

# Choosing Wisely®

*An initiative of the ABIM Foundation*



*We help the world breathe®*  
PULMONARY • CRITICAL CARE • SLEEP

## CT scans to find lung cancer in smokers

### When you need them—and when you don't

**A** low-dose spiral CT scan is a type of medical test. It is used to look for early signs of lung cancer. If the test finds cancer, treatment can start early.

But the test is not helpful for light smokers or people who quit smoking more than 15 years ago. And it's not usually recommended for people younger than age 55 or older than 80.

Even heavy smokers get only a small benefit from the test. So you should think twice before you get the test. Here's why:

#### **The test may help people at high risk.**

Studies show a slight benefit from CT scans for:

- People ages 55 to 80 who smoke heavily (about one pack per day for at least 30 years or 2 packs per day for at least 15 years) AND are either still smoking or have quit within the past 15 years.

If 1,000 high-risk smokers get the test, about



three will find lung cancer early enough to receive treatment and not die from lung cancer. Eighteen others will also find lung cancer, and will die even though they had the screening test.

#### **The test doesn't help people at low risk.**

CT scans have no benefits for people with low risk. Research has not shown that the test helps save lives in low-risk groups.

### **The test creates false alarms.**

CT scans cause many false alarms, even in high-risk people. If 100 high-risk smokers get the test, about 40 will show something that can cause concern. But only two or three actually have lung cancer.

The false alarms often lead to follow-up tests. Usually, you need to get several more CT scans. Or you may need a biopsy, or even surgery. This can sometimes cause complications, like bleeding or a collapsed lung.

If your risk is low, a false alarm can cause unnecessary worry.

### **CT scans expose you to radiation.**

A low-dose spiral CT scan uses about 20 times more radiation than a standard chest X-ray. The more radiation you get, the higher your risk of getting cancer. So, it's good to avoid radiation when you can, even if a single dose is low.

### **The test is expensive.**

A spiral CT scan costs \$300 or more. Insurance usually pays for the test for lung cancer screening only if you have a very high risk for developing lung cancer. And the test often leads to other costs. Many people have false alarms that lead to more tests and procedures.

### **When is a CT scan worth the risks?**

You should consider getting a CT scan if:

- You are 55 to 80 years old AND
- You have smoked heavily for years (about one pack a day for at least 30 years, or two packs a day for at least 15 years) AND
- You are still smoking or have quit less than 15 years ago.

In high-risk smokers, the benefits of CT scans may be greater than the risks.

### **The best way to prevent lung cancer is to quit.**

If you want to prevent lung cancer, quit smoking. Quitting greatly reduces your risk of lung cancer. Your doctor can help you quit, or you can call 1-800-QUIT-NOW. Avoid secondhand smoke, which also increases your risk.

This report is for you to use when talking with your healthcare provider. It is not a substitute for medical advice and treatment. Use of this report is at your own risk.

© 2018 ABIM Foundation. Developed in cooperation with the American College of Chest Physicians and the American Thoracic Society. To learn more about the sources used in this report and terms and conditions of use, visit

[www.choosingwisely.org/patient-resources](http://www.choosingwisely.org/patient-resources)