

Secondhand smoke presents greater threat to teen girls than boys

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When teenage girls are exposed to secondhand smoke at home, they tend to have lower levels of the "good" form of cholesterol that reduces heart disease risk, according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism* (*JCEM*).

High-density lipoproteins (HDL) pick up excess [cholesterol](#) in the blood stream and take it to the liver where it can be broken down. Unlike low-density lipoproteins that can create a waxy build-up that blocks blood vessels, HDL cholesterol can play a key role in combatting [heart disease risk](#).

"In our study, we found 17-year-old girls raised in households where passive smoking occurred were more likely to experience declines in HDL cholesterol levels," said the study's lead author, Chi Le-Ha, MD, of the University of Western Australia. "Secondhand smoke did not have the same impact on teenage boys of the same age, which suggests passive smoking exposure may be more harmful to girls. Considering cardiovascular disease is the leading cause of death in women in the western world, this is a serious concern."

Researchers studied a longitudinal birth cohort of 1,057 adolescents who were born between 1989 and 1992 in Perth, Australia. The study gathered information about smoking in the household beginning at 18 weeks gestation and leading up to when the children turned 17. During that time, 48 percent of the participants were exposed to secondhand

smoke at home. Blood tests were performed to measure the teenagers' cholesterol levels.

"The findings indicate childhood passive smoke exposure may be a more significant cardiovascular risk factor for women than men," Le-Ha said. "We need to redouble public health efforts to reduce young children's [secondhand smoke](#) exposure in the home, particularly girls' exposure."

More information: The article, "Gender Difference in the Relationship between Passive Smoking Exposure and HDL-Cholesterol Levels in Late Adolescence," appears in the May 2013 issue of *JCEM*.

Provided by The Endocrine Society

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