

# **About Stomach Cancer**

Get an overview of stomach cancer and the latest key statistics in the US.

## **Overview and Types**

If you have been diagnosed with stomach cancer or are worried about it, you likely have

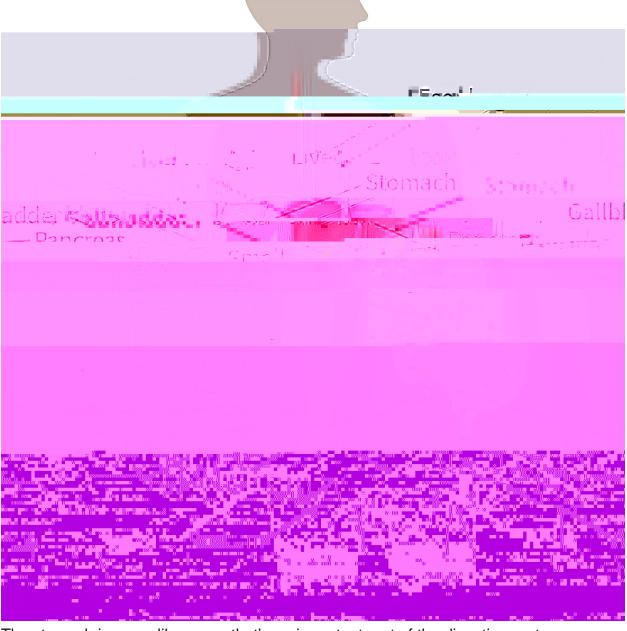
What Is Stomach Cancer?

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer, and can then spread to other areas of the body. To learn more about cancer and how it starts and spreads, see <u>What Is Cancer</u>?<sup>1</sup>

Stomach cancer, also called gastric cancer, begins when cells in the stomach start to grow out of control.

# The stomach

To understand stomach cancer, it helps to know about the normal structure and function of the stomach.



The stomach is a sac-like organ that's an important part of the digestive system.

After food is chewed and swallowed, it enters the **esophagus**, a tube that carries food through the throat and chest to the stomach. The esophagus joins the stomach at the **gastroesophageal (GE) junction**, which is just beneath the diaphragm (the thin sheet of breathing muscle under the lungs). The **stomach** then starts to digest the food by secreting gastric juice. The food and gastric juice are mixed and then emptied into the first part of the small intestine called the **duodenum**.

Some people use the word 'stomach'to refer to the belly area. The medical term for this area is the**abdomen**. For instance, some people with pain in this area would say they have a 'stomach ache', when in fact the pain could be coming from some other organ in the area. Doctors would call this symptom 'abdominal pain,' because the stomach is only one of many organs in the abdomen.

Stomach cancer is different from other cancers that can occur in the abdomen, like cancer of the <u>colon or rectum (large intestine)</u><sup>2</sup>, <u>liver</u><sup>3</sup>, <u>pancreas</u><sup>4</sup>, or <u>small intestine</u><sup>5</sup>. These cancers can have different symptoms, different outlooks, and different treatments.

### Parts of the stomach

The stomach has 5 parts.



The first 3 parts make up the proximal stomach

- The innermost layer is the **mucosa**. This is where stomach acid and digestive enzymes are made. Most stomach cancers start in this layer.
- Next is a supporting layer called the **submucosa**.
- Outside of this is the **muscularis propria**, a thick layer of muscle that helps move and mix the stomach contents.
- The outer 2 layers, the **subserosa** and the outermost**serosa**, wrap the stomach.

The layers are important in determining the stage (extent) of the cancer<sup>6</sup>, which cane options acidarigr

develops, pre-cancerous changes often occur in the inner lining (mucosa) of the stomach. These early changes rarely cause symptoms, so they often go undetected.

Cancers starting in different sections of the stomach can cause different <u>symptoms</u><sup>7</sup> and tend to have different outcomes. The cancer's location can also affect treatment options. For example, cancers that start at or grow into the GE junction are usually staged and treated the same as cancers of the esophagus. (For more information, see <u>Esophagus Cancer</u><sup>8</sup>.)

## Types of stomach cancer

### Adenocarcinomas

Most cancers of the stomach (about 90% to 95%) are adenocarcinomas. These cancers develop from the gland cells in the innermost lining of the stomach (the mucosa).

If you are told you have stomach cancer (or gastric cancer), it will almost always be an adenocarcinoma. The information on the following pages that discusses stomach cancer refers to this type of cancer.

There are 2 main types of stomach adenocarcinomas:

- The **intestinal** type tends to have a slightly better prognosis (outlook). The cancer cells are more likely to have certain gene changes that might allow for treatment with <u>targeted drug therapy</u><sup>9</sup>.
- The **diffuse** type tends to grow spread more quickly. It is less common than the intestinal type, and it tends to be harder to treat.

## Other types of cancer that can start in the stomach

#### Gastrointestinal stromal tumors (GISTs)

These uncommon tumors start in very early forms of cells in the wall of the stomach called interstitial cells of Cajal. Some GISTs are much more likely than others to grow into other areas or spread to other parts of the body. Although GISTs can start anywhere in the digestive tract, most start in the stomach. For more information, see <u>Gastrointestinal Stromal Tumor (GIST)</u><sup>10</sup>.

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# **Key Statistics About Stomach Cancer**

- How common is stomach cancer?
- Who gets stomach cancer?
- Stomach cancer trends over time

## How common is stomach cancer?

The American Cancer Society's estimates for stomach cancer (also known as gastric cancer) in the United States for 2024 are:

- About 26,890 new cases of stomach cancer (16,160 in men and 10,730 in women)
- About 10,880 deaths from this type of cancer (6,490 men and 4,390 women)

Stomach cancer accounts for about 1.5% of all new cancers diagnosed in the US each year.

## Who gets stomach cancer?

American Cancer Society

- 4. <u>www.cancer.org/cancer/types/stomach-cancer/detection-diagnosis-</u> <u>staging/survival-rates.html</u>
- 5. cancerstatisticscenter.cancer.org/

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# What's New in Stomach Cancer Research and Treatment?

- Chemoprevention
- Staging
- Treatment

Important research on stomach cancer (also known as gastric cancer) is being done in many medical centers and other institutions around the world. Scientists are learning more about what causes the disease and how best to prevent, detect, and treat it.

## **Risk factors**

#### Diet

Research has clearly shown that differences in diet are an important factor in explaining variations in stomach cancer risk around the world. Research in countries with relatively low stomach cancer risk has provided some insight into risk factors. For example, diets high in preserved meats and low in fresh fruits and vegetables have been linked with higher risk.

#### Helicobacter pylori infection

*Helicobacter pylori* (*H pylori*) is a common type of bacteria that has been linked with an <u>increased risk of stomach cancer</u><sup>1</sup>. Some studies have shown that certain types of *H pylori* (especially the cagA strains) are more strongly linked to stomach cancer than others. Some inherited traits related to blood groups may also affect whether someone infected with *H pylori* will develop cancer. Further research is needed to help doctors determine how to use this information to test which people might be at higher risk for developing stomach cancer.

Research has also found that a healthy diet is important for reducing stomach cancer risk for people infected with *H pylori*.

## Chemoprevention

Chemoprevention is the use of natural or man-made chemicals to lower the risk of developing cancer.

**free radicals**. Free radicals can sometimes damage the genes inside cells, which in some cases might lead to cancer.

Antioxidants are a group of nutrients and other chemicals that can destroy free radicals or prevent them from forming. These nutrients include vitamin C, beta-carotene, vitamin E, and the mineral selenium.

melanoma<sup>2</sup> and breast cancer<sup>3</sup>.

In this procedure, the surgeon injects a blue dye and/or a radioactive tracer substance into the cancer. These travel to the **sentinel lymph nodes**, the nearby lymph nodes that would be the first site of cancer spread. Once these nodes are found with the help of the dye or tracer, the doctors can remove these lymph nodes and look for cancer. If no cancer is found in these lymph nodes, then the cancer is unlikely to have reached others, and a full lymph node removal might not be needed. If cancer is found in the sentinel lymph node(s), then all the lymph nodes in the area would need to be removed. cancer in some other parts of the world, but it is not yet available in the United States.

New ways of giving chemo are also being studied. For example, some doctors are

## Immunotherapy

Immunotherapy is an approach that uses drugs to help the body's immune system fight the cancer.

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