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Indoor Air Quality:
Mould and Other Biological Contaminants

What are biological contaminants?

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

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 some health problems caused by moulds and other biological contaminants?

Many biological contaminants are small enough to be inhaled and some can cause health problems. Moulds, for example, can cause allergic reactions. Bacteria and viruses can cause infections. Mould can also cause infections, but it rarely does. Some studies have found increases in common symptoms such as coughing, wheezing and headaches in people who live in homes with dampness and visible mould.

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 frames or sills. Water coming in to the house from outside, from the roof or from plumbing leaks can cause moisture. Damp areas can also result from daily activities around the house like bathing, washing clothes or cooking. Moisture from humidifiers or bathrooms without proper ventilation may also help mould grow.

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. If there are leaks in the roof or outside walls, there could be moisture inside the wall. The back side of drywall, wood studs, insulation, plywood and building paper might be wet. Look for discoloration or stains on damp areas. Mould often looks fuzzy or powdery and is usually light green to brown or black in colour. Mould growth may not be visible on the surfaces of interior-facing walls because of water coming 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 prevent and control moulds?

The key to controlling mould, is to control moisture. 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 timer to run bathroom fans for 30 minutes after showering
- 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
- If there is high humidity in your home that can’t otherwise be controlled, 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. Empty drip pans regularly. Keep stagnant water sources clean and disinfected
- Do not use humidifying devices with water spray if anyone with asthma lives 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. Make sure you wear household rubber gloves, safety glasses or goggles and a mask when you are cleaning. 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 24-48 hours, or consider throwing them out
- Throw out contaminated porous materials, such as mouldy ceiling tiles, drywall or carpets with mildew
- Once clean-up is done, be sure to fix the underlying cause (water damage, too much humidity or not enough ventilation) to prevent more mould from growing again

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 that are not collected by regular vacuum cleaners. You may also consider installing a built-in vacuum cleaner that vents outside the main living area such as in the basement, crawl space or outside
- 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:

- Health Canada - Air Quality www.canada.ca/en/health-canada/services/air-quality.html
- The Canada Lung Association - Air Quality https://bc.lung.ca/protect-your-lungs/air-quality-lung-health or call toll-free 1 800 665-LUNG (5864)

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