

The Buyers & Sellers Guide to Mold



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THE BUYERS & SELLERS GUIDE TO MOLD

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Aztec Home Inspections, Inc

THE BUYERS AND SELLERS GUIDE TO MOLD

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Virginia Regulations

Unfortunately, Virginia has no regulations or requirements for mold inspectors, testers or remediators. In July 2011, Virginia instated a licensing requirement but abolished it in July 2012. This unfortunately leaves the consumer, whether they are homebuyers, sellers, homeowners, landlords or tenants, at the mercy of the service provider.

If Virginia has no requirements, who oversees this profession and protects the Virginia consumer? No one. Any person who takes the time to print a business card can be a mold inspector, tester, or remediator in Virginia.

This lack of oversight also allows a person to conduct this type of business without any formal training, knowledge or any type of insurance. What happens if they damage the property? Well, unless you sue them, probably nothing.

How can the consumer protect themselves? Hire individuals who have been certified by private organizations. While that seems like a good answer to the question, here is a true story. A buyer client hired us to complete a home inspection, and though not required by Virginia's home inspector regulations, we reported possible mold in the crawlspace and the HVAC system. The seller agreed to have it remediated and hired a local mold remediation company who held a certification by a private organization. Once the job was complete, we were hired to evaluate the work of the mold remediator which cost over \$2,500.00. Upon evaluation, we found that none of the mold growth was removed. The mold

remediator used a method called Fogging which is not accepted across the industry and chose not to remove the mold. At the request of our client, samples were collected and sent to the lab to be cultured. We wanted to know if the lab could grow the mold. The certified lab reported that they did indeed grow mold and the air samples showed an air concentration of over 30K per cubic meter, Yes, that is high, very high. The mold remediator used a method called fogging.

The Fogging Method, known in the industry as the “Spray and Pray Method” will be covered in **Improper Cleanup**. We contacted the private organization that the mold remediator was certified by and they informed us that they did not teach or approve of the **Fogging Method**. However, they would not accept a verbal or even written complaint about the company. So much for being a Certified Mold Inspector and/or Mold Remediator. The buyer was faced with the choice of buying the home with a mold problem and paying to have it properly cleaned after closing or walk away from the home due to the failed mold remediation.

They fought the issue and the so-called mold remediator returned the money to the seller and the seller handed the money over to the buyer. Unfortunately, this did not take place until after closing and the proper mold remediation cost was over \$8,000.00.

According to the EPA Mold Course Ch.1 Lesson 7, even dead mold spores are allergenic and can cause an allergic reaction and other health issues. Killing the mold is not enough, it must be removed.

EPA, CDC, AIHA and Mold Myths

The EPA, CDC and American Industrial Hygiene Association (AIHA) are three separate organizations that should be consulted when mold is a concern. In fact, the Virginia Department of Health (VDH) directs the consumer to the EPA.

All three organizations agree, and their mold assessment and remediation guidelines are so closely related, one can say they are the same. All three state the guidelines should be followed during a mold assessment, mold testing and mold remediation and obviously the VDH agrees. What other reason would they have to direct the consumer to the EPA? However, if the Virginia government does not require a service provider to follow them the unsuspecting consumer will spend a lot of money for absolutely nothing.

Mold Myth #1: “The EPA says mold testing is not necessary.” **The EPA states:** “In most cases, if visible mold growth is present, sampling is unnecessary.” **Page 13, A Brief Guide to Mold Moisture and Your Home.**

This statement does not say mold sampling is not necessary. If that were the case, why use the word most? Most does not mean all, it’s not the whole pie. Additionally, the text is bold and larger than the text within the paragraph. This is to bring emphasis to that line of text in the statement. The paragraph goes on to explain mold sampling should be conducted by professionals, clearly indicating that the statement does not intend for mold sampling to

never occur. The CDC and the AIHA follow the same guidance when discussing mold sampling and testing.

Mold Myth #2: “Every home has mold.”

I have conducted over ten thousand home inspections and mold assessments since 2004. I can assure you every home does not have mold. Every home does have mold spores; mold spores are microscopic and aid in the breakdown of dead organic material. Yes, the EPA says, molds are usually not a problem indoors. Again, usually does not mean never. However, this does not stand alone, and the paragraph on page 2 of “A Brief Guide to Mold Moisture and Your Home” goes on to clearly conclude that mold has the potential to cause health problems and the CDC and AIHA agree.

Mold Myth #3: “Mold does not affect everyone.”

While this may seem accurate, it’s not. Mold does affect everyone; it just takes longer for some individuals than it does others. After conducting a mold assessment for a client whose daughter became ill, had no energy, stopped eating and going to school and the mother was suffering from watery eyes, a runny nose and a sore throat, I found a large amount of mold growth in their crawlspace and HVAC system. They had lived in the home for 24 years, and given the amount of mold growth I estimated the mold began to grow around five years prior to the health issues presenting. Therefore, it had no impact on them for at least five years. The mold toxins at first had no effect but in time built up in

their body and began to impact both of them. The father was not affected, but spent more time outside the home.

Mold Myth #4: There are no governmental regulations, so how much is too much? Though this is a question, its intent is to misdirect just like the aforementioned myths.

When we discuss mold spore concentration in the air, there is no set number like radon. There is no regulation, state or federal, that states, “if the airborne mold spore concentration is (x) then professional remediation must take place.” This is called Threshold Value Limit (TVL) and there is none. However, the EPA, CDC and AIHA all use total coverage area to direct the consumer and the mold remediator. When the square foot coverage is 3’x3’ or less, then the property owner can usually handle the cleanup. However, when the coverage area exceeds 3’x3’ or the mold growth is located in an HVAC system professional removal is recommended by all three organizations.

Buying a home is most definitely the time to collect mold samples!

Why Test?

- The collection of mold samples provides usable data to determine if the area of mold growth is sporulating, (putting off mold spore).
- The samples provide the mold species present and the known health implications.
- The pre-remediation samples set a baseline to ensure the mold remediation company does a quality job and does not cause cross-contamination during the cleanup process.
- The post-remediation samples provide irrefutable data that the mold remediation process was or was not successful.

It is important for tenants, landlords, homeowners, homebuyers, sellers and Realtor's to be aware of and understand the pass criteria and accepted methods. Understanding this will ensure the hired contractor is certified and also understands the pass criteria and accepted methods. This will alleviate the consumer from getting taken advantage of by fly by night service providers.

Who's Impacted?

Who is impacted by the presence of mold in a home or business is dependent on who visits the property and how long they are there.

Visiting a home to determine if you may want to purchase the property may not be enough time for mold to have an impact. It may take a few days to even a few years before your body reacts to the toxins, while others may feel the impact immediately. I typically get a headache a few hours later and after being in the property for two to three hours.

So, your visitors may feel the impact upon arrival, or they may not feel it until hours later. Clients have reported that they feel better and more energized after being away from their home for a few days and then become fatigued a few days after returning home.

I was called to a client's home who just closed on the property one week prior to calling me. Though they had not yet moved in, they were there doing some cleaning and began to feel bad. A few days later I arrived to evaluate the property and discovered they did have a home inspection. Remember, Virginia does not require home inspectors to report mold even if they see something that resembles mold. However, this home inspector did, but his terminology lead one to conclude the mold growth in the crawlspace was small in size and went on to state there was no mold growth in the livable space. Now, this was not present in his report, and per my client it was a verbal comment.

The poor, unsuspecting first-time homebuyer who did have mold allergies was standing in the kitchen and having a very difficult time conversing with me. She had watery eyes, a runny nose and was hoarse. She explained how the home inspector told her there was nothing to be concerned about because there was nothing inside the home.

Due to the lack of knowledge and training, the home inspector failed to realize, acknowledge or notice that the HVAC ducting ran through the crawlspace, or did they?

Upon inspecting the crawlspace, I found total coverage on all floor joist, the support girder and the bottom of the sub-floor on this eleven-hundred square foot home. While there is no way to age mold growth, the home inspection took place less than 60 days prior to my visit. With my experience and knowledge of mold, I find it hard to believe the growth went from a small area, (less than ten square feet) to complete coverage (eleven hundred square feet) in that short amount of time. The home inspector was mostly right about there being no mold growth in the livable space. However, when we're are talking mold, mostly right does not cut it. I found three small spots less than one square foot of mold growth in the livable space. However, the air samples painted a much different picture; the air concentration was over 30,000 mold spore per cubic meter. That is an extremely high mold spore count. The swab sample collected from the crawlspace and the indoor air samples contained the same mold spore. The HVAC system was drawing mold spore from the crawlspace into the living space. Mold spore

are microscopic, and without the use of the collected samples and a microscope there was no way to know the air concentration was at that level. The mold impacted the buyer and in actuality the home inspector too. I am sure that individual will never refer that home inspector. The mold remediation cost over \$15,000.00; if only the buyer would have received accurate information, maybe they could have negotiated with the seller to at least cover half the cost. They could have increased the sell price to cover that half and only paid out a small amount each month with their mortgage payment.

Referring back to the fogging, after our Mold Assessment Report and Mold Remediation Protocols and lab report that proved the mold was not dead and that high concentrations remained in the air, the mold remediation company that conducted the fogging returned their fee to the seller and the seller gave it to the buyer. The home inspection removal contingency addendum stated, *“Have sanitization performed in the crawlspace to remove all mold-like substance. Additionally, have the HVAC air handler and ducting professionally cleaned.”* This is not even close to the comment placed in the home inspection report we provided, but the key words are *“removed”* and *“professionally cleaned.”* Neither took place even though the seller was willing to have the issue addressed and move forward with the sale of the property. Here, both the seller and the buyer were taken advantage of by the mold remediator who attempted to mislead all parties involved and would have succeeded if the buyer had not requested a re-evaluation. The seller, the buyer, both Realtor’s and myself were

impacted by the presence of mold and the mold remediator's lack of fair business practice. Sure, they gave the money back, but the total job cost was around \$8,000.00. I am not a first-time homebuyer, but even I do not have \$8,000.00 laying around. I am sure you've heard "Don't shoot the messenger". I was protecting the interest of all parties; it was not my opinion. I backed up my position with information from reliable and verifiable sources. Sources that had nothing to lose or gain, yet I was made out to be the bad guy because I would not pass the sub-standard mold remediation work that was non-conforming and did not meet industry standards. This slogan is not just to have a slogan! I mean every word of it.

"When the cost of your service is more important than your customer and your integrity, both you and your customer lose."

I refuse to provide a pass when I know and can prove the work does not meet industry accepted standards even when there are no licensing, experience or education requirements in Virginia.

Improper Cleanup

The EPA, CDC and AIHA are in agreement when it comes to mold cleanup or mold remediation. All mold growth must be removed, and any building component that cannot be cleaned must be removed and replaced. **Fogging as the only step for mold remediation is not accepted across the industry.**

Remediation means to clean and remove all mold growth and to remove any building product that cannot be cleaned.

Sanitization means to clean and remove all mold growth.

Fogging is a method where an antimicrobial liquid, whether pesticide (chemical) or biodegradable, (environmentally friendly and non-allergenic liquid) is converted into aerosol form to kill mold and mold spores. **The EPA makes it very clear that even dead mold spores can impact the health of individuals, therefore all mold growth must be removed.** The CDC and AIHA concur, therefore the fogging method is not accepted across the mold inspection and remediation industry and has been dubbed the “Spray and Pray Method” for good reason. Additionally, I have, on many occasions, conducted post remediation evaluations where fogging was the remediation method of choice. Sample collection is a part of a post evaluation so samples were collected and shipped to a certified lab. The lab was instructed to attempt to grow mold from the collected samples. On each occasion, the lab produced mold from the collected samples. This proved the fogging method did not kill 100% of the mold or mold spore.

The only industry accepted method of mold remediation is complete removal of all visible mold growth and removal of any building product that cannot be cleaned, and professional HVAC cleaning by a duct cleaning professional certified by **National Air Duct Cleaners Association (NADCA)** which is the only certification recommended by the EPA when hiring duct cleaners.

Before Closing

Buyers should not close and sellers should not pay until the quality of the mold remediation job, regardless of the level has been verified by an independent qualified mold inspector. This service is called Post Remediation Verification (PRV) and provides documentation from an independent party that the mold growth has been successfully removed, that mold cross-contamination did not occur and the property has been returned to a Condition One.

Condition 1: (normal fungal ecology) an indoor environment that may have settled spores, fungal fragments or traces of actual growth whose identity, location and quantity are reflective of normal fungal ecology for a similar indoor environment.

Condition 2: (settled spores) an indoor environment which is primarily contaminated with settled spores that were dispersed directly from a Condition 3 area and which may have traces of actual growth.

Condition 3: (actual growth) an indoor environment contaminated with the presence of actual mold growth and associated spores.

Contaminated (contamination): the presence of indoor mold growth or mold spores, whose identity, location and quantity are not reflective of a normal fungal ecology for similar indoor environments, and which may produce adverse health effects, cause damage to materials or adversely affect the operation or function of building systems.

What's Next?

Now that the mold remediation or sanitization job is complete, and the PRV has passed, what's next? How do we keep mold growth at bay? Here is a list of things that anyone can do to keep mold from growing indoors.

Keeping It Clean

Take extra steps to prevent mold growth from getting a foot hold. Though this may seem extreme it's better than the alternative and really it's your choice.

1. Keep the premises clean and regularly dust, vacuum, and mop.
2. Install an air purifier in the home to maintain good indoor air quality and reduce dust. (It important that you consult with an IAQ Specialist so you can take a holistic approach to the myriad of indoor air contaminants that exist. A multi-strategic approach is the most effective way to reduce indoor air pollutants)
3. Use hood vents when cooking, cleaning, and washing dishes to remove moisture.
4. Keep closet doors ajar to allow airflow and prevent moisture buildup.
5. The dirt for indoor plants contain mold spores, so only a few is best.
6. Always use exhausts fans while bathing or showering and leave them running until all moisture has been evacuated.
7. Ceiling fans can be useful to assist in drying up spills and wet areas, especially after a carpet cleaning.
8. Drying bathroom walls, doors and fixtures with a towel after bathing can reduce the use of the exhaust fan and speed up the drying process.
9. Hand dry dishes, do not air dry.
10. Open blinds/curtains during the day to allow light to enter.

11. Immediately clean up any spills.
12. Make sure shower curtains are indie the tub/shower edge and completely close tub/shower doors before use and leave them open after use.
13. Do not hang wet towels in the bathroom, remove them to the laundry room to be cleaned and dried immediately.
14. Remove any moldy or rotting food immediately.
15. Remove garbage regularly.
16. Regularly evaluate your ceiling for water stains and research the source immediately if any appear.
17. Clean air return registers/grilles weekly to prevent dust buildup that can restrict air flow and impact condensation drainage systems.
18. Change/clean all air filters every month.
19. Have your HVAC system cleaned and serviced semi-annually, this includes the inside of the air handler and both sides of the coil.
20. Wipe down windows and sills if moisture is present.
21. Conduct monthly checks below sinks and other plumbing fixtures for leaks. Have any leaks corrected immediately and thoroughly dry any wet areas.
22. Schedule emptying and leak checks on any dehumidifiers.
23. Some older refrigerators have drip pans, empty them weekly to reduce humidity buildup and place a small amount of bleach in the pan to prevent mold growth.
24. Add a table spoon of bleach to your HVAC condensation drainage system to prevent mold and sludge buildup.

Mold needs moisture to grow, without moisture mold goes dormant. So, consider what areas of your home may have increased moisture. Work to create air flow and clean and suspect areas with hydrogen peroxide to kill and remove mold growth.

It's Aztec Home Inspections opinion that these steps will maintain the indoor air environment of your home and prevent the proliferation of mold growth. The occupants and visitors of the property will be more comfortable and breath easier. If we may be of further service to you in the future, please do not hesitate to call.

**We would appreciate your business and thank you for
choosing Aztec Home Inspections, Inc.**

540-830-0259

www.aztechomeinsp.com

References

It must be noted that none of these references relate to home buying, in fact all of them are for home owners and tenants. Homebuyers and sellers are left out in the cold.

Virginia Department of Health Website

EPA “A Brief Guide to Mold Moisture and You Home

EPA “Mold Remediation in Schools and Commercial Buildings

EPA “Should You Have the Air Ducts in Your Home Cleaned?

CDC <https://www.cdc.gov/mold/default.htm>

AIHA Mold Resource Center

<https://www.aiha.org/public-resources/consumer-resources/disaster-response-resource-center/mold-resource-center>

Fogging to remediate mold is not accepted across the industry.

Be careful who you hire and obtain a PRV before you close.

Condition 1: (normal fungal ecology) an indoor environment that may have settled spores, fungal fragments or traces of actual growth whose identity, location and quantity are reflective of normal fungal ecology for a similar indoor environment.

Condition 2: (settled spores) an indoor environment which is primarily contaminated with settled spores that were dispersed directly from a Condition 3 area and which may have traces of actual growth.

Condition 3: (actual growth) an indoor environment contaminated with the presence of actual mold growth and associated spores. Actual growth includes growth that is active or dormant, visible or hidden.

Contaminated (contamination): the presence of indoor mold growth or mold spores, whose identity, location and quantity are not reflective of a normal fungal ecology for similar indoor environments, and which may produce adverse health effects, cause damage to materials or adversely affect the operation or function of building systems.



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