

Helping you decide about Lung Cancer Screening

This fact sheet explains the benefits and harms of lung cancer screening with **low-dose CT scans** so you and your health care provider can decide whether it is right for you.

Why should I be screened?

Lung cancer is most treatable when it is identified in the earliest stages.

What is lung cancer screening?

Lung cancer screening looks for signs of the disease before there are any symptoms in patients who are at high risk. Using advanced medical imaging equipment known as a CT scanner, a hospital radiology department can take very detailed “pictures” of your lungs. A doctor will then examine these pictures to look for changes that could be signs of lung cancer. Cancer can look like a spot on your lung. A CT scan is the only proven effective way to screen for lung cancer.



Lung cancer screening with low-dose CT is fast and takes only a few minutes to complete

Who should consider being screened for lung cancer?

Medical experts agree that lung cancer screening should be offered annually to adults who meet all three of the following criteria:

- Current or former heavy smokers with at least a 30 pack-years history of smoking.
- Between the ages of 55-74.
- Without any major health problems or conditions that would prevent a person from receiving cancer treatments like surgery.

HOW TO FIND YOUR PACK YEARS OF SMOKING

$$\boxed{\text{number of years you have smoked}} \times \boxed{\text{average number of packs per day}} = \boxed{\text{pack years}}$$

number of years
you have smoked

average number of
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pack years

Where should I be screened?

Major medical societies recommend that lung cancer screening be done at medical centers with access to multi-disciplinary lung cancer diagnosis and treatment programs. Since the first scan can lead to additional testing, find a center that has the ability to interpret and respond to your results. Sometimes lung cancer screening identifies other things not related to lung cancer that may require follow up.

Potential benefits and harms of lung cancer screening

It is important to consider both the benefits and harms before deciding whether to have lung cancer screening. Use the table below to consider your options.

	The benefits of being screened for lung cancer	The facts*
	The harms of being screened for lung cancer	The facts*
Reduced risk	Reduced chance of dying from lung cancer.	4 fewer lung cancer deaths when 1,000 people are screened.
	If caught early, treatment may be more successful.	Studies show that early treatment of lung cancer allows some patients to live a longer life.
	It may detect cancer before you have any symptoms.	9 out of 10 lung cancers will be detected by screening.
More treatment options	If caught early you may have more treatment options.	Early lung cancer may be removable with surgery. Advanced lung cancers are often inoperable.
	The harms of being screened for lung cancer	The facts*
False alarms	There is the chance of a false alarm. A false alarm is a result that looks like cancer but is not.	365 in 1,000 will have a false alarm.
	A false alarm could lead to an invasive procedure like surgery or a biopsy.	25 in 365 of those with a false alarm will have an invasive procedure.
	Invasive procedures sometimes cause serious complications.	3 in 25 invasive procedures from false alarms will have a major complication.
Over diagnosis	Sometimes screening identifies slow growing cancers that would not lead to illness or death.*	4 in 1,000 people will be diagnosed with a slow growing cancer that would not lead to illness or death.

*Benefits and harms based on results of the National Lung Screening Trial, which included three annual screens and five years of additional follow up.
For more information cancer.gov/clinicaltrials/noteworthy-trials/nlst

Are there radiation risks from the CT scan?

Low-dose CT scans expose people to radiation. Over time, exposure to repeated or high doses of radiation may cause cancer and other health problems. For heavy former or current smokers, the benefit of screening is probably much greater than the harm from radiation.

The most important thing you can do

Stop smoking. Regardless of your screening decision, avoiding cigarettes is the most powerful way to lower your chance of dying or suffering from lung cancer, emphysema, and heart attacks. For help quitting, call 1-800-QUIT-NOW.

Benefits of Quitting Smoking

Within minutes of quitting smoking you will experience benefits.



Taking the next step

Talk to your health care provider about lung cancer screening. For more information, you can also visit: cancer.dartmouth.edu/lungscreening.

A patient decision aid by: