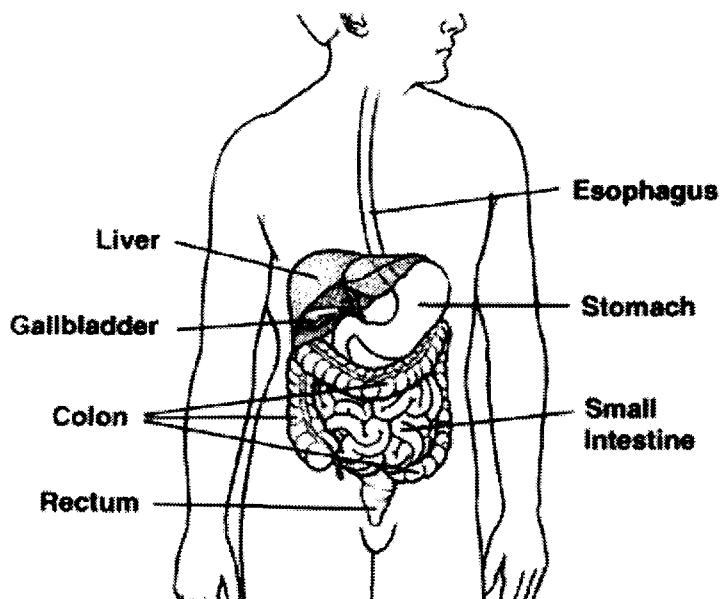


STOMACH CANCER: WHAT IS IT?

In this section of the Stomach Cancer Resource Center, you'll find an introduction to cancer, an overview of stomach cancer, and related stomach cancer statistics.

WHAT IS STOMACH CANCER?

Stomach cancer is a cancer that starts in the stomach. The medical name for stomach cancer is *gastric* cancer.



Reference as:
American Cancer
Society. 2000.
Stomach cancer.

After food is chewed and swallowed, it enters the *esophagus*, a tube-shaped organ that carries food through the neck and chest. The esophagus joins the stomach just beneath the *diaphragm* (the breathing muscle under the lungs). The stomach is a sack-like organ that holds food and begins the digestive process by secreting gastric juice. The food and gastric juice are mixed into a thick fluid called *chyme*, which is then emptied into the first part of the small intestine called the *duodenum*.

In nonmedical conversation, the word "stomach" is often used to refer to the area of the body between the chest and the pelvic area. For instance, some patients with diseases of the appendix, small intestine, colon (large intestine), or gallbladder may say they have a "stomach ache." The medical term for this area is *abdomen*. And, doctors would describe this symptom as "abdominal pain."

This point is also very important in considering cancers. The stomach is only one of many organs in the abdomen in which cancers may develop. It is important not to confuse stomach cancer with cancers of the colon (large intestine), liver, pancreas, small intestine, or gallbladder, because these cancers may have different symptoms, a different *prognosis* (outlook for survival) and different treatments.

The stomach is divided into five different sections. The upper portion (closest to the

esophagus) of the stomach is the *proximal* stomach. Some cells of this area of the stomach produce acid and *pepsin* (a digestive enzyme), the ingredients of the gastric juice that help digest food. The lower portion (closest to the intestine) is the *distal* stomach. This area includes the *antrum*, where the food is mixed with gastric juice, and the *pylorus*, which acts as a valve to control emptying of the stomach contents into the small intestine.

The stomach has two curves which form its upper and lower borders. They are called the *lesser and greater curves*, respectively. Other organs next to the stomach include the colon, liver, spleen, small intestine, and pancreas.

Cancer can develop in any of the five sections of the stomach. Cancers beginning in these different sections may produce different symptoms and tend to have different outcomes. The location can also affect some of the treatment options that are available.

Stomach cancers are believed to develop slowly over many years. Before a true cancer develops, there are usually precancerous changes that occur in the lining of the stomach. These early changes rarely produce symptoms and therefore often go undetected.

If left untreated, stomach cancers can spread by several different means. They can grow through the wall of the stomach and involve the nearby organs. They can also spread through the bloodstream or lymph system to form distant colonies of cancer called *metastasis*.

Approximately 90% to 95% of the *malignant* (cancerous) tumors of the stomach are adenocarcinomas. The terms stomach cancer or gastric cancer almost always refer to adenocarcinoma of the stomach. This cancer develops from the cells that form the inner lining of the stomach called the *epithelium*.

The following are other, less common tumors that are found in the stomach:

Lymphoma: These are cancers of the immune system tissue that is sometimes found in the wall of the stomach. They account for about 4% of cancers in the stomach. Prognosis and treatment depend on whether the cancer is an aggressive lymphoma or an indolent (slowly growing) lymphoma of mucosa-associated lymphoid tissue (MALT).

Gastric stromal tumors: These tumors develop from the muscle or connective tissue of the stomach wall. Some are benign; others are malignant (cancerous). The malignant stomach tumors are also called *gastric sarcomas* and make up about 2% of cancers starting in the stomach.

Carcinoid tumors: These are tumors of hormone-producing cells of the stomach. Most of these do not spread to other organs. Carcinoid tumors account for about 3% of cancers starting in the stomach.

The treatment and outlook of these rarer types of cancers are different from that of adenocarcinoma and are not covered here. Gastrointestinal carcinoid tumors are discussed in a separate document called "Gastrointestinal (Digestive System) Carcinoid Tumors."

The information contained in the rest of this document about stomach cancer refers only to

adenocarcinoma of the stomach.

WHAT ARE THE KEY STATISTICS ABOUT STOMACH CANCER?

It is estimated that 21,500 Americans (13,400 men and 8,100 women) will be diagnosed with stomach cancer during 2000. There will be an estimated 13,000 (7,600 men and 5,400 women) deaths from this type of cancer in 2000. Most people diagnosed with stomach cancer are in their 60s and 70s.

Stomach cancer is much more common in certain Asian, Central European, Central American, and South American countries, especially Japan, Chile, Costa Rica, Hungary, and Poland. It is the leading cause of cancer death in many of these countries and is a major cause of cancer death worldwide.

In the United States, stomach cancer is now only one-fourth as common as it was in 1930. The reasons for this dramatic decline are not completely known but may be related to increased use of refrigeration for food storage and decreased use of salted and smoked foods.

The overall 5-year survival rate of all stages of stomach cancer combined is about 21%. The prognosis (outlook) for patients with early-stage stomach cancer is much better, but depends on the location of the cancer. The 5-year survival rate for early stage cancers of the proximal stomach (the upper portion of the stomach closest to the esophagus) is about 10% to 15%. For early stage cancers in the distal stomach (the lower portion of the stomach closest to the intestines), the 5-year survival rate is 50%. Unfortunately, only about 10% to 20% of patients with stomach cancer in the United States are diagnosed at an early stage. It is important to remember that these statistics are averages. The outlook for any individual patient cannot be predicted with certainty, and many people survive much longer than would be expected based on the stage of their cancer.

The 5-year survival rate refers to the percent of patients who live at least 5 years after their cancer is diagnosed. Many of these patients live much longer than 5 years after diagnosis, and 5-year rates are used to produce a standard way of discussing prognosis. Five-year relative survival rates exclude from the calculations patients dying of other diseases, and are considered to be a more accurate way to describe the prognosis for patients with a particular type and stage of cancer. Of course, 5-year survival rates are based on patients diagnosed and initially treated more than 5 years ago. Improvements in treatment often result in a more favorable outlook for recently diagnosed patients.

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