

How Gateway Water & Mold Handles Hidden Mold Behind Drywall After a Plumbing Leak

When a rental home in St. Louis had a slow plumbing leak behind a bathroom wall, the tenants noticed a musty smell before any visible signs appeared. They reported it to the landlord, who called in a water damage restoration crew. Within days, the team from Gateway Water & Mold arrived to assess the situation. What they found behind the drywall was a textbook case of hidden mold that had been growing undetected for weeks.

This kind of scenario is surprisingly common. A small pipe leak behind a wall or under a sink can saturate drywall and create the perfect environment for black mold to take hold. By the time anyone sees discoloration on the surface, the colony has often spread well beyond the visible area. That is why professional mold remediation has to go deeper than just wiping down a wall. [Gateway Water & Mold](#)

Why Hidden Mold Grows Behind Drywall

Drywall, or gypsum board, is a porous material. When it gets wet from a plumbing leak, it absorbs moisture like a sponge. The paper facing and the gypsum core provide an ideal food source for mold spores that are always floating in the air. Once moisture is present, spores germinate and begin to grow. In as little as 24 to 48 hours, mold can start colonizing the damp surface.

Hidden mold is particularly dangerous because it often goes unnoticed until it has caused significant damage. The tenants in this case only smelled something wrong. There was no visible staining on the paint or wallpaper. A moisture meter, however, told a different story. The readings showed elevated moisture content in the drywall several feet from the apparent leak source. That was the first clue that the problem was larger than it looked.

The Leak Detection and Assessment Process

Before any demolition begins, leak detection is a critical step. The team used a combination of thermal imaging cameras and moisture meters to map out the extent of water intrusion. Thermal imaging helps identify temperature differences caused by wet insulation or damp drywall behind the surface. Moisture meters confirm the readings and give quantitative data on how deep the moisture has penetrated.

In this rental home, the leak was coming from a corroded fitting in the wall cavity. The water had been seeping out slowly, traveling along the bottom plate and wicking up into the drywall. By the time the crew opened the wall, they found black mold covering the back side of the

drywall and growing on the wooden studs. The mold species was later identified as *Stachybotrys chartarum*, a common type of black mold that is known for producing mycotoxins and requiring careful handling during removal.

Setting Up Containment

Once the extent of the problem was clear, the team established containment. This is a standard part of any professional mold remediation. Without containment, disturbing the mold during demolition can release spores into the air, spreading the problem to other parts of the home. The crew built a sealed barrier using polyethylene sheeting and tape, creating a negative air pressure zone inside the work area. Negative pressure ensures that any airborne spores are pulled into the containment area and filtered out rather than escaping into the rest of the house.

Fans and dehumidifiers were placed inside the containment to manage humidity and keep the drying process moving. High humidity slows drying and can allow mold to continue growing even after the leak is fixed. Keeping the relative humidity below 50 percent is a standard target during structural drying.

Demolition and Removal

With containment in place, the crew began demolition. They removed all affected drywall, insulation, and baseboards. In cases where mold has grown on wooden framing, the surface can sometimes be cleaned and treated if the wood is structurally sound. But in this job, the mold had penetrated the surface of the studs, so the team decided to remove and replace the affected lumber.

During demolition, the crew wore personal protective equipment including respirators, gloves, and Tyvek suits. All contaminated materials were double-bagged in heavy plastic and sealed before being removed from the containment area. This prevents spores from being tracked through the house on shoes or clothing.

Cleaning and Treatment

After demolition, the exposed cavity was thoroughly cleaned. The team used a HEPA vacuum to capture fine particles and spores from every surface. HEPA filtration is essential because standard shop vacuums can blow spores right back into the air. Every inch of the studs, subfloor, and adjacent drywall was vacuumed.

Next, they applied a biocide to kill any remaining mold on the wood and to prevent regrowth. Biocides are chemical treatments designed to kill mold spores and hyphae on contact. They

need to be applied according to the manufacturer's instructions and allowed to dry completely before any new materials are installed.

After the biocide treatment, the cavity was left to dry fully. This step is often rushed, but it is critical. If new drywall is installed over damp wood, the moisture will eventually migrate into the new materials and create another mold problem. Structural drying with fans and dehumidifiers can take several days, depending on the extent of the water damage.

Encapsulation and Rebuilding

Once the cavity was dry and clean, the crew applied an encapsulation product to the wooden surfaces. Encapsulation is a paint-like coating that seals any remaining microscopic spores into the surface so they cannot become airborne. It also adds a layer of protection against future moisture. This is not a substitute for proper cleaning, but it provides an extra safety margin.

With the cavity prepared, the team installed new drywall, tape, and joint compound. They used moisture-resistant drywall in the bathroom area to reduce the risk of future problems. The final step was repainting and restoring the finish.

Air Quality Testing After Remediation

Before declaring the job complete, the crew performed air quality testing inside the home. This involves taking air samples from the affected area and comparing them to samples from outside or from an unaffected part of the house. The samples are sent to a lab for analysis. In this case, the lab results showed that spore counts in the remediated area were within normal indoor levels, confirming that the mold problem had been resolved.

Air quality testing is an important step for peace of mind, especially in rental properties where tenants may be concerned about health effects. It also provides documentation that can be useful for an insurance claim. Many insurance policies cover water damage restoration and mold remediation, but they often require proof that the work was done properly. A clean air quality test can help support a claim.

Lessons for Homeowners and Landlords

This case study from Gateway Water & Mold highlights a few key lessons. First, any plumbing leak, no matter how small, should be investigated promptly. A slow leak behind a wall can cause extensive hidden mold growth before it becomes visible. Second, professional leak detection tools are far more reliable than visual inspection alone. A moisture meter can find problems that the naked eye will miss.

Third, proper containment and HEPA vacuuming are not optional. Cutting corners on containment can spread mold spores throughout the home, turning a localized problem into a whole-house issue. Finally, insurance claims for water damage and mold are more likely to be approved when the remediation is done by a qualified company that follows industry standards.

For landlords in St. Louis, working with a company that understands the local climate and common building issues is a practical advantage. The humid summers and older housing stock in the region mean that water damage and mold problems are not rare. Having a reliable partner for water damage restoration and mold remediation can save time, money, and tenant relationships.

Hidden mold behind drywall is a serious issue, but it is also a solvable one. With the right approach, the right equipment, and a commitment to doing the job thoroughly, a home can be restored to a safe and healthy condition. That is the kind of work that professionals like Gateway Water & Mold do every day in the Greater St. Louis area.