
Allergens & Indoor Pollutants at Home

Breathing is essential to life. Therefore, it makes sense that what we breathe in can impact our health. People spend up to 90% of their time indoors, with roughly 70% of their day spent in their home.^{1,2} This makes air quality within the home an important contributor to health. Some of the things that can affect indoor air quality are: allergens found within the home, indoor pollutants from items used or found within the home, and particles from outdoor air that have made their way inside.²

Allergens

Allergens can be found anywhere within a house, but the bedroom is one of the main places people are exposed. The most common allergens found within the home and ways to try and reduce exposure are:³⁻⁵

Dust Mites: Dust mites are found in house dust, they are more common in humid environments, and tend to collect on things like carpets, beds, and upholstered furniture

- Suggestions: Frequently wash bed linens in hot water, use hypoallergenic mattress and pillow covers, remove extra pillows, blankets and stuffed animals, maintain a low humidity environment, and increase air ventilation

Pets: Cat and dog hair and dander can collect on many surfaces including counters, floors, and soft surfaces like bedding, carpets, and upholstered furniture

- Suggestions: Wash pets weekly, clean and vacuum surfaces frequently, utilize air filtration.

Rodents: Hair/dander, urine, and feces from pests (rats, mice) as well as house pets (rats, mice, gerbils, guinea pigs, hamsters)

- Suggestions: Professional pest removal or management (including placing traps, sealing entry points, or rodenticide), removal of sources of food, shelter, and water (cleaning up messes, storing food in chew proof containers, and regularly taking out the trash), removal of pet rodents from the home.

Cockroaches: Cockroach allergens are often found in the kitchen, but are also commonly found in the bedroom. Residences with higher incidence of cockroach allergens include high rise apartments, older constructions, rentals, homes in hot-humid climates, and unclean living spaces.

- Suggestions: Professional pest management that includes pesticide application, sealing entry points, deep cleaning, and consistent disposal of possible food sources.

Mold/Fungus: Homes that may be more likely to have mold allergens include those that are older, have previous or current water damage, are located in humid environments, or that lack or have improperly maintained ventilation systems (HVAC systems – heating, ventilation and air conditioning).

- Suggestions: Professional mold remediation, adequate ventilation which may include installation and proper maintenance of central HVAC systems, fix water leaks and repair damaged areas, removal of visible mold. See IFM's [Environmental Mold Exposure](#) handout for more information.

Indoor Pollutants

Indoor pollutants come from many of the items we have or things we use and do within our home. These pollutants tend to be more of a concern with contributing to asthma symptoms, but can also cause or contribute to allergies in sensitive individuals.^{1,2}

Household factors: Water damage, HVAC systems, renovations/repairs/ building materials, new furniture or carpets, gas stoves for cooking, woodburning stoves or fireplaces, unvented space heaters

- Suggestions: HEPA air purifiers, use personal protective equipment and ensure good ventilation when painting or using chemicals, replace gas stoves with electric ones, remove woodburning stoves and fireplaces, ensure properly maintained and functioning HVAC systems

Chemicals: Cleaning products, chemicals for pools/hot-tubs, candles, cooking and cookware

- Suggestions: Choose alternatives with fewer chemicals and more natural based ingredients, use plastic-free and chemical-free cookware, using appropriate cooking techniques (i.e., appropriate heat levels for different oils, not charring foods), install and use kitchen range hoods

Hobbies: Arts and crafts, model building, painting

- Suggestions: Ensure adequate ventilation while performing hobbies, use HEPA air purifiers, have a space outside the home dedicated to doing hobbies

Smoking byproducts: Smoking, secondhand smoke, vaping

- Suggestions: Smoking cessation or implementing smoke free homes and vehicles, ensure and use proper ventilation

Outdoor air particles: These include allergens like pollen (from trees, grass, weeds) and molds (see IFM’s **Environmental Mold Exposure** handout), as well as pollutants like smoke from wildfires, exhaust fumes, radon gas, other chemical fumes from nearby industrial facilities (i.e., waste management, power generation), etc.⁶

- Suggestions: Proper ventilation and maintenance of air filters, periodic use of commercially available air cleaners (i.e., ozone generators), and periodic checking of levels of radon, carbon monoxide, and nitrogen dioxide within the home.

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