Meta: You've heard of pH and alkaline water. But is it good or bad for you? Here's what you need to know about drinking water with an elevated pH.

H1: Is Alkaline Water Good for You? It’s a Hard Question to Answer.

How you ever stopped to think about the water you drink?

If you're like most Americans, the answer is probably no.

Yet, between coffee, tea, a host of other foods and liquids, and, of course, plain old drinking water we consume plenty of H₂O. Based on our daily needs, many of us probably don't drink enough.

But that is merely the surface. Water comes in many forms, both natural and artificial. One such type that straddles this line is alkaline water.

When people speak of alkaline water, it is often followed by claims of fantastic health benefits including the prevention of diseases and possession of anti-aging qualities.
The enriched water even has a celebrity following that includes Beyonce and Tom Brady.

In fact, the alkaline diet continues to be a popular choice in the US, but we'll get to that in a minute.

First, we need to understand the science of water and that starts with understanding pH.

**What is pH?**

Certainly, you know that water is two parts hydrogen and one part oxygen.

You also probably know that our bodies are about 60% water and the earth is roughly 70%. Even with our thirst and need for water and its prevalence, how much more do you really know about it?

Is your water too acidic?
Not acidic enough?
Does it even matter?

That's where pH comes in.

PH actually measures the overall acidity of water. Working on a scale that runs from 0 to 14, where 7 represents neutral, if the pH measures less than 7 that reflects acidity. pH greater than 7 is basic or alkaline.

To better understand the pH scale we can relate it to everyday liquids or products we are most familiar with:

- 0 - Battery Acid
- 1 - Stomach Acid
- 2 - Lemon Juice, Vinegar
- 3 - Orange Juice, Soft Drinks
- 4 - Tomato Juice
- 5 - Black Coffee, Acid Rain
- 6 - Milk, Urine
- 7 - Tap Water, Blood
- 8 - Sea Water
- 9 - Baking Soda, Toothpaste
- 10 - Milk of Magnesia
- 11 - Household Ammonia
- 12 - Soapy Water
- 13 - Bleach
- 14 - Liquid Drain Cleaner

As you can see from the chart, too much pH in either direction is not a good thing.

When it comes to measuring water in nature - streams, ponds, or lakes, for example - the pH measurement works as an indicator that environmental conditions are changing.

For instance, factories or mines that are near water sources could dramatically lower than water's pH level, indicating pollution is present.
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Even the oceans are not immune. pH levels have dropped from 8.2 to 8.1 since the industrial revolution of the 18th and 19th centuries. Oceans are forecasted to drop another 0.3 to 0.4 pH units by the end of this century.

That may not seem like much, but considering the pH scale is logarithmic (5 pH is 10x the acidity of 6 pH and 100x the acidity of 7 pH), even the slightest changes can create havoc in ecosystems that are highly sensitive to the most minuscule of changes.

At home, fluctuation in pH levels results in a completely different set of issues.

Problems could include the corrosion of pipes when pH levels are low. If pH is high, which means it contains too many bases, you could end up with bitter tap water or a buildup of deposits in pipes or appliances that use water.

When it comes to pH levels in our body, if they are thrown too far off balance, it can be catastrophic.

The normal pH level for blood in humans measures 7.4 on the pH scale, just above tap water.

For most individuals, pH levels remain in the healthy zone - 7.35 to 7.45. However, when your pH levels get too high, it can lead to a condition called alkalosis. With too many bases, untreated alkalosis can lead to arrhythmia or coma.

When your pH drops too low and becomes too acidic, the resulting condition is acidosis. There are several different types of acidosis, and without treatment they could lead to issues in organ function including respiratory failure, chronic kidney problems, kidney failure, bone disease or in severe cases shock or death.

Considering the potential health issues that could arise from unbalanced pH levels, it’s little wonder individuals look for ways to avoid complications - in particular, acidosis.

Which brings us back to alkaline water.

What is alkaline water?

Alkaline water possesses elevated pH levels. In most cases, the pH levels top out at either 8 or 9. The water is full of alkalizing minerals including calcium, magnesium, potassium, and sodium.

The thinking is that higher pH (along with the high mineral content) negates the acidity within an individual’s body. Proponents for alkaline water claim it possesses plenty of other benefits as well.

One study in particular showed that alkaline water shuts down the enzyme that creates acid reflux. Another reported a reduction in blood pressure.

Other non-scientific claims state that alkaline water improves your metabolism, slows aging, and can also decrease bone loss. Though there is a limited number of studies on the subject, some suggest there could be potential.

The key word, however, is “could” as the vast majority of studies remain inconclusive.

Skeptics tend to cite those unproven reports and the lack of further concrete research as proof that alkaline water does not carry any more benefits beyond that of tap water.

They also point to the possibility that over-consumption of alkaline water may lead to alkalosis, confusion, nausea, and vomiting, as well as hindering the body's ability to break down proteins properly.

There is also the potential to create an imbalance in an individual’s pH level.

In reality, though, there isn’t much available to prove or disprove the benefits or shortcomings of alkaline water.

According to Malina Malkani, a registered dietician nutritionist who also serves as the spokesperson for the Academy of Nutrition and Dietetics: “There’s really not a lot of evidence either supporting of the health claims that are made about alkaline water or refuting the claims.” Malkani went on to say, “It’s one of those fads that people are making all kinds of claims about, you know, ‘It’s a miracle cure, and it’s a curative for so many different things, and it can boost your metabolism and prevent cancer,’ and there’s just a lot we don’t know”.

Is the alkaline diet a better alternative?
With that information in mind, for those looking to improve their health by turning away from the acidity of a lot of popular food and beverages, the alkaline diet - also known as the alkaline ash or alkaline acid diet - proves a good alternative. However, if you’re looking for alkaline foods to change your blood’s pH level, it won’t happen. It will though affect the pH level in urine.

The real reason to subscribe to the alkaline diet is that it’s just plain healthy. It’s hard to go wrong with consumption of fruits and vegetables and a lot of leafy items like lettuce, celery, and kale.

Plus, it restricts plenty of junk and processed foods and reduces your intake of high-fat, high-calorie options.

Research and the menu of options do back up the alkaline diet theory of better health through lower acidity, even though it does not achieve it in the primary form that supporters of alkaline water would have you believe.

According to Katherine Brooking, who is a registered dietitian: “There is some good news for fans of alkaline eating. The Alkaline Diet is plant-based and discourages added sugar, so it may help your weight and health, although not because of the pH,” she said. “People who eat balanced, plant-based diets tend to have lower risks of chronic diseases like high blood pressure and diabetes”.

She does go on to note though, there are some key factors you’ll want to follow, just like any other diet: “However, you’ll still need to pay attention to portion sizes, total calorie intake and exercise regularly”.

Is there any benefit to alkaline water?

Alkaline water is perfectly fine to drink, although it’s a zero-sum game. There isn’t enough research to declare Alkaline water as a substantial health benefit or significant factor in preventing diseases such as cancer or heart disease.

And it is not a fountain of youth.

While it is also prudent to be mindful of what goes into your body, the risk of complications from improper consumption of alkaline water should, at this point, be meet with its own skepticism.

That said, some research does show that the broader Alkaline diet does possess some positive attributes simply through the increased consumption of fruits and vegetables, an increase of growth hormone, and the improved function of enzyme and apocrine/exocrine systems.

As with anything health or diet related, moderation and balance are crucial. It’s also necessary to seek advice from a health professional prior to starting any new diet or regimen - food or exercise.

Of course, few things in this world are better and better for you than a tall glass of pure water. And there’s no need to wait on the latest research or a doctor to confirm it.