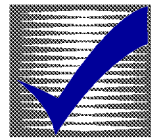




HOW-TO BOOKLET #3008 CLOGGED DRAINS



TOOL & MATERIAL CHECKLIST

- Chemical Drain Cleaner
- Plumber's Snake or Auger
- Phillips Screwdriver
- Pliers
- 10" Pipe Wrench
- Suction Cup Plunger
- Standard Slot Screwdriver
- Wet-Proof Work Gloves
- Bucket

Read This Entire How-To Booklet for Specific Tools and Materials Not Noted in The Basics Listed Above.

The drainage system in your home has just three parts: traps in the shapes of J, S, P, and drums, and pipes to which the traps connect.

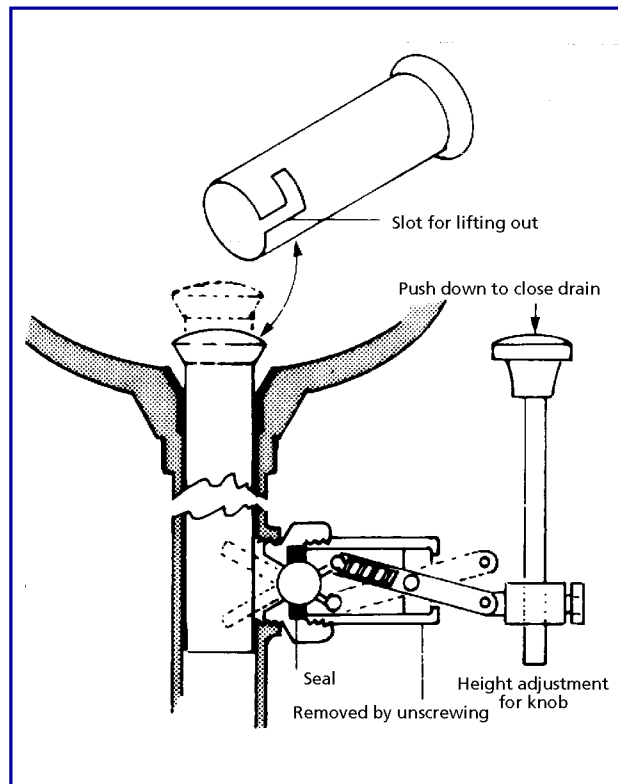
When water or waste won't run out of a sink, lavatory, tub, or toilet (called "fixtures"), the debris blocking the route usually is in the trap. If so, the unclogging process is simple. If the debris is in the drain pipe you may be able to open it if:

1. The blockage is not too compacted in the pipe and the debris is near enough to the trap (or in the trap) that a plumber's suction cup (termed "friend"), rod, or auger can reach it.
2. The blockage is in a pipe near enough to a clean-out plug (a capped opening) that it may be cleared with a rod.

PROCEDURES TO FOLLOW

First, read this entire booklet. It can save you work because from it you usually can determine where the trouble exists. Then take a systematic approach to opening drains; a plan makes it easier and faster—and sometimes a lot drier and less messy.

COMMERCIAL DRAIN CLEANER sometimes will open a completely clogged trap/pipe. However, the cleaners work best when there is some flow of water through the system.



Sometimes a combination of drain cleaner and a plunger (known as a plumber's "friend") will free the drain, but the result may be credited more to the suction than the cleaner.

Drain cleaner should be used at least once a month in all household drains. Its formula is basically caustic soda which bubbles and eats away grease, soap, and hair—The Big 3 drain pluggers.

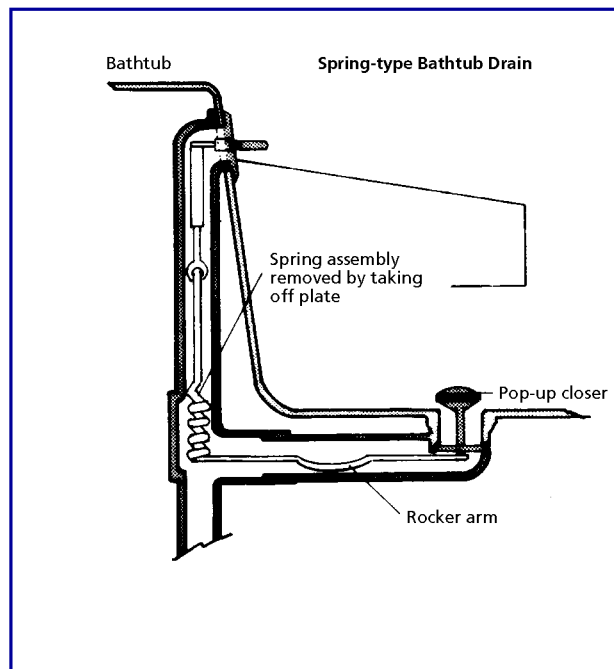
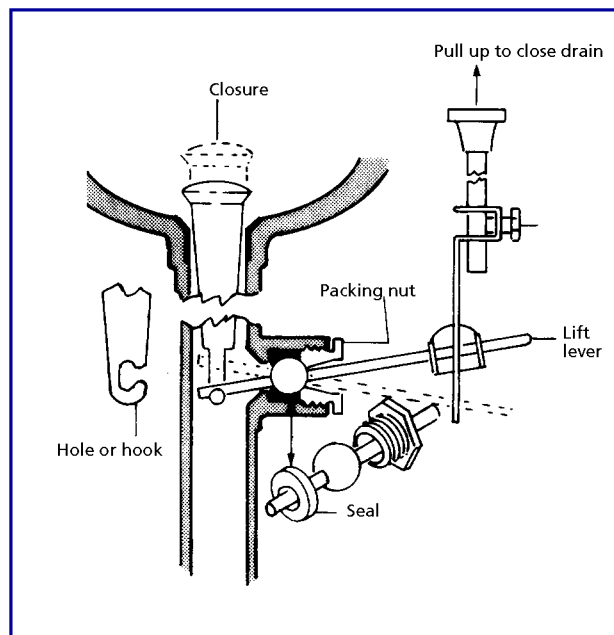
If your home is connected to a septic system, the drains should be treated with a cleaner for septic systems once a week—or according to the instructions on the container. Also, if the drainage system is connected to a septic tank/field, grease, bits of garbage, cigarette butts, and so on, must not be flushed down the drain pipes.

CAUTION: Drain cleaners are very dangerous. Follow the directions on the container before you use any of them; heed all warnings to the letter.

- 1 If a drain is slow, try opening it with a chemical. Give the chemical plenty of time to work—a bit longer than specified on the label of the chemical container. The chemical will not damage pipes or fixture finishes. By a "bit longer" we mean just a couple of minutes, not hours or days.
- 2 If a drain is clogged completely, try a plumber's friend (suction cup on a stick).
- 3 If the plumber's friend does not work, drop and clean out the trap.
- 4 If the trap is clean and the pipes are blocked, try opening the pipe with a plumber's auger or snake. Different sizes are available.
- 5 If you can't reach the blockage with an auger or snake, call a professional plumber. The pro probably will rod the drain pipe down through the vent stack on the roof of your home.

BLOCKAGE AT STRAINERS AND STOPPERS

This problem is simple because the blockage may be at the drain's strainer (kitchen sinks) or stopper (lavatories and bathtubs).



Remove the strainer by prying it up and out with the tip of a standard slot screwdriver. Go easy; don't bend or mar the strainer. If it's a floor drain in a basement or garage, use a pry bar. Some strainers are held by screws. Remove the screws and pry around the strainer with the tip of a screwdriver or old case knife. Then clean the strainer and wipe away any debris at the top of the strainer base.

Stoppers may be removed in several different ways, as the illustrations show. Some stoppers are opened and then turned to remove. Just use your fingers. Some come out by unscrewing a pivot rod that is connected to the opener/closer. You may need pliers here. If so, pad the jaws of the pliers with cloth or adhesive bandages so you don't damage the chrome finish.

After the stopper is out, clean it at the base of the drain opening. Add chemical cleaner to the drain.

If blockage is common at your house, it is suggested that you give all drains a weekly dose of drain cleaner as preventative maintenance. Once again, follow the directions on the drain cleaner container.

CLOGGED TRAPS

Traps are the No. 1 drain blockers in most residential drainage systems. The good news is that traps are easier to clean than many mechanical stoppers.

Try the plumber's friend first. Plug the overflow drain (if the fixture has one) with a wet cloth to increase the suction of the cup.

Put the suction cup directly over the drain opening and work the handle up and down with lots and lots of force. Give it a minimum of 50 very hard strokes. Also, if the basin doesn't have water in it, fill the basin with about 1-inch of water. The water acts as a "seal" and adds suction to the cup.

If suction won't work, drop the trap below the fixture. The trap is held by two large chromed couplings. You may be able to loosen the couplings by hand. If not, use a pipe wrench and pad the ridges in the jaws of the wrench with cloth so the jaws don't damage the chrome finish.

Once loosened, the couplings slide up or down and the trap can be removed. The trap piece, in the shape of a J, P, or S (sort of) telescopes into the fixture's tailpiece and the beginning of the drain pipe (see illustration). Take it easy with the pipe wrench. It has lots of torque and can easily bend and damage the pipes and the fittings. Just "break" the coupling on its threads and complete the removal job by using your hand/fingers.

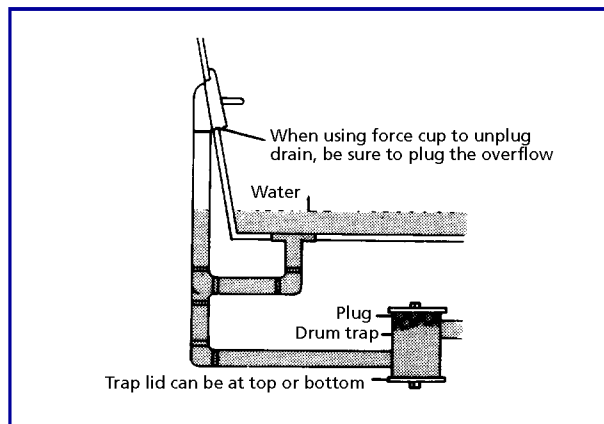
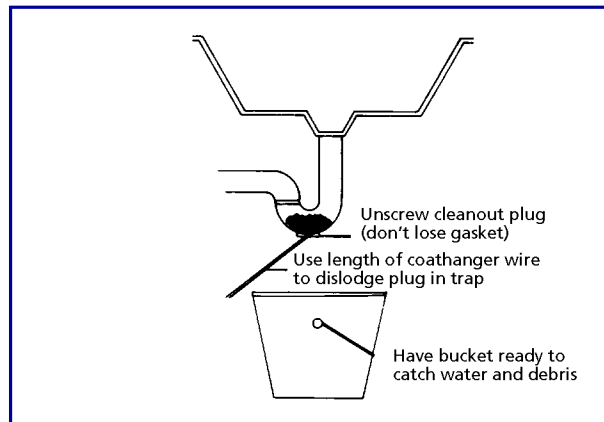
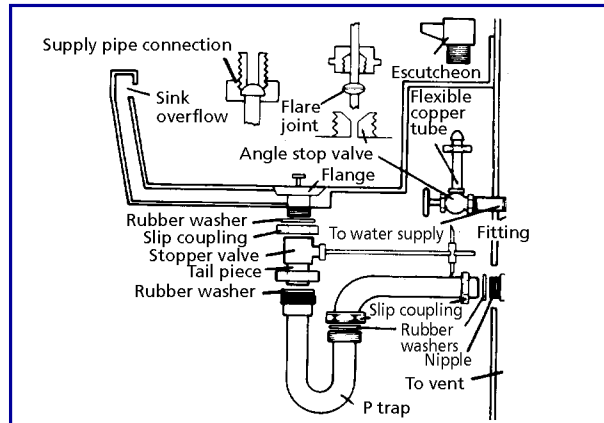
Some traps have a square or hex plug at the very bottom of the trap bend. You can remove this plug to clean away debris in the trap. Use a bent-out wire coat hanger for this job.

As you clean the trap, check it for wear. Even metal wears thin and through. If you spot wear, replace the trap with a new trap.

If the trap is clean and the drain still plugged, run an auger or plumber's snake through the bottom connection (drain) pipe of the trap down into the drain pipe. You break up the clog by pushing the auger/rod back-and-forth and twisting it. The auger/rod comes to a "tee" fitting in a vertical drain pipe, so you may have to force the auger/rod somewhat so it goes around the bend. If you don't have an auger/rod, you may be able to substitute a garden hose with its nozzle removed and turned on full blast.

Clean-out plugs are spaced in the run of big drain pipes. The plugs are usually on vertical pipes (sometimes horizontal) in a basement or crawl space. Sometimes the plugs/pipes are accessible outdoors along the foundation of the house. Or, you may find them in a garage or pantry closet. The drain pipes are capped with a steel disk with a square fitting on the top of the disk. The square fits a wrench.

Have a waste bucket handy when opening this port. Then insert an auger/rod/snake into the pipe both ways: up and down. Break up any debris within reach. If you can't reach it, call a pro. Again, a garden hose can substitute here for an auger/rod/snake.



Drum traps are not too common in modern plumbing systems, but your home, especially if it is an older one, may be equipped with them. Look on the bathroom floor under a tile, perhaps. Or the trap may be in the floor in the basement or crawl space. Clean this trap by removing the lid—similar to a clean-out plug or trap as detailed.

CLOGGED TOILET DRAINS

The problem here is too much tissue at time of flush. Or, if you have children, you might trace the clog to a flushed washcloth or towel or toy.

First, try a plumber's friend to break up tissue clogs. If no luck, use an auger with a corkscrew point on the end to open the toilet. This tool is very flexible and turns easily into the trap in the bowl to snag the object.

But first, with tincan dipper and waste bucket, remove as much debris from the bowl as possible. You can protect your hand and arm by sticking both into a heavy plastic garbage can liner. The extra plastic material gives your hand room to work.

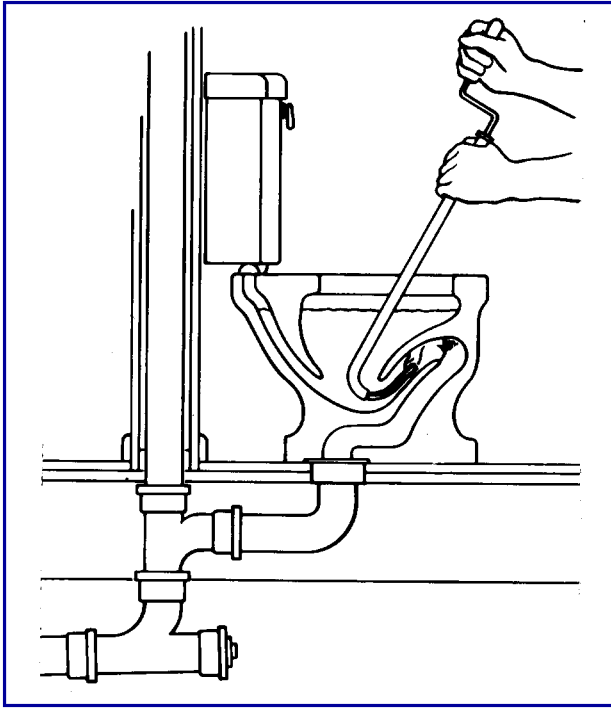
Move the auger under and down the bowl to the blockage and then pull out the blockage. Avoid pushing it down through the trap. If it goes into the main drain, the drain will be clogged; the object probably won't dissolve itself through flushing.

If you can reach the clog with the auger and if there's a clean-out plug under the toilet, remove the plug and auger the pipe. Be prepared with a large bucket for trickle-down of lots of water and debris.

CLOGGED APPLIANCE TRAPS

A dishwasher, clothes washer, and garbage disposer also have traps that sometimes clog.

For a dishwasher, you may be able to remove the drain port cover and thread a slim rod or auger down the drain pipe to clean the trap. Or, if you can get under the machine, you may be able to drop the trap and clean it. However, a clogged trap/pipe may not be the problem. A malfunctioning drain valve solenoid can be the trouble-maker. Call a pro for this.



Another dishwasher clogging problem may be the strainer at the bottom of the dishwasher inside the “housing” or “tank.” The strainer, usually metal but sometimes plastic, can easily be removed for cleaning. Just lift out the strainer, which is in two parts or halves.

Then clean out the ports under a tap and rinse. You can avoid clogged strainer problems by properly cleaning dishes, glasses, pots, pans, etc., before you put them into the dishwasher for washing. A dishwasher is not a garbage disposer.

Washing machine drainage problems are traced to two things: an improperly set control on the panel of the machine (make sure the machine and the timer have gone through a complete cycle), or a block in the discharge hose or trap. Inspect the hose for any blockage within the hose or kinks or severe bends in the hose.

A good way to check the hose for blockage is to remove it from the machine. You may need pliers to disconnect the hose; it is similar to a garden hose. Once off, connect the hose to an outside faucet and turn on the faucet. The force of the water should clear any debris from the hose.

If the washer problem is a clogged trap, remove the drain hose, insert an auger in the pipe and run the auger down through the trap and pipe.

Garbage disposers have traps similar to sinks; see the illustration. If the disposer is clogged it probably will be in the trap. You also may be able to get to a clean-out plug below the floor (usually) in a basement or crawl space and auger this pipe.

You can avoid disposer clogging problems by using plenty of water during the disposer’s food grinding cycle. Don’t skimp on water. The water flushes away the ground-up debris in the hopper of the disposer.

If the disposer is connected to the sink drain, you will have to remove the connection and pipe and clean out the pipe or the sink trap/pipe.

Because a slurry of garbage tends to stick to the inside of the disposer drain line and hold moisture, the drain from the disposer to the main drain tends to rust or corrode much more quickly than, for example, the drain from a sink. It’s a good idea to remove the drain line of a disposal unit every 2-3 years and clean it out. It is a messy job, but it will assure a longer life for the drain line and save you clogging problems. You will have to replace the gaskets in the slip joints when you disassemble the drain, and some of the slip couplings may have deteriorated and also require replacement.

FOR YOUR BACKGROUND INFORMATION

The drain pipes in your home drain via gravity; the pipes are not under any water pressure so you don’t have to turn off the water while working on the drain system.

All fixtures (sinks, bathtubs, lavatories) that drain into a vent stack (main drain) are fitted with traps. Traps usually are the problem when the system won’t drain.

Traps have curved configurations (J, S, P) so they will hold water. This water forms a seal to keep out sewer gases, which can be unhealthy as well as causing awful odors. The water seal also deters crawling creatures from entering a fixture from the sewer line.

The main drain line will not only have a trap in it just before it leaves the building, it will also have a vent stack, which goes up through the roof of the house.

