



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

**Get Tip Sheets** at  
[www.riwelltesting.org](http://www.riwelltesting.org):

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

**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](http://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/drinkingwater](http://www.health.ri.gov/find/labs/drinkingwater).

**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: 401-874-5398
- » Rhode Island Department of Health: 401-222-6867

**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 (Volatile Organic Chemicals) 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.