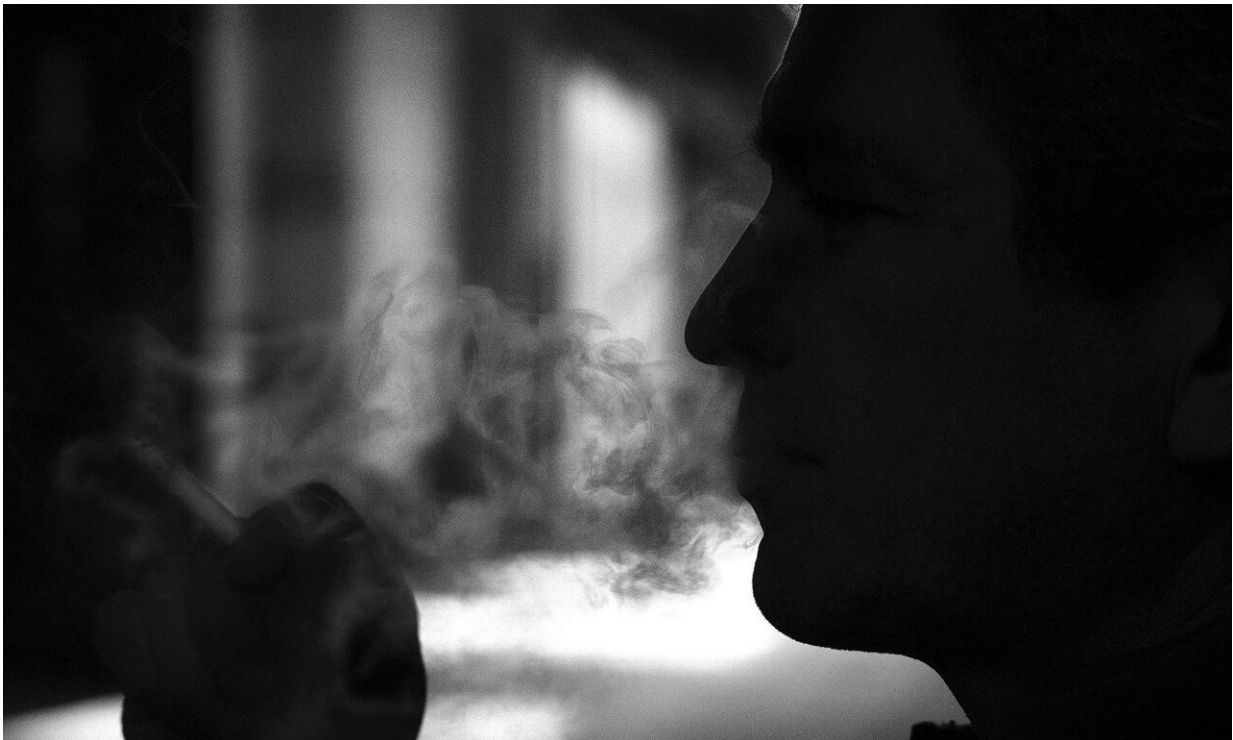


Benefits of smoking cessation take time, study reveals

November 16 2018, by Matt Batcheldor



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People who quit smoking see their risk of cardiovascular disease (CVD) immediately begin to drop, but it may take up to 16 years for their health to reach the level of someone who has never smoked, according to a new Vanderbilt study.

Previous studies have shown the association between quitting and reduced CVD risk, but have placed the time it takes for health to return to the level of a non-smoker much earlier—between five and 10 years, said lead author Meredith Duncan, MA, a database administrator for the Division of Cardiovascular Medicine at Vanderbilt University Medical Center and a Ph.D. student in the Department of Epidemiology at Vanderbilt University.

She emphasized that smokers still have a great incentive to quit. "There is a really steep drop immediately in your risk compared to a current smoker," she said. "You're still reducing your risk by 38 percent even within five years of quitting."

The research used data from the Framingham Heart Study, a longitudinal study of men and women from Framingham, Massachusetts, which began enrollment of the Original cohort in 1948 and now includes their children (Offspring cohort) and grandchildren (Generation 3 cohort) as well as multiethnic cohorts (Omni cohorts).

The study used prospective data from 1954 through 2014 from 3,757 participants of the Original cohort and 4,930 members of the Offspring cohort to determine the effect of lifetime [smoking](#) and smoking cessation on the risk of CVD. CVD includes myocardial infarction, stroke, CVD death and heart failure.

The Original cohort was examined every two years and the Offspring cohort every four years, and the study continues to this day with up to 28 assessments of smoking on Original cohort members and nine assessments on Offspring [cohort](#) members included in this investigation.

"The Framingham Heart Study provides a source of data that is richer than some other sources when it comes to smoking," Duncan said. "We wanted to use that [data](#) to determine how long it takes former smokers to

reduce their risk relative to continuing smokers and how long a former smoker would have to be quit until their CVD risk normalizes to that of a never-smoker."

Duncan presented the work during the American Heart Association conference in Chicago from Nov. 10 to 12.

The research merited an Early Career Poster Award in the Population Science division at the 2018 AHA Scientific Sessions and the Paul Dudley White International Scholar Award, recognizing it as the highest-ranked abstract from the United States.

Other authors of the study were Matthew S. Freiberg, MD, MSc; Robert Greevy, Ph.D.; Suman Kundu, DSc, MSc; Ramachandran S. Vasan, MD; and Hilary A. Tindle, MD, MPH.

Tindle, director of the Vanderbilt Center for Tobacco Addiction and Lifestyle (ViTAL) and senior author of the study, urges [smokers](#) to act on these study results by putting out their cigarettes. "The cardiovascular system begins to heal relatively quickly after quitting smoking, even for people who have smoked heavily over decades," she said. "Full recovery can take several years, so now is a great time to quit smoking."

More information: Hilary A Tindle et al. Lifetime Smoking History and Risk of Lung Cancer: Results From the Framingham Heart Study, *JNCI: Journal of the National Cancer Institute* (2018). [DOI: 10.1093/jnci/djy041](#)

Provided by Vanderbilt University

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