

Quit, Then Relax: Smoking Cessation Helps Blood Vessels

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(PhysOrg.com) -- Patients who successfully quit smoking tobacco rapidly improve their blood vessel function.

That's according to the results of the first-ever randomized clinical trial evaluating endothelial function in smokers, conducted by cardiologists at University of Wisconsin School of Medicine and Public Health and clinical researchers at the UW Center for Tobacco Research and Intervention (UW-CTRI). The study will be presented at the annual American College of Cardiology (ACC) meeting this week in Atlanta and published simultaneously in JACC, the Journal of the American College of Cardiology.

The study involved more than 1,500 individuals in Madison and Milwaukee who were part of a randomized clinical trial conducted by UW-CTRI to help them quit smoking. Both before and one year after the date they stopped smoking, doctors used ultrasound to measure patients' flow-mediated dilation (FMD), a key gauge of the health of the brachial artery.

The ability of the brachial artery to relax is closely related to the ability of the heart arteries to relax, and predicts risk for future heart and blood vessel disease. Researchers compared the FMD readings of those who successfully quit to those who resumed smoking.

"Individuals who quit smoking had improved blood vessel function, even though they gained weight, which is a common side effect of smoking

cessation," says Dr. James Stein, associate professor of medicine at UW School of Medicine and Public Health and lead author of the study.

"This confirms that quitting smoking is good for your blood vessels and reduces risk for heart attacks and cardiovascular disease."

Dr. Stein and his colleagues found that FMD improved by as much as 1 percent among patients who had quit smoking for a full year. Dr. Stein considers that a significant improvement.

"It's statistically significant, but more important, it's also clinically relevant," says Dr. Stein. "A 1 percent change in FMD is associated with an approximately 14 percent lower rate of cardiovascular disease events. That means patients who permanently quit smoking are less likely to have a heart attack and heart disease."

Approximately one-third of smoking-related premature deaths in the United States are due to cardiovascular disease.

Dr. Michael Fiore, director of UW-CTRI, is also encouraged by the results.

"The findings from this study offer new hope to smokers across America who are thinking about quitting - specifically, you can quickly improve your cardiovascular health," he says.

More information: Cardiology conference: <http://www.acc.org>
Quit-smoking guide: <http://www.smokefree.gov>

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