

Combatting Mold in Your Home

What is Mold? Mold is a form of fungi that are naturally occurring. They play a key role in decomposing things like leaves, grass, wood, and other vegetation. Unfortunately, molds are not very smart. Under the right conditions, they will set up shop in your home, decomposing your walls, floors, and other parts of your home.

Are molds harmful? Some molds are harmless, some can be deadly. People have died from molds. People often get sick from molds. A moldy home is almost certainly bad for all the people who live there.

How can I do to keep mold from growing? Mold likes moisture; lots of moisture. The more moisture you have in your home, the more mold will likely be able to destroy your home, and make you sick. By getting a better handle on the moisture in your home, most mold growth will be stopped or greatly diminished.

What do you mean by moisture? Moisture is water and can come from many places. Leaky pipes, water spilled during cooking or bathing, rain water, water from high humidity, to name a few. Once you have water on the floor, or a wall, and a warmer temperature, mold growth will take off.

Can't I just kill mold with poison? Yes, you can. But if you want prevent mold growth for good, you must remove the moisture problem. I generally use poison as a last resort.

How do I control moisture? It is a process that can take some time. I will describe a home that has some mold issues and what was done to combat the mold.

This is an older home built in the 70's. A "fixer-upper". Location is in Central Michigan, a Northern (cold) climate, with a lot of rainfall, and vegetation (lots of mold outside). The roof needed replacement badly, There were two layers of shingles on the home, both were beyond end of life. During a rain, the roof would leak, and water was dripping down a wall in the living room. There was mold growing in this wall, and on the floor. There were other leaks around vents on the roof also leaking, and also mold growing where the water was coming in. The rain gutters on the home were also non-functional and needing to be replaced. Water that would normally be safely discharged to a storm water run-off was actually re-entering the home through cracks in the brick veneer, the outside walls, and through the foundation. Because the water was not being safely routed away from the home, it was drain down the foundation and basement walls. The home did have a sump pump in the basement, connect to drainage pipes. Because of the poor drainage, all of the basement walls were damp, and the sump pumped gallons of seepage water out every day.

There were more moisture problems inside the home. The wax seal on a toilet upstairs was leaking, causing sewage water to drip onto an air duct and onto the basement ceiling. Mold was growing on the duct and the ceiling of the basement. Several years of water from a poorly designed shower stall/curtain had been leaking onto a carpeted bathroom floor. The majority of the floor near the

About Prism Analytical Technologies, Inc.

Prism Analytical Technologies, Inc. is a leading consultative air testing laboratory in the United States that is devoted to the chemical identification and analysis of contaminants in the air. We are a recognized leader in the development and deployment of ambient air testing methodologies for Fortune 100 and 500 companies, industrial hygienists, and environmental consultants. Prism's science-based technologies and wide range of air testing support help clients solve indoor air quality, process control, industrial, and environmental challenges.

shower was growing mold, but was hidden from view by the carpet. This home has three bathrooms, and mold was found growing in all of them because of water from the bath or shower running on the floor. Faucets in all of the sinks were dripping, causing mold to grow in and around the sink. Bathroom ventilation was not in use or non-functional, causing mold to grow on the ceiling and walls of the bathroom. Humid air from the baths and showers also elevated the humidity levels of the entire home, adding to overall mold growth conditions. The basement was finished with an inadequate level of insulation, causing the walls to cool or cold throughout the year. Warm humid air cools and descends to the basement, where it creates damp walls, floors, and ceilings, and a high humidity level that favors mold growth. The dryer vent, installed in the basement was also leaking, also adding high humidity levels in the basement when the dryer was in use.

How did you fix all that? We began by replacing the roof and the rain gutters. The affected areas dried up and mold growth ceased in these locations. The plumbing issues were repaired which cleared up localized mold growth. Shower curtains were replaced and bathroom vents were turned on to remove excess moisture during showers and baths. The dryer vent was repaired to vent moist air outside. The sump pump in the basement actually began to dry up. Mold growth upstairs was essentially eliminated with these steps. The basement however, still had a mold problem. The mold VOC's were high enough that you could actually smell them as you came down the stairs. Because of the high humidity levels and the cold basement walls, a dehumidifier was installed to lower the moisture level in the basement. The amount of moisture that had soaked into the walls, floors and furniture was astounding. Gallons of water was being removed by the dehumidifier and poured down the drain every day. The humidity sensor on the dehumidifier showed the basement to be in the 70-80% range for several weeks. Eventually though, the basement started drying out, and the humidity levels began to drop. The mold VOCs' also began to drop. The irritating smells have gone away. The basement doesn't smell any differently than the rest of the house. It is now a pleasant place to be.

About Prism Analytical Technologies, Inc.

Prism Analytical Technologies, Inc. is a leading consultative air testing laboratory in the United States that is devoted to the chemical identification and analysis of contaminants in the air. We are a recognized leader in the development and deployment of ambient air testing methodologies for Fortune 100 and 500 companies, industrial hygienists, and environmental consultants. Prism's science-based technologies and wide range of air testing support help clients solve indoor air quality, process control, industrial, and environmental challenges.