Tip Sheet

Multiple Chemical Sensitivity (MCS)

A Public Health Impacts of Air Fresheners
A Public Health Concern

Empowering Community and Removal of Barriers (ECRoB)

Fragrance-Free

Overview
Air fresheners are widely used in homes, workplaces, schools, hospitals, public restrooms, and vehicles, including taxis, buses, and personal cars. Despite their popularity, a growing body of research shows that these products emit a cocktail of chemicals that can pose **serious health risks**, particularly for **children**, **people with asthma**, and individuals with **Multiple Chemical Sensitivity (MCS)**.

Common Chemicals Found in Air Fresheners

Most air fresheners contain **undisclosed volatile organic compounds (VOCs)**, many of which can react with indoor air to produce secondary pollutants. Common substances include:

- **VOCs** such as **formaldehyde, benzene, toluene, xylene**, and **acetaldehyde**—linked to cancer and respiratory harm [1]
- **Phthalates**—endocrine disruptors tied to reproductive and developmental issues [2]
- **Terpenes** (e.g., **limonene**, **α-pinene**)—can form **formaldehyde** and **ultrafine particles** when mixed with indoor ozone [3]
- **Quaternary ammonium compounds (quats)**—linked to asthma and skin irritation [4]

Health Effects and Vulnerable Populations

Children are especially vulnerable to indoor air pollutants because their lungs and immune systems are still developing. Exposure to fragranced products has been associated with:

- **Asthma attacks, wheezing, and chronic coughing**
- **Headaches, dizziness, migraines, and fatigue** [6]
- **Skin, eye, and throat irritation**
- **Hormonal disruption and developmental effects** (especially from phthalates and VOCs) [2]

In vehicles, air fresheners—including popular “Christmas Tree” products, plug-ins, and dashboard purifiers—can release **high concentrations of VOCs in a confined space**, increasing the risk of respiratory irritation, nausea, and chemical sensitivity reactions. These exposures are intensified by **heat** and **poor ventilation** [5].

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Conclusion

While marketed as symbols of cleanliness and comfort, air fresheners—especially in enclosed spaces like homes and vehicles—can degrade **indoor air quality** and negatively impact **human health**. Safer alternatives include improving ventilation, using unscented cleaning products, and odor-neutralizing solutions such as baking soda or activated charcoal. Public health policies should prioritize **transparency in labelling**, **reduction of chemical exposures**, and **protection for vulnerable populations**, especially children and those with chemical sensitivities.

References

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