

Drain Maintenance

Hands down, the most problematic plumbing issue homeowners face is a clogged drain. Drains clog when waste and debris collect in a pipe and become compacted. Clogs can form when too much waste is forced out at one time, when grease and soap begin to coagulate in the drain, or when hair and other particles begin to collect on the walls of the pipe. Most drain clogs form in the traps of toilets, sinks, or bathtubs and are easily dislodged with a plunger, a hand auger, or liquid chemicals. This article provides some tips for you to follow for unclogging a drain and for preventing further clogs from forming.

Unclogging Drains

First, if you have slow water drainage, try pouring a mixture of hot water and ammonia or hot water and bleach into the drain. Tougher clogs may require the use of commercial chemical agents. These mixtures can dissolve many clogs without the need for further work.

Next, try unclogging your drain by using a plunger. Many times, the air pressure exerted by the plunger is enough to dislodge loose debris in a sink drain or toilet. If the plunger does not work, try using a hand auger. A hand auger can push through heavier, compacted material and eventually loosen it enough so that the clog can be flushed clear.

Be careful when you use chemical drain cleaners because of the corrosive nature to plumbing equipment and plumbing pipes. If you have a septic tank and drain field, some drain cleaners can kill the bacteria needed to keep a functioning septic system operating effectively. If you do use a chemical agent, look for one that is designed for septic systems, such as an enzymatic cleaner.

Unclogging Traps

Drain pipes carry away liquids and solids, but they occasionally have clogs in the traps (P-traps). A trap is a curved piece of pipe that holds water that creates a seal to prevent gases from entering your home.

In newer installations, the trap assembly is made from PVC plastic and is held together with slip couplings that can be disassembled without tools. Older installs may use chrome fittings and require a pipe wrench to remove, while others use one single piece of pipe from the sink to the wall (you will have to cut the pipe and install slip couplings if you require access to the pipe). When you have removed the trap assembly, thoroughly clean the insides of each piece.



Use a narrow brush to scrub out any debris stuck to the walls of the pipe before putting it back together. If you don't want to disassemble the pipe, try using a hand auger to remove the clog and maintain it with an enzymatic cleaner.

Unclogging a Toilet

If the water slowly drains to the normal water level, pour a bucket of hot water into the toilet and let this sit until the toilet drains. If it is still clogged, pour another bucket of hot water into the toilet. Many times the clog will dissolve from the hot water and simply flush out after a few buckets are used. If this does not work, use the plunger to loosen the clog. If the plunger does not work, move to the hand auger. Push and pull the auger in and out of the bowl to weaken and dislodge the clog. If the clog is near the main drain line, locate the nearest cleanout plug and try to remove the clog from there. As a last resort, you can pull out the toilet, turn it upside down, and inspect the toilet trap.

Unclogging a Kitchen Sink

Kitchen sinks have a wide variety of debris flushed into them: anything from grease, oil, and soap, to disposal waste, coffee grounds, egg shells, and much more. To unclog the kitchen sink, you can try several things: Mix one cup of ammonia to one quart of boiling water (do not boil the ammonia with the water). Pour the mixture into the drain and let sit for about half an hour. Next, plug any other drains that are directly attached to the drain you are unclogging, such as the second drain in a double sink. This will help seal the drain for a plunger to be effective. Make sure there are a few inches of water in the sink, and use the plunger to work out the clog. As with a clogged toilet, if the plunger does not work, try using a hand auger. If your sink is equipped with slip joints, you may disassemble them to see if you can remove the clog by hand. If you have trouble beyond this, you may want to call a plumber.

Preventing Pipes from Clogging

To avoid clogging the drains in the first place, perform these simple actions:

1. Pour waste cooking grease into a used soup can or pickle jar and scrape as much grease out of the pan as you can with a piece of thin cardboard (such as from a cereal box) or a spatula. Wash the pan with hot soapy water to make sure the grease dissolves and flushes out of your drain. You can also pour a little ammonia down the drain to help clean any remaining grease out of the pipe.
2. Use a basket strainer for your kitchen sink if the drain does not go through the garbage disposal. Larger pieces of food can be collected and discarded.
3. Periodically remove the plug in the bathtub and remove any hair that has accumulated on the cross members of the drain.
4. Pour an enzymatic cleaner in your drains several times a year. Enzymatic cleaner is a solution of bacterial cultures and enzymes that slowly deteriorates organic material inside pipes. Such solutions should only be used as routine maintenance to help keep your drains clean. These products are recommended because they are not corrosive and are safe for pipes, plumbing equipment,



and septic systems. Use enzymatic cleaners for your garbage disposals, showers, bathtubs, toilets, and other household drains.

5. Fully turn on the cold water and then the garbage disposal before dumping coffee grounds or eggshells (or anything) down the drain. If you do not have a garbage disposal, or if you have a septic system, do not put coffee grounds or eggshells down the drain. These materials will build up over time and cause drainage problems.

Garbage Disposals

Like other sink drains, your disposer will have a P-trap that can get clogged if too much food is put into it without plenty of water available to flush the system. It is far easier to prevent a clogged disposer drain by following some simple practices. When running your disposer, always turn on the cold water before adding food. Then add the waste food slowly, especially if you are disposing of coffee grounds or eggshells. Never pack large quantities of food in the grind chamber or you could clog the drain. Also, never add foods that contain fibers, such as celery sticks, corn husks, or artichoke hearts. After you have completed grinding, let the cold water run for about ten seconds. The water flushes the food particles through the discharge outlet and keeps the grinding chamber clean.

Prevent your disposal drain from clogging by periodically running cold water and putting ice cubes or citrus rinds in the grind chamber. Some larger models can grind small bones and fruit pits. These hard materials will keep the grate clean and reduce odors from the drain. Another way to reduce odors is to pour a mixture of ammonia and warm water in the drain and let it sit for 30 minutes. You can also plug the sink with the stopper and then fill the sink with about one gallon of water, mix $\frac{1}{4}$ of baking soda to water, turn on the disposal, and remove the stopper. The high flow of water will flush food particles from the grinding chamber and help reduce odors. It is a good practice to disassemble your drain line and remove the sludge from the pipes every few years and to use an enzymatic drain cleaner to keep pipes clean.

When you purchase a garbage disposer, buy one that is large enough to handle the load you put into it. Spending a little more money on a larger disposal can save you time and money otherwise spent on unclogging the drains or hiring a plumber to clean the drain line.

Dishwashers

If your dishwasher does not drain to the main line, either the solenoid is defective or the hose is blocked. On new installations make sure the discharge hose is not blocked. If the dishwasher runs into a garbage disposal, verify that the inlet cap to the disposer has been removed. See your user manual for details.

If your sink backs up with water pumped from the dishwasher, most likely the drain is clogged and will have to be cleaned. Take the precaution of turning on the cold water and running the garbage disposer before the dishwasher pumps out the dirty water. You never know if someone filled the garbage disposer



and did not turn it on. If the grinder chamber is not clear, the sink may back up. Finally, clean excess food and grease from items before you place them in the dishwasher. Removing any food particles you can from your dishwasher will help prevent future problems.

Washing Machines

Washing machines can get clogged if too much lint or material accumulates in the pump. The sign of a clogged pump is that the washing machine does not empty. Before calling a service technician, check to make sure the hose coming from the machine is not kinked. Remove the hose from the machine and check inside to make sure that nothing is blocking the hose. If the hose is not causing the problem, you will need to call a service technician to fix your appliance.