ABLE Committee, Chemical Sensitivity Subcommittee

Why Are Synthetic Fragrances Hazardous to Our Health?

What are synthetic fragrances?

- Over 3000 chemicals are used in manufacturing fragrances.
- Fragrance recipes are trade secrets.
- Most fragrances contain hundreds of chemicals.
- Manufacturers do not have to disclose fragrance chemicals on labels.
- 95% of fragrance ingredients are petroleum-based volatile organic compounds (VOCs) that evaporate and disperse in the air we breathe.

35% of the US population have health problems when exposed to fragranced consumer products.

- Almost all fragranced consumer products tested emitted VOCs that are potentially hazardous.
- Many fragrance chemicals are irritants, triggering allergies or sensitization.
- Fragrance ingredients are associated also with cancer, neurotoxicity, and hormonal imbalance.
- Although these chemicals affect all of us, some people become medically disabled from exposure to fragrances, including those with asthma, autism, chronic obstructive pulmonary disease (COPD), migraines, and multiple chemical sensitivity (MCS).

Where are synthetic fragrances?

- Synthetic fragrances are everywhere: perfumes and aftershave, personal care products, household cleaners, fabric softeners and dryer sheets, air fresheners, some plastics for examples.
- Synthetic fragrances are a primary source of indoor air pollution.
- Second-hand fragrances from other people cause involuntary exposures.

What are some hazardous chemicals in synthetic fragrances?

- The most prevalent potentially hazardous chemicals in fragrances are terpenes, ethanol, and acetaldehyde.
- Terpenes react with ozone indoors to create formaldehyde (a carcinogen) and ultrafine particulates (Nazaroff & Weschler, 2004 in Steinemann, 2020).
- Terpenes react with nitrogen oxides outdoors to generate ozone, a major outdoor air pollutant (McDonald, et.al, 2018 in Steinemann, 2020).

How can we have healthier indoor air?

- Removing or reducing fragrances from products results in healthier products with similar effectiveness.
- Using fragrance-free products reduces our exposure to hazardous chemicals.

References:

Why Fragrance-free Facilities? https://aseq-ehaq.ca/pdf/fragrance-free_Colour_EN.pdf

Steinemann, A. (2020). The Fragrance Products Phenomenon: Air quality and health, science and policy. *Air Quality, Atmosphere, and Health* https://doi.org/10.1007/s11869-020-00928-1

Compiled by Claudia Smith, PhD, MPH, RN March 2026