

Vaping damages arteries and blood vessels like smoking – study

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The study was made up of non-smokers, cigarette smokers, e-cigarette users and people who both smoked and vaped.

Vaping damages the arteries and blood vessel function much like smoking traditional cigarettes, a new study has found.

Researchers studied more than 400 men and women aged between 21 and 45 made up of non-smokers, cigarette smokers, e-cigarette users and people who both smoked and vaped.

The team studied measures of blood vessel function in e-cigarette and dual users who had been using e-cigarettes for at least three months.

All e-cigarette users were former cigarette smokers.

The study, published in the Journal of the American Heart Association on Wednesday, found that former smokers who switched to e-cigarettes and dual users had arteries that were just as stiff as those in traditional smokers.

“The evidence from scientific studies is growing that e-cigarettes might not be the safer alternative to smoking traditional cigarettes when it comes to heart health. Our study adds to that evidence”

Dr Jessica Fetterman, Boston University School of Medicine

Author Jessica Fetterman, assistant professor of medicine at Boston University School of Medicine, said that stiffening of the arteries can contribute to heart disease.

She added: “Many people believe e-cigarettes are safer than combustible cigarettes.

“In fact, most e-cigarette users say the primary reason they use e-cigarettes is because they think e-cigarettes pose less of a health risk.

“Meanwhile, the evidence from scientific studies is growing that e-cigarettes might not be the safer alternative to smoking traditional cigarettes when it comes to heart health.

“Our study adds to that evidence.

“Stiffening of the arteries can cause damage to the small blood vessels, including capillaries, and puts additional stress on the heart, all of which can contribute to the development of heart disease.”

The study was funded through the Tobacco Centre of Regulatory Science of the American Heart Association.

The researchers also found that the cells that line the blood vessels – called endothelial cells – appeared to be equally as damaged whether people used e-cigarettes, cigarettes or both.

Dr Fetterman added: “The endothelial cells from e-cigarette users or dual users produced less of the heart-protective compound nitric oxide, compared to non-tobacco users.

“Their cells also produced more reactive oxygen species, which cause damage to the parts of cells such as DNA and proteins.

“Our study results suggest there is no evidence that the use of e-cigarettes reduces cardiovascular injury, dysfunction or harm associated with the use of combustible tobacco products.”

An independent report, commissioned by Public Health England (PHE), said that vaping among young people in England has remained steady, with estimates putting it at 6% of 11- to 15-year-olds in 2018, and 5% of 11- to 18-year-olds in 2019.

The report, published in March, also found that vaping among adults in England had also remained stable since 2014 and was between 5% and 7% in 2019.