

Dear Maintenance men

I know that I need to remove the sediment from my water heater at least once a year and I know how to do it. What I want to know is how do I stop the sediment from forming in the first place?

Tired of Scooping

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Dear Scooping:

Water hardness is usually the cause of the problem. The water contains calcium and magnesium salts. As water moves through soil and rock, it dissolves very small amounts of minerals and holds them in solution. Calcium and magnesium dissolved in water are the two most common minerals that make water "hard." The degree of hardness becomes greater as the calcium and magnesium content increases. This is not harmful to drink, the body needs these chemicals, but it is tough on your water heater. There are three ways to deal with this problem. You can physically clean out your heater more often, install a water softener or purchase a self-cleaning water heater.

The softener will not only cut down on the water heater buildup, it will also help calcium buildup from forming on your faucets, shower walls and doors etc. A water softener works by replacing or exchanging calcium and magnesium ions in the water with sodium ions. Since sodium does not precipitate out in pipes or react badly with soap, both of the problems of hard water are eliminated. To do the ion replacement, the city-supplied water runs through a bed of small plastic beads or a chemical matrix called zeolite. The beads or zeolite are covered with sodium ions. As the water flows past the sodium ions, they swap places with the calcium and magnesium ions. Voila ... soft water! A short science lesson!

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