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 as 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
- 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, Ph.D. and Rudolf Wiley, Ph.D. 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 I believe is much tighter and more accurate: 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.
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

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.

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

If you have ever wondered why 'one person's food is another person's poison', this article should shed some light on that.
For more detailed information on Acid/Alkaline Nutrition, the following books are highly recommended. These men are pioneers in the field of clinical nutrition:


* George Watson, Ph.D., *Nutrition and Your Mind*, 1972


* Lendon Smith, M.D., *Feed Your Body Right*, 1996

http://metabolichealing.com/education/articles/acid-and-alkaline-nutrition-shattering-the-myths/