

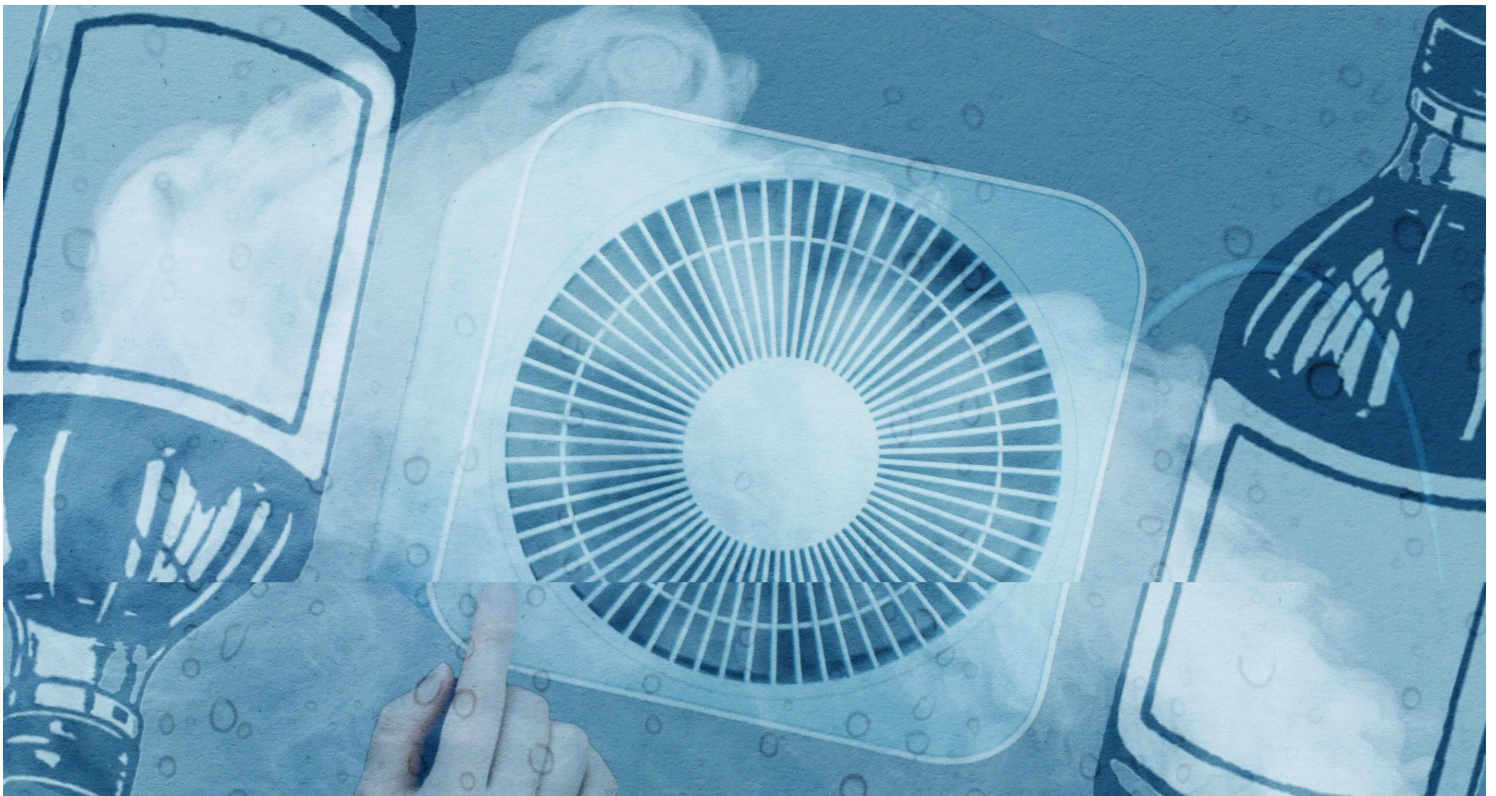
AD IT YOURSELF

Knowing How to Descale a Humidifier Is Actually a Big Deal— Here's Your Guide to Keeping It Clean

Without proper maintenance, you could be misting bacteria, mold, and other unwanted particles into your home

By Terri Williams and Yelena Moroz Alpert

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Learning how to descale a humidifier is important, particularly if you keep yours running constantly year-round. Photo: Julia Abbonizio/Getty Images



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If you don't know how to descale a [humidifier](#), then you may be adding more than moisture to the air. That lovely stream of mist could be pumping out white dust that has formed on the heating element. "A musty smell is a warning sign and often suggests mold growth or biofilm formation," [Kara Wada](#), MD, fellow at the [American Academy of Allergy, Asthma & Immunology](#) and advisor for [Canopy](#), a company specializing in humidifiers, air purifiers, and products with filters. "This can happen when water is left sitting too long or when mineral buildup occurs, especially if tap water is used

Health concerns aside, a well-maintained humidifier ensures the appliance's longevity and proper function. "Standing water and mineral deposits can clog components and reduce efficiency," adds [Elizabeth Shavers](#), director of Safety at [Oncourse Home Solutions](#).

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The good news is that once you know how to descale a humidifier, it is a routine household task that shouldn't take you more than 30 minutes. "Humidifiers can be incredibly helpful—especially for dry air and irritated airways—but they're not 'set it and forget it' devices," Wada continues. "A little consistent maintenance goes a long way in making sure you're adding moisture to your air, not microbes."

Similar to other appliance cleaning routines, industry experts recommend employing white vinegar or hydrogen peroxide for the job. (No need to reach for [controversial humidifier disinfectants](#) that have been linked to lung issues.) Before you try any of these methods, check the cleaning instructions for your specific device to ensure you don't void the warranty. Here are the best humidifier descaling tricks to keep this appliance in tip-top shape.

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How to clean with white vinegar in 5 easy steps

It happens to the best of us. You open up your humidifier to find that the heating element (usually a knob-looking piece) is caked in a white or pinkish residue or dust. That's mineral buildup of calcium and lime, which are the result of hard water use. The first time you descale your humidifier, it might take you about 20 to 30 minutes, as you may have to soak those parts in white vinegar. Citric acid can work as a substitute as well. Never mix bleach with vinegar and other acidic cleaners, and never mix hydrogen peroxide with vinegar. In fact, to be on the safe side, don't mix bleach or hydrogen peroxide with anything but water.

What you'll need

- White vinegar or citric acid
- Distilled water
- [Dish soap](#)
- [Palm brush](#)
- Microfiber towel
- Soft brush

Step One: Prep the humidifier for cleaning

Electric appliances and water don't mix. Before you empty and disassemble your humidifier, make sure it is unplugged. Check the manufacturer's manual for cleaning instructions. Some may be dishwasher safe, others are hand-wash only pieces.

Step two: Add the white vinegar solution

Mix a solution of white vinegar and distilled water. A 1:1 ratio usually works well. Even if your parts look like they are covered with gunk, you never want to place pure vinegar directly into your humidifier, as it can corrode the metal and mess up the ultrasonic parts. Make sure the parts are covered completely. If you are using citric acid, the ratio is 1 to 2 tablespoons for 1 quart of distilled water. Let the solution sit for 20 to 30 minutes.

Step three: Clean the exterior parts inside and out

While your humidifier is soaking in a solution of white vinegar or citric acid, clean the plastic parts. You can use gentle dish soap, such as plant-based [Clean Cult Free & Clear](#), and a sponge or a soft-bristle brush to clean the water spots and any biofilm that may have formed on the water reservoir. Some humidifiers have dishwasher-safe parts. Pay attention to any hose attachments. Air dry the parts and wipe down any droplets with a microfiber cloth.

Step four: Dislodge mineral buildup

After 20 minutes, use a firm-bristle brush to loosen pieces of mineral buildup. We recommend [Curio palm brush](#) because its smaller size tends to hug around the heating element piece, giving it a 360-degree treatment. You may want to have a toothbrush on hand to get into tight spaces, especially at the bottom of the piece.

Step five: Rinse, dry, and reassemble

Once the descaling deep clean is complete, dump the white vinegar solution into the sink. Rinse the base with distilled water. Air dry or wipe down with a kitchen towel or microfiber cloth. When the humidifier and all its parts are completely dry, reassemble the machine.



Photo: Elena Gurova/Getty Images

How to clean a humidifier using hydrogen peroxide

When left unattended for too long, the water reserve of humidifiers is essentially stagnant water, which is essentially a party for breeding bacteria, mold, and biofilms. Dispersing these microorganisms all over your room is obviously not recommended. “These can be aerosolized and inhaled, which is especially relevant for anyone with sensitive airways, including those with allergies, asthma, or other chronic respiratory conditions,” Wada explains.

Hydrogen peroxide can be a helpful option for disinfecting. Use it after you descale and break down mineral buildup with white vinegar.

What you’ll need

- 3 percent hydrogen peroxide
- Soft brush or cloth
- Distilled water
- New wick or filter (if needed)

How to clean

The steps to cleaning with hydrogen peroxide are the same as cleaning with white vinegar. You’ll want to unplug your device before you disassemble and separate the base from the water tank and any other removable parts. If your humidifier has a filter or a wick, take it out and set it aside.

Using a mixture of equal parts 3% hydrogen peroxide and water, fill the base and allow it to soak for 30 minutes. Then, scrub the base with a soft scrub brush (like a toothbrush) or cloth to remove any remaining residue. Once complete, rinse all parts with clean water and dry thoroughly before reassembling.

Frequently asked questions

How often should you clean your humidifier?

The U.S. Environmental Protection Agency (EPA) recommends cleaning and descaling humidifiers every three days. Yes, that sounds like a lot, but regular cleaning is the difference between parts that look like an archeological find and

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a well-functioning machine. At the very least, clean it once a week to prevent mineral buildup and bacterial and mold growth, says Tim David, CEO at [Airlucent](#), a company specializing in air purification. Most of the [humidifiers tested](#) by the Shop AD team include the same cleaning guidelines from manufacturers.

How do I stop mineral buildup in my humidifier?

Mineral buildup forms when elements such as calcium and lime settle down on the metal components and the base of your humidifier as a result of using hard water. Most tap water is heavy in these minerals. Unless your house is equipped with a water softener or another filter—or you have a humidifier that is designed to handle tap water—David recommends using distilled or demineralized water in both warm mist and cool mist humidifiers to minimize mineral buildup and bacterial growth. Purified water can also be a good choice for ultrasonic humidifiers.

How do I keep mold out of my humidifier?

To curb bacterial and mold growth, descale your humidifier. It may seem that mineral buildup is unrelated to mold, but the added organic compounds can accelerate its spread. “Replace the filter at the start of each heating season, and rinse the reservoir regularly,” Shavers suggests. Make it a habit to empty the water tank when not in use and air it out or wipe it down daily to prevent mold spores from forming. “Drying is also underrated,” Wada adds. “Leaving the tank open between uses helps prevent microbial growth, since moisture is what allows it to thrive.”

You’ll know if your cleaning routine is lagging if you notice a scent when you run your humidifier. “That musty odor is often due to microbial volatile compounds, which can trigger asthma symptoms, worsen allergies, and irritate already inflamed or dry mucosal surfaces,” Wada continues. “If your humidifier smells musty, it’s not just unpleasant. It’s a signal that you may be breathing in unwanted or potentially harmful substances.”

Is the descaling process the same for ultrasonic versus evaporative humidifiers?

If you have an ultrasonic humidifier, you may need to pay more attention to cleaning the oscillating metal plate. Evaporative humidifiers rely on filter or wick replacement, which should be done every one to three months. (Check manufacturer’s care instructions.)

Regardless of what model you have, [plan to clean](#) your humidifier at least once a week. The process itself should not be much different. You can still use white vinegar and hydrogen peroxide to break up mineral buildup and disinfect the machine.

Should I use bleach to descale my humidifier?

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Not if it's an evaporative humidifier; you don't want to be breathing in bleach, and it can eat away at the filter. On an ultrasonic humidifier, you can use bleach rarely. Marla Mock, president of [Molly Maid](#), recommends disinfecting the humidifier with bleach twice a season, when you take it out and put it away. To do so, after unplugging and disassembling the humidifier and removing and rinsing the filter, fill the water tank with a gallon of water and one teaspoon of bleach. Mock recommends that you swish the bleach solution inside the basin (to make sure it gets into all of the crevices) and let it sit for 20 minutes. If there is any visible residue, she advises [scrubbing](#) it away with a soft bristle brush. Rinse all the parts with clean water, let it air dry, and reassemble.

How important is the humidifier filter or wick?

A humidifier with a built-in filter can prevent blowing contaminants from blowing directly into the air, notes [Michael Rubino](#), an environmental advocate and mold and air quality expert at [HomeCleanse](#). Depending on the model of your humidifier, you may have to replace it every few months or rinse the grime out of a reusable filter. Steve Leasure, vice president of operations at [Rainbow Restoration](#), warns against using bleach or harsh chemical cleaning solutions on the filter, as they can damage its antimicrobial coatings.

Are essential oils ok to use in a humidifier?

It is not recommended to add essential oils to humidifiers. Not only can the viscous substances gunk up the machine, leaving a residue and potentially feeding bacteria, but prolonged exposure to these molecules in the air can have negative effects, according to the [American Lung Association](#). Some humidifiers, like [Homedics Natura Ultrasonic](#), include essential oil pads that are inserted on the side panel to prevent adding droplets directly into the water.

When is it time to replace my humidifier?

There will be obvious signs when your humidifier has reached the end of its useful lifespan. "Replace your humidifier when the housing is cracked, seals are failing, or the motor no longer works," Shavers say. Also, if mold keeps returning after thorough cleaning, she notes that's another sign. "Most humidifiers last five to ten years, depending on care, so if yours is aging and performance is declining, upgrading to a newer model is often the smarter long-term choice," Shavers says.

What humidifier is best for me?

There are many [great humidifiers](#) on the market. But to find the right one for you, it's worth asking yourself some questions. Consider the size and placement. If you get a humidifier that sits on the floor, where will you place it? You don't want to wake up in the middle of the night and knock it over on your way to the bathroom, or have to move it out of the way whenever you need to open your bedroom closet door. On the other hand, if you get a tabletop humidifier, will the mist stain your table? No matter what you're looking for, we've tested dozens of humidifiers to help you find the right one

for your lifestyle.



Terri is a freelance writer who covers everything from real estate to interior design to home goods. She's tested hundreds of products ranging from TVs, speakers, and headphones to kitchen appliances and vacuum cleaners to adjustable standing desks and office chairs to mattresses, sheets, and pillows. In addition to *AD*, ... [Read More](#)

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