

# Indoor Air Quality: Mould and Other Biological Contaminants

## What are moulds?

Moulds are fungi, naturally found both indoors and outdoors. Except for yeasts, which reproduce by budding, moulds spread by releasing tiny spores into the air. Warm and damp conditions inside your home help mould to grow, resulting in mould spores in indoor air.

## What are biological contaminants?

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

## What are some health problems caused by moulds and other biological contaminants?

Not all biological 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. Mould can also cause infections, but it is quite uncommon. Some studies have found increases in common symptoms such as coughing, wheezing and headaches in people who live in homes with some dampness and visible mould growth.

## What causes moulds to grow?

High humidity or indoor air moisture levels cause mould growth. For example, large differences between inside and outside temperatures can cause water to condense on windows causing mould to grow on framing or sills. Leaks from pipes or from the roof can also lead to damp areas where mould can grow.

Bathrooms or use of humidifiers without ventilation may also contribute to mould growth.

## How do I know if my home has moulds?

Mould growth may appear on damp surfaces such as window sills, interior-facing walls, and bathtub caulking. Moisture can also be present within the structure of a wall, such as the back side of drywall, wood studs, insulation, plywood, and building paper, due to leaks in the roof or outside walls. Mould growth may or may not be visible on the surfaces of interior-facing walls due to water intrusion into the wall from the outside. Moulds can also be found on or under water-damaged surfaces, such as behind baseboards, tiles, and carpets. Moulds often give off a 'musty' smell.

## What can I do to control moulds?

The key to controlling mould is through moisture control. To prevent moisture, high humidity and condensation, you can take these steps:

- Install and use exhaust fans vented to the outside in moist areas, such as 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.
- Use a dehumidifier. Make sure you have the device that best meets your room size and humidity.

- Repair all internal and external water leaks right away.
- Remove water sources that may contribute to mould growth, such as standing water in planters.
- Stop stagnant water from collecting around heating ventilation and air conditioning system parts, and empty drip pans regularly. Keep stagnant water sources clean and disinfected.
- Do not use humidifying devices with water spray if there are individuals with asthma living in the household. If you do use these devices, clean them before each use.

### How can I clean up mould?

If the area is small (less than 1 metre square) you can clean the mould yourself using gloves and an N95 mask. If the area is larger, it may require special training or commercial cleaners. If you are doing the cleaning yourself, make sure to:

- Clean all smooth surfaces with mould growth using detergent and water.
- Clean and dry water damaged carpets, underlay and building materials within 24 hours, or consider throwing them out.
- Throw out contaminated porous materials, such as mouldy ceiling tiles, drywall or carpets with mildew.

### 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.
- Vacuum the house weekly including floors, bedding and soft furnishings. People with allergies should leave the room during vacuuming and for at least an hour after the dust settles. If someone in the house suffers from allergies, you can consider buying a vacuum cleaner with a HEPA (High-

Efficiency-Particulate-Arresting) filter. A HEPA filter traps very small particles which are not collected by regular vacuum cleaners. You may also consider installing a built-in vacuum cleaner which vents outside the main living area such as in the basement, crawl space or outside.

- Steam clean carpets.
- Cover mattress and pillows with plastic zipper covers and clean them regularly.
- Regularly wash bedding, including pillows and mattress pads, in hot water – wash temperature should be at least 55° C (131°F).

### For More Information

For more information about indoor air quality and your health, visit the following websites:

- Health Canada – Indoor Air Quality [www.hc-sc.gc.ca/ewh-semt/air/in/index-eng.php](http://www.hc-sc.gc.ca/ewh-semt/air/in/index-eng.php)
- The B.C. Lung Association – Air Quality [www.bc.lung.ca/airquality/airquality.html](http://www.bc.lung.ca/airquality/airquality.html) or call toll-free 1-800-665-LUNG (5864)

For more HealthLinkBC File topics, visit [www.HealthLinkBC.ca/healthfiles](http://www.HealthLinkBC.ca/healthfiles) or your local public health unit.

Click on [www.HealthLinkBC.ca](http://www.HealthLinkBC.ca) or call **8-1-1** for non-emergency health information and services in B.C.

For deaf and hearing-impaired assistance, call 7-1-1 in B.C.

Translation services are available in more than 130 languages on request.



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