



Valor Cleaning Information Series - 3

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I have mold in my heating & AC!

So the HVAC (heating, ventilation and air conditioning) repairman or air duct cleaning company said you have mold. Or maybe you're worried about mold in the HVAC system because there is an odor. Your HVAC system is one of the worst areas to have mold but, fortunately, it is the most falsely diagnosed.

Do I truly have a mold problem or are they just trying to rip me off?

Most of them are trying to rip you off. I *rarely* see a legitimate mold problem in HVAC units. The HVAC and air duct cleaners are trying to sell you UV lights and chemical treatments by overblowing random smudges into a mold problem.

How can I find out for sure if I have mold?

Hire a mold testing company. They collect a flat fee whether they find mold or not so you can trust their findings (assuming you hired an honest one). See my paper "VCIS 2 – Should I Test for Mold" for mold testing companies I recommend.



Smudges on wires that an HVAC company tried to pass off as mold

What if my problem is an odor coming out of my vents?

I have three thoughts:

- 1.) If you just turned your AC or heat on for the first time this year, you can ignore the odor because it will go away in a few days.
- 2.) If the smell is ongoing, then chances are the HVAC is sucking in the odor from one area of your house and blowing it into the rest. Go to

each return vent (usually large, square grills) and see if you can isolate the smell to a particular area. Musty, moldy odors are usually in the basement. If it is, then your basement has the mold problem and the HVAC system is moving the mold and odor around.

- 3.) Your HVAC system is contaminated with something.

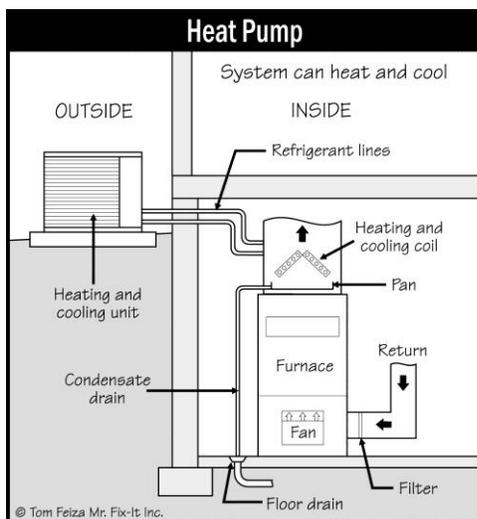


Mold on the HVAC's coil (black area in the middle of the gray metal fins) and the humidifier's plastic frame. This was caused by a faulty humidifier.

I actually see mold in the HVAC system or a mold tester confirmed it. What now?

Call us. We'll take a look and give you the options on how to fix it. If mold is visible in the HVAC system or air ducts, we can clean and remove it most of the time because it is all metal and plastic. *The larger question is whether the moldy HVAC blew mold all over your house.* It most likely did. Cleaning settled mold spores out of a whole house is expensive, time consuming and disruptive. For this reason, I strongly recommend a mold tester take

samples in bedrooms and different floors of the house to find out how far the mold went. Sometimes the tester finds remediation is only necessary in part of your house.



What about UV lights? Everyone seems to recommend them.

Visible mold must be physically removed first. UV lights are great for preventing mold from coming back.

Should I get a UV light installed later?

UV lights will help the indoor air quality but only when they're installed near the HVAC's coilⁱ. UV lights aren't like a bug zapper. Each bacteria, virus and mold needs a specific amount of UV light exposure before it will dieⁱⁱ. The

only place where you can get a germ to sit still long enough is at the coil because that's where they stick. However, nearly every residential UV light is installed in the air ducts. Ducts are the worst place for them. A germ zips by too fast for the UV light to kill it. Why are the lights installed in the ducts then? Because it's the easiest place to put them. Drilling a hole near the coil is risky so it takes an experienced and skilled technician to do it.

What about spraying the ducts with some mold-killing chemical?

Visible mold must be physically removed first. After that, chemicals are optional but I'm generally not a fan of them. What if you're allergic to it? There is no cheap or easy way to get the chemicals, that were *sprayed in your air ducts*, out of your house. However, chemicals are still a tool in my toolbox. In specific situations, they come in handy. The mold reference guide, the IICRC S-520, actually dedicates an entire chapter to mold in HVAC systems. They state, "using an anti-microbial chemical may be considered to prevent future mold growth...but should never be substituted for completely removing mold."ⁱⁱⁱ



Close up of mold embedded in the fins of this HVAC evaporator coil

ⁱ Richard Shaughnessy, University of Tulsa, *Effectiveness of Germicidal UV Radiation for Reducing Fungal Contamination*, Applied and Environmental Microbiology (August 2001), pages 3712-3715

ⁱⁱ Martin Albert, *Using Ultraviolet Light in HVAC systems*, Fort Wayne ASHRAE seminar (July 2006), page 20

ⁱⁱⁱ IICRC, *Reference Guide for Professional Mold Remediation – IICRC S-520, 2nd edition* (2008), page 186