

Indoor Air Quality: Mould and Other Biological Contaminants

What are moulds?

Moulds are fungi that are found naturally both indoors and outdoors. Moulds spread by releasing tiny seed-like particles called spores into the air. Warm and damp conditions inside your home help mould to grow resulting in the presence of mould in indoor air.

What are biological contaminants?

Biological contaminants include mould, house dust, mildew, bacteria, viruses, animal dander, cat saliva, pollen, cockroaches and mites. They are either living things or produced by living things.

What health effects can moulds and other biological contaminants have?

Not all biologic contaminants cause health problems, but many are small enough to be inhaled. Some moulds and other biological contaminants can cause allergic reactions. Bacteria and viruses can cause infections, this can also occur with mould but is relatively uncommon. Some studies have found increases in common symptoms such as coughs, wheeze and headaches in people who live in homes that are damp and have visible mould growth.

Why do moulds grow?

High indoor air moisture levels, or humidity, help mould growth. For example, large differences between inside and outside temperatures can cause water to condense on the insides of windows where mould may form. Leaks from pipes or from the roof can also lead to damp areas where mould can grow. Bathrooms or humidifiers that are not vented may also contribute to mould growth.

How do I know if I have moulds growing in my home?

Mould growth may appear on damp surfaces such as windowsills or the inside of poorly insulated walls. Moisture can also be present within the structure of a wall, such as wood or plywood, due to leaks in the roof or outside walls, leading to mould growth inside the wall. Moulds can also be found on or under water-damaged surfaces such as tiles and carpets. Moulds often give off a 'musty' smell.

What can I do to control moulds?

The key to control of mould is through moisture control. To prevent high humidity and condensation:

- Install and use exhaust fans vented to the outside in moist areas like kitchens and bathrooms.
- Use a humidistat control on bathroom fans.
- Vent clothes dryers to the outside.
- Ventilate attic and crawl spaces to prevent moisture build up. If the crawl space is bare earth, cover it with plastic.
- Buy a dehumidifier. Make sure you get the device that best meets your needs.
- Repair all internal and external water leaks promptly and permanently.
- Clean all smooth surfaces where mould is present using detergent and water.
- Clean and dry water damaged carpets, underlay and building materials within 24 hours. Otherwise, consider disposing of them.

- Throw out contaminated porous materials such as mouldy ceiling tiles, drywall or carpets with mildew.
- Remove water sources that may contribute to moulds growth, such as standing water in planters.
- Stop stagnant water from collecting around heating ventilation and air conditioning system parts. Empty drip pans regularly. Keep stagnant water sources clean and disinfected.
- Do not use water-spray humidifying devices if there are individuals with asthma living in the household. If you do use these devices, clean them before each use.

What can I do to control other biological contaminants?

- Keep the house clean and all surfaces dust-free to reduce dust mites, pollens and animal dander.
- Regularly clean heating vents and change heating and air conditioning system filters regularly.
- Vacuum the house weekly including floors, bedding and soft furnishings. People with allergies should leave the room while vacuuming is being done and for at least an hour after the dust settles. If someone in the house suffers from allergies, consider buying a HEPA (High-Efficiency-Particulate-Arresting) filter model vacuum cleaner. A HEPA system filter traps very small particles which are not collected by regular vacuum cleaners. You can also consider installing a built-in vacuum cleaner which exhausts outside the main living area (e.g. in the basement, crawl space or outside).
- Steam clean carpets.

- Cover mattress and pillows with plastic zipper covers and clean regularly.
- Regularly wash bedding including pillows and mattress pads in hot water (wash temperature should be at least 55° C).

For more information

- The Canada Mortgage and Housing Corporation (CMHC). Call toll-free 1-800-668-2642, or see: www.cmhc-schl.gc.ca/en/co/
- The British Columbia Lung Association. Call toll-free 1-800-665-LUNG (5864), or see: www.bc.lung.ca/
- Health Canada. Visit the It's Your Health section at: www.hc-sc.gc.ca/english/iyh/index.html



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