

Introduction and Results

From 2002 to 2003 the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC-FCCCHR) performed a study to determine the degree of protection against backflow that is present in today's homes.

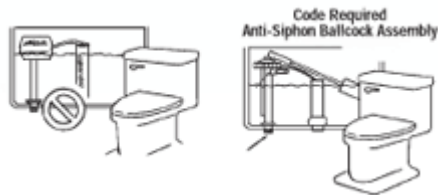
The results are summarized as follows:

- 9.6% of the homes surveyed had direct health hazard cross-connections
- 73% of the homes' water uses were unprotected cross-connections
- 95.7% of the homes had either a direct or indirect cross-connection to a health hazard
- 91% of the homes had unprotected hose bibbs
- 43.6% of the homes had heating/cooling system health hazard cross-connections

Efficient Systems, Inc. reminds you to check the following common cross-connections in homes to ensure the proper protection against backflow:

Toilet

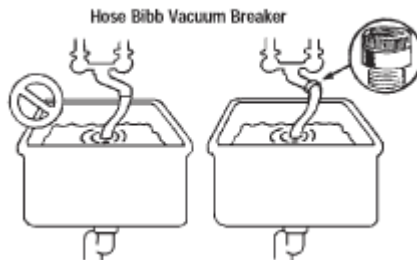
When water leaves the drinking water supply system and flows into the toilet tank, the water must be prevented from being drawn back into the water supply. The water in the toilet tank is often treated with cleansing chemicals that are not safe to drink.



An anti-siphon ballcock assembly should be installed in the toilet tank. This will protect against backsiphonage. The ball cock can also serve as a thermal expansion relief device, if equipped with an auxiliary relief valve. The relief valve should govern the preset pressure to 80psi or less.

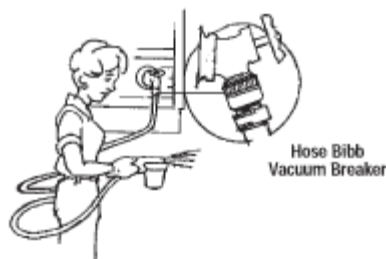
Laundry Sink

To make the laundry sink safe, a hose bibb vacuum breaker is needed. This is a small device that simply attaches to the threaded end of the faucet. As with the outside water faucets (sill cocks), it prevents contaminated water in the sink from being siphoned back into the drinking water supply.



Outdoor Faucet

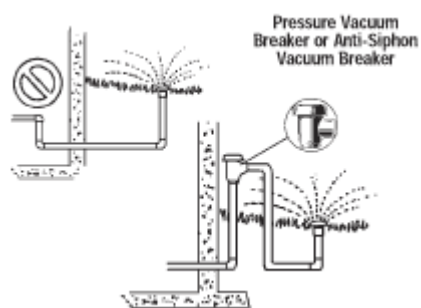
The ordinary garden hose is the most common way to contaminate the water supply. This can happen when one end of the hose is attached to an outdoor faucet (sill cock), and the other end is connected to an aspirator type bottle, insecticides or other chemicals in the aspirator bottle can be siphoned back into the drinking water supply.



You can easily prevent the possibility of this type of contamination by installing a hose bibb vacuum breaker. This is a small, inexpensive device that simply attaches to a threaded water faucet.

Lawn Irrigation System

Lawn irrigation systems need a vacuum breaker backflow preventer to protect against lawn and pesticide chemicals being drawn in from the lawn and back into the drinking water supply.



Heating/Cooling Systems

A hot water system may be used to heat the home. You can ensure the protection of the safe drinking water system by making sure a dual check with atmospheric vent is installed. This will protect against stagnant or chemically treated water from recirculating back into the water supply.

