

WEST NEWBURY WATER DEPARTMENT

PROTECT YOUR HOME FROM *CROSS CONNECTIONS* AND *BACKFLOW*



A cross connection is a physical connection between a source that is unsafe, potentially unsafe, or undesirable to drink. Cross connections make it possible for potentially unsafe substances (or contaminants) to enter drinking water supply and cause people to get sick or even die.

A backflow is water that normally flows in one direction through your plumbing system and out your tap. It flows in reverse during backflow. When a cross connection exist, it is possible for an unwanted substance or contaminant to backflow into the drinking water supply. Suction backflow pulls contaminants into the drinking water supply, like sucking liquid up a straw. Pressure backflow occurs when the unsafe or unwanted substance has greater pressure than the drinking water and therefore can force its way into the drinking water supply.

Examples of cross connections and potential backflow situations include:

- Irrigation systems that are connected both to a private well and the plumbing in a home (dwelling) that is connected to another water supply (municipal). Never connect two different water sources together.
- A hose submersed in a pool, bucket, or a car radiator. When pressure in the water system is lost (such as a water main break, excess water demand, or well-pump failure) the hose can suck up the water from the pool or bucket it's in, drawing in with it any present chemicals or bacteria.
- The discharge line from a home water-softening system that is directly plumbed into the pipe to the septic system.
- Lawn and garden chemical sprayers attached to hoses.
- A hose attached to a utility sink, or attached to a faucet that extends below the top of the sink or tub.
- A hose hooked up to a pressure washer with soap.

Concerns; Backflow has the potential to make people sick, especially if a dangerous or poisonous material enters into the drinking water, such as chemicals used for cleaning or treating lawns. Backflow is also unexpected; many people think it can't or won't happen to them, but it is hard to predict when a loss of pressure in your water system can happen. And, if you have a cross connection, you could end up with a backflow in your water supply.

Look for cross connections;

- Check any hoses and be diligent about not submersing a hose in a tank, pool, bucket, or other container.
- Check all sinks or tubs to make sure that the end of the faucet does not extend below the top of the sink or tub and does not have a hose attached to it.
- Check any waste lines from water softeners or water treatment systems and make sure that if the line goes into a septic tank or sewer line, it is not directly connected. There should be a gap between where the softener or treatment system waste line enters the septic or sewer line, called an air gap.

(Over)

Who is responsible for preventing backflow?

Everyone. Homeowners need to be aware of the potential hazards of cross connections and identify, eliminate, and prevent them around the house. It is also important for plumbers, plumbing inspectors, code enforcement officers, water utility personnel, and water treatment installers to be aware of cross connections and to prevent them or, if they do exist, to properly protect them to make sure that backflow doesn't occur.

Public water systems are regulated by the state to ensure that all non-residential units (commercial, industrial, agricultural, etc.) are protected against cross connections and are aware and attentive to protecting public health from cross connections.

How to prevent backflow;

- Be aware of the hazards and prevent and eliminate cross connections.
- Install backflow prevention devices. One inexpensive, easy to install, and effective device you can install on your hose spigot is a vacuum breaker, also called a **"hose bibb vacuum breaker"**.



Hose bibb vacuum breaker

- These devices, available at hardware stores, screw directly onto your outside hose spigot and can prevent suction backflow. There are other backflow prevention devices that can be used to prevent backflow due to pressure and also to prevent backflow from high-hazard cross connection, such as some lawn-systems or fire sprinkler systems.
- Check to make sure that anything you hook up to your water supply has the appropriate backflow prevention device, such as your pressure washer or lawn and garden chemical applicator. If you don't know, ask a plumbing professional.
- If you have any plumbing work done, such as installing a water-softening system or dishwasher, you should check with the plumber to make sure they are providing appropriate backflow prevention.