

Mold Guidance for The Real Estate, Banking, And Insurance Communities

The Connecticut Department of Public Health (CT DPH) has received reports from residents saying that they were required or strongly advised to have their homes tested for mold as a condition of a real estate transaction, loan, or insurance claim to ensure that the house does not have a “mold problem.” This practice can lead to confusing results, erroneous conclusions, and misspent funds by the homeowner, especially when there is no evidence or history of water damage or mold. The purpose of this document is to provide guidance by outlining recommended practice in four general types of scenarios:

1. Houses with no known problems
2. Houses with suspected problems
3. Houses with known problems
4. Houses that have had mold abatement performed

The basic principle at the core of the CT DPH’s philosophy when dealing with mold is that when you see mold or smell mold, there is no need to test. The best course of action is to just get rid of it. The recommended actions to take are:

- ◆ Find and stop the water source
- ◆ Throw out porous moldy items
- ◆ Clean up the clutter and non-porous moldy items
- ◆ Air out/dry out the space

Readers may wish to first review the CT DPH fact sheet, [Indoor Air Quality Testing Should Not Be The First Move](#). This fact sheet discusses basic concepts concerning standards, how to create a space with good indoor environmental quality, what to look for before testing is considered, when testing can be beneficial, and what to do if you choose to hire a professional for assistance.

This fact sheet and other resources are listed at the end of this document.



1. Houses With No Known Problems

CT DPH does not recommend mold testing in houses with no known problems for the following reasons:

A. Positive Air Sample Results For Mold Do Not Necessarily Mean The House Has A “Mold Problem”

Mold is everywhere. It grows on decaying organic matter outdoors, and comes indoors through open doors, windows, ventilation systems, and on our clothes, shoes, and pets. Because of this, every house will test positive for mold in the air. Finding mold in indoor air does not necessarily mean that there is active growth or amplification indoors. This is why this type of testing is generally meaningless.

B. There Are No Health Based Standards For Mold Levels In Indoor Air

This is because mold is not one thing. There are hundreds of different types of mold. Also, there is a great amount of variation in the way people react to mold. Lastly, there is no scientific support for designating a particular mold measurement as safe or unhealthy.

2. Houses With Suspected Problems

If a house has a history of water problems, or if you can see or smell mold, there is reason to suspect a possible mold infestation in those locations. Mold needs water to grow. When active mold growth is found in a home, it is always linked to a history of flooding, roof problems, burst pipes, plumbing leaks, condensation problems, or other water source. If any of these conditions have occurred, there is reason to suspect mold. *Air sampling is not generally needed to document the presence of mold.*

CT DPH Recommends Performing a Building Assessment Consisting of:

- A. Building History
- B. Visual Assessment for Water or Water Damage
- C. Visual Assessment for Mold
- D. Odor Assessment for Mold

Many homeowners can do a portion of this assessment themselves. If a moldy area is small (wall area less than 3 ft x 3 ft, the homeowner may choose to do the abatement him/herself). See the CT DPH publications at the end of this document for more information about how to do this safely, and how to find a contractor.

A. Building History

Document historical conditions that may have led to water incursion and/or mold. Even if an old leak was fixed, it is possible that surrounding materials that were once wet continue to act as a breeding ground for mold if they were never removed.

B. Visual Assessment for Water or Water Damage

Mold cannot grow without a water source, so concentrate on looking for evidence of old or new water damage. Qualified home inspectors do this routinely as part of their inspection for structural problems. See the CT DPH fact sheet, [After The Storm: Inspecting For Water Damage](#) for more information. Here are some basic things to look for:

i. Inside Of The House:

Look for water stains on ceilings, walls, and floors. Look for peeling paint and/or rotting window sills, baseboards, and door frames. Look for warped wood or gaps where wood is pulling away from the surface it is attached to. Look to see if there is a sump pump in the basement. Look for whitish, chalk-like lines on concrete, stone, or brick walls or floors. This is called efflorescence. It means that water has seeped through these materials, evaporated, and left behind mineral deposits that were originally dissolved in the water.

ii. Outside Of The House:

On the building's exterior, look for peeling paint, rotting wood, holes, cracks, or other penetrations where water can get in. Look for improper or missing flashing, missing or damaged roof shingles or tiles, clogged, damaged or missing gutters, and location of downspouts, which are supposed to direct rain water away from the foundation. Look at how the house is situated on the land. Make sure the land slopes away from the foundation to prevent water from collecting against the side of the house. Look for shrubs or other plantings touching the house or foundation. When they are too close, they can hold water against the foundation and provide a nearby haven for pests, making it easy for them to come into the house. Roots can sometimes damage the foundation. It is best to keep plantings at least 2-3 feet from the foundation.



C. Visual Assessment for Mold

Mold is a type of fungus. Mold is so small that you cannot see one mold cell with the naked eye. However, you can see a cluster of mold spores, also called a colony. A spore is the reproductive part of the mold. Spores are very light, and are easily transported from one location to another, usually by air currents. Clusters of spores, or mold colonies, commonly appear velvety or powdery, but may also look dry and leathery. Mold colonies may be found in many colors, often various shades of yellow, tan, green, pink, brown or black. The color is often dictated by what type of food the mold colony is feeding on.

D. Odor Assessment for Mold

Anyone who has ever been in a damp, musty basement has probably smelled mold. Some people have a better sense of smell than others, and are better able to detect mold with their noses. Note that some medications and/or medical conditions can interfere with a person's sense of smell, either by diminishing sensitivity, eliminating the ability to detect odor, or by fooling the body into smelling something else.

The odor produced by mold is a result of fungal metabolism- as molds digest the surfaces on which they grow, they release chemicals that may permeate carpeting, fabric, and furnishings. Some molds do not produce much of an odor; for those that do, the odor can change depending upon what their food source is. Different species have different odors, and the odor may differ within the same species.

There are certain environmental conditions that can increase the odor given off by mold as well as other chemicals frequently found in homes, like formaldehyde. Most commonly, the combination of hot and humid weather can intensify odors and increase off-gassing.

The bottom line is, if you smell mold, it is most likely present. However, not smelling it does not necessarily rule out its presence. This is when visual clues are important.

Note that odors in basements may be caused by a variety of things that are not mold. They include dead animals, sewer gas, machine oils, solvents, paint, pesticides, and other chemicals that may be stored there.

Testing Surfaces for Moisture

Moisture meters are frequently used by professionals to measure the moisture content of surfaces where dampness is suspected. They can also be used to evaluate the relative difference in moisture content between surfaces to help pinpoint a problem.



Example Of Moisture Meter Use:

A moldy dark spot is observed on an interior bathroom wall less than a foot from the floor. The bathroom is on the first floor of the house. The current owner says that there was a plumbing leak a few years ago, but it was fixed and he just never got around to re-painting the wall. The buyer wonders if it was really fixed, and did water drip down the pipe and cause water damage further down the line. How can you find out without first opening the wall?

This is where a moisture meter can be useful. Hold it against the wall in numerous locations around the spot (Including above and below) and take note of the readings. Look to see if any are dramatically different than the rest. If the answer is yes, this shows dampness in the locations where readings are higher. This might prompt the investigator to go into the basement and look for dampness along the plumbing line coming from the bathroom above. If the basement is unfinished and you can see the plumbing line, feel it to see if it is wet. Look for dripping or a puddle, or water spots at the end of the line. All of these clues point to an ongoing leak that was not properly fixed. This information can be useful in figuring out where to open the wall in order to do repairs.

3. Houses With Known Problems

Houses with known problems are those where mold is visually evident, there is an obvious moldy odor, or a catastrophic water problem has occurred. In the latter case, if mold is not evident now, it soon will be if rapid action is not taken to dry it out and prevent more water from damaging the house.

Air Sampling Is Generally Not Necessary If You Already See Or Smell Mold. The necessary actions are: identify the water source, stop it, and clean up the mold. Testing will not change these actions. It is not necessary to know what kind of mold is present. No mold should be actively growing inside of your house.

A professional abatement contractor may be needed to remove the moldy contents or building materials, depending upon how extensive the problem is. The CT DPH has guidelines that these contractors should follow when performing mold abatement. The guidelines reflect state of the art practices designed to ensure the work is performed properly and safely. Note that these guidelines are not a state requirement and there is no enforcement action. However, the person hiring the contractor is encouraged to require that the guidelines be followed as a condition of payment.

4. Houses That Have Had Mold Abatement Performed

Citizens sometimes call CT DPH with concerns about purchasing a house that has had prior mold problems. If the water source has been identified and abated, and mold abatement has been performed according to Connecticut guidelines or other accepted guidelines*, there should be no further concern about recurrent mold from those previous water episodes**. It is generally not necessary to conduct air sampling for mold.

*See the last page of this document.

**This assumes that water-soaked or damp porous materials were removed and replaced as part of the mold abatement project.

A. Who Should Investigate and Take Samples if Needed?

CT DPH recommends hiring a third party investigator to perform the assessment (which may include collecting samples if necessary), draw up a remediation plan (called scope of work), monitor the abatement job for compliance with the plan, and verify that the abatement contractor did what they said they were going to do. This is called post-abatement contractor verification.

Homeowners have been known to often skip the assessment step and begin with hiring an abatement contractor. This is not advisable. The contractor may offer to perform an assessment and include sampling. The homeowner thinks that it will save money to have the contractor do everything from assessment to removal to post-abatement verification. This is frequently not the case.

B. How to Ensure A Job Well Done

The purpose of mold abatement is to restore the indoor environment to conditions similar to those existing

before water damage caused the mold to grow. It does not mean making the area total free of all mold spores. This is an impossible task, given that mold is naturally found in the environment.

After the contractor is finished, but before the containment structure is removed, CT DPH recommends having a third party investigator perform post-abatement verification inside of the containment structure. Post abatement verification consists of a visual inspection to verify that the abatement contractor did what they said they were going to do. At the conclusion of the abatement job, the area should be clean, dry, and free of visible mold and moldy odor. The investigator may choose to collect surface samples if needed, but air sampling is usually not necessary. At this point, the abatement is considered completed.

When Is Sampling Useful?

Sampling may be appropriate if it is used as part of an overall investigation to confirm or refute a hypothesis. A common example when sampling may be useful is when hidden mold is suspected. Consider the following scenario:

The investigator detects a definite, strong mold-like odor in the basement playroom, but cannot see any mold. She sees water stains on the wall below a basement window. The owner told her that the window well outside often fills up with water during heavy rains, but he hasn't been able to see water coming in.

Reviewing the facts, we know that the window well fills with water, we see water stains on the inside wall below this window, and the moldy odor in the basement seems to be stronger in this area. We can't see mold growing on the room side of this wall, but it seems plausible to suspect that there may be mold inside of the wall cavity in this area. The investigator is considering recommending a professional mold abatement company come in to get rid of the mold, but she wants to be sure that the odor is being caused by mold, and not a dead animal like a mouse inside of the wall cavity. Note that water problems also attract insects and rodents.

There are several options here that will help decide how to proceed with this investigation. The investigator may drill one or more small holes in the wall, insert a tool called a boroscope inside and try to look around. The investigator may decide to take some samples inside of the wall cavity

to try to determine if it is mold, and if so, get a rough idea about how far the mold extends lengthwise inside of the wall cavity. This information may help guide the remediation plan. Note that once the wall is opened up, it is possible that the damage will be more or less extensive than originally thought.

For Further Information, Contact:

CT Department of Public Health
 Environmental Health Section
 Environmental and Occupational Health Assessment Program
 Tel: 860-509-7740

Resource Materials

These and other materials may be found on the CT DPH website, <http://www.ct.gov/dph/ieq>

- ◆ [Indoor Air Quality Testing Should Not Be The First Move](#)
- ◆ [Get The Mold Out: Mold Clean-Up Guidance for Residences](#)
- ◆ [Connecticut Guidelines For Mold Abatement Contractors](#)
- ◆ [After The Storm: Inspecting For Water Damage](#)
- ◆ [After The Storm: What To Do When You Go Back To A Flooded, Moldy Home](#)

Accepted Mold Abatement Guidelines (Selected Listing)

- ◆ [Connecticut Guidelines for Mold Abatement Contractors](http://www.ct.gov/dph/lib/dph/environmental_health/eoha/pdf/ct_guidelines_for_mold_abatement_contractors_rev032_011.pdf)
- ◆ *IICRC S520, Standard and Reference Guide for Professional Mold Remediation. Institute of Inspection Cleaning and Restoration Certification. The Clean Trust (formerly, IICRC), August 2008.* <http://www.iicrc.org>
- ◆ *Guidelines on Assessment and Remediation of Fungi in Indoor Environments.* New York City Department of Health and Mental Hygiene, November 2008. <http://www.nyc.gov/html/doh/downloads/pdf/epi/epi-mold-guidelines.pdf>
- ◆ *Fighting Mold – The Homeowners' Guide.* Canada Mortgage and Housing Corporation. "About Your House" Fact Sheet no. 60516. http://www.schl.ca/en/co/maho/yohoyohe/momo/momo_005.cfm
- ◆ *Mold Remediation in Schools and Commercial Buildings.* United States Environmental Protection Agency. EPA 402-K-01-001. March 2001. <http://www.epa.gov/mold/>