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# Who Should Be Screened for Lung Cancer?

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**Editor's Note:** Lung cancer screening guidelines are updated as scientific evidence continues to evolve. Please read [the most recent screening recommendations here](#).

A harsh truth about [lung cancer](#) is that it doesn't usually cause [symptoms](#) until the cancer has spread, which makes it difficult to treat. That's why the idea of screening – looking for lung cancer in people who do not have any symptoms – is appealing and can be helpful. It has the potential to find the cancer earlier, when it might be easier to treat.

But screening carries risks that may outweigh the benefits for most people. The people who are most likely to benefit from screening are those at higher risk for lung cancer. Decisions

about [cancer screening during the COVID-19 pandemic](#) depend on many factors, and they may not be the same for every person. Talk to your healthcare provider about what the best decision for you might be.

## How lung screening works

A test known as [low-dose CAT scan or CT scan \(LDCT\)](#) has been studied in people at a higher risk of getting lung cancer. LDCT scans can help find abnormal areas in the lungs that may be cancer. Research has shown that using LDCT scans to screen people at higher risk of lung cancer saved more lives compared to using chest x-rays. For higher risk people, getting yearly LDCT scans before symptoms start helps lower the risk of dying from lung cancer.

To weigh the benefits and risks before issuing current guidelines, experts at the American Cancer Society reviewed several studies that looked at low-dose CT screening. The most significant was the National Lung Screening Trial (NLST). This study included more than 50,000 people aged 55 to 74. At the time of the study, the participants were either people who currently smoked or they smoked before with at least a 30 pack-year history of smoking (equal to smoking a pack a day for 30 years, or 2 packs a day for 15 years) who had quit in the 15 years prior to the study. The study found that people who got LDCT had a 20% lower chance of dying from lung cancer than those who got chest x-rays. However, some other trials have not found a benefit from screening.

The screening in the NLST was done at large teaching hospitals with access to medical specialists and comprehensive follow-up care. Most were [National Cancer Institute cancer centers](#).

None of the studies included people who never smoked. Although [anyone can develop lung cancer](#), there is not enough evidence to know whether screening people who have never smoked would be helpful or harmful. Likewise, it is not known if screening would help people who smoked less than those in the studies, or those of different ages. That's why the American Cancer Society guideline doesn't recommend screening for these groups.

## High-risk patients should consider getting screened

There are risks associated with low-dose CT scanning, and the possibility of doing more harm than good for people who are less likely to have lung cancer. Because of this, the American Cancer Society recommends people who are at higher risk for lung cancer talk to their doctor who can help them make an informed decision about whether to get screened. If people do decide to get screened, they should get screened every year through age 74, as long as they are still healthy.

A possible drawback of this test is that it also sometimes finds abnormalities that turn out not to be cancer, but that might still need to be checked out with further tests. For example, some people might need additional tests such as other CT scans, or even more invasive tests such as needle biopsies or surgery to remove a piece of lung. These added tests might rarely lead to serious complications, even in people who do not have lung cancer (or who only have very early stage cancer).

LDCTs also expose people to a small amount of radiation with each test. It is less than the dose of radiation from a standard CT, but it is more than the dose from a chest x-ray. Some people who are screened may end up needing further CT scans, which means more radiation exposure. When done in tens of thousands of people, this radiation may cause a few people to develop breast, lung, or thyroid cancers later on.

## American Cancer Society Guideline

The American Cancer Society recommends yearly lung cancer screening with LDCT scans for people who are 55 to 74 years old, are in fairly good health, and who also meet the following conditions:

- Currently smoke or have quit in the past 15 years.

**and**

- Have at least a 30 pack-year smoking history. (This is the number of years you smoked multiplied by the number of packs of cigarettes per day. For example, someone who smoked 2 packs per day for 15 years [ $2 \times 15 = 30$ ] has 30 pack-years of smoking. A person who smoked 1 pack per day for 30 years [ $1 \times 30 = 30$ ] also has 30 pack-years of smoking.)

**And**

The American Cancer Society recommends yearly lung cancer screening with **LDCT scans** for people who are 55 to 74 years old, are in fairly good health, and who also meet the following conditions: Are current smokers or smokers who have quit in the past 15 years. Have at least a 30 pack-year smoking history.