

# Lung Cancer

Lung cancer is a group of cancers that affect the lungs. Contrary to popular belief it does not just affect smokers, but can affect anyone. It is the most common form of cancer in the United States. Lung cancer affects more than 203,000 people each year and kills more than 158,000. This is more deaths each year than breast, ovarian, colon and prostate cancers combined.

## TYPES

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**Small cell lung cancer:** this type of cancer accounts for about 15 percent of all lung cancers. As the name implies, the cells are smaller than typical cancer cells. They also reproduce quickly and form large tumors. This type of cancer can also metastasize, or spread to other parts of the body. There are two types of small cell cancers:

- **Limited:** the cancer is confined to the chest area.
- **Extensive:** the cancer has metastasized to other areas of the body.

This type of cancer does respond to treatment, but it is difficult to cure.

**Non-small cell lung cancer:** this type of cancer is much more common than small cell lung cancer. This type of cancer accounts for about 85 percent of all lung cancers. There are several types of non-small cell lung cancers, based upon the types of cells found in the cancer.

- **Squamous cell carcinoma** (also known as epidermoid carcinoma): this type of cancer begins in the epithelial cells that line the air passages. It is possible that it can develop within the larger breathing tubes. If left untreated, this cancer can metastasize (spread) to the lymph nodes, adrenal glands, liver, bones and brain. It accounts for about 25 percent of all lung cancers in the United States. The most common cause of squamous cell carcinoma is smoking.
- **Adenocarcinoma:** this type of cancer begins in the mucus-producing cells in the lungs. It is the most common type of lung cancer in the United States. It has been linked to smoking, but it is the most common type of lung cancer to affect non-smokers as well. It usually develops slowly though it is possible for it to develop quickly, causing death. When it spreads, it often spreads to the brain. It will also metastasize to the lymph nodes, the liver, the adrenal glands and bone.
- **Large cell carcinoma:** this type of cancer is responsible for about 10 to 20 percent of lung cancers. Large cell carcinomas include all lung cancers that cannot be classified as the two other types of cancer listed above.

Depending upon the stage of the cancer at the time of diagnosis, treatment is available for non-small cell lung cancer.

- **Mesothelioma:** this is another type of cancer that mostly affects the lungs, but not in the same way that the other cancers do. This type of lung cancer affects the outer membrane of the lung and affects those who have had extensive exposure to asbestos. It usually only affects men who are over 60 years of age who spent many years working in industrial jobs that exposed them to asbestos, such as mining or in ship yards. This is a very rare form of cancer, only affecting 2,500-3,000 people per year and it is usually diagnosed in its very late stages.

## CAUSES

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The leading cause of lung cancer is smoking. Carcinogens (cancer causing chemicals) in the cigarettes damage the cells that line the lungs. However it is possible for those who have never smoked, or been exposed to second-hand smoke on a long term basis to develop lung cancer. In these people, the cause of the cancer is unknown.

Cancer occurs when genetic mutations in an abnormal cell's DNA cause cells to multiply rapidly and not die, leading to the development of tumors.

## SYMPTOMS

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Typically, especially in early stages, lung cancer has no symptoms. In later stages, symptoms include:

- A new cough or changes to an existing "smoker's" cough
- Coughing up blood
- Wheezing
- Shortness of breath
- Hoarseness
- Chest pain
- Weight loss without trying
- Headache
- Bone pain

Anyone who experiences these symptoms or who is having trouble quitting smoking should see their doctor and discuss their concerns. There are products available to help people kick the habit.

## TREATMENT

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Treatment for lung cancer will depend upon a number of factors including the stage of the cancer at the time of diagnosis and the type of cancer.

Small cell carcinoma is usually treated with chemotherapy and radiation. This is effective; however this is a difficult type of cancer to eradicate completely.

Non-small cell carcinoma is treated by surgically removing the tumors as well as chemotherapy and radiation. This type of cancer can be eradicated, but it will depend upon the stage of the cancer at the time of diagnosis. Sometimes the goal of treatment is not to completely cure the cancer, but to extend the patient's life.

## **PROGNOSIS**

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The prognosis for those with lung cancer will depend upon a number of things including the type of cancer, the size of the tumor, the state at detection, the treatment received and the patient's overall health.

The overall 5-year survival rate in the United States is not very good, only about 14 percent.

Lung cancer doesn't have to be a death sentence. With aggressive treatment, there is hope. The most important thing someone can do to avoid developing lung cancer is to not smoke. Smokers should quit, because the risk of developing cancer drops once someone quits and smoking isn't worth dying for.