

Clearing the air

The causes, symptoms and treatments for lung cancer **Interviewed by Chelan David**

Lung cancer is one of the most common malignancies in both genders. In terms of new cancer cases each year, it ranks second only to breast cancer in women and second to prostate cancer in men. There are approximately 170,000 new lung cancer cases annually, and each year about 160,000 deaths are attributed to it.

As a result, says Dr. Jay M. Lee, Surgical Director of the Thoracic Oncology Program at the David Geffen School of Medicine at UCLA, "Lung cancer is the deadliest malignancy and the leading cause of cancer-related mortality in both women and men."

Smart Business spoke with Lee about lung cancer, how it is detected and what steps can be taken to reduce the odds of getting this form of cancer.

What are the different types of lung cancer?

Lung cancer is a malignancy where cancer cells grow in the tissues of the lung. There are two major types of lung cancer, nonsmall-cell lung cancer (NSCLC) and small-cell lung cancer (SCLC). NSCLC is much more common and accounts for 80 percent of lung cancer cases. By the appearance of the cancer cells under the microscope, several histologic subtypes have been classified for NSCLC. The common subtypes include adenocarcinoma, squamous cell carcinoma, large cell carcinoma and carcinoid tumors.

What are the possible signs of lung cancer?

Lung cancer can be present with no symptoms, particularly in its early stages. However, when symptoms do occur, they can include nonspecific and often subtle symptoms such as:

- Chronic cough
- Hoarseness
- Hemoptysis (coughing up blood)
- Unexpected weight loss or loss of appetite
- Difficulty breathing
- Wheezing
- Bronchitis or pneumonia
- Chest pain or discomfort
- Fatigue



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Because these symptoms are also present in other lung problems, you should consult your doctor to find out the cause of the condition.

How is lung cancer detected?

Patients with suspected lung cancer are detected in two scenarios: 1) The onset of symptoms prompts a visit to the doctor or 2) in the case of asymptomatic individuals, a routine examination and radiologic testing leads to the finding of an abnormal spot [tumor] in the lung. In both situations, the doctor will evaluate a person's medical history, assess risk factors and obtain a family history of cancer. The doctor will also perform a physical examination and may order a chest X-ray or a specialized X-ray called a chest CT scan. Although the radiologic studies allow the detection of abnormal spots in the lung, they do not provide tissue confirmation of lung cancer. Therefore, to make a diagnosis of lung cancer, the doctor will need to obtain a sample or biopsy of the lung tumor. If you are diagnosed with lung cancer, the doctor will do further radiologic testing to find out whether the cancer has spread outside of the chest and to other parts of the body.

This information will help the doctor stage the lung cancer and plan the most effective treatment.

How can lung cancer be treated?

Individual treatment plans are generated on the basis of several factors, including the type of lung cancer, stage and the overall health of the patient. Treatment strategies may be used in varying combinations to treat or palliate lung cancer. There are three main treatment modalities: surgery, chemotherapy and radiation therapy.

What steps can one take to decrease their chances of getting lung cancer?

The most common risk factors associated with lung cancer development are smoking, secondhand smoke, radon exposure and asbestos exposure. Smoking cigarettes or cigars is the most common cause, resulting in almost 90 percent of lung cancer cases. Secondhand smoke is also a risk factor and is attributed to about 3,000 lung cancer deaths annually. Thus, smoking cessation and avoidance of secondhand smoke are obvious lifestyle modifications to reduce cancer risk.

Radon is a natural radioactive gas and a known lung cancer carcinogen and cannot be seen, smelled or tasted. However, its presence in your home or workplace can pose a danger to your health. Radon has been shown to be the leading cause of lung cancer among nonsmokers, accounting for approximately 20,000 lives annually. Testing for excessive levels is encouraged.

Asbestos is a mineral fiber that was once used in building construction materials. Although its use has been banned, asbestos can be found in older homes, in pipe and furnace insulation materials, paints and other coating materials. It's a well-known carcinogen that can cause lung cancer and mesothelioma. Avoidance or safe handling of asbestos fibers is important.

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