

## Stomach Cancer (Gastric Cancer)

Stomach cancer (gastric cancer) forms in the tissues of the stomach. Cancerous cells can develop in any of the five layers of the stomach, from the innermost layer, the mucosa, to the outermost layer, the serosa. Most cases begin in the mucosa, which produces stomach acid and digestive enzymes. Symptoms, treatments, and survival rates all vary, depending on the cancer's point of origin in the stomach. Cancers that begin in the mucosa, the innermost layer, are the most treatable, as they slowly grow out into the outer stomach layers. Cancers in the outer layers of the stomach are more likely to spread to nearby organs or lymph nodes. Stomach cancer that spreads into the lymph system is less treatable. Once a leading cancer killer in the United States, the disease has become less common.

### Statistics

- In 2016, an estimated 26,370 people in the United States will be diagnosed with stomach cancer.
- An estimated 10,730 Americans will die from the disease in 2016.
- In Texas, 1,701 new diagnoses are expected and 938 stomach cancer deaths are anticipated in 2016.
- Approximately 60 percent of those diagnosed with stomach cancer are over 65.

### Risk Factors

- **Bacterial Infection:** A specific bacteria called *Helicobacter pylori* has been linked to stomach cancer as a major cause of the disease. However, most people with these bacteria do not develop stomach cancer.
- **Demographics:** More men than women are diagnosed with the disease. People over the age of 50 and those with a family history of the disease have a higher risk of developing stomach cancer. Hispanics, African Americans, and Asian/Pacific Islanders are more likely to develop stomach cancer.
- **Blood Type:** People with Type A blood have a higher risk.
- **Diet:** Smoked foods, salted fish and meats, and pickled vegetables have been linked to an increased risk.
- **Smoking:** Smokers face twice the risk of developing stomach cancer than nonsmokers.
- **Occupation:** People who work in the rubber, coal, and metal industries have a higher risk.
- **CVID:** People with common variable immune deficiency have an increased risk.
- **Stomach Health Issues:** People with stomach lymphoma, previous stomach surgery, pernicious anemia, Menetrier disease, certain types of stomach polyps, and those with inherited cancer syndromes (BRCA-1, BRCA-2, familial adenomatous polyposis syndrome, hereditary diffuse gastric cancer, Li-Fraumeni syndrome, Lynch syndrome, Peutz-Jeghers syndrome) have a higher risk.
- **Weight:** Being overweight or obese may increase the risk of certain types of stomach cancer.
- **Viral Infection:** The Epstein-Barr virus (EBV) is associated with some stomach cancers.

### Symptoms

Stomach cancer in its early stages does not trigger immediate symptoms. However, symptoms that may appear in later stages of development include:

- Stomach area pain or discomfort
- Vomiting and nausea
- Full feeling after a small meal
- Trouble swallowing
- Unexplained loss of weight
- Blood in vomit or the stool

### Treatment

Treatment options vary, depending on the size, location, stage of the cancerous tumor, and the patient's health. Most treatment options include a combination of surgery, chemotherapy, radiation therapy, or proton therapy. Patients with stomach cancer may also consider participation in clinical trials.

### Linitis Plastica

Linitis plastica is a very rare type of stomach cancer that spreads to the muscles of the stomach wall, forming a thick and immovable layer. It develops a flat, thickened area of the mucosa and is sometimes called leather bottle stomach. When this happens, the stomach is unable to hold much food, and does not stretch out as food digests.

Linitis plastica is a rapidly growing cancer. Although the survival outlook is poor and it is difficult to treat, treatment options are available in some cases. Treatment options for linitis plastica are surgery and chemotherapy. A total or partial gastrectomy (surgical removal of the stomach) may be recommended.

*Sources: American Cancer Society, American Society of Clinical Oncology, Cancer Research UK, National Cancer Institute, Texas Cancer Registry*



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