

## The impact of water on fountain machines

Most post-mix fountain beverage systems in the U.S. today use BIB (bag-in-box) syrup. The syrup is normally drawn using CO2 powered BIB pumps that move the syrup into the dispensing valve.

A fountain drink is typically five parts water to one part syrup (frozen carbonated beverage ratios vary), so about 85% of your soft drink is water. Since ice is 100% water, as that melts the ratio increases. Poor quality water can therefore have a significant effect on the taste and smell of a fountain beverage. What you may not know is that water also affects the performance of the beverage system, the balance of water to syrup, and the quality of the carbonation.

Water quality has deteriorated rapidly due to depleting aquifers, run-off from agricultural and other industrial operations, and municipal water systems struggling to keep up with increasing demand and ageing infrastructure. It is now common to find chemicals and other contaminants in drinking water – these can affect the quality of dispensed or brewed products.



### Common problems:

- Disinfectants can cause a bad taste and smell in beverages and ice
- Water impurities can affect the syrup-to-water ratio, leading to inconsistent beverage quality
- Excess sediment can cause clogged supply lines, resulting in equipment downtime
- Poor water quality can have a negative impact on carbonator performance and equipment longevity

### Treatment:

- A water filtration solution removes contaminants such as, sediment, off-tastes, foul odors, disinfectants, and particulates

Beverages are the highest profit margin item in any store. Water filtration that addresses odor, flavor, and potential customer health issues are standard equipment in every quality restaurant. Proper maintenance of the equipment and filter is necessary. Without this equipment in place, sales of dispensed and brewed beverages will decline because the guest experience has been poor.

### Sources:

<https://www.watertechonline.com/wastewater/article/15542929/waters-impact-on-fountain-beverages-and-beverage-systems-part-one>  
<https://www.watertechonline.com/wastewater/article/15543138/waters-impact-on-fountain-beverages-and-beverage-systems-part-two>