

UKCPI POSITION STATEMENT Cleaning and Asthma - The Facts

Asthma clinicians and other experts recognise that maintaining a clean living environment, in which cleaning products play an important role, helps minimise asthma symptoms.

Whilst numerous studies have reported statistical associations between **working** as a cleaner and the likelihood of having asthma or similar respiratory illness, the totality of available evidence does **not** indicate that cleaning **products** in some widespread way increase the risk of developing such conditions. Adverse effects are likely to be mainly limited to the triggering or exacerbation of symptoms in existing sufferers. Adverse effects are also much more likely to arise from product misuse or from accidents rather than from normal use according to instructions, and thus by proper use, problems should be avoidable.

Consumer safety is fundamental to the integrity of UK Cleaning Products Industry, to a sound and ethical business and to the Industry's social responsibility as producers of consumer products. All household cleaning products and air fresheners are designed to be safe and effective when used as directed.

Products are developed, tested and produced in line with stringent national and international regulations, and undergo thorough assessment by safety and regulatory experts before they are placed on the market. UKCPI Members fully support and pay heed to robust scientific research on the hazard potential and safety of household products.

Additional key points:

- Use of cleaning products is not connected with the sharp rises in asthma (or other allergies) in recent decades, which has occurred mainly in children and is 'atopic' in nature.

- Those with asthma or other respiratory problems and who therefore react readily to minor irritations or stresses, such as dust or cold air, may experience adverse effects from cleaning products in relation to asthma as symptoms may be triggered or exacerbated.

There have also been instances of respiratory sensitisation of cleaning workers to specific ingredients used in specialised products for professional users. Many of these ingredients have now been superseded or exposure has been controlled such that risks are minimised or avoided.

- One recent study suggested that frequent use of sprays by consumers may increase the risk of asthma but this is speculative: the respondents were self-reporting and results may well have arisen from people who developed asthma over-emphasising and therefore mis-reporting their use of products which they feel affect their symptoms.

Detail on specific points

The nature of the respiratory illness

- While many studies are ultimately aiming to identify risk factors for asthma, there is a lack of a consistent definition of what constitutes asthma and different studies have looked at a variety of different symptoms and other indications:
- Most studies look at loosely-defined symptoms such as 'wheeze', or whistling in the chest. In some studies these are checked by a doctor but in others they are simply reported as answers on questionnaires.
- Some studies include physical tests e.g. for lung function or bronchial hyper-responsiveness but there is little clear relationship between these and a diagnosis of 'asthma'.

Some studies consider use of asthma medication as an indicator of asthma even though such medication is often prescribed for other respiratory conditions, including infections.

- There are individual cases of well-defined occupational asthma arising mainly among specialised cleaning workers, who have clearly become sensitised to some specific substance.
- What is clear, however, is that studies have consistently found no link with the 'atopic' or allergic status of the individual. This is significant in that the sharp rise in 'asthma' in recent decades has been in those who are also 'atopic'. **The rise has also occurred among children rather than adults. The evidence thus does not support the idea that cleaning work could be a factor in the sharp rise in asthma.**

Are the risks coming from products or other factors?

- Much of the evidence cited as support for the idea that cleaning products are a risk factor for asthma comes from studies which simply compare asthma rates between people doing different jobs. Such studies cannot determine whether the increased rates reflect an effect of cleaning products, or of exposure to dusts or other substances in the places being cleaned, or whether they simply reflect other lifestyles factors known to be linked to asthma (e.g. low socioeconomic status, poor housing, poor diet, smoking) that happen to be more common among people working as cleaners.
- Some more detailed studies among groups of cleaning workers have found an increased risk of symptoms among those who have reported accidents with cleaning products or practices that amount to misuse of the products.

Are there risks from respiratory sensitisers?

- Individual case reports of people developing asthma apparently as a result of becoming sensitised to an ingredient in a cleaning product invariably refer to professional cleaners, and often relate to ingredients *only* used in specialised products. Such ingredients are generally not used in consumer products and many are no longer used even in products for use by trained professionals.
- Asthma or respiratory symptoms in consumers or cleaning workers are **not** connected with the use of enzymes in detergents. Studies have checked for a possible effect from enzymes used e.g. in laundry detergents but have been able to establish that this can be ruled out.

What about the effects of irritants in products?

- Many people who suffer from asthma and similar respiratory conditions find that their symptoms can be triggered by a variety of minor irritations or stresses that can affect the airways, including exercise, dusts and cold air. So it would not be surprising if some sufferers also found their symptoms triggered on occasions by products they are using where they release small amounts of irritants for example. The ability of something to trigger symptoms in this way of course does not mean it is therefore likely to have caused the condition in the first place.
- People who are exposed to very high doses of severe irritants (e.g. chlorine gas) in industrial accidents can develop a chronic asthma-like condition (RADS – Reactive Airways Dysfunction Syndrome). Some scientists have speculated that perhaps similar effects might arise from long term exposure to lower doses of such irritants (low-dose RADS). This remains conjectural.

If it were shown to be possible it may be able to explain the development of symptoms in some people who have experienced repeated accidents (e.g. spillages of concentrated ammonia or hydrochloric acid; or mixing bleach with ammonia or acid) or who have habitually misused products, but is unlikely to indicate any risk from the very low concentrations experienced during normal use even of irritant products. Indeed, some studies indicate that far from being a risk, **children living in houses regularly cleaned with bleach are less likely to develop asthma than others.**

Are there effects from using cleaning products at home?

- The idea that use of certain cleaning products might increase the risk of asthma among consumers arose from the finding of an apparent increased risk among professional domestic cleaners in Spain. However, subsequent studies designed to explore this possibility have generally found no evidence that this is the case. A study of 3,500 consumers in 10 countries found that those who reported frequent use of cleaning products were no more likely to develop asthma than those reporting infrequent use. Suggestions from one recent study that frequent use of sprays by consumers may increase the risk of asthma are speculative: the respondents were self-reporting and results may well have arisen from people who developed asthma over-emphasising and therefore mis-reporting their use of products which they feel affect their symptoms.

- Suggestions that data from the ALSPAC study of child health point to cleaning products as a risk factor for wheeze in children are similarly speculative. The study asked mothers to recall their use of a wide range of “chemical” products ranging from bleach to paint and insecticide to air fresheners. Though mothers with wheezing children were rather more likely to report more frequent use of these chemicals, this did not depend on which chemical was considered, nor were the children more likely to be ‘atopic’. The data may simply reflect enhanced awareness of use of chemicals of any kind among mothers with wheezing children. As noted above, other studies have suggested that frequent use of bleach **reduces** the risk of asthma.

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