

## ACID AND ALKALINE BALANCE

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When discussing acid and alkaline balance in the body, it can be a tricky concept to explain. Not to be confused with simply acid and alkaline foods—such as the acidity of an orange in your mouth or the alkalinity of milk, when we are speaking of the acid and alkaline balance in a nutritional sense, it is in regards to acid forming and alkaline forming foods.

Through homeostatic mechanisms, the many different vital fluids in our body maintain a certain pH level. The most crucial is the blood plasma. Blood must maintain a pH in-between 7.35 and 7.45, this is slightly alkaline. pH ratios are measured on a scale. 1-7pH is considered acid and 7pH and over is considered alkaline, this means when the numbers go down, the acidity goes up. Water is neutral at seven.

How are different foods acid and alkaline forming? Things that keep the blood alkaline are foods that are rich in alkalizing minerals. These are buffering minerals such as sodium, potassium, calcium, magnesium and iron. So therefore, mineral rich foods will alkalize the blood. This includes most fruits and vegetables, most beans and legumes and sea vegetables (dulse, kelp, hiziki, nori).

Without getting into heavy chemistry, there are two main ways certain foods are acidic. The first way concerns most forms of protein and fat which are considered acidic, especially the more concentrated forms in animal products. This includes beef, pork, chicken, fish and eggs.

Whole grains and cereals are also acidic, such as brown rice, corn and wheat products. These have an acidifying effect on your bodily fluids due to the way they are processed in your system, after they are broken down in your kidneys, proteins and fats both leave an acidic residue. When it is metabolized, alcohol is also highly acidifying. This is natural and only becomes unhealthy if there is an excess of these acids.

The second way is less natural and has only been a result of the past 100 years since refined (white) sugar and flour have become staple food items in our culture. White sugar and flour are processed from sugar cane and whole wheat. Due to the refining process that robs these whole foods of their original nutrients that are necessary for their metabolism in your body they are considered 'empty foods'. When refined and processed foods are consumed in high amounts, your body balance will move towards acidic due to the depleting effects these substances have on the mineral levels in your body.

Buffers are the middle ground, which can produce either effect. These are dairy foods and soybean products. They tend to balance on the scale due to their high protein ratio, which makes them more acid forming, yet alkalizing because of their high mineral content.

So what does this mean in terms of balance? Acid and alkaline forming foods are both necessary in the chemistry of the body, but it's the ratio between the two that makes a difference to your state of health. There are many different schools of thought regarding the exact ratio, but the overall consensus is that we should always be leaning more towards an alkaline state, to facili-

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tate the alkaline pH level of the blood. What happens if it shifts either way? In a serious state over alkaline can result in hyperventilation and extended vomiting. This is very uncommon, due to the fact our cultural diet usually causes an over acidic state. An extreme case of over acidity results in diabetic coma and death. But there are many warning signs before this point.

Macrobiotic, a Japanese dietary health system, states that an over acidic state is the root of all disease. Over acidity weakens the immune system, it promotes a state of inflammation of tissue which leads to chronic pain such as headaches, joint pain and intestinal cramping. Acidity effects our absorption of nutrients, primarily minerals, which then in turn determines our energy levels and body efficiency, this can create fatigue, mal absorption of food and increased stress levels. If an acidic condition persists, the fluid surrounding the cells can become so inhospitable that cells will begin to die, this can be the beginning of cancer.

So it is clear how keeping this balance is crucial to your spinal balance and overall health. In order to help the maintenance of healthy spinal tissue and keep yourself pain free and strong, be mindful of the ratio you are eating of either food. Waking up in the morning with a sour taste in your mouth is a sign of over acidity. It's interesting that we automatically go for orange juice, which has an alkalizing effect on the system. So how do you begin to shift your ratios? Try cutting down on alcohol, sugar products and meat- especially beef and pork. This can seem challenging, but you'll notice how good you feel even after a few small

changes. Remember that acidic foods aren't bad, we just tend to eat too many of them so a healthy balance must be sought. Try and integrate more vegetables and fruits into your diet. Eating whole grains and beans can be less acidic than meat when getting your daily protein. And what's this about sea vegetables? The recent craze of 'green drinks' in the health food community is has got the right idea. Seaweed such as kelp, hiziki and dulse have incredible mineralizing properties and can bring energy and balance to an over acidic system. Deep breathing helps distribute oxygen and nutrients throughout your system, this promotes an alkaline state. You can achieve this through exercise or breathing techniques. If you want to check what your balance is, most vitamin stores will carry litmus paper, which will indicate the acid/alkaline levels of your body. For more in depth information regarding this subject, check your local bookstores or alternative health references.

Using mindfulness and care with your diet can make a significant difference in your spinal health and overall wellbeing, we encourage you to take action and exercise the power you have to heal your body. ☺

***The secret of health and happiness lies  
in successful adjustment to the  
ever-changing conditions on this globe;  
the penalties for failure in this great process  
of adaptation are disease and unhappiness.***

***-Hans Selye***