

Screening could avert 12,000 lung cancer deaths each year in the US

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Screening for lung cancer with low-dose computed tomography (LDCT) in all screening-eligible current and former smokers has the potential to avert approximately 12,000 lung cancer deaths each year in the United States. That is the conclusion of a new analysis published early online in *CANCER*, a peer-reviewed journal of the American Cancer Society. By providing a national estimate of potentially avertable lung cancer deaths, the study will help policy makers better understand the possible benefits of LDCT lung cancer screening.

Despite substantial decreases in smoking prevalence, there are still 43 million Americans who are current smokers. If these smokers continue to smoke, half of them will die of smoking-related diseases including [lung cancer](#); however, detecting lung cancer at an early stage can help prevent deaths.

The National Lung Screening Trial conducted from 2002 through 2009 found that, compared with chest x-ray, LDCT screening reduces lung cancer deaths by about 20 percent among current and former (quit within 15 years) [smokers](#) aged 55 to 74 years who have smoked at least 30 pack-years. (This equates to one pack per day for 30 years or two packs per day for 15 years).

Based on information from this trial combined with the US [population size](#) and other data, Jiemin Ma, PhD, of the [American Cancer Society](#) in Atlanta, and his colleagues concluded that in 2010, approximately 8.6 million Americans were eligible for LDCT screening for lung cancer

according to the criteria used in the trial. When they combined this finding with information on lung cancer death rates, they estimated that if all screening-eligible Americans were to receive LDCT screening, approximately 12,000 lung cancer deaths would be delayed or prevented each year in the United States.

"Our findings provide a better understanding of the national-level impact of LDCT screening, which has the potential to save thousands of lives per year," said Dr. Ahmedin Jemal, a co-author of the paper. He added that since the publication of the National Lung Screening Trial results in 2011, several health organizations including the American Lung Association have recommended LDCT screening for lung cancer; however, some health agencies are still waiting for new data before making any recommendations.

In an accompanying editorial, Larry Kessler, ScD, of the University of Washington School of Public Health in Seattle, noted that while the study's findings are important, it is not clear whether a new national policy for [lung cancer screening](#) is warranted. "The high rate of false positive tests [from LDCT screening], and the related workup costs, and cost of treating findings that would not benefit patients give pause, and thus it is clear why a decision has not been yet taken in this direction," he wrote. He emphasized the importance of completing the full cost-benefit evaluations of the NLST and regardless of its outcome, the need for continued emphasis on smoking cessation efforts.

More information: "Annual number of lung cancer deaths potentially avertable by screening in the United States." Jiemin Ma, Elizabeth M. Ward, Robert Smith, and Ahmedin Jemal. *CANCER*; Published Online: February 25, 2013 ([DOI: 10.1002/cncr.27813](#)).

Editorial: "Is 20% of a Loaf Enough?" Larry Kessler. *CANCER*; Published Online: February 25, 2013 ([DOI: 10.1002/cncr.27811](#)).

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