

# Lung Cancer: Whom to Screen

Sandra A. Fryhofer, MD

Aug 12, 2013

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## Introduction to Screening Guidelines for Lung Cancer

Hello. I'm Dr. Sandra Fryhofer. Welcome to Medicine Matters. The topic is lung cancer screening in high-risk patients. New guidelines from the American College of Chest Physicians were published in the May issue of *Chest*.<sup>[1]</sup> Here is why it matters.

Lung cancer is the leading cancer killer for both men and women in this country. It kills more people each year than colon, breast, pancreas, and prostate cancer combined. Smoking is the leading risk factor. The new guidelines recommend annual screening with low-dose CT for anyone aged 55-74 with at least a 30-pack-year history of smoking who either continue to smoke or quit within the past 15 years. A pack-year is the equivalent of smoking 20 cigarettes a day for a year.

This recommendation is based on several randomized clinical trials, the largest being the National Lung Screening Trial.<sup>[2]</sup> Understand that these low-dose scans detect small nodules in 10%-50% of those screened, and the vast majority of them are benign.

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## Some Specific Recommendations

The guidelines do not recommend CT scan screening for those with fewer than 30-pack-years of tobacco use or for anyone under 55 or over 74. This screening is also not recommended for those who stopped smoking more than 15 years ago or for anyone with other medical conditions that would prevent curative treatment or limit life expectancy. The guidelines also recommend against sputum cytology and chest x-rays, which are not useful as screening tests.

The guidelines consider the roles of various chemopreventive agents, such as aspirin, beta carotene, vitamin E, selenium, steroids, and others, and do not recommend them. The agents considered have been tested in randomized controlled trials and have not shown benefit. In fact, some have been shown to be harmful.

Lung cancer screening is not a substitute for stopping smoking. That's why the new guidelines discuss the benefits of smoking-cessation programs and how to get people to quit. Although lung cancer kills nearly 160,000 people each year, the good news is that the declining rates of smoking have led to lower lung cancer rates.

For Medicine Matters, I'm Dr. Sandra Fryhofer.

## References

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2. National Lung Screening Trial Research Team, Aberle DR, Adams AM, Berg CD, et al. Reduced lung-cancer mortality with low-dose computed tomographic screening. *N Engl J Med*. 2011;365:395-409. [Abstract](#)

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Cite this article: Lung Cancer: Whom to Screen. *Medscape*. Aug 12, 2013.