

Fragrance formulations — found in a broad range of consumer and occupational products — can contain hundreds of individual chemical compounds, many of which are known or suspected to cause adverse health effects. Health impacts vary widely among individuals. Symptoms can be triggered by very low concentrations of fragrance-related chemicals — levels that may be encountered during everyday activities and in ordinary shared environments.

The health, comfort, and well-being of all campus community members — including staff, students, visitors, and space occupants — depend on a collective commitment to thoughtful, responsive practices. Departments and organizations are strongly encouraged to proactively develop clear procedures for managing fragrance-related concerns within their areas of responsibility. Equally, individuals experiencing adverse health effects from fragrance chemicals are advised to communicate their concerns **directly with the department or organization** so that collaborative, equitable solutions can be identified and implemented.

Many commonly used personal care and household products contain fragrances (i.e. chemical compounds) that can trigger a range of adverse health responses — even at low concentrations and in otherwise routine everyday settings. People with pre-existing health conditions report that certain odors, even in small amounts, can cause symptoms to show.

Common Sources of Fragrance Chemical Exposure

Personal Care Products

Examples: Perfumes, colognes, lotions, shampoos, and deodorants

Soaps & Detergents

Examples: Hand soaps, laundry detergents, fabric softener, and dishwashing products

Cosmetics

Examples: Makeup, skincare products, and other cosmetics

Cleaning Products

Examples: Household and institutional cleaning agents, air fresheners, and disinfectants

Candles & Diffusers

Examples: Scented candles, reed diffusers, and plug-in air fresheners

Textiles & Paper Products

Examples: Scented tissues, dryer sheets, and treated fabrics

The body of research on exposure assessment methods, regulatory thresholds, and clinical control measures specific to chemical sensitivity remains **limited and still developing**. Nonetheless, the fundamental approach to prevention is well-supported: **minimizing exposure to chemical triggers**

before symptoms occur is consistently more effective — and more practical — than attempting to remediate exposures after the fact. The strategies outlined below reflect current best practices and are applicable across a broad range of campus settings.

RECOMMENDED PREVENTION AND CONTROL STRATEGIES

Source Reduction (Most Effective)

- **Low-Emission Building Materials and Furnishings:** Specify and select building materials, finishes, adhesives, and furnishings with low volatile organic compound (VOC) emissions ratings to reduce the baseline chemical burden in indoor environments.
- **Fragrance-Free and Natural Products:** Transition to fragrance-free or low-chemical personal care products, cleaning agents, and air fresheners — particularly in shared workspaces, classrooms, and other occupied areas.
- **Eliminate Non-Essential Chemical Sources:** Identify and remove unnecessary chemical sources from occupied spaces — including scented candles, plug-in diffusers, strongly fragranced cleaning products, and synthetic air fresheners.
- **Fragrance-Awareness Agreements:** Implement departmental fragrance-awareness or fragrance-free agreements to set clear expectations for personnel in shared spaces — particularly in offices, laboratories, and healthcare-adjacent environments.

Engineering Controls

- Verify that HVAC systems are well-maintained and operating at design specifications, with appropriate outdoor air exchange rates to dilute and remove indoor chemical contaminants.
- Conduct indoor air quality (IAQ) assessments, as needed, in areas where chemical sensitivity concerns have been reported. EHS can assist in identifying potential sources and recommending targeted engineering interventions.

Personal and Administrative Controls

- **Personal Product Awareness:** Encourage individuals to be mindful of the fragrance content in personal care products used before and during work in shared spaces.
- **Natural Ventilation:** Where possible, open windows and increase natural airflow to supplement mechanical ventilation systems, particularly during and after cleaning activities.
- **Awareness & Education:** Incorporate chemical sensitivity awareness into workplace onboarding, safety training, and community health communications.
- **Schedule Cleaning Thoughtfully:** Where feasible, schedule building cleaning and chemical maintenance activities during periods of low occupancy to minimize personnel exposure.
- **Accommodation Planning:** Work with affected individuals and the relevant campus partners to identify reasonable workplace accommodations that reduce ongoing exposure risk.

Need assistance or have questions?
Contact EHS at 949-824-6200 and safety@uci.edu.