Ph the Acid-Alkaline Balance

pH scale
* approximate pH numbers

- Hydrochloric acid
- Battery acid
- Upset stomach acid
- Normal stomach acid
- Vinegar
- Acidic soil
- Lemons
- Orange juice
- Tomatoes
- Salmon
- Bananas
- Potatoes
- Coffee
- Normal rain
- Human saliva
- Normal blood
- Bread
- Pure water
- Seawater
- Baking soda
- Phosphate detergents
- Borax
- Milk of magnesia
- Ammonia
- Nonphosphate detergents
- Bleach
- Sodium hydroxide
Ph the Acid-Alkaline Balance

TRICKLE CHARGING EXPLAINED

HUMAN BATTERY

GSRtDCs can Recharge Your Battery

Electricity from your fingers?
Yes. When You are Healthy You are a Battery that GSRtDCs can Easily Charge

As we charge the human battery with the Eductor we stabilize the Acid Alkaline balance.
In chemistry, pH (/ˈpiːh/) is a numeric scale used to specify the acidity or basicity (alkalinity) of an aqueous solution. It is roughly the negative of the logarithm to base 10 of the concentration, measured in units of moles per liter, of hydrogen ions. More precisely it is the negative of the logarithm to base 10 of the activity of the hydrogen ion. Solutions with a pH less than 7 are acidic and solutions with a pH greater than 7 are basic. Pure water is neutral, being neither an acid nor a base. Contrary to popular belief, the pH value can be less than 0 or greater than 14 for very strong acids and bases respectively. pH is defined as the decimal logarithm of the reciprocal of the hydrogen ion activity, $a_{H^+}$, in a solution.

$$\text{pH} = -\log_{10}(a_{H^+}) = \log_{10}\left(\frac{1}{a_{H^+}}\right)$$

This definition was adopted because ion-selective electrodes, which are used to measure pH, respond to activity. Ideally, electrode potential, $E$, follows the Nernst equation, which, for the hydrogen ion can be written as

$$E = E^0 + \frac{RT}{F} \ln(a_{H^+}) = E^0 - \frac{2.303RT}{F}\text{pH}$$

where $E$ is a measured potential, $E^0$ is the standard electrode potential, $R$ is the gas constant, $T$ is the temperature in kelvin, $F$ is the Faraday constant. For $H^+$ number of electrons transferred is one. It follows that electrode potential is proportional to pH when pH is defined in terms of activity. Precise measurement of pH is presented in International Standard ISO 31-8 as follows: A galvanic cell is set up to measure the electromotive force (e.m.f.) between a reference electrode and an electrode sensitive to the hydrogen ion activity when they are both immersed in the same aqueous solution. The reference electrode may be a silver chloride electrode or a calomel electrode. The hydrogen-ion selective electrode is a standard hydrogen electrode.
Lewis Acids and Lewis Bases

• **Lewis bases** are species with available electrons than can be donated to form a new bond.

• **Lewis acids** are species that can accept these electrons to form new bonds.

• Since a Lewis acid accepts a pair of electrons, it is called an **electrophile**.
If we charge a battery too fast we can break it, people have exploded their car batteries trying to charge them too fast. So they invented the trickle charger to charge the battery slowly.

If we try to charge the human body too fast or too much (beyond 4.5 volts or 15 milliamps), the body has safety circuit breakers that shut down charging as a safety measure if it is too much or too fast. So I invented a bio-trickle charge to send electrons in or out safely, gently, and efficiently. Since pH is a measure of positive versus negative charges in the body, now we can correct pH via the trickle charge. I should get a Nobel Prize in Medicine for this.

http://www.downloads.imune.net/medicalbooks/When%20the%20body%20is%20too%20alkaline%20or%20acid%20%20know%20what%20to%20do%20.pdf
Alkalosis

When in a state of metabolic alkalosis, the enzyme systems of the body are running sub-par. This pushes down pulse and blood pressure, inhibits sympathetic activity and can contribute to low thyroid activity. In this state a person will:

- Have a difficult time getting out of bed in the morning
- Feel more like the ‘tortoise’, less like the ‘hare’
- Feel sluggish
- Feel burned out and tired
- Have a much higher tolerance for carbon dioxide, and should be able to hold breath for 60 seconds or more.
- In metabolic alkalosis, and in potassium depletion alkalosis the saliva pH will be less than 6.6 and the urine pH will be greater than 6.3. In respiratory alkalosis, the saliva pH will tend to be higher than 6.8.
RESPIRATORY ALKALOSIS

- Seizures
- Deep, Rapid Breathing
- Hyperventilation
- Tachycardia
- ↓ or Normal BP
- Hypokalemia
- Numbness & Tingling of Extremities
- Lethargy & Confusion
- Light Headedness
- Nausea, Vomiting

Causes:
- Hyperventilation (Anxiety, PE, Fear)
- Mechanical Ventilation

CAUSES OF ALKALOSIS

HYPERVENTILATION

Results In...
- Anxiety
- High Altitudes
- Pregnancy
- Fever

ALKALOSIS - pH 7.4

- Loss of Gastric Juices
- Antacids
- Overuse of Antacids
- Potassium Wasting Diuretics (↑ Loss of H+)

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**Acidosis**

When in a state of metabolic acidosis, the enzyme systems of the body are running on high speed. This pushes the sympathetic nerves of the body, and forces the adrenal glands into overdrive. In this state a person will:

- Have Agitation
- Feel Nervousness
- Have Anxiety
- Feel more like the ‘hare’, less like the ‘tortoise’
- Feel physically tired but mentally wired
- Compensate by tending to take deeper inhalations
- Have a low tolerance for carbon dioxide and can hold breath for less than 45 seconds in metabolic acidosis
Acidic bodies are unhealthy bodies. When the body is acidic, it creates an unwanted environment where illness, bacteria, and yeast thrive. When the body is overly acidic, the body takes minerals from vital organs and bones to neutralize the acid and remove it from the body. Because of this, the body’s mineral reserves such as calcium, sodium, potassium and magnesium can run dangerously low and cause damage that can go undetected for years, until it reaches unhealthy levels, causing acidosis.

Most of us are already consuming enough acid forming foods, such as dairy, grains, meats and sugar. Since the body is constantly generating acidic waste products from the metabolism, those waste products need to be neutralized or excreted in some way. In order to neutralize the constant acid generation, we need to supply the body with more alkaline foods.
Consider the health problems caused by mild acidosis (poor pH balance):

- Inflamed sensitive gums, cavities
  - Immune deficiency
  - Sciatica, lumbago, stiff neck
  - Respiratory problems, shortness of breath, coughing
  - Yeast fungal overgrowth
  - Low energy and chronic fatigue
  - Cardiovascular damage, including the constriction of blood vessels and reduction in oxygen
  - Heart problems, arrhythmias, increased heart rate
  - Weight gain, obesity and diabetes
  - Bladder and kidney infections
  - Accelerated free radical damage
  - Premature aging
  - Nausea, vomiting, diarrhea
  - Osteoporosis, weak brittle bones, hip fractures, bone spurs
  - Headaches, confusion, sleepiness
  - Joint pain, aching muscles and lactic acid buildup
  - Allergies, acne

Doesn’t the body adjust pH on its own?

Yes it can, but it does so at a price. The normal pH for all tissues and fluids in the body, except the stomach is alkaline. With the exception of blood, all of the body systems have a wide pH range, in part so they can shift to maintain the blood pH, which must be maintained at the very narrow margin of 7.35 to 7.45. For example, if the system becomes too acidic, the blood will take alkaline forming elements from the digestive enzyme system of the small intestine. This now creates a less than optimal environment for proper digestion. So while the body can adjust pH on its own, it does so at a price to other systems in the body, which can lead to additional health problems.
Start by knowing your pH

pH testing is important because it allows an individual to get a numeric representation of the current level of acidification in their body. A healthy average pH reading will range anywhere from 6.75 to 7.25. The optimal pH numeric reading is 7.36. To learn more about pH testing check references at end of article.

You can’t tell if food is acidic or alkaline by taste alone

For example, many people think of lemons as acidic, while it is classified as an acidic fruit, it is actually an alkaline forming food. During the process of digestion the acids are oxidized into carbon dioxide and water, therefore they do not create an acid condition in the system.

Calcium, iron, magnesium, potassium and sodium are the main alkalizing minerals. Foods that are high in these minerals are considered alkaline forming food. Most foods have both acid and alkaline minerals in them. If acidic minerals are greater in concentration than that food is considered acidic and vice versa.
Ph the Acid-Alkaline Balance

Acidosis Symptoms

**Book Source: Alkalize or Die**
Author Dr. Theodore Baroody

Beginning symptoms | Moderate symptoms | Advanced symptoms

- acne
- agitation
- muscular pain
- cold hands/feet
- dizziness
- low energy
- joint pains that travel
- food allergies
- chemical sensitivities to odor
- hyperactivity
- panic attacks
- pre-menstrual/menstrual cramping
- pre-menstrual anxiety/depression
- lack of sex drive
- bloating
- heartburn
- diarrhea
- constipation
- hot urine
- strong smelling urine
- mild headaches
- rapid panting breath
- rapid heartbeat
- irregular heartbeat
- white coated tongue
- hard to get up in morning
- excess head mucus/stuffiness
- metallic taste in mouth
- cold sores - herpes 1 & 2
- depression
- loss of memory
- loss of concentration
- migraines headaches
- insomnia
- asthma
- gastritis
- colitis
- bronchitis
- hay fever
- ear aches
- hives
- impotence
- urethritis
- cystitis
- swelling
- sinusitis
- psoriasis
- endometriosis
- stuttering
- viral infections/colds-flus
- disturbance - smell/taste/vision
- bacterial infections-staph/strep
- fungal infections-athletes foot/vaginal
- urinary infection
- excessive falling hair
- numbness and tingling

**ACTION:** get pH test strips from your health food store and test your pH

**Book:**
www.tinyurl.com/kcfu4ur

**fb/dave.sommers1**
INTRODUCTION TO ACID – BASE BALANCE

Acid-base balance refers to the complex array of mechanisms employed to regulate the concentration of hydrogen ions in the body fluids, even though H+ ions are present only in trace amounts. There is almost four thousand times more Na+ in blood plasma than H+; yet H+ is important because it is so reactive. It is simply a positive charge (a proton) that can easily attach to a variety of molecules, especially proteins, changing their charge and how they interact. Pure water contains 0.0001 mM H+ (pH = 7.0). Any aqueous solution that contains more H+ is acidic; if it contains less, it is called alkaline. Blood contains 0.00004 mM H+ (pH = 7.4); it is slightly alkaline.

Although free H+ ions are scarce, there are huge numbers of potential H+ lurking in the background bound to other substances. To understand acid-base balance, we must take into account substances that are sources of H+ and those that may absorb H+, as well as following the concentration of free H+ ions. Sources are called acids; an acid is a substance that gives up H+. A strong acid gives up most of its H+; a weak one gives up only part. A base is a substance that takes up H+.

A buffer is a pair of substances that resist changes in acidity of a solution. It works by storing (binding) the H+. When H+ is added to a solution containing buffer, it is "soaked up" by empty storage sites on some of the buffer molecules. When H+ is removed, it is replaced by H+ that had been stored on other buffer molecules. In order to
work, a buffer must have some molecules with storage sites that are occupied by H+ while other molecules have
empty (storage) sites. Those buffer molecules with occupied sites are acids (they can give up H+); those that are
unoccupied are bases (they can take up H+).

The pair bicarbonate/carbonic acid forms an important buffer system in the body:

H+ + HC03 ↔ H2C03 ↔ H20 + C02.

H2C03 (carbonic acid) is the acid member of the pair because it can release H+. Bicarbonate, HC03 , is the base
member because it can bind H+. In water, this step takes about a minute, but in the kidney and red blood cells, it is
catalyzed by the enzyme carboxic anhydrase and is completed within a fraction of a second. The reaction is so rapid
that we often identify C02 with H2C03. This system is especially important because two of its components are
rigorously controlled by the body: the lungs control C02, and the kidneys control HC03. Although there are other
buffers in the body, this simple chemical reaction links the lungs and kidneys and allows them to maintain a viable
H+ concentration in the body fluids.

Each day an average person on a mixed diet produces 60 mM of H+ in the form of sulfuric, phosphoric, and organic
acids. These are called metabolic acids because they do not arise from C02, and the disturbances in H+ they create
must eventually be corrected by the kidney. When metabolic H+ is
produced in any organ, most of it is picked up by HC03: in the blood and forms C02. The increased C02 plus the
increased H+ stimulate respiration, which helps eliminate the increased C02. In this case, the bicarbonate reaction
shown above moves to the right, downhill, because one of the reactants, H+, is continually produced while one of
the products, C02, is continually removed.

The respiratory regulation of H+ described above will work only if the bicarbonate that is used can be replenished.
This task is accomplished by the kidneys, where the bicarbonate reaction takes place in the reverse direction. This
reversal in direction occurs because the kidneys remove the H+ as fast as it forms and excrete it in urine. In the
process, the newly formed HC03 is reabsorbed. Thus, the kidney manufactures HC03 without retaining the attendant
H+ (see plate 60). The result is that for every H+ produced by metabolism, one H+ is excreted in the urine, and one
bicarbonate is reabsorbed.

A H+ concentration below 0.00002mM (pH = 7.7) or above 0.0001 mM (pH = 7.0) is incompatible with life. If
plasma becomes more acid than normal, the condition is called acidosis; when it is less acid, the condition is
alkalosis. In either case, it is useful to recognize whether the disturbance arises from respiratory or other (metabolic)
causes. The best clues come from studies of the buffer pair HC03 /H2C03. An increase of H2C03 will tend to
increase H+; an increase in HC03 will "soak up" free H+ and reduce its concentration.

Respiratory acid-base disturbances are reflected by changes in plasma C02 or the equivalent H2C03. If these are
depressed, as in rapid breathing, there is a diminution of suppliers of H+; the H+ concentration goes down; the
condition is respiratory alkalosis. Compensation by the kidney requires an excretion of HC03 to rid the plasma of a
disproportionate amount of substances that soak up the scarce H+. Conversely, in pneumonia or polio, there is a
failure to eliminate C02 (and HPC03); plasma acidity rises; the condition is respiratory acidosis. Renal
compensation consists of elevating the plasma HC03 to a level commensurate with the elevated H2C03.

Nonrespiratory acid-base disturbances are called metabolic disturbances. When plasma HC03 decreases and plasma
H+ increases, the condition is called metabolic acidosis. The increased H+ signifies acidosis, and the decreased
HC03 implicates its nonrespiratory origin. These occur, for example, in renal failure and in diabetes. Respiratory
compensation occurs because the increased H+ stimulates breathing, which reduces C02 and H2C03. Finally in
metabolic alkalosis, which sometimes occurs during vomiting of HCI from the stomach, there

is an increased HC03 with decreased H+. Respiratory compensation consists of C02 and H2C03

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1909 one in French and one in Danisch
Acid & Alkaline Nutrition: Shattering the Myths

Posted on December 12, 2011 by Michael McEvoy, FDN, CNC, CMTA

According to Guy Schenker, DC:

- Acid/alkaline imbalances always involve respiratory function
- Acid/alkaline imbalances always involve renal function

“The respiratory and renal involvement in an acidosis or alkalosis may be either part of the cause of, or part of the compensation for the acidosis or alkalosis...The most alarming misconception among nutritionists concerned with pH balance, one seems to reign supreme in the minds of an appalling majority of doctors, is that ACIDOSIS is ubiquitous among the sick of this world. Acidosis, they have been given to believe, is an accompaniment to, and even the primary cause of, every disease, every pain, every state of ill health to afflict humankind.

“Wouldn’t it be nice if it were that simple? Pump up your patients’ alkaline reserves and cure them of anything?
“And an ALKALOSIS? No such thing? Acid is bad, this theory contends, and alkaline is good. And there is no way one can have too much of a good thing.

“In truth excess alkalinity is just as harmful as excess acidity. To clear the confusion, all physiological systems are maintained through a negative feedback mechanism that operates in a dualistic manner. Dualistic means that for every normal condition, there are 2 abnormals-abnormally high and abnormally low. To say that there is only one abnormal with respect to pH balance is to display total ignorance of the most basic fundamentals of physiology.”


“In a metabolic alkalosis, there are increasing levels of bicarbonate ion in relation to H+. There are 3 main causes of bicarbonate increase:
Direct administration or production of alkaline-sodium bicarbonate, or other antacids, can lead to metabolic acidosis. Excess bicarbonate is absorbed ad the Co2 levels begin to rise.”

Acid-Losing Alkalosis- The loss of H+ from stomach from chronic vomiting or pyloric stenosis is a major cause of acid-losing alkalosis.

Potassium Deficient Alkalosis-This is most often caused by an excessive loss of potassium from the kidney. Intracellular potassium will move out of the cells to replace the potassium being lost in the plasma and urine. Sodium and H+ move into the cell to replace the potassium that has moved out. This leaves a deficit of H+ in the plasma. Also, H+ is excreted from the kidneys along with potassium. The net result of renal excretion and extracellular H+ loss is an increased production of H+ to replace that which has been lost. This results in a concomitant rise in bicarbonate or Co2 levels.”

*‘Blood Chemistry and CBC Analysis’, 2002-2010, Weatherby, ND and Ferguson, ND*

Myth #1: It is GOOD to be alkaline, it is BAD to be Acidic

Truth: It is BAD to be Alkaline, it is BAD to be Acidic. Most people, including uninformed doctors, naturopaths, and alternative health people throw around terms like acid and alkaline, but have very little understanding of what they are actually talking about. It is a fact that acidosis is pathological, and can wreak havoc on the body. What is not known as widely in the health world, is that alkalosis is ALSO pathological and will cause just as many, if not more problems with your health. In fact, the majority of people that I see in my practice are TOO ALKALINE. Some common symptomatology associated with Alkalosis:

- Hypothyroidism
Ph the Acid-Alkaline Balance

- Hypochlorhydria (low stomach acid, HCL)
- Allergies
- Wheezing
- Diarrhea
- Fatigue
- Feel more like the ‘tortoise’, less like the ‘hare’
- Elevated serum bicarbonate

Myth #2: Most people are too acidic

Truth: Most people tend to be too alkaline. I would estimate that 70% of the people I see suffer from alkalosis symptoms. Many people are in a para-sympathetic imbalance or a slow-oxidative imbalance. This tends to push their blood pH levels to the high side. Causes of metabolic alkalosis includes: loss of acids (H2Co3), excess consumption of bicarbonate, chloride depletion, Adrenal Aldosterone excess, Potassium Depletion causing an increase exchange of H+ for NA+ in the kidneys, allowing H+ to be excreted, and bicarbonate to be retained.

Myth #3: Meat is Acid Forming

Truth: Your pre-existing metabolism determines how a food and nutrient will behave in your body, the pH of a food does not. For many people, meat actually has an alkaline effect on blood pH! In order to understand this, you must realize that each person is biochemically unique. Food and nutrients will behave very differently in people, because biochemistry is individual. Certain individuals have a metabolism that is designed to assimilate protein and fat more efficiently than plant foods. Other people have a metabolism that is designed to utilize plant foods more efficiently, while having less of a need for protein and fat. These facts of metabolic individuality are fundamental to the understanding of how nutrients will behave in your body.

Myth #4: Vegetables are Alkalinizing

Truth: Plant Foods will produce either an alkaline or an acidifying effect on the cells of your body. But that is determined by your pre-existing metabolism, not by the food itself. The ONLY metabolic types that will have an alkaline response to vegetables are “Autonomic Dominants”: Para-Sympathetic Dominant Protein Types, and Sympathetic Dominant Carbohydrate Types. Vegetables will produce an “acidifying effect on “Oxidative Dominants” (Slow-Oxidizing Carbohydrate Types and Fast Oxidizing Protein Types). Potassium is acid forming within oxidative metabolism and alkaline forming for those with Autonomic dominance.

Myth #5: The most accurate measurement of a person’s Ph is through urine and saliva pH
Truth: While litmus paper can be used to identify pH imbalances, the most exact measurement of a person’s pH is through the Venous Plasma pH. Venous blood has returned from the sites of major metabolic activity, and has in it the discharged waste after nutrients are assimilated in arterial blood. Other good indicators of acidosis and alkalosis are:

- On a blood test if CO2 is low (<24) and chloride is high (>106), a person may have Metabolic Acidosis.
- On a blood test if CO2 is high (>27) and chloride is low (<100), a person may have Metabolic Alkalosis.
- Breath Holding Time/Carbon Dioxide Challenge. The higher the breath hold time (65 seconds+), the more tending towards alkalosis on all levels. The shorter the breath holding time (40 seconds-), the more tending towards acidosis on all levels.
- Respiration Rate. A high respiration rate (19+ beats per minute) indicates acidosis tendencies. A lower respiration rate (13 beats per minute-) indicates alkaline imbalance tendencies.

Myth #6: High Saliva or urine pH (6.8+) indicates that a person is Alkaline

Truth: If a person has a high saliva or urine pH, this usually indicates ACIDOSIS, but can also be a sign of respiratory alkalosis:

- Metabolic Acidosis
- Potassium Excess Acidosis
- Respiratory Acidosis
- Respiratory Alkalosis

Myth #7: The normal blood pH is between 7.35-7.45

Truth: As usual, the medical world gets it wrong. Upon scrupulous study of venous plasma pH for decades, studied on thousands of patients, George Watson, PhD and Rudolf Wiley, PhD got it right! Their established median venous blood pH is 7.46. A 0.01 movement is an enormous shift in blood pH. A shift from 7.46 to 7.48 is a huge shift towards pathological alkalosis. A shift from 7.46 to 7.43 is an enormous shift towards pathological acidosis. These discoveries are titanic, and have never received the recognition that they deserve. Read more about these nutrition pioneers in the books: ‘Nutrition and Your Mind’ (Watson) and ‘Biobalance’ (Wiley).

Myth #8: Blood Co2 levels between 20-30 are normal
Truth: Co2 on your standard blood test is actually a measurement of bicarbonate, which is alkaline. The conventional laboratory reference ranges for many blood chemistry factors, including Co2 are ridiculous. The reference range I use is I believe is much tighter and more accurate is: 24-27. Lower than 24 indicates acidosis, higher than 27 indicates alkalosis.

Reality

There are numerous kinds of acid/alkaline balances in the body:

- Respiratory alkalosis
- Potassium depletion alkalosis
- Metabolic alkalosis
- Metabolic acidosis
- Potassium excess acidosis
- Respiratory acidosis

Your blood pH is reflected in your personality, or as I like to say your behavior range.

How To Effect Ph Levels

Eat the foods that are most compatible for your type of metabolism.

If you are a para-sympathetic protein type, your blood tends to be too alkaline. Adenine and purine-containing nucleo proteins are essential at every meal. These types of proteins will create the necessary acidic pH shift towards the median, 7.46. If you are a fast-oxidizing protein type, your blood tends to be too acidic. You also need higher purine foods like the para-sympathetic types, but these foods produce the necessary alkaline effect on your blood, bringing it back to 7.46.

If you are a sympathetic carb type, your blood tends towards acidosis. Your metabolism needs lots of vegetables and VERY LITTLE nucleo-proteins. Eating this way will create the necessary alkaline shift towards 7.46. If you are a slow-oxidizing carb type, your blood tends towards being too alkaline. Unlike the para-sympathetic-protein type, you need more vegetables and less purines. This will create the necessary Acidic shift in your blood pH, bringing it back to 7.46
Ph the Acid-Alkaline Balance

**Examples**
- Liquid drain cleaner (pH=14)
- Bleaches, oven cleaner, lye (pH=13.5)
- Ammonia solution (pH=10.5–11.5)
- Baking soda (pH=9.5)
- Sea water (pH=8)
- Blood (pH=7.4)
- Milk, urine, saliva (pH=6.3–6.8)
- Black coffee (pH=5)
- Grapefruit juice, soda, tomato juice (pH=2.5–3.5)
- Lemon juice, vinegar (pH=2)
- Battery acid, hydrochloric acid (pH=0)

**pH Chart**

- **High Alkaline Ionized Water**: Alkaline foods like Raw Spinach, Brussels Sprouts, Red Cabbage, Cauliflower, Alfalfa Grass, Seaweeds, Asparagus, Lemons, & Limes.
- **Neutral pH**: Optimum pH for HUMAN BLOOD is 7.365
- **Acidic pH**: Consume sparingly or never
  - Lamb, Sardines, Goat Cheese, Pasta, Wines, Pork, Pastries
  - White Bread, Beef, Prunes, Pork, Pickles, Asparagus, Onion, Tomatoes

- **Alkaline pH**: 9.0
  - Olive Oil, Raw Zucchini, Sprouted Grains, Raw Green Beans, Moringa, Quinoa, Tangerines, Grapes

- **Most foods get more acidic when cooked**
  - Apples, Tomatoes, Tuna, Bell Peppers, Pineapple, Strawberries, Corn, Oranges

- **Most Tap Water**: Municipal water is typically alkaline due to hard water, which is alkaline. It takes 20 parts of alkali to counteract 1 part acidity in the body.

- **Low pH Chart**: Consumed Freely Raw & Best
Ph the Acid-Alkaline Balance

**ALKALINE FOODS**

- Beet Greens
- Chard Greens
- Pumpkin
- Spirulina
- Sea Veggies
- Dandelions
- Radishes
- Celery
- Mustard Greens
- Watercress
- Alfalfa
- Collard Greens
- Edible Flowers
- Tomatoes
- Cabbage
- Chlorella
- Kohlrabi
- Sprouts
- Wheat Grass
- Wild Greens
- Spinach
- Dulce
- Carrot
- Lettuce
- Cauliflower
- Peppers
- Garlic
- Barley Grass
- Kale
**Ph the Acid-Alkaline Balance**

Healthy membrane potential and adequate body voltage makes all of the functions of the cell work better.

Low Body Voltage leads to weak membrane potential, weak osmosis, trapped toxins, premature aging, and increased susceptibility to virus.

70 Nutrients

H₂O

Oxygen

< 70 mV

Waste

H₂O

Carbon dioxide

70 - 90 mV

Eductor and SCIO Technology

Charging the Human Battery

Factors that influence the body voltage and membrane potential are fatty acids in the cell membrane, minerals, especially salts, hydration water, oxygenation, stress, toxins and life style.

The SCIO has been proven in tests to increase the electrical potential of the body. Increased cellular membrane potential makes osmosis increase, which increases detoxification, nutrient transfer and absorption, hydration, oxidation, and all cellular functions in general.

If you need more information on the SCIO and purchase details please get in touch with us.

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Ph the Acid-Alkaline Balance

Spontaneous????

SEEMS LIKE MAGIC BUT IT IS JUST THE EDUCTOR

EDUCTOR IS WORKING...

EDUCTOR IS WORKING...

EDUCTOR IS WORKING...

EDUCTOR IS WORKING...

EDUCTOR IS WORKING...

Training Finished
Ph the Acid-Alkaline Balance

CLINICAL EVALUATION

EDUCTOR

measures
treats

Volts and Oscillations (EMG, EEG)
Amps and Oscillations (ECG)
Resistance (GSR)
Hydration
Oxidation (Redox potential)
Ph acid vs alkalinity
Reactivity evoked potential to voltammetric fields of substances (TVEP) over 228,000 measures a second of these energetic factors

Brain wave and emotions with (MCES)
Pain with (MENS) (TENS)

Trauma or wounds (EWH)
Electro Weakness Ph, Redox disorder (VARHOPE Correction)
Trickle charge the body electric

All designed to detect + reduce Electro-stress and Balance the Body Electric Automatically

If you need more information on the SCIO and purchase details please get in touch with us

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