

GO BIG MED

Lung Cancer Screening with Low-Dose CT

By Rick Kutilek, MD, Nebraska Medical Association Member

Cancer remains the second leading cause of death in the United States with an expected 600,920 deaths in 2017. This includes an estimated 3,520 cancer deaths in Nebraska.¹ Only heart disease, with an estimated 610,000 deaths per year, barely surpasses cancer as a cause of death.² It is estimated that there will be 222,500 new cases of lung cancer diagnosed in 2017 with an estimated 155,800 deaths. Unfortunately, lung cancer is a very lethal disease with an overall five year survival rate of 18 percent.

Tobacco products remain the single largest cause of cancer in the United States as 80 percent of all lung cancers are attributed to smoking. In 2017, it is estimated that 190,500 of the projected 600,920 United States cancer deaths (31.7%) will be attributed to cigarette smoking alone.³ For the 13 common cancers*, about 29 percent of cases in the U.S. are preventable through a healthy diet, physical activity and maintenance of a healthy weight.⁴ When combined with those cancers resulting from smoking, and by adding appropriate cancer screenings, up to 50 percent of all cancers are potentially preventable if we only applied what we already know about cancer risk and prevention.

While all of these preventive measures are important, this article focuses on lung cancer screening with CT.

A recent decision by Medicare means more people will be eligible for full coverage of this life-saving lung screening. Those ages 55 to 77, the highest risk age group for lung cancer, can receive the scan at no cost.

Medicare will cover **100 percent of the cost** of the test for those who meet these requirements:

- 55-77 years of age
- Show no signs or symptoms of lung cancer
- Smoked tobacco for at least 30 pack-years (one pack year = smoking one pack per day for one year)
- Current smoker or one who has quit within the last 15 years
- Receives a written order for a low dose CT scan from their medical care provider after a shared decision-making appointment.

Patients undergo annual low-dose, non-contrast screening CT scans which are performed at 1.25 mm sections or less. The scan takes less than 10 seconds to perform and the radiation dose to the patient is eight times less than a conventional CT.

Lung cancer is the nation's number one cancer killer – more deadly than prostate, colon and breast cancer combined. By the time the patient has symptoms, it is usually too late and the cancer has spread. The best chance for survival is catching it early with a low-dose CT scan. Lung cancer has an 80 to 90 percent survival rate if it's found early. The largest randomized controlled clinical trials in [National Cancer Institute](#)'s history showed that low dose CT screening could reduce lung cancer mortality rates by at least 20 percent; a significant improvement for a cancer that currently has a five year overall survival rate of only 18 percent. For those diagnosed late stage, survival rates are less than 4 percent. Ask your physician about low-dose CT lung cancer screening.

1. Siegel RL, Miller KD, Jemal A, CA Cancer J Clin 2017;67:7–30. © 2017 American Cancer Society.
2. https://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_heart_disease.htm
3. <https://www.cancer.org/content/dam/cancer-org/cancer-control/en/booklets-flyers/tobacco-and-cancer-fact-sheet.pdf>
4. <http://www.wcrf.org/int/cancer-facts-figures/preventability-estimates/cancer-preventability-estimates-diet-nutrition>
5. National Lung Screening Trial Research Team, Reduced Lung-Cancer Mortality with Low-dose Computed Tomographic Screening. NEJM 2011; 365:395-409. August 4, 2011