

THE IMPACT OF PASSIVE SMOKING ON CHILDREN

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ABSTRACT

Secondhand smoke (SHS), sometimes referred to as passive smoking, has become a major worldwide public health hazard with far-reaching effects on people of all ages. This review comprehensively evaluates the adverse effects of passive smoking on children's health outcomes, focusing on respiratory conditions, cardiovascular effects, cancer risk, growth retardation, and immune system compromise. A thorough analysis of existing literature reveals that exposure to tobacco smoke significantly heightens the risk and severity of lower respiratory tract infections in children. Additionally, passive smoking is associated with decreased lung function and more respiratory issues, and impaired cognitive and behavioural development. These findings underscore the pressing requirement for efficient public health strategies to mitigate the impact of SHS on vulnerable populations, particularly children. This study aims to illuminate the multifaceted impact of passive smoking on children's health, emphasizing the critical importance of safeguarding young populations from the harmful consequences of tobacco smoke exposure.

Keywords: *secondhand smoke, cardiovascular effects, respiratory conditions, tobacco smoke exposure*

Introduction

The global prevalence of adult smoking in 2020 was 6.5% for women and 32.6% for men, according to the World Health Organization's important statistics on tobacco (Arafa1,2 2023).

When non-smokers breathe in cigarette smoke, smoke exhaled by smokers, or a combination of both, they are considered to be passive smokers. In public locations including restaurants, workplaces, shopping centers, parks, cars, and daycare centers, nonsmokers can breathe in secondhand smoke. The smoke was found to remain airborne for a few hours following smoking and to travel up to about 20 feet. Due to their developing bodies and faster breathing than adults, children are particularly susceptible to the harmful effects of secondhand smoke (Munther et al. 2023). Although it affects people all across the world, passive smoking receives little attention. An estimated 600,000 avoidable deaths are attributed Every year, people are exposed to secondhand smoke, according to a WHO (World Health Organization) research. According to the National Library of Medicine (NIH), despite the fact that smoking is not allowed in public places, around 30% of individuals are subjected to secondhand smoke, which results in 1.9 million deaths and 24 million disability-adjusted lives annually (Roopashree et al., 2024). Smoking has a detrimental effect on the cardiovascular and respiratory systems. Due to their developing systems and rapid breathing, children are more vulnerable. Asthma, ear infections, respiratory infections, low birth weight, and SIDS are all linked to SHS in kids.

This review assesses the health effects of passive smoking on kids, with an emphasis on immune system effects, growth retardation, respiratory disorders, behavioural problems, and cognitive impairment. The success of smoke-free policies is evaluated, along with its immediate and long-term effects. The importance of healthcare communication in lowering the dangers of SHS is also examined, as is parental preferences for smoking cessation messaging.

Impact of Passive Smoking on Children's Health

- **Respiratory Issues:** Secondhand smoke (SHS) exposure puts children at risk for respiratory conditions like pneumonia, bronchitis, asthma, and chronic cough. By irritating and inflaming their airways, SHS impairs lung function and makes them more prone to infections. In children in particular, passive smoking significantly raises the possibility of respiratory symptoms like dyspnea, wheeze, and coughing. Other respiratory conditions, including asthma, can also be made worse by secondhand smoking exposure.
- **Cardiovascular Diseases:** The risk of cardiovascular conditions, such as heart attacks, strokes, and coronary artery disease, is increased by passive smoking. Secondhand smoke exposure increases the risk of unexpected cardiovascular events among nonsmokers. These severe disorders are exacerbated by the harmful compounds in secondhand smoking, which damage blood vessels and induce inflammation.
- **Impaired cognitive development:** Cognitive deficits in children exposed to secondhand smoke (SHS) can include memory issues, attention span shortening, and poor reading and math performance. Cognitive abilities and scholastic achievement may suffer as a result of the harmful compounds in SHS, which can interfere with brain growth and function.
- **Growth Retardation:** Research indicates that kids who are exposed to SHS frequently had lower heights and bodily weights in comparison to their classmates who were not exposed. It's possible that the toxins in SHS are the cause of this growth impairment since they prevent the body from absorbing nutrients and developing normally.
- **Immune System Effects:** Due to compromised immune systems, children exposed to secondhand smoke (SHS) are more susceptible to infections and diseases. SHS can affect immune cell activity, which reduces the body's defenses against infections and increases the risk of respiratory infections and other illnesses (Barnoya et al. 2005).

- **Cancer risk:** Children who are in close proximity to secondhand smoke(SHS) have a much higher chance of developing cancer. Lung cancer and other cancers can arise later in life as a result of DNA damage caused by the dangerous chemicals in SHS. As they become older, children exposed to SHS have a higher probability of other health issues, which renders themfurther more susceptible to cancer. For their health, SHS exposure must be eliminated.

Table 1: Showing the rates of various health impacts on children due to secondhand smoke (SHS) exposure

Health Impact	Rate of Affection (%)
Respiratory Infections	25%
Asthma	20%
Sudden Infant Death Syndrome (SIDS)	5%
Low Birth Weight	15%
Premature Birth	10%
Behavioural Problems	18%
Cardiovascular Diseases	8%
Cancer Risk	3%

Ways to reduce SHS exposure

- **Make Your House and Vehicle Smoke-Free:** Ensure that your home and vehicle are smoke-free.
- **Promote Quitting Smoking:** Assist friends and relatives who smoke in giving smoking.
- **Steer Clear of Smoking Public Places:** Don't let children near regions where smoking is permitted.
- **Raise Awareness of the Risks:** Inform kids about the risks associated with SHS and the significance of staying away from it.

Societal Implications

Healthcare Costs: Medical systems have a heavy financial burden from diseases linked to passive smoking. Children

exposed to secondhand smoking require medical care, including hospitalization, and regular visits with doctors. Passive smoking is an expensive public health issue because of these healthcare needs.

Educational Impact: Chronic health issues caused by passive smoking may increase a child's likelihood of missing school and performing poorly in school. Their academic performance is affected, and educational institutions are under additional strain as a result.

Public Health Initiatives: The harmful effects of passive smoking on children have prompted governments and health groups to implement a variety of public health initiatives. Laws that forbid smoking in public places are among them, as are programs for education and assistance in quitting smoking for parents and other caregivers.

Legal and Policy Measures: In several countries, laws have been implemented to protect children from secondhand smoke. These consist of regulations pertaining to smoke-free zones, bans on smoking in cars with children, and penalties for disobedience.

Acknowledgement

I would like to express my special thanks of gratitude to our respected Chancellor Sir, Vice Chancellor Sir, Chief Operating Officer Sir, Registrar Sir, Deputy Registrar Sir and other higher authorities of Swami Vivekananda University. I am also thankful to respected Head of Department of Microbiology and Biotechnology, School of Life Sciences, Swami Vivekananda University for giving me this opportunity to conduct this study.

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