
MARCH 2007 | **JAVACID**
PRODUCT REPORT

PTM Food Consulting Inc.
38 Industrial Way E. Suite 7
Eatontown, N.J. 07724
732.693.1516
www.foodconsultant.biz

The Importance Of Acid / Alkaline Balance

Over acidity, which can become a dangerous condition that weakens all body systems, is very common today. It gives rise to an internal environment conducive to disease, as opposed to a pH-balanced environment, which allows normal body function necessary for the body to resist disease.

A healthy body maintains adequate alkaline reserves to meet emergency demands. When excess acids must be neutralized, our alkaline reserves are depleted leaving the body in a weakened condition.

Understanding pH

pH (potential of hydrogen) is a measure of the 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, the higher the pH the more alkaline (or base) the solution. When a solution is neither acid nor alkaline it has a pH of 7, which is neutral.

Water is the most abundant compound in the human body, comprising 70% of the body. The body has an acid-alkaline (or acid-base) ratio called the pH, which is a balance between positively charged ions (acid-forming) and negatively charged ions (alkaline-forming.) The body continually strives to balance pH. When this balance is compromised many problems can occur.

While this entire process starts with the stomach and what we consume, we are talking about the effects of what we eat that contributes to the pH of the entire body's fluids and tissues.

Testing Your Body's Acidity or Alkalinity with pH Strips

It is recommended that you test your pH levels to determine if your body's pH needs immediate attention. By using pH test strips, you can determine your pH factor quickly and easily in the privacy of your own home. If your urinary pH fluctuates between 6.0 to 6.5 in the morning and between 6.5 and 7.0 in the evening, your body is functioning within a healthy range. If your saliva stays between 6.5 and 7.5 all day, your body is functioning within a healthy range. The best time to test your pH is about one hour before a meal and two hours after a meal. Test your pH two days a week.

Urine pH

The results of urine testing indicate how well your body is assimilating minerals, especially calcium, and magnesium. These are called the "acid buffers" because they are used by the body to control the acid level. If acid levels are too high, the body will not be able to excrete acid. It must store the acid in body tissues (autotoxication) or buffer it—that is, borrow minerals from organs, bones, etc. in order to neutralize acidity. The effects of "borrowing" these minerals can be disastrous to our health.

Saliva pH

You'll also want to test the pH of your saliva. The results of saliva testing indicate the activity of digestive enzymes in your body, especially the activity of the liver and stomach. This reveals the flow of enzymes running through your body and shows their effect on all the body systems. Some people will have acidic pH readings from both urine and saliva—this is referred to as "double acid."

What Causes Acidic Conditions?

The reason acidosis is more common in our society is mostly due to the typical American diet, which is far too high in acid-producing foods like coffee, meat, eggs and dairy, and far too low in alkaline-producing foods like fresh vegetables.

Additionally, we eat acid-producing processed foods like white flour and sugar and drink acid-producing beverages like coffee and soft drinks. We use too many drugs, which are acid forming; and we use artificial chemical sweeteners like NutraSweet, Sucralose, Saccharin, Equal, or Aspartame, which are extremely acid forming. One of the best things we can do to correct an overly-acid body is to clean up the diet and consume foods / supplements that produce an alkaline condition.

Most people who suffer from unbalanced pH are acidic. This condition forces the body to borrow minerals—mostly calcium, and magnesium—from vital organs and bones to buffer (neutralize) the acid and safely remove it from the body.

Because of this strain, the body can suffer severe and prolonged damage due to high acidity—a condition that may go undetected for years.

Mild acidosis can cause such problems as:

1. Cardiovascular damage, including the constriction of blood vessels and the reduction of oxygen.
2. Weight gain, obesity and diabetes.
3. Bladder and kidney conditions, including kidney stones.
4. Immune deficiency.

5. Acceleration of free radical damage, possibly contributing to cancerous mutations.
6. Premature aging.
7. Osteoporosis; weak, brittle bones, hip fractures and bone spurs.
8. Joint pain, aching muscles and lactic acid buildup.
9. Low energy, and chronic fatigue.

A recent seven-year study conducted at the University of California, San Francisco, on 9,000 women showed that those who have chronic acidosis are at greater risk for bone loss than those who have normal pH levels. The scientists who carried out this experiment believe that many of the hip fractures prevalent among middle-aged women are connected to high acidity caused by a diet rich in animal foods and low in vegetables. This is because the body borrows calcium from the bones in order to balance pH. — *American Journal of Clinical Nutrition*

It All Starts With The Stomach

Acidity refers to a set of symptoms caused by an imbalance between the acid secreting mechanism of the stomach and proximal intestine and the protective mechanisms that ensure their safety.

The stomach normally secretes acid that is essential in the digestive process. This acid helps in breaking down the food during digestion. When there is excess production of acid by the gastric glands of the stomach, it results in the condition known as acidity.

Acidity is responsible for symptoms like dyspepsia, heartburn and the formation of ulcers (erosion of the lining of the stomach or intestines). Consumption of coffee, alcohol, highly spicy foodstuffs, non-vegetarian diets, and Non Steroidal Anti-Inflammatory Drugs (NSAID's) also predispose to gastric acidity.

The stomach, intestines, and digestive glands secrete hydrochloric acid and various enzymes, including pepsin that break down and digest food. The stomach must also be protected from the same acid and enzymes, or it too can be attacked by the gastric juices. The acid may enter the lower part of the Esophagus (Gastro-Esophageal Reflux), due to some weakness in the normal sphincter mechanism that prevents such reflux. This causes heartburn. It commonly occurs after specific beverages or meals.

Ulcers also occur as a result of over secretion of acid. This may happen when there is an imbalance between the digestive juices used by the stomach to break down food and the various factors that protect the lining of the stomach and duodenum (the part of the small intestine that adjoins the stomach).

A peptic ulcer is a raw area in the lining of the upper part of the small intestine (duodenal ulcer) or the stomach (gastric ulcer), whose protective mucosal lining

has been eroded away by the gastric juices. Duodenal ulcers are three times more common than gastric ulcers. Hydrochloric acid, secreted in the stomach, is one of the factors in the development of ulcers, but is not solely responsible. Acid production in patients with duodenal ulcers tends to be higher than normal, while in those with stomach or gastric ulcers; it is usually normal or lower.

Excessively large amounts of acid secretion occur in certain situations, such as in a condition known as Zollinger-Ellison Syndrome, in which large amounts of secretion are stimulated by tumors located in the pancreas or duodenum.

Pepsin is an enzyme that breaks down proteins. Pepsin and hydrochloric acid cause damage to the stomach or duodenum if the stomach's protective system is altered or damaged. The mucous layer, which coats the stomach and duodenum, forms the first line of defense against acid and pepsin.

The body also secretes bicarbonate into the mucous layer, which neutralizes the acid. The defense system also consists of hormone-like substances known as prostaglandins, which help to keep the blood vessels in the stomach dilated, ensuring adequate blood flow. Lack of adequate blood flow to the stomach contributes to ulcers. Prostaglandins are also believed to stimulate bicarbonate and mucous production, which help protect the stomach. If any of these defense mechanisms are deficient, acid and pepsin can attack the stomach lining causing an ulcer.

Javacid Acid Reducer

Javacid is an all natural acid reducer comprised of a special form of Licorice called DGL. Javacid also contains Calcium Carbonate and Fiber to help minimize acid production and prevent the painful effects of excessive stomach acid.

All ingredients in Javacid are GRAS, which means generally recognized as safe by the US government.

Javacid is great for reducing the acidic effects of coffee. Just empty one packet of Javacid in your favorite coffee beverage and feel how it works immediately to reduce the acidic effects of coffee.

Javacid is also great to help the body provide support against many types of acid related stomach disorders. Decreasing extra stomach acid can help relieve symptoms such as stomach pain, heartburn, difficulty swallowing, persistent cough, and trouble sleeping. It can also prevent serious acid damage to your digestive system.

How Javacid Helps Neutralize The Effects Of Acid Forming Foods

Javacid contains a specialized form of Licorice root called DGL, which has a long history of use for reducing acid, and soothing inflamed injured mucous membranes in the digestive tract. DGL may protect the stomach and duodenum by increasing production of mucin, a substance that protects the lining of these organs against stomach acid and other harmful substances.¹ According to laboratory research, flavonoids in licorice may also inhibit growth of *H. pylori*.²

For people with peptic ulcer, many doctors who use herbal medicine use the deglycyrrhized form of licorice (DGL). In making DGL, the portion of licorice root that can increase blood pressure and cause water retention is removed, while the acid reducing, mucous-membrane-healing part of the root is retained.³

In some reports, DGL has compared favorably to the popular drug cimetidine (Tagamet) for treatment of peptic ulcer⁴. After DGL and cimetidine were discontinued, one study reported fewer recurrences in the DGL group than in the cimetidine group.⁵

Though not every trial has reported efficacy,⁶ most studies find DGL to facilitate healing of peptic ulcer. A review of the DGL research shows that the studies not reporting efficacy used capsules, and the trials finding DGL to be helpful only when coming into contact with saliva.⁷

Javacid also contains the common antacid Calcium Carbonate which has a long history of reducing stomach acid when consumed. It works by

binding to excess acid produced by the stomach. This neutralises the acid and decreases the acidity of the stomach content. The alkalizing properties of Calcium also helps reduce the autotoxication process.

Javacid also contains fiber from inulin (chickory root) and a digestion resistant maltodextrin called Fibersol 2. Inulin is a naturally occurring carbohydrate, which is extracted from chicory root. It is a dietary fiber and has the ability to activate the beneficial good bacteria in the digestive tract, which is critical to the gut health of people with excessive stomach acid. Fiber also helps absorb excessive acid so that it can be formed and passed through the gut. It also has been shown to increase the bioavailability of calcium, which can work favorably in reducing the autotoxication acid forming process.

The other form of fiber used in Javacid is Fibersol 2, which is similar to Inulin, is a maltodextrin-like oligosaccharide is also known for its ability to promote healthy intestinal flora, which gets compromised by people with excessive stomach acid.

In vitro, Fibersol-2 fermentation increased total short-chain fatty acid production compared with gum arabic. In an animal experiment, researchers noted Fibersol-2, as well as Inulin supplementation led to higher total fecal weight and increased fecal concentrations of Bifidobacteria.

According to human research conducted in Japan, Fibersol-2 may be able to relieve constipation. Eighty female volunteers were given 40 g/d of rice crackers, containing a total of 5 g/d Fibersol-2. This regimen was seen to increase defecation frequency and fecal amount.

1. Goso Y, Ogata Y, Ishihara K, Hotta K. Effects of traditional herbal medicine on gastric mucin against ethanol-induced gastric injury in rats. *Comp Biochem Physiol* 1996;113C:17-21.
2. Beil W, Birkholz W, Sewing KF. Effects of flavonoids on parietal cell acid secretion, gastric mucosal prostaglandin production and *Helicobacter pylori* growth. *Arzneimittelforschung* 1995;45:697-700.
3. Brogden RN, Speight TM, Avery GS. Deglycyrrhizinated licorice: A report of its pharmacological properties and therapeutic efficacy. *Drugs* 1974;8:330-9.
4. D'imperio N, Piccari GG, Sarti F, et al. Double blind trial in duodenal and gastric ulcers. Cimetidine and deglycyrrhizinized liquorice. *Acta Gastro-Enterologica Belgica* 1978;41:427-34.
5. Morgan AG, Pacsoo C, McAdam WAF. Maintenance therapy: a two year comparison between Caved-S and cimetidine treatment in the prevention of symptomatic gastric ulcer recurrence. *Gut* 1985;26:599-602.
6. Bardhan KD, Cumberland DC, Dixon RA, Holdsworth CD. Clinical trial of deglycyrrhizinised liquorice in gastric ulcer. *Gut* 1978;19:779-82.
7. Gaby AR. Deglycyrrhizinated licorice treatment of peptic ulcer. *Townsend Letter for Doctors* 1988;July:306 [editorial/review].