

## Ionised or Alkaline Water

Here, in a nutshell, are a few basic facts that I believe anyone with a solid background in chemistry or physiology would concur with:

- "Ionised water" is nothing more than sales fiction; the term is meaningless to chemists.
- Pure water (that is, water containing no dissolved ions) is too non-conductive to undergo significant electrolysis by "water ioniser" devices.
- Pure water can never be alkaline or acidic, nor can it be made so by electrolysis. Alkaline water must contain metallic ions of some kind — most commonly, sodium, calcium or magnesium.
- Pure water is 100% pure H<sub>2</sub>O – with no additives of any type, and is referred to as Medical Grade water.
- The idea that one must consume alkaline water to neutralize the effects of acidic foods is ridiculous; we get rid of excess acid by exhaling carbon dioxide.
- If you do drink alkaline water, its alkalinity is quickly removed by the acidic gastric fluid in the stomach.
- Uptake of water occurs mainly in the intestine, not in the stomach. But when stomach contents enter the intestine, they are neutralized and made alkaline by the pancreatic secretions — so all the water you drink eventually becomes alkaline anyway.
- The claims about the health benefits of drinking alkaline water are not supported by credible scientific evidence.
- "Ionised"/alkaline water is falsely claimed to be an anti-oxidant. It is actually an oxidising agent, as can be seen by its ability to decolorize iodine.
- There is nothing wrong with drinking slightly acidic waters such as rainwater. "Body pH" is a meaningless concept; different parts of the body (and even of individual cells) can have widely different pH values. The pH of drinking water has zero effect on that of the blood or of the body's cells.
- If you really want to de-acidify your stomach (at the possible cost of interfering with protein digestion), why spend hundreds of dollars for an electrolysis device when you can take calcium-magnesium pills, or Milk of Magnesia?
- Electrolysis devices are generally worthless for treating water for health enhancement, removal of common impurities, disinfection, and scale control. Claims that "ionised" waters are antioxidants are untrue; hypo chlorites (present in most such waters) are in fact oxidising agents.
- Claims that "water ionisers are approved for use in Japanese hospitals" are misleading: these "approvals" merely attest to the machines' safety — that they will not electrocute you! The Japanese Health Ministry is highly critical of therapeutic claims made for alkaline water.
- Claims that "alkaline water machines" remove harmful ingredients or elements in polluted (chemically-laden) water cannot be proven by science. In fact, the reverse is true, with analysis showing the toxic elements to be still there.

