

Protect kids from toxic secondhand smoke, experts urge

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Parents and policy advocates should take a "zero tolerance" approach to exposing children to secondhand cigarette smoke, which can be responsible for lifelong cardiovascular consequences in addition to respiratory and other health issues, according to a new scientific statement published in the American Heart Association journal *Circulation*.

"Parents should consider making their children's environment smoke free because cigarette smoke exposure is harmful to children's long-term heart health and may shorten life expectancy," said Geetha Raghuveer, M.D., M.P.H., pediatric cardiologist and chair of the American Heart Association expert panel that wrote the statement. "Children exposed to cigarette smoke may develop early heart disease as adults due to poorly functioning, stiffer blood vessels. Some babies who were exposed to cigarette smoke while still in the womb may be at risk for sudden death during infancy."

Besides impacting heart function by causing damage to arteries, exposure to [secondhand smoke](#) has been associated with other cardiovascular risk factors including obesity, high cholesterol, and insulin resistance - which is linked to diabetes. Furthermore, children are more likely to become smokers themselves if their parents smoke.

Since publication of the 1994 American Heart Association statement on this topic, experts have learned more about the dangers of secondhand smoke to children, including the high level of toxicity in the smoke that

comes from the end of a burning cigarette ("side stream smoke" - this is a major component of second hand smoke) and the damage smoke does to children's blood vessels, Raghuveer said.

Secondhand smoke contains a host of chemicals that can impact health by causing changes to blood flow, [blood vessels](#), blood pressure and heart rhythm.

Compared with adults, children are especially vulnerable to [secondhand smoke exposure](#) in part because they cannot control tobacco use in their surroundings, and they appear to be particularly susceptible physically to the smoke's effects.

Overall, an estimated 24 million nonsmoking children and youths are exposed to secondhand smoke in the U.S., largely because of parents who smoke. Blood testing in a 2011-12 national study detected a nicotine metabolite called cotinine in nearly 41 percent of children ages 3 to 11, and in 34 percent of kids ages 12 to 19—despite declines over recent decades in both adult [smoking](#) rates and the proportions of young children and adolescents living with smokers.

There is also a clear disparity in exposure among minority children and those from poor families compared with their peers. Data from 2011-12 show that 68 percent of non-Hispanic African-American children aged 3 to 11 had been exposed to secondhand smoke, compared with 37 percent of non-Hispanic white and 30 percent of Hispanic children.

"Encouraging adults to quit smoking is a cost-effective and health-enhancing strategy that could benefit both adults and [children](#)," said Raghuveer, who is also professor of pediatrics at Children's Mercy Hospital and Clinics in Kansas City, Missouri. "Raising cigarette taxes to discourage smoking could also decrease childhood exposure."

The statement also has suggestions aimed at healthcare professionals that include electronic medical records that could alert healthcare providers that a child is exposed to [cigarette smoke](#), training in motivational counseling to help families make changes, and early outreach to families through Head Start, an early education program from the United States Department of Health and Human Services. Although research is lacking on how effective some of these steps might be, it's essential to try, Raghuveer said.

Provided by American Heart Association

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