Achieve Better Living Environment (ABLE) Committee

Why Indoor Air Fresheners are Unhealthy

What are Air Fresheners?

"Air fresheners are consumer products that emit a fragrance to provide an aroma to a space, to mask an odor, or both. Air fresheners come in numerous versions, including sprays, gels, oils, liquids, solids, plug-ins, hanging disks, beads, potpourri, wick diffusers, and scented candles."

How do Air Fresheners Effect Indoor Air Quality?

The majority of Americans do not know that **air fresheners actually make indoor air quality worse.** "The use of an air freshener can create…an indoor air quality problem [or make an existing indoor air quality problem worse] by adding a chemical mixture to the air." "**A fragrance in a product is not intended to clean the air or reduce air pollutants."**

"A majority of the population, in many countries, use air fresheners…. However, the use of air fresheners can come with unintended effects and risks for the indoor environment and human health."

How are Air Fresheners Toxic to Humans?

"All air fresheners tested (e.g., sprays, gels, solids, disks, oils) emitted chemicals classified as toxic or hazardous under US federal laws. However, fewer than 1% of these potentially hazardous chemicals were listed on any product label or material safety data sheet."

"Air fresheners emit over 100 different chemicals. These include volatile organic compounds [VOCs] (terpenes…; terpenoids …; ethanol, formaldehyde, benzene, toluene, and xylene) and semi-volatile organic compounds (such as phthalates) [25,29,40,46]."

"Air freshener emissions can also react with indoor oxidants, such as ozone (O3), hydroxyl radicals (OH), and nitrate radicals (NO3), to generate a range of oxidation products [29,35]."

"Further, no law in any country (again, to best knowledge) requires the disclosure of all ingredients in a product's "fragrance," which is typically a mixture of several dozen to several hundred chemicals [41]."

"In addition to high concentrations of scent substances, air fresheners can emit even higher concentrations of odorless solvents, which may be difficult for people to detect [46]."

What are Health Effects of Air Fresheners?

"Air freshener exposures, even at low levels, have been associated with a range of adverse health effects. These include migraine headaches, asthma attacks, breathing difficulties, respiratory difficulties, mucosal symptoms, dermatitis, infant diarrhea and earache, neurological problems, and ventricular fibrillation (e.g., [6,18,25,27,30,34,38,39,45,50]."

"In a survey of the US population [39], in a nationally representative sample, 20.4% of the population report health problems when exposed to air fresheners and deodorizers."

How Can Involuntary Exposures Affect Humans?

"People are exposed to air fresheners both through voluntary use (such as in private homes) and involuntarily (such as in public places). **Involuntary exposure…is a particular concern because individuals may experience adverse effects without their awareness or agreement."**

"In addition to health risks, involuntary exposure to air fresheners can also prevent access for individuals in society and in the workplace. For example, of the general population surveyed in the US, 17.5% are unable or reluctant to use the restrooms in a public place, because of the presence of an air freshener, deodorizer, or scented product."

Fragrance-free Policies Have Strong Support of Americans

"**Fragrance-free policies receive strong support [39]**. Of the US population surveyed, 53.2% would support a fragrance-free policy in the workplace (compared to 19.7% that would not). Thus, 2.7 times more people would vote yes for a fragrance-free workplace than no. Also, 54.8% would prefer that health care facilities and health care professionals be fragrance-free (compared to 22.4% that would not). Thus, nearly 2.5 times more people would vote yes for fragrance-free health care facilities and professionals than no."

Source: Direct quotations from Steinemann, Anne (2017) *Ten questions concerning air fresheners and indoor built environments.* Building and Environment, 111. pp. 279-284.

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