
RSNA Press Release

Female Smokers Twice as Likely as Male Smokers to Develop Lung Cancer

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At A Glance

- Female smokers are twice as likely as male smokers to develop lung cancer, regardless of age or years spent smoking.
- The more tobacco a smoker has used, and the older a smoker gets, the greater the chance for lung cancer.

CHICAGO — Women have double the risk of developing lung cancer from tobacco use than do men, according to 10 years of research using computed tomography (CT) screening. The study also found that the risk for lung cancer increases with the amount of tobacco smoked and as a smoker ages.

The research was presented today at the 89th Scientific Assembly and Annual Meeting of the Radiological Society of North America (RSNA).

"We found that women had twice the risk of developing lung cancer as men, independent of how much they smoked, their age, or the size and textures of nodules found in their lungs," said Claudia I. Henschke, M.D., Ph.D., professor of radiology and division chief of chest imaging at New York Hospital/Cornell Medical Center in New York City. "There is as of yet no clear consensus why women are at increased risk."

The National Institutes of Health (NIH) partially supported the study of 2,968 men and women age 40 and older, with some history of cigarette smoking, to determine which risk indicators—age, gender, number of years smoking—when combined with the size and texture of lung nodules found on CT scans impacted the probability of developing lung cancer. The research was part of the Early Lung Cancer Action Project (ELCAP), designed to evaluate the usefulness of annual CT screenings in people at high risk for lung cancer.

A total of 77 lung cancers were diagnosed in the 2,968 men and women screened. Researchers used logistic regression to further study the probability of malignancy based on nodule size and texture for 1,097 participants who had at least one lung nodule.

"We also found that the more you smoke—and as you age—the greater the chances of developing lung cancer," said Dr. Henschke, the study's lead author.

Lung cancer is the leading cause of cancer death among men and women, according to the

American Cancer Society (ACS). In 2003, ACS estimates that 171,900 new cases of lung cancer will be diagnosed (91,800 men and 80,100 women) and that 157,200 people will die from it. Since 1987, more women have died annually from lung cancer than breast cancer, according to ACS.

Co-authors of the study are Rowena Yip; David F. Yankelevitz, M.D.; Dorothy I. McCauley, M.D.; and Ali O. Farooqi, M.B.B.S.

RSNA is an association of more than 35,000 radiologists, radiation oncologists and related scientists committed to promoting excellence in radiology through education and by fostering research, with the ultimate goal of improving patient care. The Society is based in Oak Brook, Ill.

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[Probability of Lung Cancer by Relevant Factors](#)

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