

Fragranced consumer products: sources of emissions, exposures, and health effects in the UK

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Abstract

Common in society, fragranced consumer products such as cleaning supplies and air fresheners are a primary source of volatile emissions that contribute to pollutants indoors and to personal exposure. Further, fragranced products have been associated with adverse health effects. This study investigates the sources of emissions, human exposures, and health and societal impacts from fragranced consumer products in the United

Kingdom (UK). It examines the prevalence and types of fragranced product use, associated health effects, exposure situations, awareness of product emissions, and preferences for fragrance-free policies and indoor environments. Using a nationally representative population sample ($n = 1100$), data were collected in June 2016 using an online survey of adults in the UK, comprising England, Wales, Northern Ireland, and Scotland. Across the UK population, 27.8% report health problems, such as migraine headaches (8.4%) and asthma attacks (6.8%), when exposed to fragranced products. Yet 99.3% of the population are exposed to fragranced products at least once a week. When given a choice, more people would prefer that workplaces, health care facilities and professionals, hotels, and airplanes were fragrance-free rather than fragranced. Although fragranced products, even ones called green and organic, can emit potentially hazardous yet undisclosed pollutants, 75.0% of the population were not aware of this, and more than half would stop using their product if they knew it emitted such pollutants. This study provides important evidence that the UK population is regularly exposed to fragranced products, that these exposures are associated with adverse and often serious health effects, and that the public is largely unaware of their potential exposures. While more research is needed, reducing exposure to fragranced products, such as through fragrance-free policies, can provide an immediate step to reduce health risks and improve air quality.

Keywords

Fragranced consumer product Fragrance Fragrance-free policy
Indoor air quality

Electronic supplementary material

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Notes

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Compliance with ethical standards

Conflict of interest

The author declares that she has no conflict of interest.

Supplementary material

[11869_2018_550_MOESM1_ESM.pdf](#) (54 kb)

ESM 1 (PDF 54 kb)

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ESM 2 (PDF 209 kb)

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