



about MOLD

Building interiors are a welcoming habitat for molds.

- **Molds thrive in warm, damp, conditions.**
- **Virtually all buildings contain molds.**
Indoor molds can be remarkably tolerant of dry conditions, but none can live without some moisture. Excessively moldy buildings generally have a source of moisture leading to unusually heavy mold growth.
- **In most cases the mold can be seen.**
Sometimes the moisture can occur inside walls and not be apparent. A common but not obvious cause of moisture in cold climates is condensation inside north-facing walls.
- **Severely moldy buildings may have a musty smell, but not necessarily.**
- **Sometimes the only sign of a problem is persistent poor health of building occupants.**
For example, tenants can experience headaches, nausea, respiratory symptoms, or even more serious health risk impacts. In fact, some infant deaths have been convincingly linked to indoor molds.



What are molds? What is mildew?

Molds are a type of fungi, tiny microscopic organisms that digest organic matter and reproduce by releasing spores.

There are more than 100,000 species of mold. In nature, mold helps decompose or break-down leaves, wood and other plant debris. Molds become a problem when they go where they are not wanted and digest organic building materials such as drywall, ceiling tiles, carpet, and wood.

The nonexpert sees the effects of mold growing indoors and calls it “mildew.” Both are fungi that thrive in moist environments and can impact a building’s structural integrity and the health of its occupants.

Mycologists, who study fungi, use the term “mildew” only for fungi that grow on plants. When mycologists say “Mildew,” they mean the white growth that causes diseases in plants. For these experts, mildew grows only on plants outdoors.

However, people who are not scientists use the term “mildew” refers to the discoloration caused by mold in buildings. The molds that grow around windows or in bathrooms are often called “mildew.”

Any building with an apparent mold problem should be thoroughly investigated by qualified experts.



What makes molds grow in a building?

Mold is in the atmosphere all around us as tiny spores. The spores need moisture to begin growing, digesting and destroying.

Molds can grow on almost any surface, including

- Wood
- Ceiling tiles
- Wallpaper
- Paints
- Carpet
- Sheet rock, and
- Insulation.

They grow best when there is lots of moisture from a leaky roof, high humidity, or flood. There is no way to get rid of all mold spores from a building, because they are naturally occurring in the environment. Mold is controlled by keeping organic building materials dry.



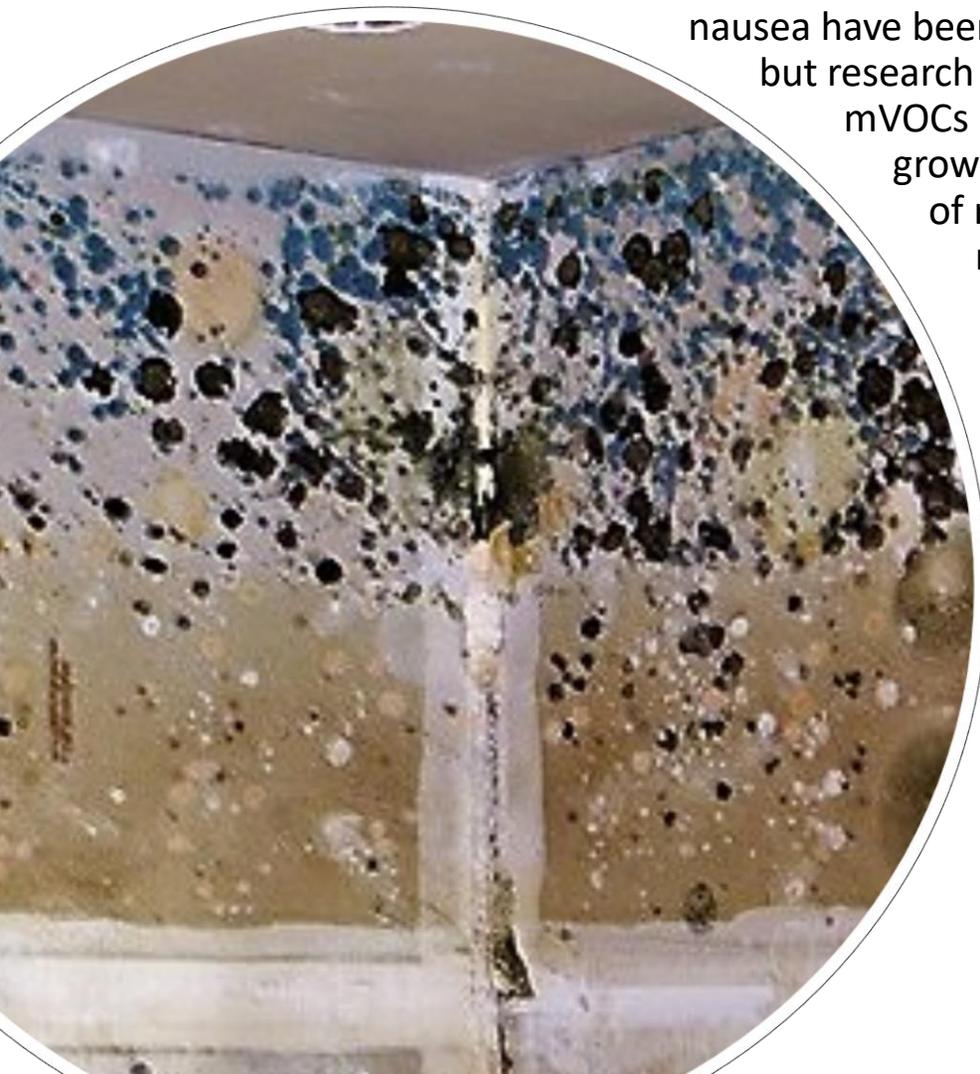


Why do molds give off musty odors?

The musty odors produced by molds are known by scientists as Microbial Volatile Organic Compounds (mVOCs).

Some mVOCs produce musty and moldy odors, which result from the chemical changes taking place during the mold life process. They are waste products given off by actively growing molds.

Health effects such as headaches, dizziness and nausea have been linked to exposure to mVOCs, but research is only beginning. Odor from mVOCs is a sign that mold is actively growing and may indicate a level of mold contamination requiring remediation.





How does mold develop in a structure?

- Mold is often found in areas where water has damaged building materials and furniture from flooding or plumbing leaks.
- Mold can also be found growing along walls where warm moist air condenses on cooler wall surfaces, such as inside cold exterior walls, behind furniture, and in closets where articles are stored against walls.
- Mold often grows in rooms with both high water usage and humidity – such as kitchens, bathrooms, laundry rooms, and basements.

Spaces where mold can thrive:



In the Bathroom: showers, bathtubs, sinks, toilets & bathroom tile



In the Kitchen: sinks, appliances, pantries & stoves, windows



In Storage Areas: garages, laundry facilities, basements



In the Infrastructure: HVAC vents/ducts, chimneys, insulation, gutters, building foundation



Do molds affect my health?

Most molds do not harm healthy people.

The U.S. Centers for Disease Control says that allergies are the type of diseases most often associated with molds. Standards for judging an acceptable or tolerable quantity of mold have not been established.

Susceptibility of individuals can vary greatly either because of the amount or type of mold.

- People who have allergies or asthma may be more sensitive and may experience skin rash, running nose, eye irritation, cough, nasal congestion, and aggravation of asthma or difficulty breathing.
- People with an immune suppression or underlying lung disease may be at increased risk for infections from molds.
- When people are exposed to high levels of mold mycotoxins they may suffer toxic effects, including fatigue, nausea, headaches, and irritation to the lungs and eyes.
- If you or your family members have health problems that you suspect are caused by exposure to mold, you should consult with your physician.



There is black mold in my building. What if it's the toxic kind?

Most molds do not harm healthy people.

There are thousands of different types of mold in the environment that come in a variety of colors. Just because a mold is black does not mean that it is any more or less toxic than mold that is green, blue, yellow or orange.

Not all indoor molds present a risk to human health, but an abundance of any mold is likely to be accompanied by others, including toxic ones.

Species of *Stachybotrys* are particularly toxic. *Stachybotrys* species produce black colonies on dry wall, ceiling tiles and other materials containing cellulose.

In the 1990's there was an indication that this type of mold was linked to a respiratory disease called acute idiopathic hemorrhagic airway disease. In reality, all molds may cause the same type and severity of health reaction.

Obvious occurrences of *Stachybotrys* may be sufficient cause for a major "decontamination" by qualified technicians wearing special protective clothing.

No matter what color the mold is, it's important to assess the infestation & address it quickly.



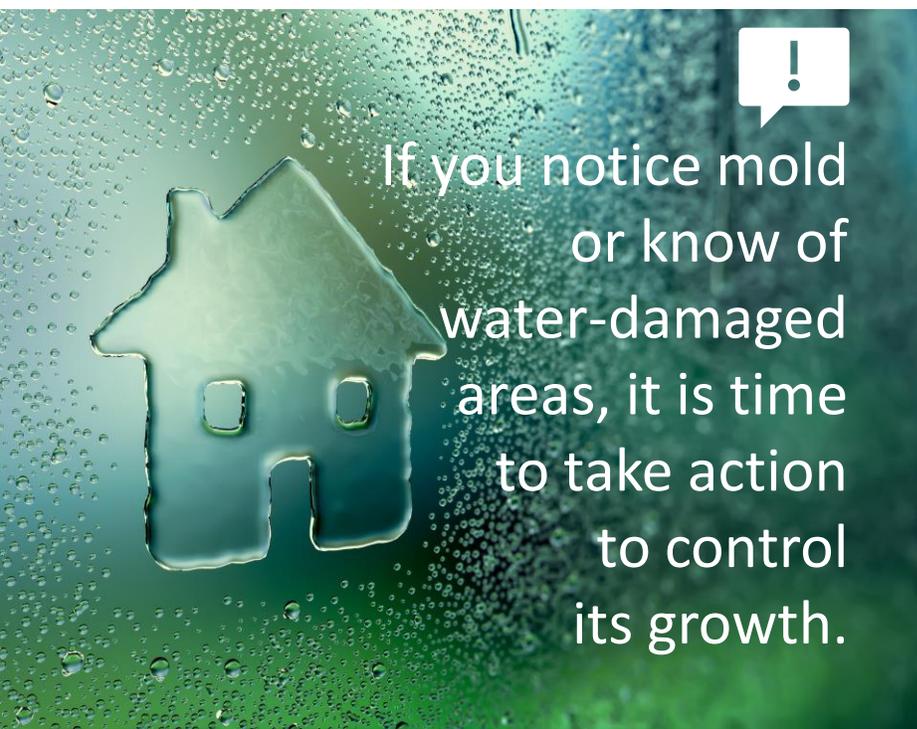
What are mycotoxins and are they dangerous to humans?

We should not panic over mold toxins.

Mycotoxins are poisonous. “Myco” means fungus, so think of mycotoxins as “fungi toxins,” which execute chemical warfare against other organisms, even other types of molds.

Living molds may produce mycotoxins to discourage other molds or bacteria from growing in the same territory. Some mycotoxins have been shown to produce human health effects. For many other mycotoxins, little is known about possible harmful affects. Unfortunately, humans who inhale, ingest or touch mycotoxins may have a toxic reaction.

Not all molds produce mycotoxins, and molds that can produce them don’t produce them in all situations. EPA cautions that finding molds does not mean that mycotoxins are also in the building, and even when mycotoxins are present in a building, the quantities may not be large enough to threaten human health.



If you notice mold or know of water-damaged areas, it is time to take action to control its growth.



How do I know if I have a mold problem?

Environmental professionals “inspect” for mold through simple visual examination.

In most cases, sampling is not necessary because you can see or smell mold.

Mold problems are ALWAYS caused by a moisture or water problem. It does no good to clean up the mold if you haven't solved the water issue first.

Even a clean, dry house will have some mold spores, but not enough to cause health problems. If you smell mold – but cannot see it – the mold may be hidden behind wallpaper, in the walls or ceiling, or under the carpet.

Mold sampling should normally be reserved for determining if a mold clean-up or remediation activity has been successful. If you suspect hidden mold, be very careful when you investigate. Protect yourself from exposure in the same manner as you would for a clean-up.

Currently, there are no EPA regulations or standards for airborne mold contaminants.

Standards or Threshold Limit Values (TLVs) for airborne concentrations of mold, or mold spores, have not been set.



Can I control mold growth in a building?

Yes you can!

Mold growth normally starts within 72 hours after an organic building material has become wet.

- Assess the extent of the problem and determine whether there is potential for hidden mold.
- Dry out the structure and fix any moisture problems.
- Stop water leaks, repair leaky roofs and plumbing.
- Clean and dry water damaged materials within 24 to 48 hours or consider removing and replacing damaged material.
- Keep water away from concrete slabs and basement walls.
- Open windows and doors to increase air flow, especially along the inside of exterior walls.
- Use a fan if there are no windows available.



How can Kynoch Environmental Management help?

1

Strong Team of Accredited Experts

The KEM team has years of experience in mold inspection, testing, remediation, and prevention.

2

Quick Response Capability

- Prompt response to client needs
 - Strong network of independent labs
 - Rapid access to qualified, licensed contractors to conduct any type of abatement project
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3

Thorough Review

- Visual inspections
 - Air testing
 - Surface dust testing
 - Wall-Chek sampling
 - Culture sampling
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4

Remediation Services

- Project design
 - Contractor management & oversight
 - Clearance testing
 - Documentation
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5

COMMP® Programs

- Certified Control of Moisture & Mold Prevention training, awareness & inspections
 - Assure that buildings do not attract mold growth due to water intrusion
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