



District Health Department #10



## Report to the Boards of Health

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Mid-Michigan District Health Department, Wednesday, September 27, 2017  
Central Michigan District Health Department, Wednesday, September 27, 2017  
District Health Department 10, Friday, September 29, 2017

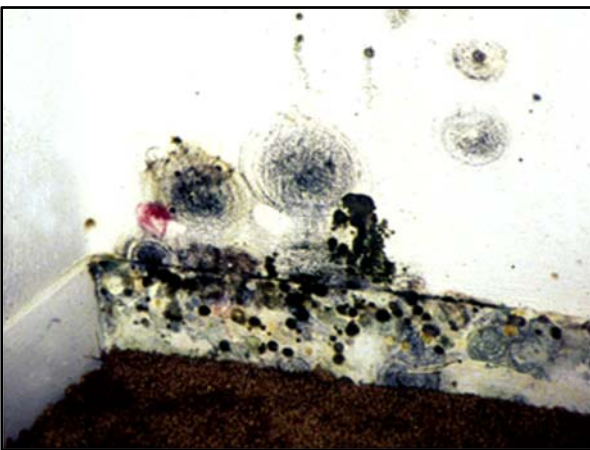
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### **Mold**

Mold is a type of living organism called a fungus. Mold spores are almost always present in the air. Most molds and fungi need moist environments to grow. In fact, the lowest relative humidity that supports mold growth is approximately 75%. In addition to moisture, mold needs some type of food source, or something to grow on. This can be nearly anything, including paper, cloth, insulation, dirt, and wood. Mold typically damages the material it is growing on. As long as fungi have moisture and nutrients, they are able to grow in a wide range of temperatures.

We can come in contact with mold by touching, inhaling, or eating it. There are health effects linked to molds. Inhaling indoor mold has been associated with nasal congestion, sneezing, runny nose, throat irritation, exacerbation of pre-existing asthma, wheeze, cough, hypersensitivity pneumonitis, and fungal infections. Most health issues due to mold occur in individuals that have pre-existing sensitivity or allergies to mold. It is suspected that the cause of these symptoms is usually not just due to mold. Damp air, insufficient ventilation, dust mites, ozone, chemicals, bacteria, and other organisms are commonly present in the same indoor environments as mold and are likely to also be responsible. Sometimes buildings with poor indoor air quality due to these conditions are given the label “sick building syndrome” (SBS) and occupants may report symptoms such as eye, nose, or throat irritation, cough, dry or itchy skin, nausea, headaches, dizziness, difficulties concentrating, and fatigue. Again, these symptoms are not due to the presence of mold alone.

The term “toxic mold” is not a correct term. Certain molds can indeed produce toxins, called mycotoxins. The molds themselves, however, are not toxic or poisonous. The amount of mycotoxins produced and present in a home will vary based on the conditions the mold is growing in. Humans living in homes affected by mold are not exposed to enough mycotoxins to develop illness, unless the toxins are eaten. Popular media has reported on “toxic black mold” which is typically linked to a specific mold, *Stachybotrys chartarum*. In a recent review of the data (Borchers, Chang, & Gershwin, 2017), it was determined that there was no validity to the hype of “toxic black mold” and “mycotoxicosis”. There is no evidence that *S. chartarum* or its toxins have any unique inflammatory effect in humans. Many molds are black in appearance and the color of mold does not indicate species or any other features of the mold.



If a mold issue is suspected in a building or home, testing is not necessary or recommended. If mold can be detected by sight or smell, it needs to be addressed. As previously mentioned, the genus or species of mold does not matter in most types of exposure. Action is not based on the amount of spores present. Also, there is no “safe” or “dangerous” level of mold established to compare test results. Testing the occupants’ blood for antibodies (IgG) against mold as a sign of exposure is also of no use. It is expected that all people should have antibodies against mold, since molds are so prevalent in the environment.

Mold should be dealt with quickly once it is found to avoid damaged property and illness. If you have health issues; particularly allergies or asthma, there has been a great deal of water damage, or mold is covering over 10 square feet of your home, it may be best to hire a contractor to do the work for you. If you do hire a contractor, make sure they have experience cleaning up mold: check references, ask if they follow recommendations of the Environmental Protection Agency (EPA), the American Conference of Governmental Industrial Hygienists (ACGIH,) or other professional/governmental guidelines. If you do not have health issues or allergies and the area of mold is small, consult the resources provided below prior to attempting to clean the mold yourself. Any water issues or leaks must also be addressed and repaired or mold will keep coming back, no matter how well the area is cleaned.

### Resources:

- Mold - General Resources: <https://www.cdc.gov/mold/>
- Mold After a Disaster: <https://www.cdc.gov/disasters/mold/>
- Reentering Your Flooded Home: <https://www.cdc.gov/disasters/mold/reenter.html>
- Floods and Mold Growth: <https://www.epa.gov/mold/floods-and-mold-growth>
- Homeowner's and Renter's Guide to Mold Cleanup after Disasters: [https://www.cdc.gov/mold/pdfs/Homeowners\\_and\\_Renters\\_Guide.pdf](https://www.cdc.gov/mold/pdfs/Homeowners_and_Renters_Guide.pdf)
- Steps for Cleaning Mold: [http://www.michigan.gov/documents/mdch/STEPS\\_FOR\\_CLEANING\\_MOLD\\_-\\_WEB\\_MDCH\\_473600\\_7.pdf](http://www.michigan.gov/documents/mdch/STEPS_FOR_CLEANING_MOLD_-_WEB_MDCH_473600_7.pdf)
- A Brief Guide to Mold, Moisture, and Your Home: <https://www.epa.gov/sites/production/files/2016-10/documents/moldguide12.pdf>
- Mold and Your Health: [http://www.michigan.gov/documents/mdch/MOLD\\_YOUR\\_HEALTH\\_-\\_WEB\\_MDCH\\_473599\\_7.pdf](http://www.michigan.gov/documents/mdch/MOLD_YOUR_HEALTH_-_WEB_MDCH_473599_7.pdf)
- Mold and Home Owners: [http://www.michigan.gov/documents/mdch/MOLD\\_HOME\\_OWNERS\\_-\\_WEB\\_MDCH\\_473601\\_7.pdf](http://www.michigan.gov/documents/mdch/MOLD_HOME_OWNERS_-_WEB_MDCH_473601_7.pdf)
- Mold and Renter Disputes: [http://www.michigan.gov/documents/mdch/MOLD\\_RENTERS\\_MDCH\\_320757\\_7.pdf](http://www.michigan.gov/documents/mdch/MOLD_RENTERS_MDCH_320757_7.pdf)
- Publications on Exposure to Mold and Related Health Effects: [https://www.cdc.gov/mold/pdfs/rr5508\\_app.pdf](https://www.cdc.gov/mold/pdfs/rr5508_app.pdf)

### Board of Health Healthy Living Recommendations:

1. *Eliminate sources of moisture to prevent mold growth.*
2. *Address any mold that can be detected by sight or smell.*
3. *Consult online mold resources first before attempting to clean mold yourself.*
4. *If the presence of mold covers a large area, or will affect individuals with pre-existing sensitivity or allergies to mold, hire a qualified contractor to eliminate the mold.*

### References

1. Michigan Department of Community Health. (n.d.). Mold for Health Care Providers. [http://www.michigan.gov/documents/mdch/ALL\\_ABOUT\\_MOLD\\_FOR\\_HCPs\\_MDCH\\_316958\\_7.pdf](http://www.michigan.gov/documents/mdch/ALL_ABOUT_MOLD_FOR_HCPs_MDCH_316958_7.pdf)
2. Kuhn, D. M., & Ghannoum, M. A. (2003). Indoor mold, toxigenic fungi, and *Stachybotrys chartarum*: infectious disease perspective. *Clinical microbiology reviews*, 16(1), 144-172.
3. Borchers, A. T., Chang, C., & Gershwin, M. E. (2017). Mold and Human Health: a Reality Check. *Clinical Reviews in Allergy & Immunology*, 52(3), 305-322.

# 8 TIPS TO CLEAN UP MOLD



## Protect Yourself

Put on personal protective equipment (gloves, mask, goggles) to protect your eyes, nose, mouth, and skin.



## Toss!

Take it out! Anything that was wet with flood water and can't be cleaned and dried completely within 24 to 48 hours should be taken outside. Take photos of discarded items for filing insurance claims.



## Air it out

Open all doors and windows when you are working, and leave as many open as you safely can when you leave.



## Circulate

When electricity is safe to use, use fans and dehumidifiers to remove moisture.



## Don't mix cleaners

If you use cleaning products, do not mix cleaning products together. DO NOT mix bleach and ammonia because it can create toxic vapors.



## Scrub surfaces

Clean with water and a detergent. Remove all mold you can see. Dry right away.



## Don't cover it, remove it

Painting or caulking over mold will not prevent mold from growing. Fix the water problem completely and clean up all the mold before you paint or caulk.



## Dry it up

Dry your home and everything in it as quickly as possible – within 24 to 48 hours if you can.

<http://www.cdc.gov/mold/cleanup.htm>

