

Protect your Drinking Water from Contamination!

How Contamination Occurs

Water normally flows in one direction from the public water supply to the consumer's plumbing system and out a fixture such as a sink tap, hose bib or other plumbing fixture. Under certain conditions, such as a *backsiphonage* or *backpressure*, water can flow in the reverse direction. This is known as *backflow*.

Backsiphonage could take place if, for example, a main water line were to rupture, or a car were to hit a fire hydrant where water would be released at a very high pressure, or if or if the main potable water system needed to be shut down to repair a main water line break. A *backsiphonage* may occur, in those situations, due to a loss of pressure in the water distribution system. A reduction of pressure creates a vacuum in the piping system. It is possible that if a hose bib was open and submerged in a swimming pool or landscaping pond during these conditions, non-potable water could be siphoned into the house's plumbing system and out back into the public water supply.

Backpressure may be created when a source, such as a pump, creates a pressure greater than that supplied by the public water system. If a pump supplied from a non-potable source, such as a landscape pond, retention area, or lake were to be accidentally connected to a plumbing system, the non-potable water could be pumped into the potable public water system.

How to Prevent Contamination of Your Drinking Water

Without proper protection devices, something as useful as your garden hose has the potential to poison your home's water supply. In fact, over half of the nation's cross-connections involve unprotected garden hoses.

A cross-connection is a permanent or temporary piping arrangement which can allow your drinking water to be contaminated if a backflow condition occurs.

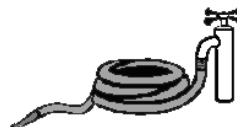
Do not:

- ! Submerge hoses in pools, buckets, tubs, ponds, etc.
- ! Use spray attachments without a backflow device.
- ! Use a hose to unblock toilets, septic systems, etc.

Do:

- ✓ Keep ends of hoses clear of possible contaminations.
- ✓ Install hose bib type vacuum breakers on all threaded faucets in your home. (They can be found at hardware stores and are inexpensive.)
- ✓ Install approved backflow prevention device on all underground irrigation systems. (Plumbing permit required.)

Common Household Hazards



Chemical Spray Applicators: A Potentially hazardous cross-connection can occur when someone uses a garden hose sprayer to apply chemicals to their lawn. Chemicals used on your lawn and garden can be toxic or fatal if ingested. These chemicals include pesticides, herbicides, fertilizers, chemicals sprayed on cars, house siding etc.

Submerged Hoses: Without a backflow prevention device between your hose and the hose bib, the contents of your hose and anything it is connected to can backflow into the piping system and contaminate your water. Hoses can act as a conduit for contaminants under backflow conditions when they are submerged in pools, ponds, vats or other containers open to the air.

Underground Lawn Irrigation Systems: Underground irrigation systems often have puddles of standing water around the ground-level sprinkler heads. Sprinkler heads are not designed to be drip tight under backflow conditions. Puddles of standing water around the sprinkler heads may contain animal excrement, fertilizer or herbicides and pesticides that have been sprayed on the lawn.