

Esophageal Cancer

What is esophageal cancer?

The esophagus is a hollow muscular tube that's responsible for moving food from the throat to the stomach. Esophageal cancer can occur when a malignant tumor forms in the lining of the esophagus.

As the tumor grows, it can affect the deep tissues and muscle of the esophagus. A tumor can appear anywhere along the length of the esophagus, including where the esophagus and the stomach meet.

What are the common types of esophageal cancer?

There are two common types of esophageal cancer:

Squamous cell carcinoma occurs when cancer starts in the flat, thin cells that make up the lining of the esophagus. This form most often appears in the top or middle of the esophagus, but it can appear anywhere.

Adenocarcinoma occurs when cancer starts in the glandular cells of the esophagus that are responsible for the production of fluids such as mucus. Adenocarcinomas are most common in the lower portion of the esophagus.

What are the symptoms of esophageal cancer?

During the early stages of esophageal cancer, you probably won't experience any symptoms. As your cancer progresses, you may experience:

- unintentional weight loss
- indigestion
- heartburn
- pain or difficulty when swallowing
- frequent choking while eating
- vomiting
- food coming back up the esophagus
- chest pain
- fatigue
- chronic cough
- hiccups

What causes esophageal cancer?

As with most cancers, the cause of esophageal cancer isn't yet known. It's believed to be related to abnormalities (mutations) in the DNA of the cells related to the esophagus. These mutations signal the cells to multiply more rapidly than normal cells.

These mutations also disrupt the signal for these cells to die when they should. This causes them to accumulate and become tumors.

Who is at risk for developing esophageal cancer?

Experts believe that the irritation of esophageal cells contributes to the development of cancer. Some habits and conditions that can cause irritation include:

- consuming alcohol
- smoking
- having a reflux disorder, such as gastroesophageal reflux disease (GERD)
- having Barrett's esophagus, which is a condition characterized by damaged esophageal lining due to GERD
- being overweight
- not eating enough fruits and vegetables
- having achalasia, a condition where the muscle at the bottom of the esophagus doesn't relax properly

People at increased risk of esophageal cancer include the following:

- Men are three times more likely than women to develop esophageal cancer.
- Esophageal cancer is more common in African-Americans than in other ethnicities.
- Your chances of developing esophageal cancer increase with age. If you're over the age of 45, your risk may be higher.

Diagnosing esophageal cancer

Testing methods for diagnosing esophageal cancer include the following:

- An endoscopy involves the use of an instrument with a camera attached to a tube that goes down your throat and allows your doctor to view the lining of your esophagus to check for abnormalities and irritation.
- A barium swallow is an X-ray imaging test that allows your doctor to see the lining of your esophagus. To do this, you swallow a chemical called barium while the images are being obtained.
- A biopsy is a process in which your doctor removes a sample of the suspicious tissue with the help of an endoscope and sends it to a lab for testing.
- A CT scan, PET scan, or MRI may be used to see if cancer has spread to other parts of the body.

Treating esophageal cancer

Your doctor may recommend surgery if the cancer hasn't spread to other parts of your body. Your doctor may instead recommend chemotherapy or radiation therapy as the best course of action. These treatments are also sometimes done to shrink tumors in the esophagus so that they can then be removed more easily with surgery.

Surgery

If the cancer is small and hasn't spread, your doctor can remove the tumor using a minimally invasive approach, using an endoscope and several small incisions.

In the standard approach, the surgeon operates through a larger incision to remove a portion of the esophagus and sometimes the lymph nodes around it. The tube is reconstructed with tissue from the stomach or large intestine.

In severe cases, a portion of the top of the stomach may be removed as well.

The risks of surgery can include pain, bleeding, leaking in the area where the rebuilt esophagus is attached to the stomach, lung complications, problems swallowing, nausea, heartburn, and infection.

Chemotherapy

Chemotherapy involves the use of drugs to attack cancer cells. Chemotherapy may be used before or after surgery. It sometimes accompanies the use of radiation therapy.

Chemotherapy has a number of possible side effects. Most arise because chemotherapy drugs also kill healthy cells. Your side effects will depend on the drugs your doctor uses.

These side effects can include:

- hair loss
- nausea
- vomiting
- fatigue
- pain
- neuropathy

Radiation therapy

Radiation therapy uses beams of radiation to kill cancer cells. Radiation may be administered externally (with the use of a machine) or internally (with a device placed near the tumor, which is called brachytherapy).

Radiation is commonly used along with chemotherapy, and side effects are usually more severe when a combined treatment is used. The side effects of radiation can include:

- skin that looks sunburned
- pain or difficulty when swallowing

- fatigue
- painful ulcers in the lining of the esophagus
- It's possible to experience some side effects of treatment long after treatment finishes. These can include esophageal stricture, where the tissue becomes less flexible and can cause the esophagus to narrow, making it painful or difficult to swallow.

Targeted therapy

Targeted therapies can target specific proteins on cancer cells as a way to treat the cancer. A small portion of esophageal cancers can be treated with Trastuzumab. It targets the HER2 protein on the surface of the cancer cell where the protein has been helping the cancer cells to grow.

Also, cancers can grow and spread by creating new blood vessels. Ramucirumab is a type of targeted therapy called "monoclonal antibody," and this bonds to a protein called VEGF, which helps make new blood vessels.

Other treatments

If your esophagus is obstructed as a result of cancer, your doctor may be able to implant a stent (a tube made of metal) into your esophagus to keep it open.

They may also be able to use photodynamic therapy, which involves injecting the tumor with a photosensitive drug that attacks the tumor when exposed to light.

Long-term outlook

Your chances for recovery improve the earlier the cancer is found.

Esophageal cancer is usually found in the later stages when it can only be treated but not cured. Your chances of survival may improve with surgery if the cancer hasn't spread outside of your esophagus.

Preventing esophageal cancer

Although there's no sure way to prevent esophageal cancer, there are a few steps you can take to lower your risk:

- Avoiding cigarettes and chewing tobacco is key.
- Limiting your consumption of alcohol is also thought to lower your risk.
- Eating a diet with lots of fruits and vegetables and maintaining a healthy weight may also be effective ways to avoid esophageal cancer.

For more information on Esophageal Cancer visit:

<https://www.healthline.com/health/esophageal-cancer>

<https://www.mayoclinic.org/diseases-conditions/esophageal-cancer/symptoms-causes/syc-20356084>

<https://www.cancer.org/cancer/esophagus-cancer/about/what-is-cancer-of-the-esophagus.html>