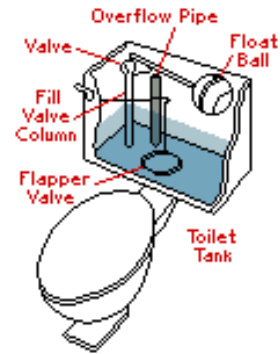


## Easy to Fix Leaks

### Toilets

Toilets are notorious for their hidden leaks. To make matters worse, it is a common myth that you'll hear a toilet when it's leaking. That is true for only a couple of the toilet leak types and only after the leak has developed to the point that it is losing several hundred gallons of water each day.

Most toilet leaks are an easy and inexpensive repair for the do-it-yourselfer. However, it is worth your time and money to call a plumber to keep your water bill from becoming a monster. Below are some quick tips for finding and fixing a toilet leak:



**FILL VALVE LEAKS:** Take off the lid to the toilet tank and carefully set it aside out of the way. The fill valve is the pipe to which the float ball is attached by a thin rod, or the float is attached to that pipe so that it rides up and down it with the level of the water.

Is there water running slowly out of the fill valve at the top? Then the float needs adjustment. A screw or knob on the valve or valve column will adjust the float arm down so the valve shuts off the water about a half inch below the top of the overflow pipe. The same is true for the float that is integrated with the valve column and rides it up and down as the water level changes. If there is no knob or screw to turn, then carefully bend the float rod downwards a bit until the water shuts off when the level is around a half inch below the top of the overflow pipe.

Is there water running through the fill tube, a small plastic tube that runs from the fill valve over to the overflow pipe? This is a sign of a worn fill valve that needs to be replaced. You can find directions for doing this on the Internet or in How-to books.

Is the tank water level so high that water is slowly running over the overflow pipe? Flush the water. If you see water spraying from a hole along the side of the fill pipe, then the fill valve assembly needs to be replaced.

Does adjusting the float fail to stop the slow leak at the fill valve? Then it is worn and a new fill valve is needed.

**FLAPPER VALVE LEAKS:** The best way to check for a flapper valve leak is to drop a little food coloring into toilet's water storage tank to see if it shows up in the bowl after waiting about 10 minutes (don't flush during this period of observation). If the water in the bowl below the seat starts to show color then the flapper valve needs replacing or the mechanism needs aligned. This too, is a relatively simple repair for a do-it-yourselfer.

Remove the tank lid and carefully set it out of the way. Turn off the water to the toilet and flush it. The flapper valve is attached to the flush handle by a chain. Raise the flapper up and then rub and scrape

any water scale from the edge of the opening on which it usually sits. Now, lower the flapper valve over the water release opening. Does it sit straight on that? If not, gently tug the flapper until it is properly aligned over the hole. Turn on the water, fill the tank and run the dye test again. Fixed? Great!

If the flapper valve fails the dye test again, it will need to be replaced. Plastic flapper valves age quickly in their watery environment and need to be replaced every three to five years. You can find directions for doing this on the Internet, in How-to books or on many of the new flapper valve packages.

## Faucets

The other common leak is in faucets and is often caused by worn washers or cartridges. Small continuous leaks will waste large amounts of water. Plug the sink drain and see how much water is lost in 10 minutes. Here is the average loss by water-leaking faucets over a period of one month:

- 30 drops per minute = 54 gallons per month
- 60 drops per minute = 113 gallons per month
- 120 drops per minute = 236 gallons per month
- 1/16-inch diameter stream of water (size of a pencil lead) = 24,667 gallons per month
- 1/8-inch diameter stream of water = 98,667 gallons per month

In addition, leaks in hot-water lines will waste heat causing your gas or electric bill to increase. Keep all valves and faucets tight. When a leak develops, replace the faucet washers or the cartridges. If the valve or faucets are damaged, replace the entire assembly. Check all the faucets inside and outside of your home at least once a year.

**When shopping for new toilets or faucets, remember to ask for and purchase water-efficient models. WaterSense labeled products are backed by independent third party certification, and meet specifications for water efficiency and performance. Find a list of these water efficient products at <http://www.epa.gov/watersense/products/index.html>**