

## **How do you know if there are contaminants in your water?**

All public water systems contain some level of one or more unhealthful chemicals. Regulations only require periodic testing of about 86 chemicals. There are now more than 75,000 chemicals used in our society with over 1000 new ones being developed each year. Contaminant levels fluctuate throughout the year making it impossible to know the actual level of contamination in a central water system. So far over 2100 toxic chemicals have been detected in America's water systems. The risk is high and the cost for a sure solution is low.

## **Why would the filtered water from the unit appear cloudy sometimes?**

Occasionally, filtered water may appear milky or cloudy. The siphon action in closing the faucet can create air pockets in the filter. These air pockets will produce tiny air bubbles in the filtered water which cause the appearance of cloudiness. This air will disappear if the glass of water sits for a minute. If cloudiness is noticed in the filtered water, turn the filter upside down and allow water to run for two to three minutes. This will allow the air pockets to purge out of the filter cartridges.

## **How often does my unit need to be serviced?**

Countertop and under the counter units typically need to be serviced once a year while whole home systems should be serviced a minimum of every 3 years. Furthermore, the Alka Beauty cartridge should be replaced every 3 months and the Alka Shower cartridge every 6 months. Please note, these time-frames can differ dramatically depending on usage and the quality of the water in your area.

Call us at 877 276 3987 to schedule an appointment to have your unit serviced.

## **My Alka75 is creating loud beeping noises. What does this mean?**

The screen of your Alka75m is powered by internal batteries. These batteries need to be replaced approximately once a year by a qualified technician. Please do not open your unit which will void the warranty. Call us at (877)276-3987 to schedule an appointment to have your unit serviced

## **What are VOC's and how do they get into our water?**

Volatile Organic Chemicals (VOCs) are carbon-containing compounds that evaporate easily from water into air at normal air temperatures. (This is why the distinctive odor of gasoline and many solvents can easily be detected.) VOCs are contained in a wide variety of commercial, industrial and residential products including fuel oils, gasoline, solvents, cleaners and degreasers, paints, inks, dyes, refrigerants and pesticides.

People are most commonly exposed to VOCs through the air, in food, through skin contact, and potentially in drinking water supplies.

Most VOCs found in the environment result from human activity. When VOCs are spilled or improperly disposed of, a portion will evaporate, but some will soak into the ground. In soil, VOCs may be carried deeper by rain, water or snow melt and eventually reach the groundwater table. When VOCs migrate underground to nearby wells, they can eventually end up in drinking water supplies.

## Is Chlorine harmful?

Chlorine was first added to a community water system in 1908 in Chicago and was instrumental in eliminating many types of water-borne disease such as Cholera and Typhoid fever. Prior to chlorination, many major cities had death tolls of 1 in 1000 people from Typhoid alone.

Chlorine has been used to disinfect municipal water for over 80 years and has had some positive effects on public health. In the 1970's it was discovered that chlorine, when added to water, forms Trihalomethanes (chlorinated by-products) by combining with certain naturally occurring organic matter such as vegetation and algae.

In 1992 the American Journal of Public Health published a report that showed a 15% to 35% increase in certain types of cancer for people who consume chlorinated water. This report also stated that much of these effects were due to showering in chlorinated water. The National Cancer Institute estimates cancer risks for people who consume chlorinated water to be 93% higher than for people who do not.

The effects of drinking chlorinated water have been debated for decades. However, most experts now agree that there are some significant risks related to consuming chlorine and chlorinated by-products. Be sure to check out our Alka Shower product to reduce or eliminated chlorine from your daily routines.

## What is TDS?

Total Dissolved Solids, the total measurement by weight of all solids that are dissolved in water. The dissolved solids in water are primarily calcium and magnesium and would not be a measurement of contamination.

Tests which measure the conductivity of water (often used by companies selling reverse osmosis systems) only give a rough estimate of dissolved solids and should not be viewed as an indicator of water quality.

## How does a water softener differ from filtration products?

Water softeners are not designed to improve the healthfulness of water, but rather to decrease dissolved minerals and reduce scaling of pipes and appliances. These systems typically use a sodium charged exchange media that releases sodium ions and removes minerals such as calcium, magnesium, or potassium. From a health standpoint, the minerals would be preferred over the sodium. Filtration systems are designed to specifically remove harmful contaminants and leave in the natural minerals.

## Are water products EPA approved?

No, the EPA does not approve anyone's product. Only products which contain regulated contaminants, like silver in silver impregnated carbon filters, are required to have an EPA 'registration' number. An EPA registration number simply means that the product contains something that the EPA has determined to be harmful.

## Can filters be used on hot water?

It is not recommended to use drinking water filters on hot water due to the potential for leakage. The soft rubber tubing on most Counter-Top systems and the o-ring seals can soften and create leaks when exposed to hot water. Most countertop systems are rated for water temperatures up to 90 degrees. Shower filters can be used with water up to 115 degrees, 100 to 104 is normal shower temperature.

## What is a water softener?

Hard water can be tough on your home, your skin and your wallet. Water softeners counteract those effects, by creating better quality water that extends the life of your appliances while also helping you and your home look and feel better.

Water softeners are specific ion exchangers that are designed to remove ions, which are positively charged.

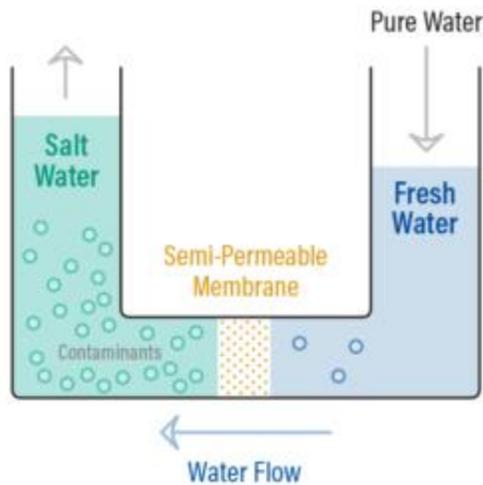
Softeners mainly remove calcium ( $\text{Ca}^{2+}$ ) and magnesium ( $\text{Mg}^{2+}$ ) ions. Calcium and magnesium are often referred to as 'hardness minerals'. Softeners are sometimes even applied to remove iron. The softening devices are able to remove up to five milligrams per liter (5 mg/L) of dissolved iron. Softeners can operate automatic, semi-automatic, or manual. Each type is rated on the amount of hardness it can remove before regeneration is necessary.

A water softener collects hardness minerals within its conditioning tank and from time to time flushes them away to drain. Ion exchangers are often used for water softening. When an ion exchanger is applied for water softening, it will replace the calcium and magnesium ions in the water with other ions, for instance, sodium or potassium. The exchanger ions are added to the ion exchanger reservoir as sodium and potassium salts ( $\text{NaCl}$  and  $\text{KCl}$ ).

## What is reverse osmosis?

Osmosis is a naturally occurring phenomenon and one of the most important processes in nature. It is a process where a weaker saline solution will tend to migrate to a strong saline solution. Examples of osmosis are when plant roots absorb water from the soil and our kidneys absorb water from our blood.

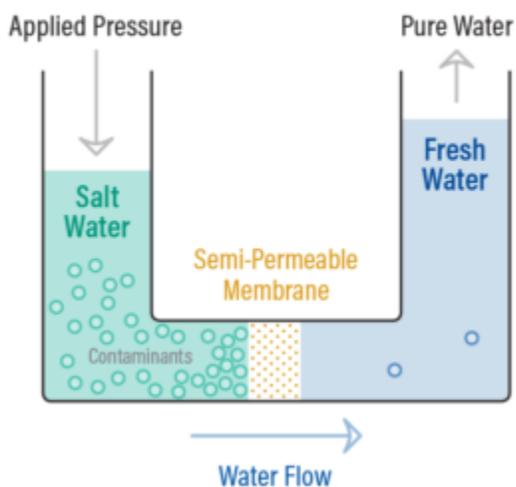
## Osmosis



A solution that is less concentrated will have a natural tendency to migrate to a solution with a higher concentration. For example, if you had a container full of water with a low salt concentration and another container full of water with a high salt concentration and they were separated by a semi-permeable membrane, then the water with the lower salt concentration would begin to migrate towards the water container with the higher salt concentration.

A semi-permeable membrane is a membrane that will allow some atoms or molecules to pass but not others. A simple example is a screen door. It allows air molecules to pass through but not pests or anything larger than the holes in the screen door. Another example is Gore-tex clothing fabric that contains an extremely thin plastic film into which billions of small pores have been cut. The pores are big enough to let water vapor through but small enough to prevent liquid water from passing.

## Reverse Osmosis



Reverse Osmosis is the process of Osmosis in reverse. Whereas Osmosis occurs naturally without energy required, to reverse the process of osmosis you need to apply energy to the

more saline solution. A reverse osmosis membrane is a semi-permeable membrane that allows the passage of water molecules but not the majority of dissolved salts, organics, bacteria and pyrogens. However, you need to 'push' the water through the reverse osmosis membrane by applying pressure that is greater than the naturally occurring osmotic pressure in order to desalinate (demineralize or deionize) water in the process, allowing pure water through while holding back a majority of contaminants.

When pressure is applied to the concentrated solution, the water molecules are forced through the semi-permeable membrane and the contaminants are not allowed through.

## **What are the differences between alkaline and acidic water?**

Acidic foods, acidic water, acidic beverages and an acid producing lifestyle contributes to a wide range of illnesses. Excess acid in the body and blood stream leads to a build-up of mineral deposits in the joints and arteries, resulting in a restricted range of motion and eventually arthritis, other degenerative diseases and inflammation. The human organism operates at peak efficiency when the pH of the blood is slightly alkaline with a pH of 7.365 (on a scale of 1-14, with 1 being pure acid, 7 being neutral and 14 pure alkaline). At this concentration your cells will thrive. By following a diet of primarily alkaline foods, by drinking alkaline water and by modifying your lifestyle to avoid acid producing activities (smoking, drinking alcohol and negative emotions are all acid producing), you can begin to detoxify your body, removing the excess proteins and acid wastes, which create inflammation and degenerative changes. A primarily alkaline environment within the body also helps with weight loss and is a good remedy for countless ailments.

## **What is BPA in bottled water and why is it bad for you?**

Bisphenol A (BPA) is a chemical produced in large quantities for use primarily in the production of plastics used by manufacturers of food and water products. BPA has been proven to be harmful to humans as well as other organisms such as fish and wildlife. Although it is still legal for companies to use BPA in their manufacturing processes, many consumers have begun distancing themselves from BPA products, preferring packaging which is advertised as "BPA FREE."

Alkavida proudly bottles our water with BPA free plastics and our filtration systems are manufactured with BPA free plastics and resins.

## **Will the pH level of water change if boiled/refrigerated/frozen?**

You can certainly boil, refrigerate and freeze alkaline water. The alkaline water will retain its alkalinity and the water molecules are still micro-clustered. However, the positive ions may be reduced due to oxidation. Alkaline water is especially recommended for boiling/cooking of

soups, rice, and stew as it helps to reduce acidity in these foods. You will be glad to know that alkaline water also makes tea and coffee taste better!

## **What is ORP? Why is it important?**

Oxidation-reduction potential, or ORP, is a measurement that indicates the degree to which a substance is capable of oxidizing or reducing another substance. ORP is measured in millivolts (mv) using an ORP meter.

A positive ORP reading indicates that a substance is an oxidizing agent. The higher the reading, the more oxidizing it is. As such, a substance with an ORP reading of +400 mv is 4 times more oxidizing than a substance with an ORP reading of +100 mv.

A negative ORP reading indicates that a substance is a reducing agent. The lower the reading, the more anti-oxidizing it is. As such, a substance with an ORP reading of -400 mv is 4 times more anti-oxidizing than a substance with an ORP reading of -100 mv.

## **Why is our machine not electric? What is the difference?**

How do non-electric water ionizer systems compare to traditional electric models? As far as their ability to produce alkaline water they can be considered “comparable.” But when it comes to the major benefits of alkaline ionized water, the electric models fall short.

Inside an electric ionizer, the water is first filtered through a small carbon (charcoal) filter. Next, the filtered water passes into an electrolysis chamber equipped with a platinum-coated titanium electrode where electrolysis takes place. In the end, you are left with approximately half of the water as wastewater (non-ionized, or cathodic water) and the rest is expelled from the filtration unit as ionized alkaline water.

Alkavida produces alkaline water through a 100% natural process. Our filtration systems are all natural, mineral based filters which transforms tap water into filtered, micro-clustered, alkaline water which is full of natural anti-oxidants! Best of all, our units produce absolutely no waste water.