

Passive smoking results from breathing in a combination of other people's exhaled tobacco smoke – the smoke drawn in by the smoker and then breathed out – and the smoke released from the cigarette's burning tip.

Together, these are referred to as second-hand smoke.

Passive Smoking **and the Health of Babies and Children**

Second-hand smoke contains more than 4,000 chemicals, many of which are known to be cancer-causing agents such as arsenic and benzene. Particles in second-hand smoke tend to be smaller than those in smoke drawn directly from cigarettes, meaning they can penetrate deeper into the lungs¹.

Second-hand smoke is classified as a substantial public health hazard² and is a controllable and preventable form of indoor air pollution; it is classified as a known, class A, human carcinogen (IARC³; World Health Organization⁶). Although overall exposure in the population has declined due to smoke-free legislation in the UK and reduced smoking prevalence, cars and homes continue to be places of high exposure.

Passive smoking and the health of babies and children

Babies and children exposed to second-hand smoke are at particular risk of developing serious illness, which can even be fatal. Exposure to second-hand smoke is strongly linked to:^{2,4,9,10}

- infections of the lungs, decreased lung function (including coughing and wheezing) and lower respiratory tract infections in infants
- increased risk of pneumonia and bronchitis
- increased risk of asthma attacks, coughs and colds; increased absence from school⁵
- development of asthma and other respiratory disorders in infants and children, and associated hospital admissions
- disease of the middle ear, such as glue ear in children, which can lead to partial deafness
- most seriously, second-hand smoke exposure increases the risk of sudden infant death syndrome (SIDS)⁴.

In general, the risks to infants and children are greatest when the mother is the smoker and in households where a number of people smoke⁵. Currently, it is estimated that 20% to 40% of children in Scotland are exposed to second-hand smoke at home^{5,7}.

Pregnant women and unborn babies

Evidence about the effects of second-hand smoke on babies while in their mother's womb shows that products from the smoke cross the placental barrier, and therefore enter the baby's circulation.

If the mother is exposed to second-hand smoke during pregnancy, this increases the risk of spontaneous abortion and stillbirth, and is an established risk factor for premature birth and low birthweight^{8,9}.

The effects of second-hand smoke on the health of babies and children, and of maternal smoking on the health of the fetus, are substantial. However, it's difficult to tell which effects are caused by maternal smoking in pregnancy and which by second-hand smoke exposure in childhood.

References

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