



As you live and breathe

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What lives on bread and water and can both save your life and make you sick? If you said mould, you're right -- but this is no joke. Mould really can affect your health.

Mould spores, tiny airborne particles, float around like dandelion fluff in every home. These invisible particles irritate our eyes and skin when they land on us, and our nose, throat and lungs when we inhale them. A high spore count in your indoor air can exacerbate allergies and asthma, cause headaches, fatigue and cold-like symptoms and even lead to more serious ailments. In fact, a 1999 Mayo Clinic study points to mould as the root of 96% of chronic sinusitis cases.

Older homes encounter mould growth when time eats away at the building envelope. Foundations crack, roofs leak, basements flood, introducing moisture to the home. New homes are not immune; their tightly sealed envelopes prevent excess moisture from escaping. Most vulnerable are high-humidity areas like bathrooms, kitchens, laundry rooms, attics and basements.

"Mould needs water and a food source to grow," says Eric Green, mould expert and president of Siamons International. "Its ideal food source is cellulose-based building materials like the paper on your drywall and lumber."

Leaks that haven't been addressed create what he calls "a perfect storm" for mould. "Quite often when people renovate a bathroom, they find a ton of mould behind the tiles."

So how do you know if mould has moved in? Green recommends the "see, smell, feel" test.

"Follow your eyes. You're looking for water stains and the mould itself," Green says. "And everyone knows what mould smells like -that earthy, pungent smell."

The "feel" is mostly intuition, he says: both feeling humidity in the air and feeling the cold-like symptoms that accompany a mould problem.

Once you've identified the problem and eliminated the source, it's time to remove the mould. The Canada Mortgage and Housing Corporation (CMHC) used to recommend treating it with bleach. They now tell homeowners to scrub it with unscented dish soap and dry the area well.

Green says, "Approaching mould as a cleaning problem, as CMHC suggests, is not going to address the fact that mould has left its roots inside the surface it's colonized. It's like mowing down dandelions: it chops off the flowers, but they grow back because the roots are still there."

His company has introduced a safe, non-toxic alternative called Concrobium Mold Control.

"When you spray the solution on mould, it dries over the surface as an invisible polymeric film," Green explains. "As that film dries, it constricts and crushes the spores underneath. The advantage is twofold. First, you kill the spores and get right down to the roots of the mould. And second, the polymeric film it leaves on the surface prevents new spores from landing on that spot and re-growing."

It's a simple fix. Small problems can be treated with a spray bottle; larger areas can be "fogged" using equipment rented at the home-improvement store. There's a great how-to video on the Concrobium website (www.concrobium.com).

"You can treat a large space very quickly and easily and safely," Green says. "The fogging machine creates a mist in the air, and that cloud allows all the surfaces exposed to be covered with the product."

After removal, prevention is key. Brian Stocks, Air Quality Manager with the Ontario Lung Association, suggests a three-step line of defence.

"Number one is source control. Eighty percent of the calls we get, regardless of the cause, can be dealt with that way. It could be too much humidity, not enough ventilation or a leak."

According to the Lung Association, household humidity should fall between 30 and 50%. Homeowners can monitor humidity with a hygrometer (humidity meter), available at most hardware stores for under five dollars. They can control it with a dehumidifier.

Next, says Stocks, look at your home's level of ventilation. Use exhaust fans, vented to outdoors, in kitchens when cooking and bathrooms when showering. Move clothes from the washer to the dryer right away and vent the dryer to the outdoors. Use ceiling fans and open the windows and doors when possible.

Finally: filtration.

Stocks says the jury is still out on the effectiveness of air purifiers and notes that the CMHC's research shows no evidence that duct cleaning improves indoor air quality. Upgrading to a high-performance, pleated furnace filter is a much better bet.

MaryBeth Huson, of Filtrete, says ordinary fibreglass filters are designed only to protect the furnace from debris that falls into vents, so while they'll prevent a stray Barbie shoe from damaging the unit, they'll allow mould spores to pass right through.

Select an accordion-pleated filter with a MERV rating of 10 or higher. Its electrostatically charged surface will attract and capture 99% of large particles. Keep the blower fan running continuously, too, for maximum benefit, and change the filter monthly instead of quarterly.

Huson says many homeowners are shocked at how dirty the high-performance filters get. That's not surprising -- it's tangible evidence that the air they breathe is full of invisible pollutants. And that's no laughing matter.

For more indoor-air-quality facts and advice, visit this Lung Association website: www.yourhealthyhome.ca. Or take a 3-D tour inside your heating system and see what the air you breathe really looks like: www.filtrete3D.ca.

Concrobium is available at Home Depot and other major retailers.

The spray bottle retails for under \$10. A 4L jug sells for under \$40.