



KIDS, CARS, AND CIGARETTES: A POLICY OVERVIEW

Dangers to health caused by exposure to secondhand smoke are well documented by scientists and well understood by the general public. Health authorities throughout the world concur that:

- There is no risk-free level of secondhand smoke exposure
- Even low levels of exposure are harmful
- The only effective way to protect people from harm is to eliminate smoking in enclosed spaces.^{1,2}

Many nations and more than half of all U.S. states have smoke-free workplace laws.^{3,4} Although these laws are popular with the public and largely self-enforcing,^{5,6,7} they fail to protect children in the two settings where they most commonly face exposure—homes and cars. Multiple studies show that kids, cars and cigarettes are a particularly dangerous combination,^{8,9,10,11,12,13} leading many scientists^{14,15,16,17} and policymakers to conclude that regulation of smoking in cars is needed to protect children from harm.

How does exposure to secondhand smoke harm children's health?

Despite progress, tobacco use remains the single most preventable cause of disease, disability and premature death in the U.S.¹⁸ Nearly 21 percent of adults in the U.S. are smokers¹⁹ and more than 126 million nonsmokers are regularly exposed to secondhand smoke.²⁰ About 60 percent of U.S. children are exposed to secondhand smoke and about 25 percent of all U.S. children live with one or more persons who smoke.²¹ For children, secondhand smoke exposure has serious and costly health implications and is a known cause of:

- Sudden Infant Death Syndrome (SIDS)²²
- Ear infections, including fluid build-up, a sign of chronic middle ear disease²³
- More frequent and more severe asthma attacks, which can endanger children's lives²⁴
- Upper and lower respiratory infections.²⁵

Children of smokers get sick more often.²⁶ They have more bronchitis and pneumonia, more ear infections, and have more operations to put drainage tubes in their ears than children who are not exposed to secondhand smoke.²⁷ Their lung growth is slowed, resulting in a reduction of lung function.²⁸ Exposure to secondhand smoke is a risk factor for new cases of asthma in children with no prior symptoms.²⁹ Because secondhand smoke alters the activity of the central nervous system, it can also damage a child's cognitive functions.³⁰ Direct medical costs from exposure to secondhand smoke among U.S. children exceed \$700 million per year.³¹

What is thirdhand smoke and how does it harm children's health?

Thirdhand smoke refers to a cocktail of toxins that builds up over time and clings to skin, hair,



clothing, upholstery, carpet and other surfaces long after cigarettes or cigars are extinguished and the secondhand smoke dissipates.^{32,33,34} Thirdhand smoke is dangerous for children—especially infants and young children—because they frequently touch and put their mouths to contaminated surfaces. Children breathe faster than adults and have smaller lung capacity; consequently, they ingest about twice as much dust as adults.³⁵ Nicotine from thirdhand smoke combines with nitrous acid, a common indoor air pollutant, to form tobacco-specific nitrosamines—TSNAs—one of the most potent carcinogens in tobacco smoke. TSNAs put children's health at risk due to their inhalation of dust and frequent, close contact with contaminated surfaces.³⁶

Does exposure to secondhand and thirdhand smoke in vehicles endanger children's health?

Pollution levels generated by secondhand smoke in vehicles quickly reach dangerously high levels.^{37,38,39} Ventilating vehicles fails to protect those inside the vehicle from health risks associated with exposure. *In air quality tests, concentrations of secondhand smoke in vehicles have been found to be far greater than in any other micro-environments tested, including smoke-free homes, smokers' homes, smoke-filled bars, and outdoor air—even with a vehicle's windows open and its fan set on high.*^{40,41} Leading medical associations, including the American Academy of Pediatrics,⁴² and major health advocacy organizations, including the American Lung Association, have concluded that public policies are needed to protect nonsmokers, particularly children and youth, from exposure to tobacco smoke in vehicles.

Does the government have authority to regulate smoking in private vehicles?

Smokers are not recognized as a specially protected group under the U.S. Constitution, and a law that regulates smoking or exposure to secondhand smoke will be found constitutional as long as it is rationally related to a legitimate government purpose.⁴³ Courts have held that the right to privacy is not absolute: even in private settings, there is no constitutional right to smoke.⁴⁴ Regulation of conduct in vehicles is common in society (e.g., drinking alcoholic beverages, using seatbelts or booster seats) and is justified by the government's interest in protecting the public's health and safety. The legitimacy of such laws is widely accepted.^{45,46} The government has authority to regulate smoking in vehicles to protect the health of nonsmokers, particularly children, who are exposed.

Is legislation necessary?

Ultimately, voluntary policies fail to protect all children. Although educational campaigns have informed large sectors of the public about health risks from secondhand smoke exposure, misconceptions persist about health risks from smoking in vehicles, and smoking in cars continues unchecked in most states.^{47,48,49} Studies consistently show that smoke-free policies decrease exposure to secondhand smoke by 80 to 90 percent in high exposure settings and can lead to widespread decreases in exposure of up to 40 percent.^{50,51} Despite significant reductions in exposure—due largely to smoke-free workplace laws—declines have been smallest among young children and highest among adults. Strong research findings and the inability of children to protect themselves from exposure in vehicles have led both scientists and policymakers to support legislation.^{52,53,54}

What are the key components of smoke-free vehicle policies?

Since 2006, four U.S. states—Arkansas, California, Louisiana and Maine—and the Commonwealth of Puerto Rico have successfully enacted and implemented smoke-free vehicle policies.⁵⁵ Key components include:

- Age of child (ranges from under 6 years and under 60 pounds to under age 18)
- Classification of an offense as primary or secondary enforcement
- Fines and penalties (range from \$25 and waiver for first offense if violator enters a smoking cessation program, to fines of up to \$250, or at least 24 hours of community service).⁵⁶

Does the public support smoke-free vehicle policies?

Although limited data is available, public support for smoke-free vehicle laws, like support for smoke-free workplace laws, is strong—both in the United States and in other countries.^{57,58} The public accepts the public health rationale for such laws, especially the need to protect children from harm.

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Endnotes

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- ¹⁰ See CAL. ENVTL. PROTECTION AGENCY, CAL. AIR RESOURCES BD., SECONDHAND SMOKE IN CARS FACTSHEET, available at http://www.arb.ca.gov/toxics/ets/documents/ets_cars.pdf.
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- ²² *Id.*
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- ²⁴ Env'tl. Protection Agency, Fact Sheet: Respiratory Health Effects of Passive Smoking, EPA, <http://www.epa.gov/smokefree/pubs/etsfs.html> (last visited Nov. 10, 2010).
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- ³⁹ CAL. ENVTL. PROTECTION AGENCY, *supra* note 10.
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- ⁴⁷ Halterman et al., *supra* note 13 (noting that among urban area households with children with asthma and smokers, less than half (49 percent) maintained smoke-free cars, signaling that protecting children in this environment is a public health priority).
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