Alkaline, Alkalized, pH and ORP

There are many natural spring water sources on this planet. Some of them are acidic, and others are alkaline, and they all have different mineral contents. However, they all share one trait in common: they are balanced in their mineral contents and all provide water that is structurally aligned with our cells and thereby hydrates on a cellular level. The main difference between natural spring water and ANY other type of water is the hexagonal cluster structure on a molecular basis. This has nothing to do with chemistry or pH but only with the geometrical physical characteristics (structure) of Water.

Alkaline water can be achieved by solving minerals on a chemical perspective. A pH-Meter is used to show relative acidity or alkalinity. Spring water sources have different alkalinity levels depending on the presence of specific minerals and their concentrations in the environment. The water solves these minerals from the surrounding environment that creates the specific pH level. Most spring sources range from 5.5 to 8.5 PH. Most bottled water is within the same range.

Alkalize***d*** water is usually the result of an electrolysis process, where H-plus and H-minus (hydrogen) atoms are separated to create two types of electro-chemical water; acidic (H+) and alkalized (H-). A special device is necessary to create these types of water – i.e. Kangen Water® device. Alkalized water can be measured with an ORP-Meter (oxidation-reduction potential), which may read -200 to -800 Millivolts (mV), depending on the machine in use. This shows that the separation of the H-atoms has taken place and the electrical charges are now split up into two kinds of water; negative mV and positive mV water. The acidic type (+mV) of water, that is created by this process is usually exposed or can be used for cleaning purposes. This type of electrolysis process does not occur in nature.

There are many statements and hypothesis why drinking alkaline or alkalized water could be healthy and beneficial for humans, animals and plants. Here is a little overview about claims and evidence:

Claim:
Alkaline water helps treat chronic acidosis.
Evidence:
Weak/speculative. The body regulates pH tightly, and different organs have slightly different pH requirements. There is little clinical evidence that “chronic low-grade acidosis” exists.

Claim:
Alkaline water improves overall health.
Evidence:
Weak/speculative. Alkaline water may increase overall body alkalinity, but it’s not clear that this improves health outcomes. People with certain health conditions should avoid excessive mineral intake.

Claim:
Alkaline water is important for athletes.
Evidence:
Weak/speculative. Proper hydration helps athletes, but there’s no evidence that alkaline water is anything special in this regard. Some benefits may be derived from buffering acidity.

Claim:
Alkaline water protects us from toxins.
Evidence:
Weak/speculative. We may avoid toxins from disinfectant by-products in tap water, but other toxins can thrive in alkaline water.

Claim:
Alkaline water contains a negative oxidation-reduction potential, helping protect us from pathogens.
Evidence:
Weak/speculative. ORP seems to influence bacteria in the gut. Electrochemically activated (i.e. ionized) water possesses a negative oxidation-reduction potential, which means it might offer extra disinfectant properties, helping to protect us from dangerous microorganisms.

Claim:
Alkaline water reduces advanced glycation endproducts (AGEs).
Evidence:
Suggestive/speculative. Ionized water seems to result in lowered glucose levels and reduced liver damage in rats with poor blood sugar control.

The fact remains that pH levels in water and its chemical characteristics play a small role in cell availability and hydration. Depending on the body condition given, certain pH levels might not support health benefits for some individuals.

The statements “alkalized water is better drinking water” or “chemically clean water is good for the body” cannot be scientifically supported and are highly dependent on individual conditions.

Water cell availability and hydration are far more dependent on the specific physical geometries being present. The actual structure of the water molecule determines the quality and ability of water to reach the cells and hydrate the body in a holistic matter. The pH or alkalinity plays a very small role in this process. Graphite and diamond are chemically identical – a stabile form of carbon – it is the geometrical structure of the carbon that creates all the differences in quality and characteristic.

Conclusion: a balanced pH level in water is optimum for a body striving to maintain a neutral pH. The same counts for the ORP levels in alkalized water. If there is too much oxygen-reduction taking place, the body will turn from oxidative stress into reductive stress. The balance of electrical charges is the most aligned state for the biological cell.

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