bone
- changes in skin, such as darkening or growths

Other health problems can cause some of the same symptoms. The process of diagnosis may seem long and frustrating, but it is important for the doctor to make sure there are no other possible reasons for a health problem.

Your doctor will do one or more of the following tests to make a diagnosis.

**Blood tests:** Blood is taken and studied to see if the different types of blood cells are normal in number and how they look. The results show how well your organs are working and may suggest whether you have cancer and if it has spread. Your red blood cell count is checked to see if you have anemia (low red blood cell count). Anemia may be caused by blood loss from a stomach tumour. Your blood may also be checked for tumour markers. A tumour marker is a substance in the body that may indicate stomach cancer.

**Endoscopy:** An endoscopy uses a thin, flexible tube with a light and lens at the end (called an endoscope). The tube is placed down your throat to look inside the esophagus, stomach and small intestine. During an endoscopy, you may be given a mild anesthetic (freezing) and a mild sedative to help you relax. You will likely have a sore throat for a couple of days after.

**Imaging studies:** Imaging studies let your healthcare team look at your tissues, organs and bones in more detail. Using ultrasounds, x-rays, CT scans, PET scans, MRIs or bone scans, they can see the size of the tumour and if it has spread. You may have an endoscopic ultrasound done at the same time as an endoscopy. These tests are usually painless, and you don't need an anesthetic.

**Biopsy:** If an abnormal area is found during the endoscopy, the doctor can take several samples of tissue through the endoscope to look at under a microscope. Sometimes tissue samples are taken through the wall of the abdomen. This is called a laparoscopic biopsy. A laparoscopic biopsy may also be used to remove fluid from the abdomen (ascites).

A biopsy is usually needed to make a diagnosis of cancer. If the cells are cancerous, they will be looked at closer to see how fast they are growing. You may need a general anesthetic (you will be unconscious) if tissue samples are taken.

**Further testing:** Your doctor may order more tests to find out if the cancer has spread and to help plan your treatment.

### **Will I be OK?**

Most people with cancer want to know what to expect. Can they be cured?

A prognosis is your doctor's best estimate of how cancer will affect you and how it will respond to treatment. A prognosis looks at many factors including:

- the type, stage and grade of the cancer
- the location of the tumour and whether it has spread
- your age, sex and overall health

Even with all this information, it can still be very hard for your doctor to say exactly what will happen. Each person's situation is different.

Your doctor is the only person who can give a prognosis. Ask your doctor about the factors that affect your prognosis and what they mean for you.

## Staging and grading

Once a definite diagnosis of cancer has been made, the cancer is given a stage and a grade. This information helps you and your healthcare team choose the best treatment for you.

The cancer stage describes the tumour size and tells whether it has spread.

For stomach cancer, there are 5 stages.\*

Stage	Description
0	Cancer cells are found only in the top layer of the mucosa (innermost layer of the stomach lining). Stage 0 is also called carcinoma in situ or high-grade dysplasia.
1	Cancer has spread deeper into the mucosa or to the next layer of the stomach (submucosa). Cancer cells may also have spread to 1 or 2 nearby lymph nodes. <b>OR</b> cancer has spread to the main muscle layer (muscularis propria).
2	Cancer has not spread farther than the submucosa. Cancer cells have spread to 3 or more nearby lymph nodes. <b>OR</b> cancer has spread to the muscularis propria. Cancer cells have spread to 1 to 6 nearby lymph nodes. <b>OR</b> cancer has spread deeper, into an area called the subserosa. It's between the muscularis propria and the outer layer of the stomach (serosa). Cancer cells may have spread to 1 or 2 nearby lymph nodes. <b>OR</b> cancer has spread through the serosa.

\* This table summarizes the stages of stomach cancer according to the Union for International Cancer Control (UICC). For more in-depth information, visit [cancer.ca](http://cancer.ca).



Stage	Description
3	<p>Cancer has spread to the muscularis propria. Cancer cells have spread to 7 or more nearby lymph nodes.</p> <p><b>OR</b> cancer has spread deeper, into the subserosa. Cancer cells have spread to 3 or more nearby lymph nodes.</p> <p><b>OR</b> cancer has spread through the serosa to 1 or more lymph nodes.</p> <p><b>OR</b> cancer has spread to nearby organs or structures and may have spread to lymph nodes.</p>
4	Cancer has spread to distant parts of the body.

A grade is given based on how the cancer cells look and behave compared with normal cells. This can give your healthcare team an idea of how quickly the cancer may be growing. To find out the grade of a tumour, the biopsy sample is looked at under a microscope.

Stomach cancer tumours are given a grade from 1 to 4. The lower the number, the lower the grade.

**Low grade** means that the cancers cells look and act much like normal cells. Lower grade cancer cells tend to be slow growing and are less likely to spread.

**High grade** means that the cancer cells look and act less normal, or more abnormal. Higher grade cancer cells tend to grow more quickly and are more likely to spread.

## Treatments for stomach cancer

Your healthcare team considers your general health and the type, stage and grade of the cancer to recommend the best treatments for you. You'll work together with your healthcare team to make the final treatment choices. Talk to them if you have questions or concerns.

### Talk to your doctor about fertility options before starting treatment

Some treatments may affect your ability to have children. If you're of child-bearing age, your treatment choice may depend on whether you want to become pregnant or father a child in the future. You should talk to your doctor about your options before you start treatment.

For stomach cancer, you might receive one or more of the following treatments.

**Surgery:** A decision to have surgery depends on the size and location of the tumour. During the operation, all or part of the tumour and some healthy tissue around the tumour are removed. Surgery is done under a general anesthetic. You may stay in the hospital for several days or longer after the surgery.

Surgery is the most common treatment for stomach cancer. An operation to remove all or part of the stomach is called a gastrectomy. The type of gastrectomy you have depends on the stage of the cancer and whether or not it has spread. A partial gastrectomy may be all you need if the cancer is found at an early stage. The surgeon removes only the cancerous part of the stomach and nearby tissue.

Palliative surgery may be done to control the symptoms of advanced stomach cancer such as bleeding, blockage or pain.

After surgery you may have some pain, swelling and a chance of infection. These side effects are temporary and can be controlled.

**Chemotherapy:** Chemotherapy uses drugs to treat cancer. Chemotherapy drugs may be given as pills or by injection (with a needle). They interfere with the ability of cancer cells to grow and spread, but they also damage healthy cells. Although healthy cells can recover over time, you may experience side effects like nausea, vomiting, loss of appetite and weight loss, fatigue, hair loss and diarrhea.

**Radiation therapy:** In external beam radiation therapy, a large machine is used to carefully aim a beam of radiation at the tumour. The radiation damages the cells in the path of the beam - normal cells as well as cancer cells. In brachytherapy, or internal radiation therapy, radioactive material is placed directly into or near the tumour.

You may have some side effects from radiation therapy, such as skin changes, nausea and vomiting, as well as stomach pains and diarrhea.

**For more information on treatment**, you may want to read our booklets *Chemotherapy and Other Drug Therapies* and *Radiation Therapy*.

**Clinical treatment trials:** Clinical treatment trials investigate new approaches to treating cancer, such as new drugs, new types of treatments or combinations of existing treatments. They are closely monitored to make sure they are safe and effective for the participants. Ask your doctor if any clinical trials are available as a suitable treatment option for you. You may benefit and so may future cancer patients.

**Our brochure** *Clinical Trials* has more information, including how to find a clinical trial.

**Complementary therapies:** Complementary therapies – for example, massage therapy or acupuncture – are used *together with* conventional cancer treatments, often to help ease tension and stress as well as other side effects of treatment. They don't treat the cancer itself. More research is needed to understand if these therapies are effective and how they work.

Alternative therapies are used *instead of* conventional treatments. Alternative therapies haven't been tested enough for safety or effectiveness. Using alternative treatments alone for cancer may have serious health effects.

If you're thinking about using a complementary or alternative therapy, learn as much as you can about the therapy and talk to your healthcare team. It's possible that the therapy might interfere with test results or other treatments.

**Side effects of treatment:** Some cancer treatments cause side effects, such as fatigue, hair loss or nausea. Because treatments affect everyone differently, it's hard to predict which side effects – if any – you may have.

Side effects can often be well managed and even prevented. If you're worried about side effects, tell your healthcare team about your concerns and ask questions. They can tell you which side effects you should report right away and which ones can wait until your next appointment.

If you notice any side effects or symptoms that you didn't expect, talk to a member of your healthcare team as soon as possible. They'll help you get the care and information you need.

## **After treatment**

Follow-up care helps you and your healthcare team monitor your progress and your recovery from treatment. At first, your follow-up care may be managed by one of the specialists from your healthcare team. Later on, it may be managed by your family doctor.

The schedule of follow-up visits is different for each person. You might see your doctor more often in the first year after treatment and less often after that. After treatment has ended, you should report new symptoms and symptoms that don't go away to your doctor right away, without waiting for your next scheduled appointment.

**Eating well:** After treatment for stomach cancer, you may need to make changes to your diet and your eating habits. Your body may have difficulty getting enough vitamins and minerals. You may find it easier to eat small meals and snacks throughout the day, rather than eating 3 large meals. It's important to get enough calories and protein to control weight loss and maintain your strength during and after your cancer treatments.

Your doctor or dietitian can give you more information about supplements and how to maintain a healthy diet.

**Self-esteem, body image and sexuality:** It's natural to be concerned about the effects of stomach cancer and its treatment on your self-esteem, body image and sexuality. The cancer and its treatment may cause scars, hair loss or skin changes. You may be worried about how your body looks after treatment, about having sex with a partner or that you may be rejected. It may help to talk about these feelings with someone you trust. Your doctor can also refer you to specialists and counsellors who can help you with the emotional side effects of stomach cancer treatment.

**Our booklet** *Sex, Intimacy and Cancer* has more detailed information.

The end of cancer treatment may bring mixed emotions. You may be glad the treatments are over and look forward to returning to your normal activities. But you could feel anxious as well. If you're worried about your treatment ending, talk to your healthcare team. They're there to help you through this transition period.

## Living with cancer

**Our booklet** *Coping When You Have Cancer* has more detailed information and resources.

Many sources of help are available for people with cancer and their caregivers.

**Your healthcare team:** If you need practical help or emotional support, members of your healthcare team may be able to suggest services in your community or refer you to cancer centre staff or mental health professionals.

**Family and friends:** People closest to you can be very supportive. Accept offers of help. When someone says, “Let me know how I can help,” tell them what they can do. Maybe they can run errands, cook a meal or drive you to your doctor’s office.

**People who’ve had a similar experience:** Talking with and learning from others who’ve had similar experiences can be helpful. Consider visiting a support group or talking with a cancer survivor in person, over the telephone or online. Try more than one option to see which one works best for you.

**Yourself:** Coping well with cancer doesn’t mean that you have to be happy or cheerful all the time. But it can mean looking after yourself by finding relaxing, enjoyable activities that refresh you mentally, spiritually or physically. Take some time to find coping strategies to help you through this experience. You may also want to talk to a counsellor for more help.

### **Talking to someone who's been there**

If you would like to talk to someone who's had a similar cancer experience, you can connect by phone with a trained volunteer who will listen, provide hope and suggest ideas for coping – all from the unique perspective of someone who's been there.

Register for this free program at [match.cancer.ca](http://match.cancer.ca) or call us at 1-888-939-3333.

### **Want to connect with people online?**

If you'd like to join our online community, visit [CancerConnection.ca](http://CancerConnection.ca). You can read news, join discussion groups, get support and help others at the same time. You'll find caring, supportive people there.



## What causes stomach cancer?

Men are more likely to be diagnosed with stomach cancer than women. There is no single cause of stomach cancer, but some factors increase the risk of developing it. Some people can develop stomach cancer without any risk factors, while others who have these factors do not get it.

Risk factors for stomach cancer include:

- infection caused by *Helicobacter pylori* bacteria
- smoking
- family history of stomach cancer
- inherited genetic conditions like hereditary diffuse gastric cancer (HDGC) or familial adenomatous polyposis (FAP)
- inflammation or other problems in the stomach, such as chronic gastritis, intestinal metaplasia or pernicious anemia
- having had stomach surgery
- infection with Epstein-Barr virus (EBV)
- exposure to ionizing radiation, for example, from previous radiation treatment
- working in the rubber industry

## Canadian Cancer Society

*We're here for you.*

When you have questions about treatment, diagnosis, care or services, we will help you find answers.

**Call our toll-free number 1 888 939-3333.**



**Ask** a trained cancer information specialist your questions about cancer. Call us or email [info@cis.cancer.ca](mailto:info@cis.cancer.ca).



**Connect** with people online to join discussions, get support and help others. Visit [CancerConnection.ca](http://CancerConnection.ca).



**Browse** Canada's most trusted online source of information on all types of cancer. Visit [cancer.ca](http://cancer.ca).

Our services are free and confidential. Many are available in other languages through interpreters.

### **Tell us what you think**

Email [cancerinfo@cancer.ca](mailto:cancerinfo@cancer.ca) and tell us how we can make this publication better.



## What we do

The Canadian Cancer Society fights cancer by:

- doing everything we can to prevent cancer
- funding research to outsmart cancer
- empowering, informing and supporting Canadians living with cancer
- advocating for public policies to improve the health of Canadians
- rallying Canadians to get involved in the fight against cancer

Contact us for up-to-date information about cancer and our services or to make a donation.



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TTY 1 866 786-3934

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