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# Secondhand smoke in the home

www.ash.org.uk

enquiries@ash.org.uk

Telephone: 020 7739 5902

**Introduction** The dangers of exposure to secondhand smoke are well established<sup>1 2</sup> and it has been against the law to smoke in a work or enclosed public place in the United Kingdom since July 2007. Although the majority of households in Britain are also smokefree, 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 through to heart disease and lung cancer.<sup>1 2</sup> 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. 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 SIDs

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

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 has been estimated that secondhand smoke is responsible for more than 10,000 premature deaths a year in the UK.<sup>4</sup> Most of these occur in nonsmokers living with a partner or other family member who smokes. 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.<sup>5 6</sup> 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.<sup>7</sup> Other 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. Other research has shown that pollution from secondhand smoke can linger on carpets, furnishings and walls. These materials absorb the toxins found in tobacco smoke and gradually release them back into the air, posing an additional risk of exposure.<sup>8 9</sup>

## Public awareness and attitudes

Public awareness about the impact of exposure to secondhand smoke has risen steadily over the years. A 2008/09 survey by the Office for National Statistics found that 92% of respondents believed that exposure to secondhand smoke increases a child's risk of chest infections and 86% thought 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.<sup>10</sup>

The same ONS survey found that the majority of smokers report that they try not to smoke in the presence of children. Seventy-seven percent of smokers said they do not smoke at all when they are in a room with children and 14% said they would smoke fewer cigarettes in the presence of a child.<sup>10</sup>

## Impact of smokefree legislation on smoking in the home

There is no published, peer-reviewed evidence to show that smokefree legislation leads to an increase in smoking in the home. In fact there is a growing body of evidence to show that the opposite is more likely to occur, that is, that legislation banning smoking in workplaces leads to a reduction in smoking in the home. For example, studies suggest that where smokefree work and public places are the norm, parents are more likely to make their own home a tobacco-free zone.<sup>11 12</sup> A study in Scotland found that children's exposure to secondhand smoke has fallen by 39% since the introduction of smokefree legislation.<sup>13</sup> 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 annual 'smoking attitudes and behaviour' study 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.<sup>14</sup> The latest survey shows that this has risen further to 69%.<sup>10</sup> 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.<sup>15</sup>

## 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.<sup>3</sup> Restrictions on smoking in day care settings have been in place since 2003<sup>16</sup> but there are no laws to protect children from exposure to secondhand smoke from in the home.

Studies measuring secondhand smoke exposure in the home show that the most reliable way of reducing exposure is to stop smoking indoors.<sup>17</sup> 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.<sup>18</sup> Thus if parents are unable or unwilling to stop smoking, the next best step is to at least make the indoor environment smokefree.

Many programmes aim to reduce smoking in the home by encouraging parents and carers to stop smoking. However, in a review of such interventions, only four out of 18 studies found a statistically significant effect, suggesting that such interventions are largely ineffective.<sup>19</sup> This suggests that population-level changes such as mass media health promotion are needed in order to achieve changes in attitude and behaviour.<sup>20</sup>

## 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.<sup>21</sup> The NHS stop smoking services reported a 20% increase in demand in the 12 months following the smokefree law.<sup>22</sup> 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.<sup>23</sup> (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%.<sup>24</sup>

## Secondhand smoke and pets

Pets are also at risk when exposed to secondhand smoke. A recent study in the United States found that even limited exposure to tobacco smoke more than doubled a cat's risk of feline lymphoma.<sup>25</sup> Another study found an association between exposure to secondhand smoke and nasal cancer in dogs.<sup>26</sup> Birds and rabbits are likely to be at risk.<sup>27</sup>

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 eat cigarettes and other tobacco products causing nicotine poisoning which can be fatal.

## The international experience

-  The [European Public Health Alliance](#) has published research about the effect of smokefree policies on smoking in the home and changing attitudes to smoking in general.
-  The province of British Columbia in Canada has done a lot of work to promote smokefree homes. See: <http://www.smokefreehousingbc.ca/>
-  ASH Australia has a comprehensive section on [smokefree homes](#) and Australian legislation.

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