# **Lung Cancer**



### **Basic description**

Lung cancer is the leading cause of cancer death for both men and women. It is also the most preventable cancer. Smoking tobacco – whether cigarettes, cigars, or a pipe – accounts for more than 8 out of 10 lung cancer cases. There are 2 major types of lung cancer – non-small cell lung cancer and small cell lung cancer; each grows and spreads in different ways and is treated differently.

### **Opportunities**

**Prevention** Quitting smoking, or not starting at all, is by far the best way to lower the risk of lung cancer. Breathing in other people's smoke should also be avoided. People should find out if they are exposed to cancercausing chemicals at work and take measures to protect themselves. Monitoring indoor radon levels, especially in the home, can also help protect against lung cancer. Everyone – whether they smoke or not – may be able to reduce their risk of lung cancer by eating a healthy, balanced diet with at least  $2\frac{1}{2}$  cups of vegetables and fruits every day.

**Detection** Because symptoms often do not appear until the disease has progressed, early detection is difficult. The American Cancer Society has developed screening guidelines for individuals at high risk for lung cancer. People who meet certain criteria for screening may consider lung cancer screening with high-quality low-dose computer tomography (LDCT). Ask patients about their smoking status and smoking history. If they meet all of these criteria, they may be candidates for lung cancer screening:

- Are 55 to 74 years of age
- · Have at least a 30-pack-year smoking history
- Are in fairly good health
- Either currently smoke or have quit within the past 15 years

A thorough discussion and understanding of the benefits, harms, and uncertainties of screening should be offered to these patients. Screening should only take place at facilities that have the right type of CT scan and have a great deal of experience in low-dose CT scans for lung cancer screening. The facility should also have a team of specialists that can provide the appropriate care and follow-up of patients with abnormal results.

Details on the American Cancer Society Lung Cancer Screening Guidelines can be found online at www.cancer.org/cancer/lungcancer-non-smallcell/detailedguide/non-small-cell-lung-cancer-detection.

**Treatment** Treatment options are based on specific cancer type and stage of disease. Surgery to remove cancerous tumors, radiation therapy, chemotherapy, and targeted therapy, either in combination or alone, are common treatments.



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#### Who is at risk?

**Tobacco users** Smoking is the greatest risk factor for lung cancer. The longer a person uses tobacco and the more they use, the greater the risk of developing lung cancer. If a person stops smoking before cancer develops, the damaged lung tissue gradually improves.

**Secondhand smoke** Non-smokers who breathe in the smoke of others, called secondhand smoke, are at increased risk for lung cancer.

**Radon** Exposure to radon, a radioactive gas found at high levels in some homes (especially in basements), can increase lung cancer risk.

## Lung cancer in the United States: 2014 estimates

• New cases: 224,210

• Deaths per year: 159,260

• 5-year relative survival rate for localized stage: 54%

• 5-year relative survival rate for all stages combined: 17%

**Asbestos** Asbestos is another risk factor for lung cancer. People who work with asbestos have a higher risk of getting lung cancer. If they smoke as well, the risk is greatly increased.

**Cancer-causing agents in the workplace** These include asbestos, radon, arsenic, vinyl chloride, coal products, diesel exhaust, and radioactive ores like uranium. If people who are exposed to these agents also smoke, their risk is greatly increased.

## **Quality-of-life issues**

From the time of diagnosis, the quality of life for every cancer patient and survivor is affected in some way. They may be affected socially, psychologically, physically, and spiritually.

Concerns that patients and survivors most often express are fear of recurrence; chronic and/or acute pain; sexual problems; fatigue; guilt for delaying screening or treatment, or for doing things that may have caused the cancer; changes in physical appearance; depression; sleep difficulties; changes in what they are able to do after treatment; and the burden on finances and loved ones. People with lung cancer tend to be distressed about their physical appearance, including weight loss, the social stigma and guilt associated with a history of tobacco use, and end-of-life issues due to the low survival rate for this cancer.

#### **Bottom line**

Stopping the use of tobacco could nearly wipe out lung cancer. Although lung cancer has been reduced among some groups in recent years, about 20% of Americans – adults, children, and teens – continue to smoke and use tobacco. Until tobacco use is sharply decreased, lung cancer will continue to be the number 1 cause of cancer death in the United States.



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