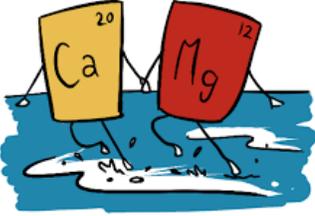


Pataskala Utilities Department

Water Hardness



Water hardness is a characteristic of drinking water that describes the amount of Calcium and Magnesium that is present. As the water makes its way to the underground aquifer, it travels through limestone and other deposits, dissolving and absorbing minerals such as Calcium, Magnesium and Iron. These minerals are naturally occurring in the raw water that is used by the Utility Department as a drinking water source.

During the treatment process at our Water Treatment Plants, the Utility Department removes most of the Iron through a filtration process. The water then goes through our softening process where the Calcium and Magnesium are removed, resulting in a hardness of zero. After this, a measured amount of treated, but unsoftened water is blended with the zero hardness water to create a stable product that is ready to be sent out into the distribution system and is within the Ohio EPA's standards.

Many customers wonder why they don't have drinking water that has zero hardness. The answer lies in the fact that water is a universal solvent, which means that water will dissolve and absorb almost any substance that it comes into contact with. When pumping water through miles of pipes in our distribution system, that water is in contact with the pipe materials for a significant amount of time. The water also enters into private residences that have plumbing consisting of varying materials at varying ages that are not under the control of the Utility Department. To ensure that the drinking water provided to our customers is as safe as possible, we maintain a hardness level between 90 and 130 parts per million. This allows the water to become significantly less aggressive and hinders its ability to dissolve the materials it comes into contact with.

Zero hardness water is also less than desirable for most things that we use water for. Having no minerals, zero hardness water often has an unpleasant taste and is often described as having a "slimy" feel when consumed. Another adverse effect of overly soft water is that soap scum feeling left on a person's skin after showering. The chemistry of extremely soft water hinders the ability of the water to "stick" to the soap at a molecular level, thereby making it more difficult to fully rinse the soap away.



The Utility Department operates a lab that is certified by the EPA to analyze Ph, hardness levels and chlorine levels. Each day we test the water produced at both water plants as well as a different location in the distribution system to ensure the water quality is excellent across the entire system. These tests are much more accurate than any handheld device that can be purchased by the public. If you have concerns about these parameters in your drinking water, we will come out and take a sample from your tap to be run in our lab and give you an accurate reading, free of charge.

We are happy to answer any questions at: Utilities Department, 430 South Main St, 740-964-6275

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"Clean Water In, Clean Water Out"