

Mold vs. Bleach, Who Wins?

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Well as several small studies will say, as little as 50% of mold growth is killed by bleach. First, we must understand what bleach is. Bleach in general terms is a strong oxidizing agent and kills many microorganisms. There are two common types of bleach: oxygen bleach, which contains hydrogen peroxide, and chlorine bleach, which contains sodium hypochlorite. Most of our cleaning products at home contain the chlorine bleach simply because it is the strongest. Chlorine bleach is a great disinfectant, and will kill some molds, but in return is a hazardous substance.

To break down our common bleach a bit more, it is a solution of hypochlorite, chlorine, and water. If you were to mix chlorine bleach with any acid, (vinegar, lemon juice, other acidic chemicals, etc.) chlorine gas would be produced, which is extremely dangerous and exposure to it can be fatal. Secondly, bleach should not be mixed with ammonia. The result would produce nitrogen trichloride, which is explosive and very irritating to our mucous membranes, (it has been used as tear gas!)

Peroxide based bleach is less hazardous, but also less effective against killing mold when compared to chlorine bleach.

The simple fact is bleach will not KILL all molds. The most effective treatment for mold is removal and moisture control. Some materials that mold affects are impossible to remove due to structural reasons. So, the mold must be removed at the surface, for instance, on foundation walls. Other materials in a home that mold can affect, for example drywall, it is better to remove them where possible. Whether mold is growing on a painted foundation wall, drywall, wood, etc. the moisture must be controlled. If you don't eliminate the moisture source, no matter what you remove or treat, the mold will eventually reappear and you will be right back where you started from. Step one in any remediation or assessment is determining the moisture source and correcting it.

As far as the use of bleach or bleach containing products goes, use it lightly when it comes to mold. Our weekly or bi-weekly cleaning of the shower or other high moisture environments, bleach does a decent job at minimizing the amount of mold growth. Bleach by itself will not stick to a surface and degrades turning into water, hence why the spotting or mold will reappear in high moisture areas like showers so quickly. Some of our cleaning agents contain quaternary ammonia which will stick to surfaces and will last longer but will actually kill fewer molds. So unfortunately, whether it is bleach or another household cleaner, in a high moisture environment you will have to clean weekly to keep mold growth to a minimum.