

Water Softeners

Water Softener's benefits

- Hard minerals get trapped in the sodium. An ionic exchange takes place and the water becomes soft
- Use less electricity for water heater
- Keeps the water pipes clean
- Extends the life of appliances
- Extends the life of R.O. filter membranes from 2-3 years up to 4-6 years
- Saves money on soaps IE: laundry detergent, shampoos, dishwashing liquids by up to 30%!
- Cleaner dishes with less soap film
- Takes less than 7 days for the pipes to dissolve most of the build-up and become clean again
- Gives you softer skin and increased soap suds
- Increases resale home value by avoiding costly plumbing and appliance repairs

What is the definition of "hard water"?

Less than 1 grain per gallon (GPG) is soft.

1 to 3.5 GPG is slightly hard (water softener generally not required)

3.5 to 7 GPG is moderately hard (would see improvement with water softener)

7 to 10.5 GPG is hard (big improvement, financial payback with water softener)

Over 10.5 GPG is very hard (huge improvement, quick payback with water softener)

Not sure how hard your water is? For city or well water collect a sample in a clean bottle (500 ml or liter size pop bottles work well) making sure it is full to the top and no air. Send sample for analysis to HealthSmart Nutrition or have water analysed by a professional available in your area. HealthSmart Nutrition's specialist will contact you with the results and information on the recommended softener.

What Size of Softener is Required?

Water Softener Capacity Calculation

Ideally, a water softener should be sized so that it does not regenerate any more often than every three days (wastes water and salt), nor go longer than 14 days before regenerating (can cause compacting of resin, and fouling with sediment or iron). 7 days between regenerations is probably best - especially if iron is present. For the majority of homes, our 32,000 grain unit (1 cubic foot of resin) is more than enough capacity. There are conditions that would create a need for a larger unit: larger family (6 or more) and/or very hard water (over 15 grains).

Use the following formula to calculate the proper size:

1. Multiply the number of people in your family times 70 (gallons of water used per day, national avg.).
2. Multiply the answer by your water hardness in grains per gallon (to convert mg/l or ppm to grains, divide by 17.1).
3. This is your "grains per day" number.

Calculation example:

5 people in home, 10 grains per gallon hardness.

1. 5 people X 70 gpd = 350 total gpd
2. 350 gpd X 10 grains = 3500 grains per day

1 cubic ft. @ 24,000 grains / 3500 = 6.8 days between regenerations
1.5 cubic ft. @ 32,000 grains / 3500 = 9 days between regenerations
2.0 cubic ft. @ 40,000 grains / 3500 = 11 days between regenerations

The best choice would be the 1 cubic foot unit (closest to 7 days).

What about the sodium that is added by the softener to the drinking water?

As a comparison, one slice of white bread has about 160 milligrams of sodium; 3/4 cup of canned baked beans = 1130 milligrams; 1 tablespoon of catsup = 204 milligrams; 1 medium frankfurter = 610 milligrams; and 1 cup of whole milk = 127 milligrams. Even a common Alka Seltzer tablet contains 532 milligrams of sodium.

However, if you suffer from hypertension or are on a sodium-restricted diet, you should consult your doctor about the proper water for drinking. (Note a Reverse Osmosis system placed after the water softener gives good tasting water without the salt)