Smoking Is Tied to Faster Lung Function Decline in People With HIV

This finding comes from the global START study that in 2015 proved that starting HIV treatment early is preferable to delaying.

November 2, 2018 By Benjamin Ryan

People with HIV experience faster decline in their lung function if they smoke, raising their risk of developing chronic obstructive pulmonary disease (COPD).

Publishing their findings in the Journal of Acquired Immune Deficiency Syndromes, researchers analyzed data from the START Pulmonary Substudy. START was the global trial of 4,685 people with HIV that in 2015 proved that beginning HIV treatment with a CD4 count greater than 500 is preferable to delaying until CD4s drop to 350 or below. The substudy in question included 1,026 of the START participants, of whom 915 were included in the new analysis.

The substudy members were followed for a median of 3.9 years. A total of 247 (27 percent) of the participants were smokers and 668 (73 percent) were nonsmokers. The smokers and nonsmokers were similar in age (a median of 36 years old upon entering the study), however, smokers were more likely to be white, male and from Europe, Israel or Australia compared with the nonsmokers.

The study authors focused their analysis on signs associated with the development of COPD, specifically participants' spirometry results—meaning the findings of a test that assesses lung function to determine the quantity of air an individual inhales and exhales and how fast he or she exhales. The exhale results are given in the form of forced expiratory volume in 1 second, or FEV_1.

Smokers had faster average FEV_1 decline compared with nonsmokers, a respective negative 38.3 milliliters per year versus negative 25.1 ml/year. Smokers were more likely to meet the criteria of rapid FEV_1 decline than nonsmokers—specifically, 7.2 to 11.7 percent more likely, depending on the definition of rapid decline. Smokers also had somewhat higher rates of diagnosis of COPD, but this finding was not statistically significant. (If the study's follow-up time had been longer, it is possible the study would have seen a statistically significant difference in this regard.)

"These results underscore the need for a better understanding of how to best support smoking cessation among HIV-positive populations," the study authors concluded.

To read the study abstract, click here.