

E-cigarettes take toll on heart health

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E-cigarette use takes a toll on heart health—a big concern given the high prevalence of e-cigarettes and perception of e-cigarettes as a healthier alternative to traditional cigarettes, according to new, preliminary research that will be presented at the American Heart Association's Scientific Sessions 2019—November 16- 18 in Philadelphia. The

Association's Scientific Sessions is an annual, premier global exchange of the latest advances in cardiovascular science for researchers and clinicians.

Researchers who conducted two separate studies report they found e-cigarette smokers had more negative heart disease risk factors—namely, total and LDL cholesterol—and e-cigarettes decrease blood flow in the heart.

According to Rose Marie Robertson, M.D., FAHA, the American Heart Association's deputy chief science and medical officer, "There is no long-term safety data on e-cigarettes. However, there are decades of data for the safety of other nicotine replacement therapies."

The American Heart Association (AHA) recommends people quit smoking using smoking cessation aids that are FDA-approved and proven safe and effective. If people choose to use e-cigarettes as they work to stop smoking other tobacco products, they should also plan to subsequently stop using e-cigarettes, because of the lack of information on long-term safety and a growing body of data describing physiologic effects of the components of these devices and the chemical combinations used in them, Robertson said.

E-Cigarette Use is Associated with Altered Lipid Profiles in the CITU Study (Oral Presentation Mo3106)

In one study, researchers compared cholesterol, triglycerides and glucose levels in healthy adult nonsmokers, e-cigarette (e-cig) smokers, traditional cigarette (t-cig) smokers and dual smokers who use both traditional and e-cigarettes. Researchers evaluated healthy adults (ages 21-45) without existing cardiovascular disease and taking no daily

medications in the Cardiovascular Injury due to Tobacco Use (CITU) Study. The study's 476 participants included 94 non-smokers; 45 e-cig smokers; 52 e-cig and t-cig smokers; and 285 t-cig smokers. Analysis was adjusted for age, race, sex, and non-smokers, sole e-cig or t-cig use, or combination e-cig and t-cig use.

Among the study's findings, total cholesterol and the bad cholesterol, LDL, was higher in sole [e-cigarette](#) users compared to nonsmokers.

"Although primary care providers and patients may think that the use of e-cigarettes by cigarette smokers makes [heart health](#) sense, our study shows [e-cigarette use](#) is also related to differences in cholesterol levels. The best option is to use FDA-approved methods to aid in smoking cessation, along with behavioral counseling," said study author Sana Majid, M.D., a postdoctoral fellow in vascular biology at the Boston University School of Medicine.

Provided by American Heart Association

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