

Lung Cancer Screening Decision Tool

A decision tool for people considering lung cancer screening with low-dose computed tomography

If you have smoked for many years, you may want to think about screening (testing) for lung cancer with low-dose computed tomography (LDCT). Before deciding, you should think about the possible benefits and risks of lung cancer screening. This decision tool will help you talk with your doctor about whether lung cancer screening is right for you.

What is lung cancer?

Lung cancer happens when abnormal cells form in the lungs and grow out of control. These cells can form a tumor and can spread to other parts of the body.

- Lung cancer is the leading cause of cancer death.
- It is the third most common cancer in the United States.
- Symptoms may not appear until a tumor is large or cells have spread to other parts of the body. This is called late-stage.
 - Most people are diagnosed with late-stage lung cancer.
- Lung cancer may be cured with surgery when found early through screening. This is called early-stage.

Possible signs and symptoms of lung cancer

- A new cough that does not go away or gets worse
- Chest pain that is often worse when you breathe deeply, cough, or laugh
- A hoarse voice
- Unexplained weight loss and loss of appetite
- Coughing up blood or rust-colored spit or phlegm
- Shortness of breath
- Infections such as bronchitis and pneumonia that do not go away or keep coming back
- Wheezing

Why be screened for lung cancer?

Many people with lung cancer have **no** symptoms when cancer starts. It is best to find lung cancer early when cancer is more easily treated. A common early finding is a mass or spot in the lung called a pulmonary nodule (NOD-yool).

Most nodules are not lung cancer. It is important to find out for sure. Screening is the first step toward knowing whether you have lung cancer. LDCT is the only approved screening test for lung cancer. X-rays will not show small nodules.

Who should be screened for lung cancer?

The United States Preventive Services Task Force (USPSTF) recommends lung cancer screening for individuals who:

- Are 55 to 80 years old
 - (See page 6 for Medicare coverage age limit and criteria).
- Have no signs or symptoms of lung cancer. Diagnostic testing may be recommended for people who do have signs or symptoms of lung cancer.
- Have not had lung cancer before
- Currently smoke or quit less than 15 years ago
- Are or were heavy smokers (30 pack-years history such as those who smoked 1 pack per day for 30 years or 2 packs per day for 15 years)

USPSTF does not recommend lung cancer screening for individuals who:

- Have a condition that greatly limits how long they may live
- Are not willing to have chemotherapy, radiation or have surgery for lung cancer

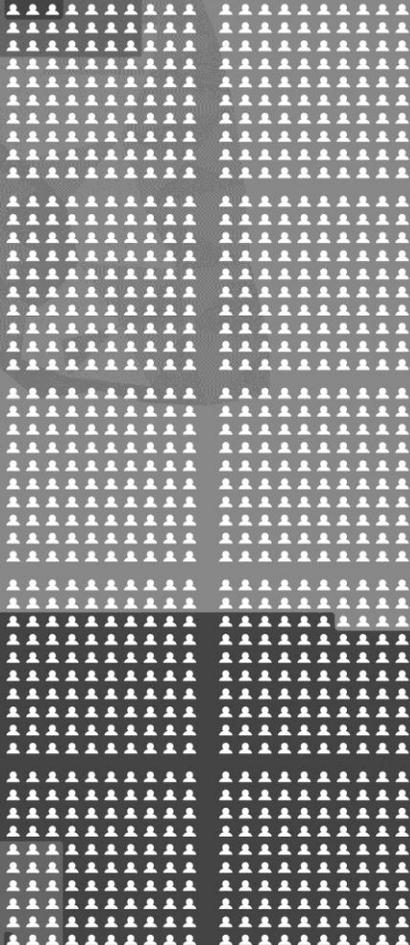
Gundersen Health System also recommends screening for former lung cancer patients who have reached complete remission. These individuals are still at high risk.

What are the possible benefits and risks of lung cancer screening with LDCT?*

Out of 1,000 people screened with LDCT for lung cancer:

3 lung cancer deaths will be prevented.

18 people will die of lung cancer.



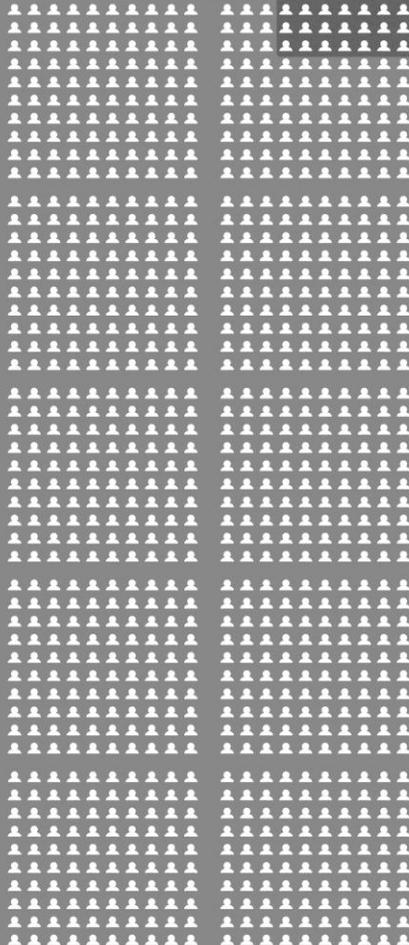
356 people will get a "false alarm."

18 of the people who get a "false alarm" will have an invasive procedure like a biopsy.

Less than 1 of the 18 people who have an invasive procedure will have a major complication (e.g., infection, bleeding in lung, collapsed lung).

Out of 1,000 people not screened with LDCT for lung cancer:

21 people will die of lung cancer.



* For people screened once a year for 3 years and followed for an average of 6.5 years. This information applies to people who are at high risk of lung cancer because of their smoking history and age.

What does research say about the benefits of lung cancer screening?

The largest study of lung cancer screening, the National Lung Screening Trial (NLST), showed:

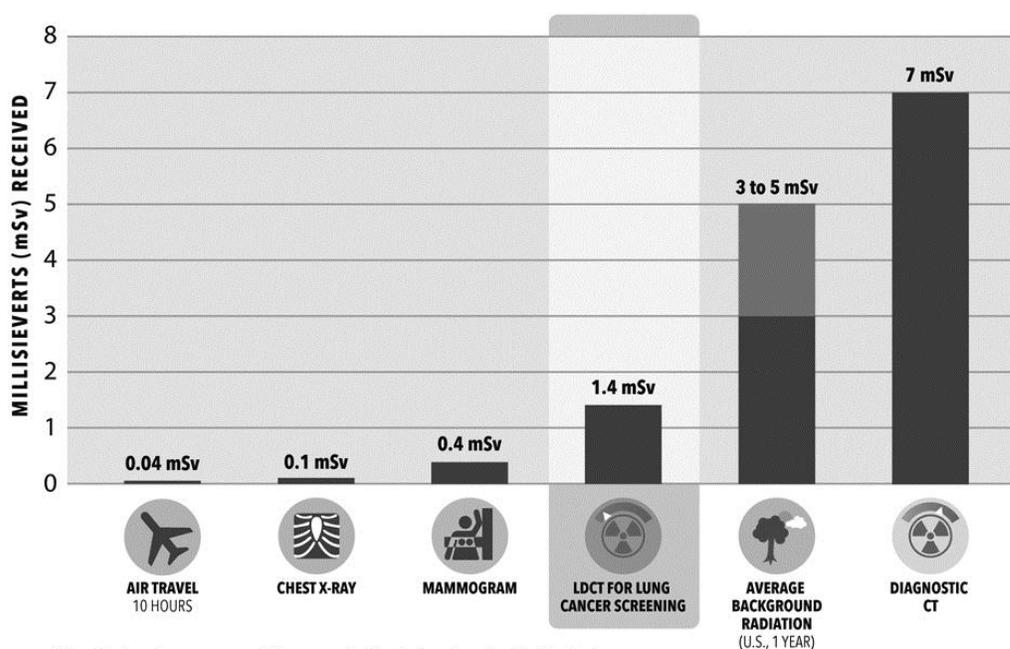
- Screening reduced the lung cancer death rate by 20 percent.
 - For every 1,000 people who **did not** get screened, 21 died of lung cancer.
 - For every 1,000 people who **did** get screened, 18 still died of lung cancer.
- Other ways to think about these numbers:
 - For every 1,000 people who get screening for lung cancer, 3 fewer died of lung cancer because of screening.
 - About 300 people need to be screened to save one life from lung cancer.

What are the risks of lung cancer screening?

- The most dangerous types of lung cancers can be missed.
 - Even after screening many people still die of lung cancer.
- There may be false alarms. Benign or non-cancerous nodules in the lung are common.
 - In the largest study of lung cancer screening, 365 people out of 1,000 had a false positive result.
- People with false positive results often get:
 - More CT scans
 - Invasive procedures (biopsies and surgery)
 - Stressed and anxious
- The false belief that getting screened means it is OK to keep smoking.
 - Regardless of your screening results, smoking will increase your risk of getting lung cancer and many other diseases.
- Over-diagnosis or overtreatment
 - Treatment for a slow-growing lung cancer that would not have caused problems even if you never got treatment.
 - One out of 5 lung cancers detected by screening grow very slowly and won't cause problems during a person's lifetime.

- It is hard to wait and see if this is the kind of cancer you have. Most people get treated.
- Radiation exposure.
 - Radiation can cause cancer.
 - Radiation dose is measured in a unit called a milliSievert (mSv).
 - The amount of radiation from screening LDCT is low so the risk of dying from lung cancer caused by radiation is very low.

COMPARING SOURCES OF RADIATION



mSv=millisievert, a measure of the amount of radiation absorbed by the body.

- Screening risks may be greater if you have other health problems, such as heart disease or severe lung disease like asthma or chronic obstructive pulmonary disease (COPD). The risk of problems from biopsies may be higher with these diseases.

Lung cancer screening steps at Gundersen

If you decide to be screened, this is what happens after your LDCT scan:

- **If no nodules are found (normal) or a small nodule is found (category 1),** your doctor will contact you by mail. A small nodule requires a LDCT scan within 1 year to check for changes or more

nodules. Gundersen recommends this for as long as you meet guidelines for age and smoking. You will receive a reminder when it is time to schedule the LDCT.

- **If the scan reveals any nodule(s) large enough to cause concern (category 2, 3 or 4),** you will be referred to the Pulmonary Nodule Clinic. Staff from this clinic will contact you to schedule an office visit to discuss further tests.

What is important to you when deciding about screening for lung cancer?

There are many things to think about when deciding whether lung cancer screening is right for you. Here are questions that may help you decide.

- **How important is:**
 - Finding lung cancer early when it may be more easily treated?
- **How concerned are you about:**
 - Having a false alarm?
 - Having other tests if you have a positive screening test?
 - Being exposed to radiation from lung cancer screening?
 - Being treated for lung cancer that never would have harmed you?
 - Being harmed by the treatments you receive for lung cancer?

Talking with your doctor about lung cancer screening

Making the decision to be screened for lung cancer is a personal decision. You **must talk face to face with your doctor** and decide based on what is right for you. Keep in mind the possible benefits and risks that are most important to you.

What about insurance coverage for lung cancer screening?

Medicare pays for lung cancer screening with no out-of-pocket costs for people **up to age 77 if you meet these criteria:**

- You must have a written order from your doctor.
- Your visit with doctor must be a “shared decision-making visit.” In this visit your doctor must use one or more decision aids and must discuss benefits and risks.

- You must go to a screening facility that participates in the lung cancer screening registry set up for Medicare patients.

There may be additional costs for follow-up tests or treatments after the initial screening exam. Contact your insurance company to see if the procedures are covered and what the cost to you would be.

Private insurance plans may cover lung cancer screening. Check with your insurance.

Remember: the best way to lower your chances of dying from lung cancer is to stop smoking. More than 8 out of every 10 lung cancer cases in the United States are from smoking. Stopping smoking is the best thing you can do to lower your risk of lung cancer. For information on how to quit:

- Ask your nurse or doctor.
- Call the nationwide quit line:
 - 1-800-QUIT-NOW (1-800-784-8669)
- Call (608) 775-5442 or (800) 362-9567 to learn about Gundersen Health System quitting assistance programs.

The Bottom Line

- Screening people at high risk of getting lung cancer can save lives.
- The number of people who benefit from screening is small.
- Some people who get screened may have increased risk of harm if they need additional testing.
- Screening people at low risk of getting lung cancer does not save lives. Gundersen Health System does not recommend screening for those at low risk for lung cancer.
- No matter what you decide about screening, work with your health care provider to quit smoking.

Do you have more questions?

Call 8 a.m. – 5 p.m. weekdays

(608) 782-7300 or (800) 362-9567

Ask for your primary care provider

Additional Resources

Lung Cancer Screening Decision Tool

Memorial Sloan Kettering Cancer Center

<http://nomograms.mskcc.org/Lung/Screening.aspx>

Screening for Lung Cancer: Consumer Guide

U.S. Preventive Services Task Force

<http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/lung-cancer-screening>

Understanding Lung Cancer

Cancer.gov

www.cancer.gov/types/lung

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