



Alkaline Mineral Water and Stomach Acid / Alkalinity

It is important that the water you drink is Alkaline but it should also contain the key Electrolyte Minerals (alkaline mineral salts) to help the body maximise hydration at a cellular level.

This is important because **electrolyte minerals** actually carry and balance water, nutrients and metabolic waste products in and out of the cell – this assists the body with both cleansing and nutritional uptake and maintaining a more natural alkaline versus acidic state. *Refer Electrolytes in Water zazen Educational Series.*

At zazen Water we believe that the water you drink should not only be clean and taste great but be good for you – ideally Alkaline with a pH of 7.4 or greater depending on the need (the Alkalinity water due to the presence of a balanced range of essential alkaline minerals).

Many practitioners also recommend increasing the pH of water (above 7.4) if a client is ill or has been dehydrated for a long period – to help with the healing and rebalancing process.

A balanced diet rich in alkaline foods is also an essential part to long-term wellness.

How the Body Works

There are two key benefits to drinking an Alkaline Mineral Water:

- 1. Neutralizing Solid Acidic Wastes into Liquid Form*
- 2. The Removal of Acidic Wastes in Liquid form through Cellular Hydration*

Combined the above benefits assist in creating a more Alkaline body.

1. Neutralizing Solid Acidic Wastes into Liquid Form - explained

In order to digest food and kill bacteria and viruses that come with the food, the inside of our stomach is highly acidic. The stomach pH value is maintained at around 2. When we eat food and drink water, especially alkaline water or alkaline foods, the pH value inside the stomach goes up.

- When this happens, there is a feedback mechanism in our stomach to detect this and to command the stomach wall to secrete more hydrochloric acid into the stomach to bring the pH value back down to 2. So the stomach becomes acidic again.

When we drink alkaline water, more hydrochloric acid is secreted to maintain the stomach pH value. **So how does drinking alkaline water make a difference?**

Understanding Hydrochloric Acid & Alkaline Buffers

There is no hydrochloric acid pouch in our body. If there were, it would burn a hole in our body. The cells in our stomach wall must produce it on an instantly-as-needed basis.

- The ingredients in the stomach cell that make hydrochloric acid (HCl) are carbon dioxide (CO₂), water (H₂O), and sodium chloride (NaCl) or potassium chloride (KCl). $\text{NaCl} + \text{H}_2\text{O} + \text{CO}_2 = \text{HCl} + \text{NaHCO}_3$, or $\text{KCl} + \text{H}_2\text{O} + \text{CO}_2 = \text{HCl} + \text{KHCO}_3$

The by-product of making hydrochloric acid is sodium bicarbonate (NaHCO₃) or potassium bicarbonate (KHCO₃), which goes into blood stream.

These bicarbonates are the alkaline buffers that neutralize excess acids in the blood; they dissolve solid acid wastes into liquid form.

- As they neutralize the solid acidic wastes, extra carbon dioxide is released, which is discharged through the lungs.
- As our body gets old, these alkaline buffers get low; this phenomenon is called acidosis. This is a natural occurrence as our body accumulates more acidic waste products.
- Today with the ingestion of **processed** foods and drinks chemicals and toxins in the air we breathe and in our water (all acidic in nature), the body increasingly has to deal with toxins never designed for it to combat. What it does is store these toxins when it cannot release them (in fatty deposits and joints).

There is, therefore, a relationship between the aging process and the accumulation of acids.



By looking at the pH value of the stomach alone; it seems that alkaline water never reaches the body, however – if you look at the whole body, there is a net gain of alkalinity as we drink alkaline water actually.

- Our blood is slightly alkaline pH 7.369

What Happens when the Stomach Acid is lower than or higher than 2?

When the stomach pH value gets higher than 2 - the stomach releases hydrochloric acid.

- The **more** alkaline the foods or water are we eat or drink the **more** hydrochloric acid is released. **What happens** is the body balances this release by releasing bicarbonate into the blood helping to neutralise solid acidic waste – and maintain a more alkaline system.
- However, if the pH of the stomach is low due to the ingestion of acidic foods (processed, alcohol, meat and sodas etc.), the stomach does **not release as much** hydrochloric acid. The body does **NOT release as much** Bicarbonate into the blood stream, therefore **we do not have the high positive effect of helping to neutralise solid acidic wastes!**



- *That's why we take stomach antacids, which are alkaline, to relieve acidic stomach gas pain. In this case, hydrochloric acid is not produced by the stomach wall; therefore, no alkaline buffer is being added to the blood stream.*

What Happens when Food comes out of the Stomach Digested?

After the food in the stomach is digested, it comes out to the small intestine. The food at this point is so acidic that it will damage the intestine wall. *In order to avoid this problem, the pancreas makes alkaline juice (known as pancreatic juice).*

- This juice is sodium bicarbonate, and is mixed with the acidic food coming out of the stomach. From the above formulae, in order to produce bicarbonates, the pancreas must make hydrochloric acid, which goes into our blood stream.
- We experience sleepiness after a big meal (not during the meal or while the food is being digested in the stomach), when the digested food is coming out of the stomach; that's the time when hydrochloric acid goes into our blood. Hydrochloric acid is the main ingredient in antihistamines and that is what causes drowsiness.

Acid Modern Diets and Environments

A highly acidic diet produces less Bicarbonates which are the alkaline buffers that neutralize excess acids in the blood; they dissolve solid acid wastes into liquid form.

Equal and Opposite

Alkaline or acid produced by the body must have an equal and opposite acid or alkaline produced by the body; therefore, there is no net gain. However, ***alkaline supplied from outside the body, like drinking alkaline water or eating alkaline rich foods, results in a net gain of alkalinity in our body.***

2. The Removal of Acidic Wastes in Liquid form through Cellular Hydration

Ensuring your water is alkaline with a balanced range of minerals including the key electrolyte minerals (most of us are mineral deficient to start with) will ensure that the body can also absorb this water (cellular hydration) and release liquid acidic waste.

If the water is lacking in Alkaline minerals – much of the water will sit in the stomach and a bloated feeling ensues – the body then has to rob minerals already committed to other bodily functions to absorb water into the cells.

- That is one of the reasons many people who drink a “lot of water” each day find that they are still dehydrated and acidic when tested.

When you are well hydrated the body can complete many of the metabolic process including the removal of Acidic Liquid Waste.

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