



STOMACH CANCER

THE STOMACH

The stomach is a hollow organ in the upper abdomen, under the ribs. It is part of the digestive system. Food moves from the mouth through the oesophagus to the stomach. In the stomach, the food becomes liquid. Muscles in the stomach wall push the liquid into the small intestine.

The wall of the stomach has five layers:

- **Inner layer or lining (mucosa):** Juices made by glands in the inner layer help digest food. Most stomach cancers begin in this layer.
- **Submucosa:** This is the support tissue for the inner layer.
- **Muscle layer:** Muscles in this layer contract to mix and mash the food.
- **Subserosa:** This is the support tissue for the outer layer.
- **Outer layer (serosa):** The outer layer covers the stomach. It holds the stomach in place.

STOMACH CANCER

Stomach cancer usually begins in cells in the inner layer of the stomach. Over time, the cancer may invade more deeply into the stomach wall. A stomach tumour can grow through the stomach's outer layer into nearby organs, such as the liver, pancreas, oesophagus, or intestine. Stomach cancer cells can spread by breaking away from the original tumour. They enter blood vessels or lymph vessels, which branch into all the tissues of the body. The cancer cells may be found in lymph nodes near the stomach. The cancer cells may attach to other tissues and grow to form new tumours that may damage those tissues. The spread of cancer is called metastasis.

RISK FACTORS

- **Helicobacter pylori infection:** *H. pylori* is a bacterium that commonly infects the inner lining (the mucosa) of the stomach. Infection with *H. pylori* can cause stomach inflammation and peptic ulcers. It also increases the risk of stomach cancer, but only a small number of infected people develop stomach cancer.
- **Long-term inflammation of the stomach:** People who have conditions associated with long-term stomach inflammation (such as the blood disease pernicious anaemia) are at increased risk of stomach cancer. Also, people who have had part of their stomach removed may have long-term stomach inflammation and increased risk of stomach cancer many years after their surgery.
- **Smoking:** Smokers are more likely than non-smokers to develop stomach cancer. Heavy smokers are most at risk.
- **Family history:** Close relatives (parents, brothers, sisters, or children) of a person with a history of stomach cancer are somewhat more likely to develop the disease themselves. If many close relatives have

a history of stomach cancer, the risk is even greater.

- **Poor diet, lack of physical activity, or obesity.** Studies suggest that people who eat a diet high in foods that are smoked, salted, or pickled have an increased risk for stomach cancer. On the other hand, people who eat a diet high in fresh fruits and vegetables may have a lower risk of this disease.

SYMPTOMS

Early stomach cancer often does not cause symptoms. As the cancer grows, the most common symptoms are:

- Discomfort or pain in the stomach area
- Difficulty swallowing
- Nausea and vomiting
- Weight loss
- Feeling full or bloated after a small meal
- Vomiting blood or having blood in the stool

DIAGNOSIS

If you have symptoms that suggest stomach cancer, your doctor will check to see whether they are due to cancer or to some other cause. Your doctor may refer you to a gastroenterologist, a doctor whose specialty is diagnosing and treating digestive problems.

You also may have:

- **Physical exam:** Your doctor feels your abdomen for fluid, swelling, or other changes. Your doctor also will check for swollen lymph nodes.
- **Endoscopy:** Your doctor uses a thin, lighted tube (endoscope) to look into your stomach. Your doctor first numbs your throat with an anaesthetic spray. You also may receive medicine to help you relax. The tube is passed through your mouth and oesophagus to the stomach.
- **Biopsy:** An endoscope has a tool for removing tissue. Your doctor uses the endoscope to remove tissue from the stomach. A pathologist checks the tissue under a microscope for cancer cells. A biopsy is the only sure way to know if cancer cells are present.

STAGING

These are the stages of stomach cancer:

- **Stage 0:** The tumour is found only in the inner layer of the stomach. Stage 0 is also called carcinoma in situ.
- **Stage I:** is one of the following:
 - The tumour has invaded only the submucosa. Cancer cells may be found in up to 6 lymph nodes.
 - Or, the tumour has invaded the muscle layer or subserosa. Cancer cells have not spread to lymph nodes or other organs.
- **Stage II:** is one of the following:
 - The tumour has invaded only the submucosa. Cancer cells have spread to 7 to 15 lymph nodes.



- Or, the tumour has invaded the muscle layer or subserosa. Cancer cells have spread to 1 to 6 lymph nodes.
- Or, the tumour has penetrated the outer layer of the stomach. Cancer cells have not spread to lymph nodes or other organs.
 - **Stage III:** is one of the following:
 - The tumour has invaded the muscle layer or subserosa. Cancer cells have spread to 7 to 15 lymph nodes.
 - Or, the tumour has penetrated the outer layer. Cancer cells have spread to 1 to 15 lymph nodes.
 - Or, the tumour has invaded nearby organs, such as the liver, colon, or spleen. Cancer cells have not spread to lymph nodes or to distant organs.
 - **Stage IV:** is one of the following:
 - Cancer cells have spread to more than 15 lymph nodes.
 - Or, the tumour has invaded nearby organs and at least 1 lymph node.
 - Or, cancer cells have spread to distant organs.

TREATMENT

The choice of treatment depends mainly on the size and location of the tumour, the stage of disease, and your general health. Treatment for stomach cancer may involve surgery, chemotherapy, or radiation therapy. You will probably receive more than one type of treatment. For example, chemotherapy may be given before or after surgery. It is often given at the same time as radiation therapy.



Second opinion - Before starting treatment, you might want a second opinion from another doctor about your diagnosis and treatment plan.

Nutrition - Nutrition is an important part of your treatment for stomach cancer. You need the right amount of calories, protein, vitamins, and

minerals to maintain your strength and to heal. However, when you have stomach cancer, it may be difficult to eat. You may be uncomfortable or tired, and you may not feel like eating. You also may have nausea, vomiting, constipation, or diarrhoea from cancer treatment or pain medicine.

Nutrition after Stomach Surgery - A registered dietician can help you plan a diet that will meet your nutrition needs. A plan that describes the type and amount of food to eat after surgery can help you prevent weight loss and discomfort with eating. After stomach surgery, you may need to take daily supplements of vitamins and minerals, such as vitamin D, calcium, and iron. You may also need vitamin B12 shots.

Supportive Care - Stomach cancer and its treatment can lead to other health problems. You can have supportive care before, during, and after cancer treatment. Supportive care is treatment to control pain and other symptoms, to relieve the side effects of therapy, and to help you cope with the feelings that a diagnosis of cancer can bring. You may receive supportive care to prevent or control these problems and to improve your comfort and

quality of life during treatment.

Cancer That Blocks the Digestive Tract - People with advanced stomach cancer may develop a tumour that blocks the passage of food through the digestive tract. Your health care team may suggest one or more of the following options:

- **Stent:** The doctor uses an endoscope to place a stent (a tube made of metal mesh or plastic) in your intestine. Food and liquid can pass through the centre of the tube.
- **Radiation therapy:** Radiation therapy may help shrink the tumour that is blocking the intestine.
- **Laser therapy:** A laser is a concentrated beam of intense light that kills tissue with heat. The doctor uses an endoscope to place the laser in your digestive tract. The laser destroys the cancer cells blocking the digestive tract.

Pain - Cancer and its treatments may cause pain. Your health care team or a pain control specialist can suggest ways to relieve or reduce pain. Radiation therapy and pain medicine may help.

Follow-up Care - You will need regular checkups after treatment for stomach cancer.

SOURCES OF SUPPORT

- Doctors, nurses, and other members of your health care team.
- Social workers, counsellors, or members of the clergy.
- Support groups also can help.
- Cancer Institutions such as Africa Cancer Foundation and Faraja Cancer Support Trust

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