



California Air Resources Board Declares Second Hand Smoke Is a Toxic Air Contaminant*

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What is a Toxic Air Contaminant (TAC)?

A Toxic Air Contaminant (TAC) is an air pollutant which may cause or contribute to an increase in deaths or serious illness, or which may pose a present or potential hazard to human health. **The Air Resources Board unanimously found that tobacco smoke harms not only the smoker, but innocent bystanders as well. Secondhand Smoke joins benzene, arsenic, and diesel exhaust on the TAC list.** The unanimous decision by the Cal EPA's Air Resources Board to declare Secondhand Smoke (SHS) to be a Toxic Air Contaminant was based on a rigorous four year, scientific study that included public comment and independent peer review.

What does tobacco smoke add to California's air each year?

Each year tobacco smoke adds the following to California's air:

- 40 tons of nicotine
- 365 tons of soot and ash
- 1,900 tons of carbon monoxide

What are the health effects of exposure to Secondhand Smoke?

Each year in California, secondhand tobacco smoke is linked to:

- 400 additional lung cancer deaths a year in nonsmokers
- 3,600 deadly heart attacks and
- 31,000 asthma attacks in children.
- **State scientists also concluded for the first time that Secondhand Smoke can increase the risk of breast cancer in pre-menopausal women (women under the age of 50) by 68%.**

How many Californians are exposed?

Despite strict indoor workplace laws and scattered ordinances related to outdoor smoking, 56% of adults (over age 18), 64% of adolescents (12-17 years) and 38% of children (0-11 years) are currently being exposed to Secondhand Smoke.

What are the next steps for the Air Resources Board (ARB)?

The ARB must undertake a "risk management" analysis to determine options to reduce exposure to and management of secondhand smoke. This is expected to result in recommendations to the state legislature for new laws and enactment of regulations.

Chemicals Identified in Tobacco Smoke*

Carbon monoxide [Auto Exhaust Poison]	Anatabine
Carbon dioxide	Phenol [Toilet Disinfectant]
Carbonyl sulfide	Catechol [Tanning, Dyeing Agent]
Benzene*	Hydroquinone [Photographic Developing Agent]
Toluene [Industrial Solvent; in Explosives]	Aniline** [Industrial Solvent]
Formaldehyde** [Embalming Fluid]	2-Toluidine [Agent in Dye Manufacture]
Acrolein [Aquatic Herbicide]	2-Naphthylamine*
Acetone [Poisonous Solvent]	4-Aminobiphenyl*
Pyridine [Poisonous Solvent]	Benz[a]anthracene***
3-Methylpyridine [Insecticide Solvent]	Benzo[a]pyrene**
3-Vinylpyridine	Cholesterol
Hydrogen cyanide [Rat/Insect Poison]	γ -Butyrolactone***
Hydrazine** [Rocket Fuel Chemical]	Quinoline [Specimen Preservative]
Ammonia [Poisonous Gas, Cleaning Agent]	Harman
Methylamine [Tanning Agent]	N-Nitrosornicotine***
Dimethylamine [Tanning Accelerator]	NNK
Nitrogen oxides	N-Nitrodiethanolamine**
N-Nitrosodimethylamine**	Cadmium**
N-Nitrosodiethylamine**	Nickel*
N-Nitrosopyrrolidine**	Zinc [Anti-Corrosion Coating for Metals]
Formic acid [Caustic Solvent]	Polonium-210* [Radioactive Element]
Acetic acid [Caustic Solvent]	Benzoic acid [Tobacco Curing Agent]
Methyl chloride [Poisonous Refrigerant]	Lactic acid [Caustic Solvent]
1,3-Butadiene**	Glycolic acid [Metal Cleaning Agent]
Particulate matter [Some ***]	Succinic acid [Agent in Lacquer Manufacture]
Nicotine [Insecticide]	PCDDs and PCDFs (Dioxins, Dibenzofurans)

* Known Human Carcinogen

** Probable Human Carcinogen

*** Animal Carcinogen

*From Table 3-1 for Mainstream Cigarette Smoke, 1992 EPA Report *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders*.
[Some Uses adapted from *Merck Index*]