



## Practice Insights

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# pH Balancing May Help Ease Muscle & Joint Pain Naturally

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Chiropractors and other health professionals who offer nutritional pH balancing programs in addition to their regular treatment protocols are having great success at naturally easing both acute and chronic muscle and joint pain, naturally.

A major factor in the formation of chronic inflammation in muscle and joint tissues is the presence of metabolic acids that create free radicals. These free radicals occur in greater abundance than the body's ability to remove them and create an imbalanced condition known as oxidative stress.

### **Relationship Between pH & Tissue Pain**

The relationship between pH, chronic muscle and joint pain, inflammation and oxidative stress must be understood by chiropractors seeking to minimize the time for healing and rehabbing injuries.

A crucial fact to understand about the overwhelming majority of injuries presented at a chiropractic office are that muscle and joint pain problems are more likely than not chronic in nature. These chronic muscle and joint pain problems may be secondary to acute or

The presence of metabolic acids in your patients' myofascial tissues will automatically create an inflammatory response in their muscles and joints. This inflammatory response will then cause the release of more free radicals in the affected tissues, creating greater oxidative stress and causing an increased inflammatory response. As you can see, this forms a vicious cycle, but worse yet, this cycle can accelerate, creating what is known as a feed-forward cycle, thereby making symptoms progressive with eventual tissue degeneration.

### **Acid & Alkaline Balance**

Our body has a natural acid/alkaline balance. The Standard American Diet (S.A.D.) of sugars, fast food, stress, medications and lack of exercise can all contribute to make the body more acidic. Research indicates that yeast, bacteria, viruses and cancer thrive in an acid environment. And conversely, when the body is alkaline foreign bacteria, viruses, yeast and cancer cannot live.

Mild acidosis can cause such problems as:

- Cardiovascular damage, including the constriction of blood vessels and the reduction of oxygen.

- Weight gain, obesity and diabetes.
- Bladder and kidney conditions, including kidney stones.
- Immune deficiency.
- Acceleration of free radical damage, possibly contributing to cancerous mutations.
- Premature aging.
- Osteoporosis; weak, brittle bones, hip fractures and bone spurs.
- Joint pain, aching muscles and lactic acid buildup.
- 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 fruits and vegetables. This is because the body borrows calcium from the bones in order to balance pH.

— *American Journal of Clinical Nutrition*

### 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%. 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. It is important to understand that we are not talking about stomach acid or the pH of the stomach. We are talking about the pH of the body's fluids and tissues which is an entirely different matter.

Our body has a natural balance called homeostasis. When we are too acidic, minerals like calcium are leached from our bones and magnesium from our muscles to help alkalize the body. Another way our body tries to protect us from acid is to buffer it with fat and store it in the body. Luckily, there are ways to naturally boost the body fluid pH levels which should stay between 7.35 and 7.45.

### Measure Acidity Using pH Test Strips

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

### Urine pH

The results of urine testing indicate how well the body is assimilating minerals, especially calcium, magnesium, sodium and potassium. 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, muscles, bones, etc. in order to neutralize acidity.

### Saliva pH

You'll also want to have patients test the pH of their saliva. The results of saliva testing may indicate the activity of digestive enzymes in the body. These enzymes are primarily manufactured by the stomach, liver and pancreas. While the saliva also utilizes buffers just like the urine, it relies on this process to a much lesser degree. If the saliva pH is too low (below 6.5), the body may be producing too many acids or may be overwhelmed by acids because it has lost the ability to adequately remove them through the urine. If the saliva pH is too high (over 7.0), the body may suffer greatly, e.g. excess gas, constipation and production of yeast, mold and fungus. Some people will have acidic pH readings from both urine and saliva—this is referred to as "double acid."

### Restoring pH Balance in the Body

The body is able to assimilate minerals and nutrients properly only when its pH is balanced. It is therefore possible for patients to be taking healthy nutrients and yet be unable to absorb or use them. If they are not getting the results you expected from your nutritional or herbal program, look for an acid alkaline imbalance. Even the right nutritional program may not work if their body's pH is out of balance.

### Change pH Balance from Acidic to Alkaline

By far the most common imbalance seen in our society is over acidity. If patients are suffering from muscle and joint pain and their urine and/or saliva test acidic, start with steps 1 through 5 in this article and continue making lifestyle changes until the desired results are achieved. Be sure to monitor patients' progress with easy-to-use pH test strips:

### Alkalize Now - pH Balance Program

1. Have patients TEST their pH levels to establish a baseline starting point. Ideal for both saliva and urine is close to pH 7.
2. Have patients FOLLOW THE PLAN in the Alkalize Now Book for diet & lifestyle changes to reduce acids and optimize body pH. The book comes in paperback available from you or as a free E-Book from your personalized GreensFirst.com online store/website. (If you do not have a personalized Greens First Website and wish to have one, please call 866-410-1818.)
3. Help Patients CHOOSE THEIR FAVORITE GREENS FIRST SUPER-FOOD either Greens First Original or Greens First Berry. Begin with one or two servings per day. Have them take one scoop in the morning within 30 minutes upon arising & again anytime throughout the day. As they get closer to the Ideal pH Value, then have them reduce to once per day, every day to maintain.
4. Have patients MIX GREENS FIRST with water, their favorite beverage or juice, or they can make a smoothie (*check out the recipes in the Alkalize Now book!*) or you can have them "make it a meal" by mixing **Greens First** with either **Greens First Boost** (*Vegan/Vegetarian Brown Rice & Vegetable Pea Protein, Essential Fatty Acids*) or **Dream Protein** (*Hormone Free Whey Protein Isolate*).

5. For acute and/or chronic muscle and joint pain patients that you feel need AN EXTRA DOSE OF ALKALINITY and energy, have them any time of the day take a scoop of **Greens First pH Alkalizer**. It contains extra alkalizing minerals & a variety of nutrients for optimum absorption.

### **In Closing**

The crucial fact to remember about chronic muscle and joint pain is that it develops primarily from improperly managed acidic pH, inflammation and oxidative stress in tissues.

In chronic muscle and joint disorders, the presence of acidic pH, chronic inflammation and oxidative stress in the myofascial tissues are inseparable; you cannot have one without the other. Therefore, to correctly heal chronic muscle and joint problems, you should test a patient's pH level and offer a pH Balance Program that includes lifestyle changes that manages the metabolic factors of acidic pH, chronic inflammation and free radical damage.

Fortunately, there are simple pH test strips, nutritional products and lifestyle recommendations that can assist you in naturally managing these metabolic factors in your patients with both acute and chronic pain.

### **About The Author:**

**Donald L. Hayes, DC** is a clinician, educator and author in the field of nutritional wellness. He has delivered post graduate nutritional seminars to thousands of doctors and staff throughout the United States, Australia, Canada and New Zealand. He is the author of several books, including *Alkalize Now*. He can be reached at [www.greensfirst.com](http://www.greensfirst.com), or by calling 866-410-1818.