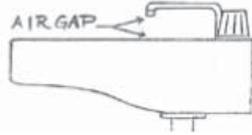


What can you do?

Plumbing codes require backflow protection on all plumbing fixtures that could become cross-connections. The most basic protection is an air gap. The faucet is required to have an air gap between the end of the faucet and the top of the sink.



Another type of protection is a vacuum breaker. Garden hose connections are required to have a hose bibb vacuum breaker built in or added to the hose threads.

You can help prevent backflow by making sure that the hose bibb vacuum breakers are installed on each of your hose bibbs, that the kitchen sprayer hose is never left in the sink where it could become submerged, and by making sure your toilets have the correct fill valves installed.

There are places where cross-connections are necessary such as where your water supply pipe is attached to your irrigation system. When conditions require cross-connections, make sure you have the proper backflow prevention assembly installed and that it is tested periodically to ensure it is functioning properly.

Questions?

Contact your water provider at backflow@cityofgolden.net, the Colorado Backflow Prevention Association or the American Backflow Prevention Association as listed on the back of this pamphlet.

For more information:

Colorado Backflow Prevention Association

Visit us online at www.backflow.org.

Contact us by email at info@backflow.org.

Or visit the

American Backflow Prevention Association

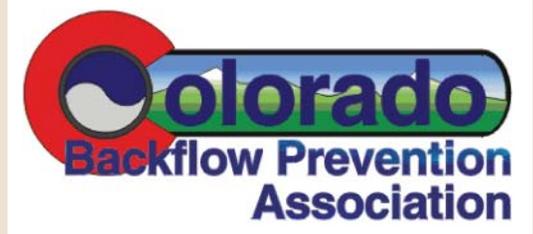
online at www.abpa.org.

This brochure is being provided to the
citizens of **Golden**
with the assistance of the
Colorado Backflow Prevention Association.



City of
Golden

Contact the City of Golden,
for more information, by email at
backflow@cityofgolden.net.



Backflow

What it is and
How to prevent it

**Colorado Backflow
Prevention Association**

www.backflow.org

What is a cross-connection?

A cross-connection is any connection between a pipe that brings drinking water into a house or property and any source of any other substance, including other sources of water.

What is backflow?

Backflow is when the water in the pipes reverses direction of flow. When backflow occurs at a cross-connection, there is a possibility of the drinking water becoming contaminated. There are two reasons backflow can occur:

1. Backpressure

Backpressure occurs when the pressure in the water pipes in the house or property is greater than the pressure in the supply pipes coming into the house or the property.

2. Backsiphonage

Backsiphonage occurs when there is a complete lack of pressure, or a vacuum, in the supply pipes.

What then?

When backflow occurs, anything that is available at the cross-connection is forced (backpressure) backward or siphoned (backsiphonage) backward into the supply pipes.

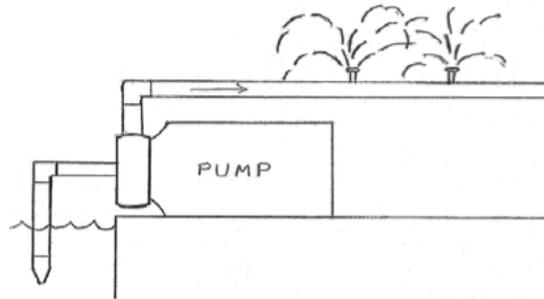
This pamphlet is designed to provide general information to anyone interested in learning about cross-connections and backflow. CBPA cannot be responsible for errors, omissions or changes made to this pamphlet. This pamphlet is intended for free distribution and has been designed by the Colorado Backflow Prevention Association Education Committee. Send comments to info@backflow.org

Backpressure

Many different conditions can cause backpressure.

When a boiler, water heater or other heat source causes the water in pipes in the house or property to get warmer, the higher temperature causes expansion and higher pressure forces the water backward into the supply pipes. This is known as thermal expansion.

If there is a pump on the premises, such as an irrigation booster pump or a pressure washer connected to a hose, higher pressure can force water backward.

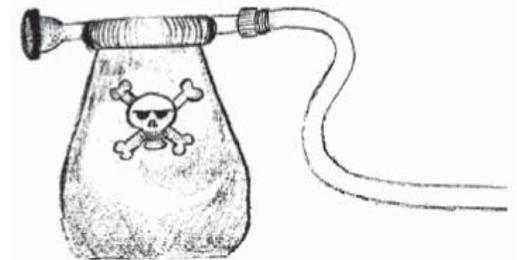


If a cross-connection exists and a backflow event occurs from a boiler, chemicals in the boiler or other equipment, such as antifreeze, rust inhibitor, etc., will be forced backward into the drinking water. Depending on how long the backflow event lasts, the contaminants could come out in a drinking fountain, kitchen sink or coffee maker. If the backflow event lasts long enough, the contaminants could be forced all the way to the public water system in the street and be consumed in the building next door!

Backsiphonage

Backsiphonage is caused by a lack of pressure in the supply pipes. A drop in pressure can be caused by a water main break or a high demand for water. If fire trucks connect to fire hydrants to fight a fire, the fire trucks can pull enough water from the public water mains to create a drop in pressure. The trucks can cause the water in the public water mains to flow backward and pull the water from nearby buildings.

If a cross-connection exists and a backflow event occurs, a contaminant can be siphoned backward into the supply pipes. If the garden hose is connected to a chemical sprayer, or left submerged in a wading pool, the chemicals from the sprayer or the water from the wading pool can be siphoned backward into the building. If the backflow event lasts long enough the contaminant can be siphoned into the public water mains.



When the pressure in the public water main is restored, the contaminants are pushed back into the buildings where the water is supposed to be delivered. Then the neighbors may be drinking water from the wading pool or the chemicals from the garden hose sprayer.