

acid/alkaline balance

a beginner's guide

Naturopath Stephen Sprada explains why getting your acid/alkaline balance right is so important for overall physical health.

With the explosion of gene research in recent years, one thing has become evident: how long it takes for genes to adapt to changed environments. Our hunter-gatherer ancestors consumed a diet very different to what is typical in the Western world today. Their diet was based on minimally processed plant and animal foods. And despite the advent of agriculture approximately 10,000 years ago, the evidence clearly shows that our genes are still battling to adapt to these dietary changes.

The food technology evolution has accelerated rapidly in the last century, going hand in hand with increased rates of so-called 'lifestyle diseases' of the heart, circulation, arthritis and cancer.

The Western acid-forming diet

After the appearance of stone tools and the invention of automated rolling and sifting devices, grains became a diet staple. When livestock became domesticated, milk, cheese and other dairy products were introduced. Salt consumption rose when the technology to mine, process and transport it became available. Meat consumption increased with animal husbandry and new technology that allowed grains to be consumed efficiently, enabling cattle to fatten up quickly. Sugar consumption has also risen rapidly since the beginning of the Industrial Revolution.

Almost all foods we eat (after being digested, absorbed, and metabolised) release either an acid or an



DID YOU KNOW?

- A food's acid or alkaline-forming tendency in the body has nothing to do with the actual pH of the food itself. For example, lemons are very acidic but the end result after digestion and assimilation is very alkaline, so lemons are alkaline-forming in the body. Likewise, meat will test alkaline before digestion but leaves a very acidic residue in the body so, like nearly all animal products, is very acid-forming.

alkaline base (bicarbonate) into the blood. Fresh fruit, vegetables, roots, tubers, nuts and legumes release an alkaline base. Grains, fish, meat, poultry, shellfish, cheese, milk and salt produce an acid base. The introduction and dramatic rise in our consumption of

processed foods, and the reduction in the consumption of fresh fruit and vegetables means the typical Western diet has become more acid-producing.

The dangers of too much acid

Human blood is slightly alkaline, with a normal pH (potential of hydrogen) level of between 7.35 and 7.45. The theory behind adopting a more alkaline diet is so that blood reflects this pH level, as it did in the past, and be slightly alkaline. A diet high in acid-producing foods is thought to disrupt the acid/alkaline balance and the consequences of a prolonged imbalance forces the body to neutralise the acidity (which has a burning effect) by continually robbing the body's stores of alkaline minerals – mainly calcium and magnesium, but also potassium and sodium – as it tries to restore equilibrium.

According to some natural health practitioners, an overly acid-producing diet is the cause of a number of chronic diseases. Some practitioners recommend an alkaline diet if a person has the following symptoms and other illnesses have been ruled out:

- Lack of energy
- Excessive mucus production
- Nasal congestion
- Frequent colds and flu
- Anxiety, nervousness and irritability
- Ovarian cysts, polycystic ovaries and benign breast cysts
- Headache

Even mild acidosis can lead to more complex health problems over a period of time, such as:

- Cardiovascular damage
- Weight gain and obesity
- Bladder and kidney conditions, including kidney stones
- Osteoporosis (weak, brittle bones, hip fractures, bone spurs)
- Chronic fatigue
- Yeast/fungal overgrowths
- Joint pain, aching muscles and lactic acid build-up

Scientific evidence

Although conventional medicine now accepts that increasing consumption of fruit and vegetables and

reducing intakes of meat, salt and refined grains is beneficial to health, many conventional doctors do not believe that an acid-producing diet is the foundation of chronic illness. Large, well-designed clinical trials on the effectiveness of the alkaline diet for general health are lacking, however, recent genetic research has detailed the impact of constant acidity from modern diets. There is also evidence now to suggest that alkaline diets may help prevent the formation of calcium kidney stones, osteoporosis and age-related muscle wasting.

Achieving a balance

An increased awareness of how acid or alkaline your diet is will lead to a much healthier daily existence. Importantly, the emphasis is on achieving a balance – a diet with excess alkalinity has its own issues, including digestive problems and inadequate assimilation of nutrients. It's important to note we are talking about the pH of the body's fluids and tissues, not the pH of the stomach, which has to be acidic so food can be properly digested.

There are varying opinions on what the ideal acid/alkaline ratio should be, but it should fall

continued over

somewhere between 6.5 and 7.5 on the pH scale. This scale is a measure of acidity or alkalinity of a solution. It is measured on a scale of 0 to 14 – the lower the pH, the more acidic the solution is. The higher the pH, the more alkaline the solution is. A solution that is neutral (neither acid nor alkaline) is 7.

Testing pH levels

To determine the state of your own pH levels, test either your saliva or urine at home with pH test strips ([These can be purchased from our order page](#)). If your urinary pH fluctuates between 6.0 and 6.5 in the morning and between 6.5 and 7.0 in the evening, your body is functioning within a healthy range. The healthy range for saliva stays between 6.5 and 7.5 all day. The best time to test is about an hour before meals and two hours after a meal. You can test your pH two days a week until you get an improved result.



Chlorophyll rich superfoods are alkaline forming in the body

- Alfalfa – one of nature's richest mineral foods, alfalfa is also a great source of chlorophyll which acts as a body cleanser and a natural deodoriser. Alfalfa contains potassium, calcium, magnesium, phosphorous, eight essential amino acids and all known vitamins!
- Barley grass – one of the most ancient cultivated foods, barley grass is rich in chlorophyll, vitamins B1 and C, iron, betacarotene, potassium, calcium and magnesium.
- Chlorella – a very ancient single cell algae, is rich in protein, and contains eight essential amino acids and is a rich source of chlorophyll.
- Spirulina – the most nutrient rich of all blue-green algae, spirulina contains potent anti-oxidants including betacarotene and super-oxide dismutase and is rich in vitamin B12, chlorophyll, gamma linolenic acid and iron.
- Wheatgrass – a powerful superfood which contains over 90 minerals, including manganese, calcium, selenium and many more. Wheatgrass has a greater percentage of protein than eggs.



The acid/alkaline food table

MOST ALKALINE	ALKALINE	LOWEST ALKALINE	FOOD CATEGORY	LOWEST ACID	ACID	MOST ACID
Stevia	Maple syrup, rice syrup	Raw honey, raw sugar	Sweeteners ← →	Processed honey, molasses	White sugar, brown sugar	NutraSweet, Equal, Aspartame, Sweet 'N Low
Lemons, watermelon, limes, grapefruit, mangoes, papayas	Dates, figs, melons, grapes, papaya, kiwi fruit, blueberries, apples, pears, raisins	Oranges, bananas, cherries, pineapple, peaches, avocados	Fruits ← →	Plums, processed fruit juices	Sour cherries, rhubarb	Blackberries, cranberries, prunes
Asparagus, onions, vegetable juices, parsley, raw spinach, broccoli, garlic	Okra, squash, green beans, beets, celery, lettuce, zucchini, sweet potatoes, carob	Carrots, tomatoes, fresh corn, mushrooms, cabbage, peas, potato skins, olives, soybeans, tofu	Beans/ Vegetables/ Legumes ← →	Cooked spinach, kidney beans, string beans	Potatoes (without skins), pinto beans, navy beans, lima beans	Chocolate
	Almonds	Chestnuts	Nuts/seeds ← →	Pumpkin seeds, sunflower seeds	Pecans, cashews	Peanuts, walnuts
Olive oil	Flaxseed oil	Canola oil	Oils ← →	Corn oil		
		Amaranth, millet, wild rice, quinoa	Grains/ Cereals ← →	Sprouted wheat bread, spelt, brown rice	White rice, corn, buckwheat, oats, rye	Wheat, white flour, pastries, pasta
			Meats ← →	Venison, cold water fish	Turkey, chicken, lamb	Beef, pork, shellfish
	Breast milk	Soy cheese, soy milk, goat's milk, goat's cheese, whey	Eggs/dairy ← →	Eggs, butter, yoghurt, buttermilk, cottage cheese	Raw milk	Cheese, homogenised milk, ice-cream
Herb teas, lemon water	Green tea	Ginger tea	Beverages ← →	Tea	Coffee	Beer, soft drinks