

Secondhand smoke in the home

Introduction

The dangers of exposure to secondhand smoke are well established^{1 2 3 4} and it has been against the law to smoke in most workplaces or enclosed public place in the United Kingdom since July 2007. However, despite the fact that the number of smokefree households in Britain is increasing every year, significant numbers of adults and children remain exposed to tobacco smoke in the home. This factsheet reviews the changes in attitude and behaviour with regard to secondhand smoke in the home and explains why a totally smokefree home is necessary to protect people from the harmful effects of passive smoking.

The health impact of secondhand smoke

Breathing in other people's tobacco smoke (secondhand, passive or involuntary smoking) is known to cause a range of disorders from minor eye and throat irritation to heart disease and lung cancer.^{1 2} Children are particularly vulnerable to the effects of secondhand smoke and exposure increases the risk of cot death, glue ear, asthma and other respiratory disorders, including emphysema later in life.^{4 5 6}

The Royal College of Physicians has estimated that every year in the UK children's exposure to secondhand smoke results in:

- over 20,000 cases of lower respiratory tract infection
- 120,000 cases of middle ear disease
- at least 22,000 new cases of wheeze and asthma
- 200 cases of bacterial meningitis
- 40 sudden infant deaths – one in five of all SIDs⁴

Each year, these cases generate over 300,000 UK GP consultations and about 9,500 hospital admissions, and also cost the NHS about £23.3 million.³

Other people who are particularly at risk from the effects of secondhand smoke include pregnant women and people with pre-existing heart or respiratory illnesses.

It was estimated that in 2003 secondhand smoke was responsible for approximately 12,200 premature deaths a year in the UK. Most of these occurred in nonsmokers living with a partner or other family member who smoked. For further information see [ASH Fact Sheet: Secondhand Smoke](#).

Why opening a window doesn't help

Opening a window or restricting smoking to a specific room offers little protection against exposure to secondhand smoke.^{8,9} Researchers have found that smoke from one cigarette can linger in a room for up to two and a half hours even with a window open.¹⁰ Measures such as smoking out of a window or smoking next to an extractor fan are equally ineffective at keeping smoke out of the home.

Emerging research has found that pollution from secondhand smoke (also called thirdhand smoke) can linger on carpets, furnishings and walls long after it has dissipated from the air. These materials absorb the toxins found in tobacco smoke and gradually release them back into the air, posing an additional risk of exposure.^{11 12 13 14 15}

Public awareness and attitudes

Public awareness about the dangers of exposure to secondhand smoke is high. The last survey of smoking-related attitudes and behaviour conducted by the Office for National Statistics was in 2008/09 and found that 92% of respondents were aware that exposure to secondhand smoke increases a child's risk of chest infections and 86% that exposure increased the risk of asthma in children. Awareness of the risk of ear infections was lowest with just 35% of respondents believing that this was a risk factor.¹⁶ A 2014 survey by YouGov, found similar levels of awareness with 93% recognising that exposure to secondhand smoke has a negative impact on the health of both children and adults. The same YouGov survey found that 85% of people were aware that exposure to secondhand smoke increased the risk of a heart attack in adults.¹⁷

The 2008/09 ONS survey also found that the majority of smokers reported that they tried not to smoke in the presence of children. Seventy-seven percent (77%) of smokers said they did not smoke at all in a room with children and 14% said they would smoke fewer cigarettes in the presence of a child.¹⁶

The 2014 YouGov survey found that only 6% of respondents allowed smoking "anywhere" in the home, with 67% not allowing smoking anywhere in their home and a further 19% only allowing it in outdoor areas, such as balconies and gardens.¹⁷

Impact of smokefree legislation on smoking in the home

A growing body of evidence shows that legislation prohibiting smoking in workplaces leads to a reduction in smoking in the home. There is no published, peer-reviewed evidence that smokefree legislation leads to an increase in smoking in the home. For example, studies suggest that where smokefree workplaces and public places are the norm, parents are more likely to make their own home a smokefree zone.^{18,19} A study in Scotland found that children's exposure to secondhand smoke has fallen by 39% since the introduction of smokefree legislation.²⁰ Furthermore, smokefree workplaces encourage smokers to quit. The corresponding reduction in smoking among adults means that fewer children are likely to be exposed to smoke at home.

The 'Smoking-Related Attitudes and Behaviour' studies also revealed that the proportion of adults in England living in a smokefree home rose from 61% in 2006 to 67% after the introduction of smokefree legislation in 2007.²¹ The last survey in 2008/09 revealed that this had risen to 69% with a further 19% also only allowing smoking in outdoor areas.¹⁶

A 2011 YouGov poll commissioned by ASH found that 10% of respondents in England reported coming into contact with tobacco smoke at home and a further 2% were exposed to tobacco smoke at both home and at work.²²

Measures to protect children from exposure to secondhand smoke

It has been estimated that approximately 2 million children in the UK are routinely exposed to secondhand smoke.⁴ Restrictions on smoking in day care settings have been in place since 2003²³ but there are no laws to protect children from exposure to secondhand smoke in the home.

Studies measuring secondhand smoke exposure in the home show that the most reliable way of reducing exposure is to stop smoking completely indoors.²⁴ Partial measures such as restricting smoking to particular rooms or not smoking in the presence of children are insufficient to protect the health of nonsmokers.²⁵ Thus, if parents are unable or unwilling to stop smoking, the next best step is to at least make the indoor environment smokefree.

Although several interventions, including parental education and counselling programmes, have been used to try to reduce children's tobacco smoke exposure, their effectiveness has not been clearly demonstrated. A Cochrane review of 57 studies was unable to determine if any particular interventions reduced parental smoking and child smoke exposure more effectively than others, although seven studies were identified that reported intensive counselling or motivational interviewing provided in clinical settings was effective.²⁶ This suggests that population-level initiatives such as mass media health promotion, are needed to achieve changes in attitude and behaviour.²⁷

New legislation will be implemented in October 2015 that will prohibit smoking in cars when children are present. There is widespread public support for the measure:

- A 2010 poll commissioned by Cancer Research UK found 75% support for legislation banning smoking in cars with children.²⁸
- A poll conducted for ASH Scotland found that over 80% of adults in Scotland would support this legislation.²⁹
- A poll by the Royal College of Physicians found that 77% of adults in England would support a total ban on smoking in motor vehicles carrying children under the age of 18 years.³⁰
- A YouGov poll published by the Faculty of Public Health in August 2010 found 74% support for a ban on smoking in cars with children.³¹ By 2014 this figure had risen to 77%.³²

For further information about smoking in cars, including the change in legislation, please see [ASH Factsheet: Smoking in Cars](#).

Effect of smokefree legislation on smoking rates

Smokefree legislation has not only significantly reduced non-smokers' exposure to tobacco smoke but has also encouraged more smokers to stop smoking. According to the Smoking Toolkit study, 43% of England's smokers tried to quit in 2007, with 8% reporting that their decision was a direct result of the smokefree legislation.³³ The NHS stop smoking services reported a 20% increase in demand in the 12 months following the smokefree law.³⁴ The Government had estimated that the smokefree law in England would reduce smoking prevalence by 1.7% resulting in more than 600,000 fewer smokers.³⁵ (This excludes those who would have quit anyway in response to existing measures.)

A systematic review of studies on the effects of smokefree legislation found that the effect of implementing policies in places where none had previously existed was associated with a drop in smoking prevalence of around 4%.³⁶

Secondhand smoke and pets

Pets are also at risk when exposed to secondhand smoke.^{37 38} A study in the United States found that even limited exposure to tobacco smoke more than doubled a cat's risk of feline lymphoma.³⁹ Other studies have found an association between exposure to secondhand smoke and cancer in dogs.^{40 41} Rabbits are also likely to be at risk.^{42 43}

Animals don't just suffer the ill-effects of inhaling cigarette smoke. Particulate matter within the smoke settles on their hair and is ingested during grooming. Pets also sometimes swallow cigarettes and other tobacco products causing nicotine poisoning which can be fatal.

The international experience

- The Cancer Council in Victoria, Australia has published a comprehensive review of smoking and health issues in Australia, including "[smoking bans in domestic environments](#)".
- In Canada, two projects have been set up to educate landlords and tenants about the dangers of secondhand smoke in multi-unit dwellings and encourage smokefree housing: www.smokefreehousingbc.ca and www.smokefreehousingon.ca/sfho/.
- The US Department of Housing and Urban Development has published a [toolkit to support an increase in the numbers of smokefree multi-family housing](#) in the United States.
- The American Lung Association's Center for Tobacco Policy and Organizing promotes smokefree multi-unit housing on its website and has a [library of resources](#).

For information on how to tackle tobacco smoke entering a home from other premises, see the [ASH Briefing on smoke drift in the home and workplace](#).

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