

Former and Light Smokers Still Have Elevated Lung Cancer Risk

Study findings suggest that more people could benefit from annual lung cancer screening.

December 19, 2023 By [Sukanya Charuchandra](#)

While the odds of lung cancer diagnosis are low for former smokers and light smokers, their risk is still 10 times higher than that of people who never smoked, according to study findings published in [JAMA Oncology](#).

[Guidelines from the U.S. Preventive Services Task Force \(USPSTF\)](#) recommended annual lung cancer screening for people ages 50 to 80 who have at least a 20 pack-year smoking history (equivalent to one pack of cigarettes a day for 20 years) and who currently still smoke or have quit within the past 15 years. These guidelines leave out current for former smokers with fewer pack-years and those who quit more than 15 years ago.

Ali Ahmed, MD, MPH, of the Veterans Affairs Medical Center in Washington, DC, and colleagues sought to better understand lung cancer risk for current and former smokers for whom annual screening was not recommended. The researchers used data from the Cardiovascular Health Study obtained from the National Heart, Lung and Blood Institute.

The study included 4,279 people without a cancer diagnosis at baseline who were at least 65 years old. The researchers had access to the participants' baseline data and smoking history. The average age was 73, more than half (57%) were women, 84% were white, 16% were Black and less than 1% belonged to other racial or ethnic groups. They were tracked for a median of 13 years

In this study population 1,973 people had never smoked. Another 1,445 people were or had been heavy smokers with a history of more than 20 pack-years. Within this subgroup, the average smoking history was 34.8 pack-years for the 516 former smokers who quit at least 15 years ago, 48.0 pack-years for the 497 former smokers who stopped smoking less than 15 years ago and 48.8 pack-years for the 432 current smokers.

In addition, 861 people were not considered heavy smokers, meaning they had a smoking history of less than 20 pack-years. Within this subgroup, the average smoking history was 7.6 pack-years for the 615 former smokers who stopped at least 15 years ago, 10.0 pack-years for the 146 former smokers who quit less than 15 years and 11.4 pack-years for the 100 current smokers.

Over the course of follow-up, lung cancer was diagnosed in 0.5% of people who had never smoked, 5% of current smokers with a smoking history of less than 20 pack-years and 5% of former smokers with a smoking history of at least 20 pack-years who gave up the habit at least 15 years ago. That is, the risk of lung cancer was at least 10-fold higher for the two groups for whom screening was not previously recommended, compared with never-smokers. However, the absolute risk for both these groups remained low relative to current or recent heavy smokers.

New guidelines from the American Cancer Society, [released in November](#), partially address this gap. Annual low-dose computed tomography screening is now recommended starting at age 50 for current and former smokers with a 20 pack-years or more history, regardless of how long ago they quit. But screening is still not advised for people with a smoking history of less than 20 pack-years. Nor is screening recommended for people younger than 50, [a group with rising lung cancer incidence](#).

“The findings of this cohort study suggest that there is a high risk of lung cancer among smokers for whom [low-dose computer tomography] screening is not recommended, suggesting that prediction models are needed to identify high-risk subsets of these smokers for screening,” wrote the researchers.

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