

The two main types of lung cancer are non-small and small cell lung cancer. The types are based on the way the cells look under a microscope. Non-small cell lung cancer is much more common than small cell lung cancer. Lung cancer is the deadliest type of cancer for both men and women. It is the number one cause of deaths in the U.S. and the leading cause of cancer deaths among women. Each year, more people die of lung cancer than of breast, colon and prostate cancers combined.

## RISK FACTORS

Lung cancer is more common in older adults. It is rare in people under age 45. Tobacco smoking is the most common cause of lung cancer. Trends in lung cancer incidence and mortality rates have closely mirrored historical patterns of smoking prevalence. Incidence and mortality rates are highest among African American men. Since the prevalence of smoking peaked later for women than for men, lung cancer incidence and mortality rates have increased later for women.

Smoking is the most common cause of lung cancer, although risk also increases with exposure to secondhand smoke, environmental exposures to radon and workplace toxins (e.g., asbestos, arsenic) and air pollution. The risk of lung cancer can be reduced by quitting smoking and eliminating or reducing exposure to secondhand smoke and environmental or workplace risk factors.

## EARLY DETECTION

The National Lung Screening Trial has shown screening current or former heavy smokers with low-dose helical computed tomography (CT), also referred to as a lung scan, decreases the risk of dying from lung cancer. **If you meet the criteria, schedule your screening by calling (877) 888-1777.**

*Inspiring Health*

## \$49\* LUNG SCAN

You qualify for the screening if you meet either of the following sets of criteria:

### Set 1: Men or women ages 55-80

- Current smoker or have quit smoking within the last 15 years
- Averaged smoking one pack/day for 30 years or greater, two packs/day for 15 years or three packs/day for 10 years, etc.
- No signs or symptoms of lung cancer

### Set 2: Men or women ages 50 or older

- Averaged smoking one pack of cigarettes a day for 20 years and have one additional risk factor, such as:
  - Cancer history: Cancers with an increased risk of developing new primary lung cancer include survivors of lung cancer, lymphomas, cancer of the head and neck and smoking-related cancers
  - Lung disease history such as chronic obstructive pulmonary disease or pulmonary fibrosis
  - Family history of lung cancer
  - Radon exposure
  - Occupational exposure such as carcinogens targeting the lungs including silica, cadmium, asbestos, arsenic, beryllium, chromium (VI), diesel fumes and nickel

 **Franciscan HEALTH**  
CANCER CENTER

\*Lung Scan is simple, non-invasive computed tomography (CT) screenings that use a minimal amount of radiation. The lung CT screening is covered by Medicare (patients age 55-77) and may be covered by private insurers. Please consult your primary care physician if you would like to have this service covered by your insurance.

**\$49 LUNG SCAN** (877) 888-1777

**Franciscan Health  
Burrell Cancer Center  
Crown Point**  
1201 S. Main Street  
Crown Point, IN 46307  
(219) 738-2100

**Franciscan Health  
Cancer Center  
Indianapolis**  
8111 S. Emerson Ave.,  
Indianapolis, IN 46237  
(317) 528-1420

**Franciscan Health  
Cancer Center  
Lafayette**  
1701 S. Creasy Lane  
Lafayette, IN 47905  
(765) 502-4015

**Franciscan Health  
Marie Canine Cancer  
Center Crawfordsville**  
1706 Lafayette Rd.  
Crawfordsville, IN 47933  
(765) 361-3000

**Franciscan Health  
Cancer Center  
Mooresville**  
1201 Hadley Rd.  
Mooresville, IN 46158  
(317) 834-4000

**Franciscan Health  
Cancer Center  
Munster**  
701 Superior Avenue  
Munster, IN 46321  
(219) 922-4200

**Franciscan Health  
Patricia A. Joyce  
Comprehensive  
Cancer Institute  
Olympia Fields**  
3900 W. 203rd St.  
Olympia Fields, IL 60461  
(708) 679-2080

**Franciscan Health  
Cancer Center  
Rensselaer**  
1104 East Grace St.  
Rensselaer, IN 47978  
(219) 866-5154

**Franciscan Health  
Woodland Cancer  
Care Center  
Michigan City**  
8955 West 400 North  
Michigan City, IN 46360  
(219) 861-5800

Continuing Christ's Ministry  
in our Franciscan Tradition

# UNDERSTANDING LUNG CANCER



EDUCATIONAL SERIES

 **Franciscan HEALTH**  
CANCER CENTER

FranciscanHealth.org

ONC071818N16

 **Franciscan HEALTH**  
CANCER CENTER

## POSSIBLE SYNDROMES

Some lung cancers can cause specific symptoms. These are often described as *syndromes*.

### Horner syndrome

Cancers of the top part of the lungs (sometimes called Pancoast tumors) may damage a nerve that passes from the upper chest into your neck. This can cause severe shoulder pain. Sometimes these tumors can affect certain nerves to the eye and part of the face, causing a group of symptoms called Horner syndrome. These tumors can cause drooping or weakness of one eyelid, having a smaller pupil in the same eye and reduced or absent sweating on the same side of the face.

### Superior vena cava syndrome

The superior vena cava (SVC) is a large vein that carries blood from the head and arms back to the heart. It passes next to the upper part of the right lung and the lymph nodes inside the chest. Tumors in this area may push on the SVC, which can cause the blood to back up in the veins. This can cause swelling in the face, neck, arms and upper chest (sometimes with a bluish-red skin color). It also can cause headaches, dizziness and a change in consciousness if it affects the brain. While SVC syndrome can develop gradually over time, in some cases it can become life-threatening and needs to be treated right away.

### Paraneoplastic syndromes

Some lung cancers can make hormone-like substances that enter the bloodstream and cause problems with distant tissues and organs, even though the cancer has not spread to those tissues or organs. These are called paraneoplastic syndromes. Sometimes these syndromes may be the first symptoms of lung cancer. Since the symptoms affect organs near the lungs, patients and their doctors may suspect at first a disease other than lung cancer is causing them.

Some of the common paraneoplastic syndromes associated with small cell lung cancer (SCLC) are:



The Cancer Center offers **ASPIRE** – a tobacco cessation program to help people break free from tobacco addiction. **Aspire** combines a personalized and group approach to help you change tobacco use behavior. To learn more, call (317) 528-QUIT or email [aspire@FranciscanAlliance.org](mailto:aspire@FranciscanAlliance.org).

- **SIADH (syndrome of inappropriate anti-diuretic hormone):** In this condition, the cancer cells make a hormone (ADH) causing the kidneys to retain water. This causes salt levels in the blood to become very low. Symptoms of SIADH can include fatigue, loss of appetite, muscle weakness or cramps, nausea, vomiting, restlessness and confusion. Without treatment, severe cases may lead to seizures and coma.
- **Cushing syndrome:** In some cases, lung cancer cells may make Adrenocorticotrophic (ACTH), a hormone causing the adrenal glands to secrete cortisol. This can lead to symptoms such as weight gain, easy bruising, weakness, drowsiness and fluid retention. Cushing syndrome also can cause high blood pressure and high blood sugar levels (or even diabetes).
- **Neurologic problems:** Small cell lung cancer can sometimes cause the body's immune system to attack parts of the nervous system, which can lead to problems. One example is a muscle disorder called the Lambert-Eaton syndrome. In this syndrome, muscles around the hips become weak. One of the first signs may be trouble getting up from a sitting position. Later, muscles around the shoulder may become weak. A rarer problem is paraneoplastic cerebellar degeneration, which

can cause loss of balance and unsteadiness in arm and leg movement, as well as trouble speaking or swallowing. SCLC also can cause other nervous system problems, such as muscle weakness, sensation changes, vision problems or even changes in behavior.

Some of the common paraneoplastic syndromes caused by non-small cell lung cancer include:

- High blood calcium levels (hypercalcemia), which can cause frequent urination, thirst, constipation, nausea, vomiting, belly pain, weakness, fatigue, dizziness, confusion and other nervous system problems
- Excess growth of certain bones, especially those in the finger tips, which is often painful
- Blood clots
- Excess breast growth in men (gynecomastia)

## TREATMENT OPTIONS

Standard treatments for lung cancer include surgery; radiation therapy; chemotherapy; targeted therapy, such as immunotherapy; and interventional pulmonology (cryotherapy, electrocautery, stent placement, etc.).

## WARNING SIGNS AND SYMPTOMS

Most lung cancers do not cause any symptoms until they have spread too far to be cured, but symptoms occur in some people with early lung cancer. By recognizing these symptoms, your cancer might be diagnosed at an earlier stage, when treatment is more likely to be effective.

### MOST COMMON SYMPTOMS

- *Cough that does not go away or gets worse*
- *Chest pain that is often worse with deep breathing, coughing, or laughing*
- *Hoarseness*
- *Weight loss and loss of appetite*
- *Coughing up blood or rust-colored sputum (spit or phlegm)*
- *Shortness of breath*
- *Feeling tired or weak*
- *Infections such as bronchitis or pneumonia that do not go away or keep coming back*
- *New onset of wheezing*

### If cancer spreads to other organs, it may cause

- Bone pain (like pain in the back or hips)
- Nervous system changes (such as headache, weakness or numbness of an arm or leg, dizziness, balance problems or seizures)
- Yellowing of the skin and eyes (jaundice) from cancer spread to the liver
- Lumps near the surface of the body due to cancer spreading to the skin or to lymph nodes, such as those in the neck or above the collarbone