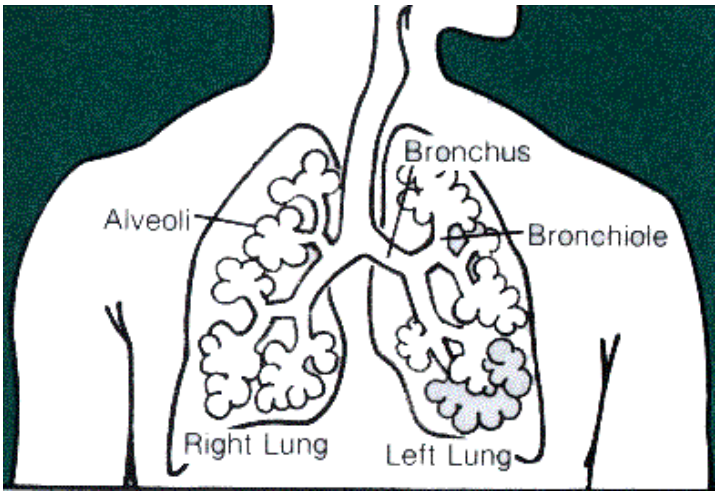
RUTGERS
Cancer Institute
of New Jersey

NCI CCC
A Comprehensive Cancer Center Designated by the National Cancer Institute

November is Lung Cancer Awareness Month

What Is Lung Cancer?

Lung cancer is the uncontrolled growth of abnormal cells in one or both of the lungs. While normal lung tissue cells reproduce and grow into healthy lung tissue, these abnormal cells reproduce rapidly and never grow into normal lung tissue. Lumps of cancer cells (tumors) then form and disrupt the lung, making it difficult to function properly.



The lungs

The lungs, a pair of sponge-like, cone-shaped organs, are part of the respiratory system. The right lung has three sections, called lobes; it is a little larger than the left lung, which has two lobes. When we breathe in, the lungs take in oxygen, which our cells need to live and carry out their normal functions. When we breathe out, the lungs get rid of carbon dioxide, which is a waste product of the body's cells.

Lung cancer almost always begins in one lung and, if left untreated, can spread to lymph nodes or other tissues in the chest (including the other lung). Lung cancer can also metastasize (or spread) throughout the body to the bones, brain, liver, or other organs.

Cancers that begin in the lungs are divided into two major types, non-small cell lung cancer and small cell lung cancer, depending on how the cells look under a microscope. Each type of lung cancer grows and spreads in different ways and is treated differently.

What Are the Key Statistics about Lung Cancer?

- Approximately 228,190 new cases of lung cancer will be diagnosed in 2013.
- An estimated 159,480 Americans will die in 2013 from lung cancer.
- Lung cancer is the number one cause of cancer deaths for men and women. Each year, lung cancer kills more men than prostate cancer and more women than breast cancer.

- The one-year survival rate for lung cancer has increased because of the surgical techniques and combined treatments.
- However the five-year survival rate is approximately 50% when localized, but only 16% of lung cancer is detected at this early stage.

Who's At Risk?

- Tobacco users: More than 87% of lung cancers are smoking related. However, not all smokers develop lung cancer. Quitting smoking reduces a person's risk significantly, although former smokers remain at greater risk for lung cancer than people who never smoked. Exposure to other carcinogens such as asbestos and radon gas also increases a person's risk, especially when combined with cigarette or cigar smoking.
- Environmental tobacco smoke: The chance of developing lung cancer also is increased by exposure to environmental tobacco smoke (ETS) -- the smoke in the air when someone else smokes. Exposure to ETS, or secondhand smoke, is called involuntary or passive smoking.
- Personal History: A person who has had lung cancer once is more likely to develop a second lung cancer compared with a person who has never had lung cancer. Quitting smoking after lung cancer is diagnosed may prevent the development of a second lung cancer.

Researchers continue to study the causes of lung cancer and search for ways to prevent it.

What are Signs and Symptoms of Lung Cancer?

- Smoker's cough that persists or becomes intense
- Non-smoker's cough that persists for more than two weeks
- Persistent chest, shoulder, or back pain unrelated to pain from coughing
- Change in color of sputum (phlegm)
- Increase in volume of sputum (phlegm)
- Blood in sputum
- Wheezing
- Recurrent pneumonia or bronchitis

<u>Other signs and symptoms of lung cancer may not be respiratory in nature:</u>

- Feeling tired
- Unexplained weight loss
- Loss of appetite
- Headache, bone pain, aching joints
- Bone fractures not related to accidental injury
- Neurological symptoms such as unsteady walking and/or occasional memory loss
- Neck and facial swelling

Can Lung Cancer Be Found Early?

The National Lung Screening Trial (NLST) was a large clinical trial that compared two ways of detecting lung cancer: low-dose spiral computed tomography (CT) and standard chest X-ray. The study included more than 50,000 people aged 55 to 74 who were current or former smokers and were in fairly good health. To be on the study, they had to have at least a 30 pack-year history of smoking. The study did not include people if they had a prior history of lung cancer or lung cancer symptoms, if they had part of a lung removed, if they needed to be on oxygen at home to help them breathe, or if they had other serious medical problems. After several years, the study found that people who got the low-dose spiral CT had a 20% lower chance of dying from lung cancer than those who got chest x-rays. They were also 7% less likely to die overall (from any cause) than those who got chest x-rays.

Based on the results of the NLST study and other studies that looked at low-dose CT screening, the American Cancer Society recommend doctors discuss low-dose CT with patients at high risk for lung cancer--those who meet the same criteria used in the NLST study.

Can Lung Cancer Be Prevented?

Studies show that smoking tobacco products in any form is a major cause of lung cancer. Avoiding tobacco (especially for adolescents and teenagers) and quitting smoking are the two major steps that can be taken to prevent lung cancer. The earlier you start smoking, the greater your risk for developing cancer and other health problems.

Help to stop smoking is available online at www.tobaccoprogram.org/clinic.htm or from:

Rutgers-Tobacco Dependence Program
125 Paterson Street
Suite 2300
New Brunswick, NJ 08903
732-235-8222

The **Tobacco Dependence Clinic** provides state of the art treatment tailored to your individual needs at no cost to you. You may choose to make use of one or more of the following to help you quit: individual treatment, group treatment, nicotine replacement therapy and /or other pharmacological aids (for example, Zyban®).

Cancer Prevention Clinical Trials

If you would like information about nationwide clinical trials for preventing cancer, you can call the National Cancer Institute at 1-800-4 CANCER or visit their Web site at www.cancer.gov.

Expert Advice from Rutgers Cancer Institute of New Jersey

Joseph Aisner, M.D. is a medical oncologist and Co-Director of the Thoracic Oncology Program at Rutgers Cancer Institute of New Jersey.

> "While we are making important strides in early detection and treatment of lung cancer, the best strategy is still prevention. Smoking is the greatest single disease-provoking agent in society. For those who smoke you should quit for your sake and those around you. For those who don't smoke, don't start! Join us in preventing lung cancer and other preventable diseases."

Where Can I Find Further Information?

Resource and Learning Center
732-235-9639
http://www.cinj.org/rlc

Lung Cancer Alliance
1-800-298-2436
http://www.lungcanceralliance.org

Lung Cancer.org
1-800-813-4673
http://www.lungcancer.org

National Cancer Institute
1-800-4-CANCER
www.cancer.gov

The American Cancer Society
1-800-ACS-2345
www.cancer.org

The Great American Smokeout
1-800-ACS-2345
http://www.cancer.org/healthy/stayawayfromtobacco/greatamericansmokeout/index

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125 Paterson Street
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http://www.tobaccoprogram.org/

New Jersey Quitnet
1-866-NJSTOPS
http://NJ.quitnet.com

RLC lung cancer website QR code. Scan with smartphone / device.

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