



Dampness and Stains on Your Basement Walls

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Are your basement walls damp to the touch? Do you see “wet” spots or staining? These things aren’t “naturally occurring phenomenon”. There are underlying problems, and those problems relate to your foundation.

First of all, not every stain on a basement wall is “[mold](#)”, although we often find mold and other fungal growth in the basement since conditions are right. You may have spots that look “dark” or are damp to the touch. Maybe your walls have “red” or “orange” stains on them, or maybe there is a “whiteish, powdery” type of substance or something “scaly”. Maybe you have what looks like “mushrooms” growing on or out of your walls. Here at Everdry Pittsburgh, we’ve seen it all.

Many things can cause stains and other things on your basement walls. There are multiple reasons why you may see these things from time-to-time, or why they are persistent in their appearance. The major culprits that allow moisture infiltration include:

- [Wall or foundation cracking](#) – Water often enters into a basement through cracks in the wall, the footer or the floor in your home. Damage to any one of these areas in the form of cracking can allow moisture, and then water to enter.
- [Hydrostatic pressure](#) – As defined by Merriam-Webster, hydrostatic pressure is “*pressure exerted by or existing within a liquid at rest with respect to adjacent bodies*”. For those of us who aren’t scientists, this simply means that water under pressure can exert pressure on things that are adjacent to it. A home that has water pushing up from below or against the walls has “pressure” being exerted against the floor or the walls. This is an example of “hydrostatic pressure”, which often causes water to find its way into your home, especially in the “cove” or unprotected area between your basement walls and floor.
- [Underground condensation](#) – This is basic science. The basement tends to be much cooler than the remainder of the house since a significant portion of it is below grade. Col or cold air isn’t able to hold as much as the warmer air in other parts of the home. When that “warmer” air mixes with the “cooler” basement air, it “condenses” or appears as moisture on the basement walls and possibly floors, including uninsulated pipes that run through the basement.
- [Broken pipes](#) – Inoperative or broken French drains, rain gutters and overflowing sewer lines are potential causes of dampness. Most often, they cause water not intended to be in the area to come into contact with the basement walls or floors, sometimes even under pressure.
- [Basement laundry](#) - If your laundry is in the basement, even if it is in a separate or enclosed space, it can cause moisture build-up in the basement. Dryers often tend to direct moisture from your damp[or wet clothes into the room, onto the floors and walls. Over time, or during periods of extensive use, this moisture will condensate and can cause your floors and wall to be damp.

- **Basement windows** – For many years, basement windows and egress access were “forgotten” expenses, buried in the basement and made poorly. Windows, even glass block windows can leak if not installed properly. Check the window frames and the spaces above (ceiling) and below (sill) the window for moisture or dampness.

Common types of basement stains in Western Pennsylvania

1. **Efflorescence** – Many “experts” will tell that the white, powdery substance that you sometimes find on your walls or your floors is just “harmless salt” that bubbles through the concrete. While the white powder itself is not a major issue in itself, there is nothing “harmless” about efflorescence, because it is often a sign of existing or impending damage to your basement walls or floors. It generally presents itself as a white, powdery or “chalky” substance that forms in the mortar joints between blocks, on the brick or concrete wall itself, or on the floor, generally where there are cracks. It can be an indication of moisture intrusion, which can lead to fungal growth and compromise of the materials that comprise your foundation.



2. **“Rusty” or orange or red stains** – Red or orange stains on your walls which look somewhat like rust are generally a sign of iron ochre infiltration. Where iron levels are high in the surrounding soil, iron ochre can be carried into the foundation with moisture or water that seeps in. While generally difficult to clean, like efflorescence iron ochre stains are not a problem in themselves, but can be an indication of moisture penetrations, which can lead to fungal growth and compromise of the materials that comprise your foundation.



3. **Mold or mildew** – Dark stains on your wall are an indication of mold and/or mildew. These fungi are living, breathing organisms that grow in conditions where air, moisture and food are present. Mold and mildew can grow on or in walls (block or drywall), in carpeting, on furniture or anywhere else

where its requirements for life are present and their spores land and propagate. Both mold and mildew can be harmful to your health and are an indication of moisture or water intrusion into your basement.



4. **Chipping or deteriorating paint** – Many people believe that the best way to keep a basement dry and healthy is to apply some form of “waterproofing paint”. While these materials can make your basement walls look good, they will flake, chip or fall off in patches if there is moisture or water intrusion into your basement. When water makes its way into your basement, it applies a “force” called “hydrostatic pressure”. This “force” or pressure can push the lime out of your mortar and can push any “waterproofing” paint or sealant right off your walls. If your paint is chipping, flaking or falling off the walls in patches, it is a sign of water pressure and intrusion.



5. **Deteriorating or flaking concrete (a.k.a. spalling)** – It can be easy for a homeowner to confuse “spalling” with chipping or deteriorating paint, so be certain of what you are actually looking at. Paint flaking or chipping or falling off the walls can be accompanied by efflorescence, or a white or yellowish chalky powder. If your wall has been coated with pain or sealant, this maybe what you are seeing. Spalling is the actual concrete beginning to “crumble”. What you will see are tiny pieces of actual concrete or block, not white powder or paint chips or flakes. This is a major sign of moisture intrusion and unchecked, can lead to block or foundation failure.

