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## **Rescue your water heater – before it's too late!**

I know, water heaters aren't something most of us ever think about. Unless, of course, the tap runs cold when we step in for our Monday morning shower! Water heaters seem to be dying left and right out there these days, and they seem to pick the most inconvenient times to go. And they're expensive to replace, costing \$800 - \$1,000 or more for a professional job. Besides, having to dump old tanks into our already over-taxed landfill is a sad thing. The good news is, your water heater can last almost indefinitely with the right add-ons and maintenance, and work more efficiently too!



While the average life of the common gas or electric tank-type water heater is roughly 13 to 15 years, we will sometimes find heaters that are over 20 to 25 years old before they fail. By that age they're not only ready to flood the floor, but the efficiency of the heater is significantly reduced. That's because the sediment that accumulates at the bottom of the tank reduces heat transfer, sending more energy up the flue instead of into the water. If you have a gas water heater that sounds like it's rumbling, that's a sign of sediment. Sediment can also create an ideal breeding ground for bacteria, especially at low water temperatures like 120F. With electric heaters, sediment helps burn out the lower element, which you'll know about when all of a sudden you have less hot water than you used to have.

In some areas of Nevada County there are tanks that last less than 15 years. It just depends on the water quality and type of water pipes used (no iron, please!). While our municipal treated water is about the best available, many of our wells have acidic, mineral-laden water.

So what's the trick to long life? Eliminating sediment and making sure to keep your heater's "sacrificial anode" intact.

Flushing your heater every 6 to 12 months, depending on your water quality, should be enough to eliminate sediment. I wrote about the procedure in a past article "Spring Cleaning Time For Energy Systems", which you can download here –

[http://www.theenergyguy.com/04-12-08\\_SpringClean%231059C4.pdf](http://www.theenergyguy.com/04-12-08_SpringClean%231059C4.pdf)

Believe it or not there's even a web site on the subject here –

<http://www.waterheaterrescue.com/>

They've got a lot of useful information and products on this site. We've used their curved dip tube because it makes it possible to more thoroughly flush the sediment out. Because the cheap plastic drain valves are prone to leak (if you actually use them) we replace them with a brass nipple and ball valve.

Most water heaters come with aluminum anode rods. Not to create a health scare here, but aluminum anodes in hot water have been linked to Alzheimer's disease, so you shouldn't drink hot water in this case. Same with the "zinc" style anode rods, which are actually mostly aluminum used if you have hot water with "stinky egg" odor. Some experts recommend aluminum anodes when you have very hard water or water that is softened heavily with salts, but some, like the Water Heater Rescue folks noted above do not and describe why.

If you have naturally soft water you should install a magnesium anode. If you've got at least 40" of height over your water heater you can probably get the rod out the top, assuming you've got a big enough wrench. If you don't have enough head room, more extensive steps will be required to remove the anode, or rather what's left of it, out of the tank. Its times like these when you do-it-yourselfer's might wish you'd just called a plumber!

A "segmented" or "flexible" anode makes the job of replacement easy when there isn't much headroom because the anode can be bent and straightened as you feed the new rod in the top. They look sort of like link sausage but, in this case, we actually know what went into making them!

So, that's how you can extend the life of your water and keep it performing more efficiently for many years to come. Maybe now is the time to call your local plumber? Or you could wait til' Monday morning.....



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