

Safe Well Water RI

Trusted, expert information

Tip Sheet 17



“Tip sheets helped us learn about our well water.”

Get Tip Sheets at www.rivelltesting.org:

- 14 Tip Sheets about harmful substances
- 10 Tip Sheets about treatment choices
- 3 Tip Sheets about other topics of concern

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Look for the NSF seal on water treatment devices.

NSF International is a non-profit group that sets performance standards for water treatment devices. Learn about NSF here: www.nsf.org

Activated Carbon Water Treatment Systems

Test and talk before you treat!

Use a State-certified testing lab. Find a list of certified labs here: www.health.ri.gov/find/labs/privatewelltesting.

Call and talk with a State water quality expert.

We can review your water test results with you and suggest ways to treat problems.

- » University of Rhode Island Water Quality Program
Direct line to water expert: 401-874-5398
- » Rhode Island Department of Health
Ask for the Private Well Program: 401-222-5960

If you decide to buy a treatment system, work with a water treatment professional. They can help design a system to fit your needs. Before you buy a system, get at least 3 price quotes. Learn the questions to ask. See Tip Sheet 16.

CAUTION: Be aware that sometimes more than one system is needed to treat water. Consider whether using an alternative water supply such as putting in a new well, using public water if available, or using bottled water may be a better long-run solution.

When would I need an activated carbon treatment system?

Commonly used to remove:

- ▶ Unwanted tastes and odor (including chlorine)
- ▶ Lead
- ▶ Certain man-made chemicals, including pesticides and paint thinners



How activated carbon systems work

These systems:

- **Range from simple to more complex**
Some treat limited amounts of water (point-of-use) and some treat the whole house (point-of-entry).
 - ▶ Point-of-use systems, include:
 - A pitcher that sits on a counter that contains a small carbon filter. These are “pour-through” systems. The owner must pour water through them often enough to have filtered water as needed.
 - A filter system that fits over the kitchen faucet or below the kitchen sink. These systems treat just the water from the kitchen tap.
 - ▶ Whole-house (point-of-entry) systems.
These are larger units most often used to treat VOCs (**V**olatile **O**rganic **C**hemicals) such as MtBE, a chemical once added to gasoline.
- **Use special activated carbon made to “clean” water**
Pollutants in the water stick to the surface of the carbon granules or get trapped in the tiny filter pores.
- **Are generally used with a pre-treatment filter**
The pre-treatment filter removes sediment or iron particles that could clog the carbon filter.

How well systems work depend on:

- ▶ Type of pollutant
- ▶ Type of activated carbon installed
- ▶ Amount of carbon in the filter (referred to as filter bed depth)
- ▶ Length of time water is in contact with the carbon filter

Issues to think about before buying an activated carbon treatment system

Learn about costs and the ease to install and maintain. Get answers to questions:

- ▶ A whole-house system or just point-of-use?
- ▶ Costs to purchase and install?
- ▶ Whole-house system requires changes to the household plumbing that add extra cost?
- ▶ Costs for filters and how long they last? How to know when they must be replaced?
- ▶ Replace the filter myself, or a service tech required?
- ▶ Extra costs to dispose of filters, if treating hazardous waste such as man-made chemicals or radon?

If I have an activated carbon system, how do I maintain it?

All water treatment systems must be maintained according to the instructions that come with the unit. Most activated carbon systems are easy to maintain.

- **Keep all paperwork and instructions** that come with the unit. Follow instructions to clean, maintain, and replace parts as needed.
- **Keep records and receipts** of equipment maintenance and repairs.
- **Replace carbon filters on schedule.** Small units may need filters replaced monthly, while larger filters may last for 6 months. If your system judges when to replace a filter by amount of water treated, a water meter can be installed on the filter to measure this.

What else do I need to know about an activated carbon system?

- Make sure it's installed and operated according to instructions.
- Make sure it works. After installing the system, have your water tested at a State-certified lab.