What You Should Know About LUNG CANCER

Lung cancer is the second most common non-skin cancer among American men and women, after prostate cancer in men and breast cancer in women. It is also the leading cause of cancer-related deaths, causing more deaths than colorectal, breast and prostate cancers combined.

Early diagnosis and advances in treatment mean more people can expect to beat the disease.

What You Should Know About LUNG CANCER

Lung cancer is diagnosed when cells in the lining or tissue of the lung begin to grow uncontrollably. The three major types of lung cancer are:

- **Small cell lung cancer (SCLC)**: Accounts for about 13% of lung cancer cases. It is more aggressive and may spread to other parts of the body quickly. If caught in the early stages, it can be cured. SCLC is more common in men.
- **Non-small cell lung cancer (NSCLC)**: Accounts for about 87% of lung cancer cases. It affects a variety of cell types and is usually treated with surgery. NSCLC includes two main subtypes:
  - Squamous cell: Accounts for about 20% of all lung cancers, mainly in smokers.
  - Adenocarcinoma: Accounts for about 40% of all lung cancers, often found in non-smokers.

Other rarer types include:

- **Large cell lung cancer**: Accounts for about 5% of lung cancers and is composed of giant cells.
- **Neuroendocrine lung cancer**: Accounts for about 5% of lung cancers and develops from neuroendocrine cells.
- **Small cell carcinoma**: Accounts for about 5% of lung cancers and often metastasizes quickly.

Lung Cancer Risk Factors

- **Smoke**: The single greatest risk factor for lung cancer is smoking. It is responsible for about 80% of lung cancers in the U.S., mainly from tobacco. Even passive smoke exposure increases the risk of lung cancer significantly. Cigarettes, cigars, and pipes can all contribute to risk.
- **Secondhand smoke**: Non-smokers who live with smokers are also at risk. Most lung cancer cases among non-smokers are linked to secondhand smoke.
- **Family history**: Having a first-degree relative (parent, child or sibling) who has or had lung cancer increases the risk of developing lung cancer.
- **Occupational factors**: Some occupations, such as working with asbestos, paint, or metal dust, increase lung cancer risk.
- **Other pollutants**:
  - **Radon**: A naturally occurring radioactive gas that can permanently damage lung cells.
  - **Carcinogenic chemicals in workplace settings**: Exposure to chemicals from gas production or manufacturing can increase lung cancer risk.
  - **Asbestos**: A known lung cancer risk factor, but infrequent in the U.S. today due to safety regulations.
  - **Apothecary case risk factors**: Risk is increased in certain occupations, such as metal workers, coal miners, and textile workers.

Lung Cancer Treatment Options

- **Surgery**
  - The surgery treatment is performed on certain stages of lung cancer. There are four main types of surgery.
    - **Lobectomy**: Removal of a lobe from the lung, including the tumor. This is the most common surgery for early-stage lung cancer.
    - **Pneumonectomy**: Removal of an entire lung. This procedure is much less common than a lobectomy.
    - **Biopsy**: A small sample of tissue is removed for testing in the lab to see if it is cancerous.
    - **Video-assisted thoracic surgery (VATS)**: A less invasive surgery where the surgeon and patient benefit from smaller incisions.

- **Chemotherapy**
  - Lung cancer chemotherapy treatments are used in three primary ways:
    - **Systemic chemotherapy**: Circulation of chemotherapy drugs throughout the body. Used after surgery or radiation therapy to treat cancer that has spread.
    - **Regional chemotherapy**: Binds to lymph nodes. Used for advanced lung cancer.
    - **Direct injection**: Delivers chemotherapy drugs directly into the main blood vessels or directly into the tumor.

- **Radiation therapy**
  - Radiation therapy gives high-energy radiation to destroy cancer cells or control the growth of cancer cells. It is most effective for cases that have spread to nearby lymph nodes.

- **Immunotherapy**
  - Immunotherapy drugs, which are designed to trigger the immune system, are used to treat the cancer by zeroing in on a specific gene mutation in tumor cells. Immunotherapy is a broad category of anti-cancer therapies that use the body’s immune system to fight cancer.

- **Targeted therapy**
  - Targeted therapy is a type of chemotherapy that uses drugs designed to target specific genes or proteins involved in tumor growth. Targeted therapy is an important advancement in lung cancer treatment. As an example, Iressa™ (gefitinib) and Tarceva® (erlotinib) are two targeted drugs used for patients with non-small cell lung cancer.

- **Interventional pulmonology**
  - Interventional pulmonology procedures are used to diagnose lung cancer, treat tumors and relieve symptoms. These procedures are often performed using minimally invasive techniques, such as bronchoscopy, where a thin tube is inserted through the mouth and into the lungs.

Lung Cancer Prevention and Screening Guidelines

- **Smoking cessation**
  - Quitting smoking for at least five years can reduce your risk of lung cancer. Before you quit, make a plan to help you avoid cigarettes and temptations to smoke.
  - If you smoke, talk to your doctor. They can help you develop a plan to quit.

- **Avoid secondhand smoke**
  - If you live with or spend time around a smoker, do your best to avoid secondhand smoke.

- **Avoid other smoke-related pollutants**

- **Take advantage of screening guidelines**
  - Depending on your age, family history, and other factors, you may be eligible for screening guidelines.

Understanding the Disease

- **Genetic testing**
  - A genetic test of the genes linked to lung cancer can determine the specific type of lung cancer and guide treatment options. Genetic testing may also be used to help determine which patients might benefit the most from targeted therapy.

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- **Complications**
  - The most common complications after lung cancer surgery are:
    - **Pain and infection**
    - **Wound healing problems**
    - **Pneumonia or other lung infections**
    - **Pulmonary embolism**
    - **Clots in blood vessels**

- **Screening**
  - A screening test is a test performed on people who don’t show symptoms to try and detect a disease or a condition early. It’s important to know the risks and benefits of screening tests with your doctor before deciding to undergo one.

- **Screening guidelines**
  - Discuss with your doctor which screening guidelines are right for you.

- **Prevention**
  - Discuss with your doctor which screening guidelines are right for you.

For more information, visit cancercenter.com/lung-cancer/