



EVERYTHING YOU NEED TO KNOW ABOUT LUNG CANCER



In 2020, lung cancer was the **second most common cancer** worldwide¹



2,200,100 new cases each year worldwide¹



In 2021, the average age at diagnosis in the U.S. is: **70 YEARS OLD**²

WHAT IS LUNG CANCER?

Lung cancer is a disease in which cells in the lungs grow out of control, destroying healthy tissue around them. There are two main types of lung cancer:

Small Cell Lung Cancer

~13% of cases³

Non-Small Cell Lung Cancer

~84% of cases³



KNOW YOUR RISK

There are several factors that may increase your risk for lung cancer including:

SMOKING

Smoking is clearly the top risk factor for lung cancer. The more a person smokes, the higher the risk. But quitting smoking at any age can lower the risk of lung cancer.

15-30x higher risk of lung cancer⁴

80% of U.S. lung cancer deaths in 2020 linked to cigarette smoking⁴

SECONDHAND SMOKE

Regularly breathing smoke from other people's cigarettes, pipes or cigars can also cause lung cancer.

Secondhand smoke causes an estimated **7,000** deaths annually in the U.S.⁵

RADON

Radon, a naturally occurring gas that can get trapped in houses and buildings, is the second-leading cause of lung cancer.

LEADING CAUSE OF LUNG CANCER among non-smokers in the U.S. in 2021⁶

OUTDOOR AIR POLLUTION

Air pollution, particularly in cities and near heavily trafficked roads, raises lung cancer risk.

Linked to an estimated **62,000** worldwide lung cancer deaths annually⁷

OTHER SUBSTANCES

Exposure to asbestos, arsenic, diesel exhaust, silica and chromium all may increase risk of lung cancer.

PERSONAL OR FAMILY HISTORY

Personal history of lung cancer increases the likelihood of future occurrences, and lung cancer among parents, siblings or children is also linked with higher risk for an individual.

KNOW THE SIGNS OR SYMPTOMS OF LUNG CANCER

The symptoms of lung cancer vary widely from person to person. Many people do not experience symptoms until the later stages, but symptoms commonly include:

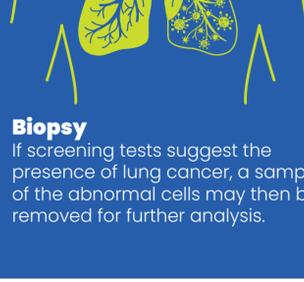
- **Cough that gets worse or doesn't go away**
- **Bone pain**
- **Coughing up blood – even a small amount**
- **Hoarseness**
- **Repeated bouts of pneumonia**
- **Headache**
- **Sudden or unexplained weight loss**
- **Shortness of breath**
- **Swollen or enlarged lymph nodes**

HOW IS LUNG CANCER DIAGNOSED?

SCREENING TESTS

Low-Dose Computed Tomography (LDCT)

A CT scan can reveal smaller lesions that an X-ray might not detect.



Sputum Cytology

If a cough is producing mucus, or sputum, it may be possible to detect lung cancer cells in that sputum.

Biopsy

If screening tests suggest the presence of lung cancer, a sample of the abnormal cells may then be removed for further analysis.

WHAT ARE THE TREATMENT OPTIONS?

Today there are more options than ever for effectively treating lung cancer. Medical care teams often use multiple treatment modalities to achieve the best outcome for the patient. The "best" option for each patient depends on the stage of cancer, age, lifestyle and overall health.



SURGERY

Different operations can be performed, including removal of the entire lung, a single lobe, or in some cases just the cancerous lung tissue and a margin of healthy lung tissue.



CHEMOTHERAPY

(including Targeted Therapy)

Conventional chemotherapy uses drugs to kill rapidly growing cancer cells or stop them from dividing. Targeted therapy uses drugs that target the specific genes or proteins – blocking the growth and spread of the tumor cells.



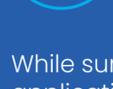
IMMUNOTHERAPY

Medicines that aid the body's natural defenses in identifying and fighting cancer cells.



RADIATION THERAPY

External beam radiation uses a machine outside the body to direct high-energy X-rays to kill, shrink or control the growth of tumors.



RADIATION THERAPY IMPROVES WHAT'S POSSIBLE IN LUNG CANCER TREATMENT

While surgery is a common treatment for lung tumors, its application may be limited by the patient's health and the stage and location of the tumor. Advanced radiation therapy (RT) treatments are playing an increasingly important role in improving clinical outcomes for lung cancer patients.

- Radiation treatments are non-surgical, non-invasive and typically pain-free
- Most patients will not require hospitalization or long recovery period
- Ideal option when more invasive techniques are deemed inappropriate or too risky
- Can be used before or after surgery
- Can be combined with chemotherapy treatments

RADIOTHERAPY FOR LUNG CANCER

There are several ways to deliver radiation to treat lung cancer including intensity-modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT) and stereotactic body radiation therapy (SBRT). These are advanced forms of radiotherapy, designed to precisely target the lung tumor and minimize dose to surrounding healthy tissue.



PRECISE

Delivers high-dose radiation to the cancer cells with extreme precision



EFFICIENT

Treatment completed in a few sessions, instead of dozens with conventional RT



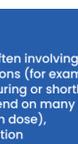
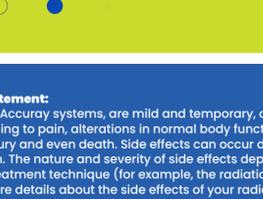
EFFECTIVE

Clinical evidence supports the use of SBRT to treat a wide range of lung tumors

WHAT ABOUT PREVENTION?

There are several ways to help lower the risk of lung cancer:

- 1 Don't smoke/Stop smoking**
- 2 Avoid secondhand smoke**
- 3 Test homes for radon**
- 4 Avoid carcinogens at work**
- 5 Eat a healthy diet full of fruits & vegetables**
- 6 Get regular exercise**



Important Safety Statement:

Most side effects of radiotherapy, including radiotherapy delivered with Accuray systems, are mild and temporary, often involving fatigue, nausea, and skin irritation. Side effects can be severe, however, leading to pain, alterations in normal body functions (for example, urinary or salivary function), deterioration of quality of life, permanent injury and even death. Side effects can occur during or shortly after radiation treatment or in the months and years following radiation. The nature and severity of side effects depend on many factors, including the size and location of the treated tumor, the treatment technique (for example, the radiation dose), the patient's general medical condition, to name a few. For more details about the side effects of your radiation therapy, and if treatment with an Accuray product is right for you, ask your doctor

Sources:
 1 World Health Organization, <https://www.who.int/news-room/fact-sheets/detail/cancer>, accessed August 18, 2021.
 2 American Cancer Society, [https://www.cancer.org/cancer/lung-cancer/about/key-statistics.html](https://www.cancer.org/cancer/lung-cancer/about/key-statistics.html#:~:text=Most%20people%20diagnosed%20with%20lung%25%20of%20all%20cancer%20deaths,), accessed August 18, 2021.
 3 American Cancer Society, <https://www.cancer.org/cancer/lung-cancer/about/key-statistics.html>, accessed August 18, 2021.
 4 Centers for Disease Control and Prevention, https://www.cdc.gov/cancer/lung/basics_info/risk_factors.htm, accessed August 18, 2021.
 5 Am J Public Health, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3477960/>, accessed August 18, 2021.
 6 U.S. Environmental Protection Agency, <https://www.epa.gov/radon/health-risk-radon#:~:text=Radon%20is%20the%20number%20one,people%20who%20have%20never%20smoked,> accessed August 18, 2021.
 7 Thorax, <https://thorax.bmj.com/content/56/12/1010#ref-15>, accessed August 18, 2021.