



Home Maintenance: The Water System

The plumbing in your house is made up of two systems: the clean-water supply system and the waste water system. Both systems require periodic attention to keep in good operating condition. However, before you make any major changes in your plumbing, find out what your local plumbing codes require. Most communities have adopted some type of plumbing code.

Clean Water Supply

Water Meter

You have a water meter to measure water consumption for billing purposes if you are on a city water supply or if you purchase your water from a local water association.

You may use the meter, however, to discover how much water you are using for a particular job. First you must learn how to read it. Locate your meter and study the dial carefully. You can usually tell how to read it. One type reads like a car odometer; a second type reads like your electric meter. Each of the five or six dials contributes one number to the total digit. All meters have a special pointer that makes a complete revolution for each cubic foot of water consumed at a given time.

Shutoff Valve

The most important thing to know about the plumbing in the house is the location of the main shutoff valve. If a pipe breaks or the water heater bursts, turn off the main shutoff valve fast. There also should be various "local" shutoff valves. Locate them, too. There should be one under each sink, on toilet tanks, and on the washing machine.

Detecting Water Leaks

To measure the amount of water you use for a specific task, such as sprinkling the lawn, read the water meter, perform the task, and then read the meter again.

If you want to find out if the water stain on your ceiling is caused by a water leak or a faulty roof, use your meter. Make sure all faucets are off, then watch for 20 minutes the one-foot pointer on your meter. If it moved, even slowly, there is a leak.

If you do not have a meter, plumbing supply stores have available amplifying devices to help determine possible leaks.

Water Noises

"Water hammer" is annoying but not serious. It is a phenomenon that occurs when a valve abruptly stops the flow of incoming water.

The problem may be corrected by one of these methods:

- replacing an "offending" faucet that is spring-closed with one that is manually closed. The manually closed one operates more slowly.
 - reducing the high water pressure by closing the main shutoff valve slightly
 - checking the temperature on the hot water heater. It should never be above 140 °F.
 - installing a shock absorber to prevent the vibration. This is a job for a professional plumber rather than a do-it-yourselfer.
-

Repair Leaking Faucets

Leaks are annoying, wasteful, cost money, and stain fixtures. Most leaking faucets are caused by worn out washers.

Supplies Needed To Repair Faucets

- box of assorted sizes of washers, unless you know the size
- screwdriver
- adjustable wrench

How To Repair

1. First, turn off the water at the shutoff valve nearest the faucet you are going to repair, then turn on the faucet until the water stops flowing.
2. Loosen packing nut with wrench. Most nuts loosen by turning counterclockwise. Use the handle to pull out the valve unit.
3. Remove the screw holding the old washer at the bottom of the valve unit.
4. Put in new washer and replace screw.
5. Put valve unit back in faucet and turn handle to the proper position.
6. Tighten the packing nut.
7. Turn on the water at the shutoff valve.

Faucets may look different, but they are all built about the same. Mixing faucets used on sinks, laundry tubs, and bathtubs are two units with the same spout. You'll need to repair each unit separately.

Is water leaking around the packing nut? Try tightening the nut. If it still leaks, remove the handle and loosen the packing nut. If there is a washer under it, replace the washer. If there's no washer, you may need to wrap the spindle with "packing wicking;" replace packing nut and handle. Turn water back on at the shutoff valve.

Waste Water System

Clogged Drains

Preventive maintenance is the best course to follow to keep your drains free-flowing.

Do not put anything but waste water down the drain. Keep grease, coffee grounds, hair, lint, and all other unflushables out of the drain.

Add a small amount of chemical drain cleaner every month or so, but remember that the chemicals are poison. Handle with care.

Even with care, drains occasionally become clogged. The first step is generally to try a "plumber's friend." Stuff a cloth into a sink's overflow opening, remove the drain plug, and put a little petroleum jelly on the rubber rim of the plunger for a tight seal. Pump the plunger up and down. If the drain does not open in a short time, try another method.

The next step is usually a chemical cleaner, but follow manufacturer's directions carefully.

CAUTION: Never use a plunger after you have poured a chemical cleaner into a clogged drain.

Never put chemical cleaners into a garbage disposal, regardless of manufacturer's instructions. The bottom of the disposal is made of pot metal and is not strong enough to withstand the caustic materials in chemical cleaners.

Next, try cleaning the trap. The trap is the U-shaped section of pipe under the sink. Place a container under the pipes to catch the water, then unscrew and remove the cleanout plug. The clogging material may come out this hole. If so, run water into the sink to help flush out the remaining clog.

If there is not a cleanout plug, remove the trap, and clean it and the adjoining pipes.

A drain auger or "snake" is a good investment and moderate in cost. Push the auger through the cleanout plug or, after removing the trap door, directly into the clogged pipe. When the auger stops, work it back and forth, but do not force it.

Some drainage problems may be severe enough to call in a professional plumber.

Repairing Toilet Tanks

Check and adjust the toilet tank at least once a year to prevent wasting water and noisy leaks.

In a typical tank, the float rising with the water level in the tank operates the inlet valve to shut off the water when it is full. When the flush handle is pushed, its linkage lifts the stopper off the discharge-pipe opening and the tank empties into the bowl flushing it. The stopper floats back down on the dropping water level to plug the opening again while the float sinks down to open the valve. The weight of the water in the tank holds the stopper in place until the handle is tripped.

- **Problem:** Too much water in tank.
- **Solution:** Adjust the float arm by bending it until the level at each filling is correct. Most tanks have a water level mark inside. This mark is one inch below the top of the overflow pipe.
- **Problem:** Continuously running water.
- **Solution:** The stopper gets worn and soft or mushy and will not seat properly. A new stopper with the wires is easily installed. It must be positioned to drop straight down when released, and the wires must be straight for correct seating. Another possible source of the problem may be sediment around the flush valve so the stopper cannot seat properly. Clean the valve with steel wool.

Septic Tank Problems

A septic tank should be cleaned periodically by a professional. A septic tank works on the action of bacteria that can be killed. Avoid problems by not pouring oil, fat, and grease down drains.

By **Dr. Frances C. Graham**, Extension Housing Specialist

[Mississippi State University](http://www.msstate.edu) does not discriminate on grounds of race, color, religion, national origin, sex, age, or handicap.

Publication 1568

Extension Service of Mississippi State University, cooperating with [U.S. Department of Agriculture](#). Published in furtherance of Acts of Congress, May 8 and June 30, 1914. Ronald A. Brown, Director

Copyright by Mississippi State University. All rights reserved.

This document may be copied and distributed for nonprofit educational purposes provided that credit is given to the Mississippi State University Extension Service.



Visit: [DAFVM](#) || [USDA](#)

[Search our Site](#) || [Need more information about this subject?](#)

Last Modified: Monday, 29-Mar-04 11:12:18

URL: <http://msucares.com/pubs/publications/p1568.htm>

[Mississippi State University is an equal opportunity institution.](#)

[Recommendations on this web site do not endorse any commercial products or trade names.](#)