

SECONDHAND SMOKE

Health Harms

What's In Secondhand Smoke?

- Secondhand tobacco smoke is the combination of the smoke emitted by a burning tobacco product and the smoke exhaled by a smoker.¹
- Secondhand smoke contains a complex and toxic mixture of more than 7,000 chemicals, including about 70 known carcinogens.²
- The World Health Organization's International Agency for Research on Cancer classifies secondhand smoke as a carcinogen.¹
- There is no safe level of exposure to secondhand smoke.³

Secondhand Smoke Causes Death, Disease and Disability

Secondhand smoke is a cause of premature death and disease in children and in adults who do not smoke.⁶ It kills an estimated 1.6 million people globally every year.⁴

- The 2023 Global Burden of Disease estimates that globally about 758,000 men, 840,000 women, and 61,000 children under the age of 20 died from secondhand smoke exposure.⁴ In adults, secondhand smoke is a known cause of stroke, heart disease (including heart attacks), cancer, chronic obstructive pulmonary disease, respiratory infections, and other conditions.³
 - Exposure to secondhand smoke increases the risk of stroke by 20–30%⁶ and the risk of coronary heart disease by 25–30%.⁷
- In children, secondhand smoke causes sudden infant death syndrome (SIDS), low birth weight, impaired lung function, respiratory infections (such as bronchitis and pneumonia), chronic and acute respiratory symptoms (such as coughing and breathlessness), ear infections and exacerbated and more frequent asthma.⁶
- Evidence also suggests that secondhand smoke is a risk factor for breast cancer, nasal sinus cancer, pharynx and larynx cancer, lung cancer, chronic obstructive pulmonary disease, pre-term and low birth weight births, type 2 diabetes, chronic and acute respiratory symptoms (such as coughing and breathlessness) and atherosclerosis (a build-up of plaque in the arteries) in adults.^{6, 8}
- The evidence suggests that secondhand smoke is a risk factor for developing childhood asthma.⁶

Secondhand Smoke contains:

- Carcinogens, such as benzene, polonium-210 and chromium;
- Toxic metals, such as arsenic, lead and cadmium;
- Poisonous gases, such as ammonia, hydrogen cyanide and carbon monoxide.

Secondhand Smoke Health

ADULTS

Stroke

Lung cancer

Heart disease



CHILDREN

Low birth weight

Respiratory infections

Ear infections

SIDS

Asthma



Exposure to Secondhand Smoke is Remains High Worldwide

The 2023 Global Burden of Disease Study estimated that 37.3% of women and 30.6% of men worldwide were exposed to secondhand smoke.⁴ Another study in 2021 estimated that about 63% of youth (age 12–16) across 142 countries were exposed to secondhand smoke in any place, 33.3% at home and 57.6% in public places.⁹

Adults working in establishments that allow smoking have prolonged exposure to secondhand smoke and thus elevated risk of harm to their health. These workers cannot avoid tobacco smoke if they want to keep their jobs. According to the Global Adult Tobacco Survey:

- In China, 50.9% of adults who work indoors are exposed to tobacco smoke at the workplace.¹⁰
- In India, 30.2% of adults who worked indoors were exposed to tobacco smoke at the workplace.¹¹
- In Pakistan, 70% of adults who worked indoors were exposed to tobacco smoke at the workplace.¹²

Key Takeaways

- **There is no safe level of secondhand smoke exposure.**
- **Exposure to secondhand smoke causes death, disease and disability among nonsmoking adults and children.**
- **Adults exposed to secondhand smoke in the workplace are at greater risk for developing tobacco-related health problems than adults who work in smoke-free environments.**
- **To protect public health, countries should adopt comprehensive smoke-free laws that prohibit smoking in all indoor public places, workplaces, and public transport without exception. This is the cheapest, fairest, and only effective way to protect everyone's right to breathe clean air.**
- **Everyone has the right to breathe clean air in workplaces and public places, free of the toxins in secondhand smoke that cause disease and death.**

References

1. International Agency for Research on Cancer. IARC Monograph Volume 100E (2012) Personal Habits and Indoor Combustions. World Health Organization 2012.
2. Centers for Disease Control and Prevention. Secondhand Smoke (SHS) Factsheet. U.S. Department of Health and Human Services 2017.
3. World Health Organization. WHO Report on the Global Tobacco Epidemic 2023.
4. Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease 2023: Findings from the GBD 2023 Study. Seattle, WA: IHME, 2025.
5. Öberg M, Jaakkola M, Woodward A, Peruga A and Prüss-Ustün A. Worldwide burden of disease from exposure to second-hand smoke: a retrospective analysis of data from 192 countries. *The Lancet* 2011.
6. U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Centers for Disease Control and Prevention 2014.
7. Institute of Medicine Committee on Secondhand Smoke Exposure and Acute Coronary Events. Secondhand Smoke Exposure and Cardiovascular Effects: Making Sense of the Evidence. Epidemiologic Studies of Secondhand-Smoke Exposure and Cardiovascular Disease. National Academies Press, 2010.
8. Flor, L.S., Anderson, J.A., Ahmad, N. *et al.* Health effects associated with exposure to secondhand smoke: a Burden of Proof study. *Nat Med* 30, 149–167 (2024). <https://doi.org/10.1038/s41591-023-02743-4>
9. Ma C, Heiland EG, Li Z, Zhao M, Liang Y, Xi B. Global trends in the prevalence of secondhand smoke exposure among adolescents aged 12–16 years from 1999 to 2018: an analysis of repeated cross-sectional surveys. *Lancet Glob Health*. 2021;9(12):e1667–e1678. doi:10.1016/S2214-109X(21)00365-X
10. Global Adult Tobacco Survey China 2018
11. Global Adult Tobacco Survey India 2016–2017
12. Global Adult Tobacco Survey Pakistan 2014