

Lung Cancer... Am I At Risk?

Patient Education Guide

Lung cancer is one of the most common cancers. One in about every eight people in the United States (about 13%) who learn they have cancer this year will have lung cancer. Most people who have lung cancer are older, in their 50s, 60s, or 70s. But younger people can also have lung cancer.

People worry about lung cancer because so many people die of it. About 500,000 people in the United States die every year of cancer. Almost one third of them will die of lung cancer. This is because, in most instances, lung cancer disease is not detected until the cancer has spread outside the lungs. But, when lung cancer is found in the early stages, it can be cured. Even late-stage lung cancer can be treated. This is why it is important for you to know if you are at risk for lung cancer. If you are at risk, you should talk to your family or primary care doctor or to a pulmonologist, a lung specialist.

Your Lungs

Your lungs are one of your most important organs. They are able to take the oxygen from the air you breathe into your body. They also remove the carbon dioxide waste from your body. This exchange happens in the millions of large and very small blood vessels that are in your lungs. There are red blood cells that travel in the blood vessels throughout your body. They carry oxygen to, and carbon dioxide from, all the organs and cells of the body. There are many lymph glands in your chest, between your lungs, and around the air passages. The lymph glands, or nodes, are important in protecting you from harmful things that you may breathe in. Because there are so many blood vessels and lymph glands in your lungs and chest, types of cancer that develop in the lungs can spread easily to other parts of your body.

Types of Lung Cancer

There are two major types of lung cancer: small cell and non-small cell lung cancer. Non-small cell lung cancer is by far the most common type of lung cancer. About four out of five people who have lung cancer have non-small cell lung cancer.

Risks

Smoking cigarettes puts you at high risk for lung cancer. In fact, between 80% and 90% of all people with lung cancer are current or former smokers. Most often, those who develop lung cancer will have smoked for 10, 20, 30, or more years. So, it is very important to quit smoking if you are a smoker. However, if you have already quit smoking, you are still at risk for lung cancer. If you have ever smoked, you will always be at greater risk for developing lung cancer. Smoking marijuana or heroin as crack-cocaine can also increase your risk for lung cancer.

People who live with or work around people who smoke also have an increased risk of lung cancer. Passive smoke also affects our children and even our pets.

Another risk is if someone in your family, a blood relative, has had lung cancer. Your risk is also higher if someone in your family has kidney, bladder, ovarian, or prostate cancer. But, remember, not all people with cancer in their families will get cancer.

Exposure to diesel fumes, radon, asbestos, and other chemicals in the air can also cause lung cancer.

Symptoms

Most people know that if they cough up blood they should see a doctor. But, when lung cancer first begins, there are usually no, or very few, symptoms. Most types of lung cancer grow slowly; therefore, it usually takes a long time before symptoms develop.

One of the first signs that a type of lung cancer is beginning to grow is feeling out of breath. You might become out of breath walking up stairs that you had no problem climbing a short time before. If you are at risk, and notice that you are more out of breath than usual, talk to your doctor.

Another early symptom might be a cough that will not go away. Or, you might have had a cough that was treated but then came back in a short period of time. Some people cough a lot when they have very early lung cancer. You may have more mucus to cough up than usual. Sometimes, there might even be a bit of blood in the mucus. Talk to your doctor if you have a cough that lasts more than a few days.

Your doctor may treat you for chronic bronchitis or pneumonia that keeps coming back. You may be taking antibiotics two, three, or more times a year. If this is happening to you, you may be showing an early symptom of lung cancer. Talk to your doctor about having additional tests.

Sometimes pain is the first symptom. Pain in the chest, the back, or even the arms is common. Pain can also be a sign of advanced disease. Bone pain, especially in the ribs or spine, or even in other bones in the body, may mean that the lung cancer has spread to these areas. If a pain does not go away in a few weeks, see your doctor.

Women, more often than men, may notice that the ends of their fingers become larger. They look like small clubs or baseball bats. They are fatter at the tips. This is another sign that a person might have lung cancer.

Coughing up blood is a sign that lung cancer might be developing. Sudden weight loss is another sign, especially if you are not trying to lose weight. If you have either of these symptoms, see your doctor right away.

If you are having symptoms or other signs that something might be wrong in your lungs, see your doctor.

Testing For Lung Cancer

If you are at risk, but do not have any of the signs or symptoms mentioned in this brochure, talk to your doctor about what you should do, if anything. Chest x-ray or examining the cells in the mucus you cough up is not recommended, since some studies showed that these were not good ways to screen for lung cancer.

If you, or your doctor, are concerned about your risk, your doctor may talk to you about clinical studies. One screening study is open in many cities in the United States. Everyone who enrolls in this study is given a spiral computed tomography (CT) scan. The CT scan finds nodules that are much smaller than those that are generally found on a chest x-ray. Your doctor will talk to you about the benefits and risks.

If you do have one or more of the signs or symptoms mentioned in this brochure, talk to your primary care doctor. Your doctor may refer you to a pulmonologist. Your doctors will do a number of tests. The tests will depend on your symptoms.

If you are having shortness of breath, the first test might be a spirometry test. With this test, your doctor will know how well your lungs are working. This is an easy test where you will simply breathe in and out through a mouthpiece that is connected to a machine. The machine measures how well your lungs are working.

If you are having pain, especially in a bone, your first test might be an x-ray to see if you might have a break or other injury. Your doctor might also use the chest x-ray as the first test because it can give a glimpse of what might be going on in your chest. Since an x-ray of the chest would also include your lungs, a growth or tumor might be seen on the x-ray, especially if it is about the size of a walnut or bigger. Or, it could tell your doctor if you have pneumonia.

If any growths that might be tumors are seen on the chest x-ray, the doctor will order more tests. One of the first tests will probably be a spiral CT scan of your chest. The CT scan will more clearly define any possible tumor or tumors in your lungs. It can be used to see very small growths, called nodules. Nodules that can be found by CT scan may be as small as a grain of rice.

Most small growths or nodules found by CT scan of the lungs are not cancer. If you have one or more nodules, your doctor might ask you to take an antibiotic for a few weeks to see if they go away. Many do, and those that don't might be scar tissue. Your doctor will also repeat the test after a short period of time, usually a few months, to see if they have gone away or even possibly gotten bigger. A nodule that grows is most likely cancer.

If a larger nodule was found by chest x-ray, your doctor may be able to tell by looking at it that it is probably cancer. Then, other tests will be done to find out what kind of cancer you have. Your doctor will also check to see if the cancer is still just in your lungs or has spread to other parts of your body.

If a nodule is found, it is very important for you to follow-up with your doctor. Remember, the earlier lung cancer is found, the better the chance is of curing it.

Lung Cancer Prevention

The best prevention for not getting lung cancer is to never smoke. And, if you are a smoker, quit as soon as possible. It is also helpful to avoid exposure to secondhand smoke.

But, not all people who get lung cancer have smoked. Between 10% and 20% of people with lung cancer have never smoked. Some of these people have been exposed to other substances that are known to cause lung cancer. And, some people get lung cancer because it runs in their family.

Some clinical studies have shown that eating a lot of vegetables and fruits every day is also a good way to help prevent lung cancer. The National Cancer Institute recommends at least five servings a day of a wide variety of vegetables and fruits. This can be another primary prevention method.

So far, there are no pills or vaccines that can be used to prevent lung cancer, but clinical studies are going on all the time. If you are interested in possibly helping yourself and others by taking part in one of these studies, talk to your doctor or check with the groups listed in the Resources section of this brochure.

Calculating Your Risk

All current and former smokers:

My pack-years of smoking are (for example, one pack a day for 10 years, or 2 packs a day for 5 years, or one-half pack a day for 20 years all equal 10 pack-years):

- 10 pack-years
- 20 pack-years
- 30 pack-years
- 40 pack-years
- 50 or more pack-years

My other risks include:

- I currently live, or have lived, with one or more smokers.
- My parents smoked when I was a child.
- I work, or have worked, in an environment where people smoke.
- I live, or have lived, in a home with high radon levels.
- I have been exposed to high levels of radiation.
- I have been exposed to asbestos.
- I live, or have lived, in an area with significant air pollution.
- One or both of my parents has been diagnosed with lung cancer.
- One or more of my siblings has been diagnosed with lung cancer.
- One or more of my blood-related grandparents or other relatives has been diagnosed with lung cancer.
- I have chronic bronchitis, chronic obstructive pulmonary disease (COPD), or emphysema.
- I have coughs or pneumonia frequently.

If you have smoked at least 10 pack-years and you have two or more of the other risk factors, talk to your primary care physician about your risk. If you have never smoked and have three or more of the other risk factors, talk to your primary care physician about your risk.

Resources

Alliance for Lung Cancer Advocacy, Support, and Education (ALCASE)

Toll-free phone number: (800) 298-2436

Internet site: www.alcase.org

American College of Chest Physicians (ACCP)

Toll-free phone number: (800) 343-ACCP

Internet site: www.chestnet.org

American Cancer Society (ACS)

Toll-free phone number: (800) ACS-2345

Internet site: www.cancer.org

Cancer Care

Toll-free phone number: (800) 813-4673

Internet site: www.cancercare.org

Lungcancer.org

Toll-free phone number: (877) 646-LUNG

Internet site: www.lungcancer.org

National Cancer Institute (NCI)

Toll-free number: (800) 4-CANCER

Internet site: www.cancer.gov

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**Additional Lung Cancer
Patient Education
Guides Available**

What If I Have a Spot on My Lung? Do I Have Cancer?

Living With Lung Cancer

Advanced Lung Cancer: Issues To Consider

The American College of Chest Physicians is the leading resource for the improvement of cardiopulmonary health and critical care worldwide. Its mission is to promote the prevention and treatment of diseases of the chest through leadership, education, research, and communication.

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