Alternatives®
FOR THE HEALTH-CONSCIOUS INDIVIDUAL
May 2002 Volume 9, No. 11

Getting Back To Our Roots


Dr. David G. Williams

One of the biggest problems in medical treatment these days is the practice of looking at the human body as a collection of various unrelated parts rather than as an indivisible, integrated organism. It often seems that very little, if any, consideration is given to the fact that all of the systems in the body are intertwined and dependent in both their function and their structure. Overlooking this fact continues to perpetuate the needless suffering of millions of individuals.

Perhaps the most important and difficult step in treating any health problem is obtaining an accurate diagnosis. It's imperative that one knows exactly what the problem is before any treatment program is recommended (otherwise one is just treating symptoms, and the condition never really gets any better). This understanding comes only when one begins to look at how the various parts of the body work together in a never-ending attempt to create harmony and good health.

It's Basic: Excess Acid is Unhealthy

A good example involves the various mechanisms your body utilizes to maintain a proper pH balance. As I'm sure you recall, pH measures the acidity or alkalinity of a substance. What most people don't realize is that pH is also a subtle measurement of the body's electrical balance, which regulates many bodily functions. A measurement of pH is actually a measurement of the number of negative hydroxyl (OH-) ions compared to the number of positive hydrogen (H+) ions. This electrical aspect is just another example of how complex and inter-related the various systems of the body are.

The pH scale runs from 0 to 14, with 0 being the most acidic, 14 being the most alkaline, and 7 being neutral. To survive, our bodies must maintain the pH very close to 7.4, which is just on the alkaline side of neutral. If the pH varies too much from the ideal, it becomes difficult for various enzymes to function properly. Maintaining this slightly alkaline state is a constant challenge, primarily because of the acid-forming functions that take place within the body, and the over-abundance of acid-producing foods we consume.

One of the waste products that results from muscle activity is lactic acid. You may have heard about the lactic-acid buildup in long distance runners. It can bring on severe fatigue, muscle failure, and cramping. Obviously, we're not all marathon runners, but the constant contraction of the heart, the diaphragm, and the muscles that support our skeleton release lactic acid on a continuous basis. Diet can also be responsible for causing the body to become more acidic.

The Rx for pH is Ez

The idea that various foods influence the pH of the body isn't new. In fact, as far back as the early 1900s, numerous doctors began studying the pH-altering effects of different foods. They found that while a few foods were "neutral" in their effects, most foods were either "alkaline-producing" or "acid-producing." They also found that simply changing the diet could change the pH of the body. Not

In This Issue

Getting Back to Our Roots 81

You will observe with concern how long a useful truth may be known and exist, before it is generally received and practiced on.

—Benjamin Franklin

surprisingly, bringing the body's pH closer to the normal range helped patients get rid of many of their health complaints.

For some reason, however, the idea of adjusting the diet to influence the body's pH fell out of favor rather quickly. Mainstream medicine never fully accepted the idea, and I don't think most people ever understood just how critical the proper pH is when it comes to maintaining one's health.

Our diets have changed dramatically since the early 1900s. What were isolated problems 100 years ago have become far more common today. The reason for this trend has become increasingly apparent as I have researched some of today's more common health problems. There's just no question that overall acidity in the body is one of the contributing factors. Osteoporosis is a prime example.

The Case of the Vanishing Bones

This condition has become a 21st Century epidemic. Between 25 and 30 percent of all people in nursing homes are there because of a hip fracture (actually a fracture of the head of the thighbone, or femur). Even when you take into account the increased age of the population, the rate of hip fractures has doubled in just the last 50 years. There are now in excess of 2.3 million hip fractures a year, worldwide.

If you think a hip fracture due to osteoporosis is something that won't happen to you, keep the following facts in mind.

The National Osteoporosis Foundation now says that one out of every six women will fracture a hip during their lifetime. The risk of experiencing a hip fracture is greater than that of developing breast, ovarian, or uterine cancer. And fractures from osteoporosis result in more deaths among women than ovarian and breast cancer combined.

Hip fractures are still more common in women than in men—mostly because men have more bone to start out with. But, if you're a male, you should know that 30 percent of all hip fractures are now occurring in men. Males have a greater chance of breaking a hip than getting prostate cancer. They are also twice as likely to die within the first year of a hip fracture as are women. In either sex, half of the survivors of hip fractures will remain disabled for the rest of their lives.

When you look at most of the studies on osteoporosis, it appears that most scientists and medical professionals can't explain what's going on. While they realize that risk factors such as calcium deficiency, too much meat protein, smoking, menopause, and a lack of exercise play a role, they also realize that all of these factors account for less than half of all hip fractures. Only a handful of researchers realize the true role an acidic pH can have on living bone.

Bones—The Alkaline Storehouse

Earlier I mentioned that the ideal pH is close to 7.4. Your body is constantly trying to neutralize or rid itself of acid byproducts to maintain this level.

Organs such as your liver and pancreas produce and release alkaline enzymes to help reduce excess acidity. Patches of lymphatic tissue called Peyer's patches reside within your small intestines and produce large amounts of the alkalizing enzyme called chyle. But even with all the alkalizing compounds your body produces, it is impossible to neutralize every bit of the acid it ingests or produces. To help maintain the proper pH, acids must also be eliminated from your body.

Your blood is one of the primary means for the removal of the body's acidic waste products. It carries carbonic acid from metabolized food to your lungs, where the acid is eliminated as carbon dioxide and water. Also, the blood is constantly circulated through the kidneys, where acids are removed and excreted in the urine. Additional acidic wastes are released by your sweat glands and through the evacuation of feces from the large intestine.

Even with all the above mechanisms at work, there are times when the body still becomes too acidic and pH drops below the required 7.4. This pH is so crucial that when it drops to just 7.38, your body begins to break down bone and muscle tissues for their alkalizing ammonia, carbonates, and phosphates. From man's beginning, bones have served as the ultimate storage facility for acid-neutralizing minerals in addition to the more familiar function of supporting the body.

Earlier in our history, our ancestors might have become over-acidic for only temporary periods when meat was available, during periods of starvation, or when vegetables were in short supply. During these times, alkalizing minerals from their bones would be removed, but within a short period of time things would return to a more vegetable/fruit-based diet and the bone minerals

would be replaced. With our current diets, this doesn't occur.

Anthony Sebastian and Deborah Sellmeyer with the University of California in San Francisco looked at over 85 different studies and evaluated the typical diets in 33 countries. They discovered a direct relationship between diets high in animal protein, such as fish, meat, and cheese, and the incidence of hip fractures. They found that Germany and Sweden, with the highest consumption of these foods, had 40 times as many hip fractures as did Thailand. While the Thai population does consume enormous amounts of acid-producing rice dishes, it also consumes far more fruits and vegetables, a third as much meat, and practically no cheese. *(J Gerontol A Biol Sci Med Sci 00;55(10):M585-92)*

In a follow-up study, these same researchers found that women eating a high acid-producing diet had more rapid bone loss and a 3.7-times greater risk of hip fracture than women eating fewer acid-producing foods. *(Am J Clin Nutr 01;74(3):411-2)*

Why Bones Hate Cheeseburgers

One of the top researchers in this area is Thomas Remer of the Research Institute of Child Nutrition in Dortmund, Germany. Remer has been analyzing all types of foods to see the amount of acid each produces in the body. And while many acid/alkaline charts from the early 1900s are fairly accurate, we've been able to learn a great deal more from Remer's work. For example, we now know why milk is pretty much neutral, as far as acid or alkaline production is concerned, but cheese is strongly acid-forming.

Milk contains roughly equal parts acid- and alkaline-producing compounds. In the production of cheese, however, the liquid, alkaline-producing portion is removed. (The protein-rich liquid, whey, is healthy and pretty much neutral). It appears that the more sharp or crumbly the cheese, the more acid-producing it is. Parmesan cheese is the most acid-forming of the cheeses tested.

Another interesting finding from the folks in California was that not all proteins have the same acid-forming effect. Animal proteins seem to be strong acid-forming foods, whereas vegetable proteins seem to contain alkaline compounds that neutralize any acidic effects. *(Am J Clin Nutr 01;73(1):118-22)*

This finding also helps explain why some studies have shown that high-protein diets cause bone loss, while other studies show just the opposite.

Bodybuilders routinely follow high protein diets in an effort to build more lean muscle. To increase their protein intake, they often resort to protein powders, which are increasingly being produced from whey, a byproduct of cheese production, as I mentioned earlier. When Remer compared the protein intake to the acid production in bodybuilders he found very little, if any, increased acid load. *(Z Ernahrungswiss 95;34(1):10-5)* This is probably due to the source of the protein and the fact that serious bodybuilders also include lots of fruits and vegetables in their diet.

It would be interesting to see a study of acid-formation and subsequent bone loss among individuals who follow a high-protein diet such as that advocated by Dr. Robert Atkins. Based on the research I've seen, following such a program would probably result in major bone loss. For various reasons, I've never been a supporter of high-protein diets, and after reviewing the above research, I'm even less of a fan.

This research isn't widely known in conventional circles, and I suspect it will be years before you hear much, if anything, about it. There's a major effort underway by pharmaceutical companies to promote a generation of drugs to treat osteoporosis (such as the bisphosphonates Fosamax, Actonel, Aredia, and Didrocal).

ALTERNATIVES® **Author: Dr. David Williams; Publisher: George Stamathis, Editor: Robert Kroening**

ISSN# 0893-5025. Published monthly for $69.99/yr. by Mountain Home Publishing at 7811 Montrose Road, Potomac, MD 20854. Editorial Office: 7811 Montrose Road, Potomac, MD 20854. Periodicals postage paid at Rockville, MD and at additional mailing offices.

POSTMASTER: Send address changes to *Alternatives*, PO Box 2050, Forrester Center, WV 25438.

There are also those who have a vested interest in promoting hormone replacement therapy and estrogen, as well as the hormone calcitonin. Keep in mind that these drugs have adverse side effects and have been shown to be only marginally effective. The real problem, of course, is that they interfere with a normal physiological process. A certain amount of resorption (dissolving of old bone by the body) is normal, and is followed by the growth of new bone. Long-term use of these drugs prevents the loss of old bone, but prevents the building of new bone. The bones eventually become brittle.

Obviously, such drugs aren't the answer. I can assure you that the new epidemic of osteoporosis we're now experiencing isn't from a drug deficiency. In addition to the other factors I've mentioned in the past—vitamin D deficiencies, lack of exercise, etc.—our acid-forming diet is to blame.

To Remedy Acidity, Try $KHCO_3$

Before dialysis was available back in the mid 1900s, two of the side effects associated with kidney failure were a bloated stomach caused by acid buildup and rapidly weakening bones. When doctors began to give their patients bicarbonate of soda (baking soda) to relieve their bloated stomach, a funny thing happened. Their bones began to remineralize and get stronger. This is an obvious example of how an over-acidic condition weakens bones by causing the body to pull out alkalizing minerals. Baking soda is an alkaline compound that neutralizes acid. Even today, dialysis patients are given alkalizing agents during dialysis to help prevent the acidic breakdown of bones and muscles.

In a short two-week study by the California researcher Anthony Sebastian, it was demonstrated that post-menopausal women could reduce bone loss simply by adding potassium bicarbonate ($KHCO_3$) to help neutralize acids in their diet. Small amounts of this alkalizing compound were given daily to 18 postmenopausal women, age 51 to 77 years, for a period of just two-and-a-half weeks. The results were nothing short of amazing. When compared to a control group, those taking the potassium bicarbonate had an improved calcium and phosphorus balance, a reduction in bone resorption, and an increase in the rate of bone formation. In layman's terms, these women had 27 percent less calcium in their urine, and this along with the other findings was evidence that less bone was being broken down to balance the acid in their diets. *(N Engl J Med 94;330(25):1776-81)*

To put this study in better perspective, the women taking the potassium bicarbonate were losing 55 milligrams less calcium each day than those not taking the compound. This may not seem like much of a savings, but over a twenty-year period that adds up to about a pound—which is the amount of calcium in one of your legs. Plus, the potassium bicarbonate also had a sparing effect on the breakdown of muscle tissue.

Other studies using potassium bicarbonate have produced similar results. *(Kidney Int 89;35:688-695) (Israel J Med Sci 71;7:499)*

Some studies suggest that substituting sodium bicarbonate (baking soda) for sodium chloride (table salt) in the diet may also have a bone-sparing effect. One study showed positive benefits from just under five grams of sodium bicarbonate a day. *(Am J Clin Nutr 84;39:281-288)*

At this point, not many medical professionals are advocating the regular daily use of potassium bicarbonate or sodium bicarbonate (baking soda), and I'm not, either. The research team at the University of California, however, is currently preparing to do a five-year study evaluating the use of daily potassium bicarbonate and how it affects bone loss.

I suspect that it will probably be effective. However, I have some reservations about its daily use if it is taken at mealtime, since it could interfere with the digestion of foods that require stomach acid. That problem might be easily overcome if it was taken at bedtime, between meals, or in enteric-coated capsules. Even so, treating an overly acidic diet with potassium or sodium bicarbonate is addressing a symptom and not the underlying problem. That kind of "solution" usually causes other problems later on.

The Who's Who of the pH Crew

Over-acidity comes from consuming too many acid-forming foods and not consuming the alkalizing foods to counteract them.

In the box on page 85 is a brief list of the most acid-forming foods. As you can see from the list on the left side, just because a food is acid-forming doesn't necessarily make it unhealthy. I'm not saying that you should avoid all of them. In fact, many of the acid foods are necessary for proper health. It's just a matter of balance. Fixing your

Acid-forming Foods

- All meat (beef, pork, lamb, chicken) and fish
- Rice (white, brown, or basmati)
- Cornmeal, oats, rye, spelt, wheat, bran
- Popcorn
- Pastas
- Breads and most other grain products like cereals (hot or cold), crackers, pastries
- The following beans (unless sprouted, in which case they become alkaline-producing): pinto, navy, mung, lentils, black, garbanzo, red, white, adzuki, and broad
- Cheese (Parmesan is the worst, along with the sharper cheeses)
- Sunflower and pumpkin seeds
- Wheat germ
- The following nuts: walnuts, pecans, cashews, dried coconut (fresh coconut is alkaline-producing), pistachios, macadamias, filberts, Brazil nuts, and peanuts
- Colas (I've warned numerous times in the past how the phosphorus in cola turns to phosphoric acid and destroys bone.)
- Alcoholic drinks
- Coffee and other caffeinated drinks
- Sweetened yogurt
- Most forms of sweeteners (artificial sweeteners, cane sugar, beet sugar, barley syrup, processed honey, maple syrup, molasses, fructose, lactose)
- Refined table salt
- Soy sauce
- Mustard (dried powder and processed)
- Ketchup (unless natural and homemade)
- Mayonnaise (unless natural and homemade)
- White Vinegar (apple cider and sweet brown rice vinegar are less acid-producing and preferred)
- Nutmeg
- Tobacco
- Practically all drugs

Alkalizing Foods

- Practically all vegetables
- Practically all fruits with the exception of blueberries, plums, prunes, and cranberries. Even citrus fruits such as lemons, which we think of as being acidic, are alkaline-producing in the body. They are rich in organic salts, like citrates, which are converted into bicarbonates.
- Beans such as string, soy, lima, green, and snap
- Peas
- Potatoes
- Arrowroot flour
- Grains such as flax, millet, quinoa, and amaranth
- Nuts like almonds, pignoli, fresh coconut, and chestnuts
- Sprouted seeds of alfalfa, radish, and chia
- Unsprouted sesame
- Fresh unsalted butter
- Milk
- Cream
- Goat's milk
- Eggs
- Whey
- Plain yogurt
- Sweeteners like raw, unpasteurized honey, dried sugar cane juice (Sucanat), brown rice syrup
- Fruit juices
- All vegetable juices
- Most herbal teas
- Garlic
- Cayenne pepper
- Gelatin
- Most all herbs
- Miso
- Most vegetable and unprocessed sea salt
- Most all spices
- Vanilla extract
- Brewer's Yeast
- Most unprocessed, cold-pressed oils are neutral or alkaline-forming (even margarine seems to be neutral, but I don't recommend that anyone eat this "liquid plastic")

acid/alkaline balance isn't the complete answer to perfect health; it's only one piece of the puzzle and it's being dangerously overlooked.

It's also important to mention here that the Lactic Acid Yeast Wafers and fermented foods I've recommended in past issues mainly change the bacterial flora in the large intestine. They don't acidify tissues or individual body cells, and should be considered neutral or alkalizing foods.

The bottom line is that we need to be eating enough alkalizing foods to help our bodies neutralize the acid-forming foods. Throughout the years, there have been numerous diet plans, formulas, charts, etc. that have attempted to outline exactly what foods in what amounts need to be eaten to achieve this balance. Unfortunately, most are too confusing and only make the problem seem too difficult to overcome. In reality, the solution is quite simple.

Acidity Affects More Than Just Your Bones

When you delve into our history and take a closer look at our ancestors, or if you look at societies where osteoporosis isn't such a big problem, you find that roughly 75 to 80 percent of the diet consists of alkaline-producing foods.

These findings translate to some pretty straightforward dietary advice: If you sit down and look at the servings on your breakfast, lunch, or dinner plate, they should consist of 75 to 80 percent alkalizing foods and a maximum 20 to 25 percent acidic foods. Realistically, most people will need to eat a few vegetable-only meals each week to make up for excess acid-forming foods. And some people might prefer to eat vegetables, fruits, or other alkaline-producing foods exclusively for three-quarters of their meals. A good protein powder shake for breakfast is also a great idea. (See **drdavidwilliams.com** or *Alternatives* Vol. 7, No. 6 for the recipe I use.) These might be big changes for most people, but they are certainly achievable and well worth the effort.

Although I've mainly discussed the benefits of an alkalizing diet in regard to preventing osteoporosis, there is a long list of other advantages you'll find to adopting such a diet.

Some of these advantages relate to physical characteristics we associate with aging—one of which is a loss of muscle and strength. Chronic acidosis, which results from a high acid-forming diet, breaks down muscle as well as bone. Just like water wearing down a rock, the erosion of bone and muscle is a slow, gradual process. As time passes, you get weaker and more fragile. Not only do you progressively begin to look and feel older, your movements become more difficult. One of the first muscle groups to noticeably weaken is that of the legs. When the muscles of the thigh get weaker, it gets more difficult to get out of a chair or the car, and harder to walk without help. Gradually, the loss of muscle tissue and resulting weakness cause many people to lose their independence. Exercise will help, but without shifting to a more alkaline-producing diet, most people will experience only marginal and temporary results.

Is Your Body Too Acidic?

Another complaint associated with acidosis stems from poor oxygen utilization. One of the primary waste products produced by all the living cells in your body is carbon dioxide. Bicarbonates, or alkaline compounds, are required in the cellular exchange of oxygen and carbon dioxide. Without adequate supplies of bicarbonates, carbon dioxide remains and accumulates within the tissues. In simple terms, you suffocate.

Due to the excess carbon dioxide and lack of oxygen, overly acidic individuals tend to sigh a lot and experience breathlessness. The slightest amount of exertion leaves them panting and can lead to muscle pain and even cramping. Frequently, they suffer from insomnia problems associated with breathlessness. Many also complain of a constant "lump" in their throat (which comes from dehydration and the associated loss of sodium). In fact, if you look at this condition from a broader perspective, individuals with over-acidic systems experience many of the exact same symptoms that distance runners experience. The difference, however, is that they experience these problems after walking a few feet rather than after running hundreds of meters.

In runners, the muscles eventually outstrip the supply of available oxygen. To keep running, the muscles go into an "anaerobic" situation where blood sugar, or glucose, is partially broken down to produce energy without the need for additional oxygen. This works for only a short period of time because it also produces large quantities of lactic acid, which, in turn, lead to muscle pain, cramping, and fatigue. In such runners, it has been demonstrated that their endurance and performance can be improved simply by neutralizing the excess acid.

Various studies have found that, by taking roughly 20 grams (for a 150-pound person) of sodium bicarbonate two hours before a race, reasonably fit individuals could almost double the time they were able to perform at full capacity. Studies with professional athletes have shown that the same dosage can increase their performance as much as three percent, which is often the difference between winning and losing. *(J Sport Sci 95;Summer:13Spec No:563-74) (Eur J Appl Physiol Occup Physiol 88;58[1-2]:171-4) (Sportscience Training & Technology Sept 97)*

If you're always fatigued, run out of breath easily, sigh frequently, experience muscle pain and/or cramping after walking short distances, or often feel like you just can't get enough air, those are a fairly good indication that you're too acidic. I've also found that when people are very acidic, their tissue levels of oxygen are so low that they have difficulty holding their breath for more than 20 seconds. Although it's mainly a test for people who are very acidic, the length of time you can hold your breath is one technique you can use to document the difference that occurs after adapting a more alkaline-producing diet. (In the beginning, it might be

best to try any breath-holding tests only while sitting.)

One sport that readily distinguishes between those who are too acidic and those who have a more balanced pH is scuba diving. Individuals who are more acidic run out of air quickly, whereas more pH-balanced individuals can seem to make a tank of air last forever.

If you can't tell if you're too acidic by what I've written so far, there's a simple and fairly accurate way to test yourself.

Saliva just happens to closely parallel the blood when it comes to pH. Blood pH is normally 7.4 and the normal saliva pH should be between 6.5 and 7.0. You can check your saliva pH using pH Hydrion test strips or paper. (These are available from Simply Hydroponics, 727-531-5355 or *www.simplyhydroponics.com/hydrion_strips.htm*; or Southern Scientific, 800-748-8735, *www.southernscientific.com/test_papers_meters.asp*.)

If your saliva pH consistently falls below 6.5, you have an acidosis problem. If it consistently reads above 7.0, you could be too alkaline. In the past, some individuals have recommended testing the urine to evaluate the body's overall pH. I personally think there are too many variables that influence the pH of the urine, which makes it unreliable for this purpose.

The *Really* Dark Side of Acidosis

Some researchers now believe that acidosis is a major contributing factor to several other health problems in addition to bone and muscle loss. Acidic tissue levels appear to be common during the initial formation of cancer, and may contribute to insulin sensitivity problems that lead to diabetes.

Based on the research already available, it stands to reason that chronic acidosis is also an underlying contributor to the number-one killer in this country, heart disease. By interfering with the exchange of carbon dioxide and oxygen at a cellular level, acidosis places an undue burden on the heart. Not only will the heart muscle itself suffer from oxygen starvation, it will be forced to pump harder and more often in an effort to supply more oxygen to other tissues in the body.

For most of us, the more serious consequences of consuming an acid-producing diet are generally not experienced until later in life. Keep in mind, however, that along with many of the so-called "less serious" symptoms—such as chronic fatigue, blisters in the mouth from eating citrus, urinary tract infections, insomnia, low blood pressure, etc.—underlying structural damage to your body continues to occur on a steady, daily basis. Sacrificing your bones and muscles to compensate for an acid-producing diet is like robbing Peter to pay Paul. If you haven't already, you'll eventually end up paying the debt with your health.

After looking at the lists of alkaline- and acid-forming foods, I know there's going to be a lot of individuals who feel that they probably eat enough of a variety to balance things out. But usually that's not the case. If you can honestly say that 75 to 80 percent of all your meals come from the alkaline foods list, then you're doing okay. If that's not the case, I would suggest making some changes in your diet.

If you make these changes, you may experience some big differences in your health very quickly. Keep in mind that the above studies revealed some pretty dramatic results in just a couple of weeks. You can speed the process up dramatically through juicing. Making and consuming fresh vegetable juices on a daily basis will jumpstart the process of alkalizing your body. That's why so many people feel so good after they begin a juicing program. (Due to the problems associated with blood sugar, I would recommend using only vegetable juices and not fruit juices. Eating whole fruit affects blood sugar less because the fiber in fruit slows the body's processing of fructose.)

Excess Alkalinity is No Picnic, Either

Switching to a more alkaline diet will benefit almost everyone, though there is a small percentage of the population that is actually too alkaline. The few individuals who have this condition usually suffer from calcium deposits. Calcium precipitates when the surrounding environment is alkaline. This results in symptoms of migrating nerve and joint pain. Insomnia can also be a problem, and it is often associated with early morning stiffness. These individuals wake up stiff, but the stiffness improves pretty quickly as they become more active. Their muscle activity produces lactic acid, which helps neutralize the buildup of alkaline compounds and bring the body's pH back into balance. Several years ago, there was a book called "Folk Medicine" that promoted

the use of honey and cider vinegar as a remedy for arthritis and nerve problems. Cider vinegar is a weak acid that can help acidify the system just like lactic acid.

I suspect that 50 years ago alkalosis was more of a problem than it is today. The way our diets and lifestyles have changed, the opposite problem, acidosis, has now become almost universal. Once again, "the writing is on the wall" if everyone would just open their eyes and take a closer look at the growing epidemic of osteoporosis in this country. As I've explained, it's only the tip of the iceberg. Turning the problem around is going to take a lot more than just increasing our calcium intake.

Finding the Solution Requires Understanding the Problem

I'll give you a prime example of just how misguided most "medical experts" are when it comes to the "treatment" of osteoporosis. Some of the most recent guidelines on the problem suggest that children and teenagers consume more and more calcium. The reasoning was that by the time someone reaches their early 20s, they've developed the strongest bone structure of their lifetime. After that age, their bones simply begin to deteriorate. Basically, these "experts" accept the idea that osteoporosis and bone loss is a normal part of aging, and the best plan is to start with the strongest bones possible; hopefully, modern medicine will come up with some miracle cure in the meantime. Don't get lured into this way of thinking. There won't be some magic cure, and calcium isn't the answer. The solution is our diet.

Thomas Remer, who I mentioned earlier, has found that even though *individuals living in countries like South Africa and Singapore consume less than one-third the recommended amount of calcium, they have fewer hip fractures than their Western counterparts.* The reason is that they eat a low-acid-producing diet. All the calcium in the world won't rebuild bones if it's accompanied by an acid-producing diet.

Other recent lifestyle changes, in addition to our diet, have only contributed to this problem of widespread acidosis:

- For years I've equated the removal of gallbladders without informing the patients about the need for digestive bile salts with malpractice. Both the selection and improper digestion of fat contribute to acidosis. When fats aren't oxidized and metabolized, you lose their alkalizing properties.
- Hypoadrenia (weakened or poorly functioning adrenal glands) also contributes to acidosis. Along with dozens of other vital functions, your adrenal glands, or "stress glands," help regulate the amount of sodium in your body. During periods of stress, increasing amounts of sodium are flushed out through your kidneys. This sodium and its fluid-retaining characteristics are important alkaline reserves. In response to additional stress, not only does the body become dehydrated, it also loses some of its ability to neutralize acid.

Eventually (I hope), alkaline-producing diets will be prescribed for osteoporosis, muscle loss, heart disease, diabetes, and practically every other problem now associated with aging. When, or if, that happens is anybody's guess. In the meantime, change your own diet. There's no downside, unless you consider living a longer, healthier, and more active life a downside.

Take care,

If you have questions or comments for Dr. Williams please send them to the mail or email addresses listed to the right. Of course, practical and ethical constraints prevent him from answering personal medical questions by mail or email, but he'll answer as many as he can in the Mailbox section of *Alternatives*. For our part, we'll do our best to direct you to his issues, reports, and products related to the subject of your interest.

Here's how you can reach us:

- To send in Mailbox questions or Health Hints, write to P.O. Box 61010, Potomac, MD 20859-1010 or mailbox@drdavidwilliams.com
- For Customer Service matters such as address changes, call 800-527-3044 or write to custsvc@drdavidwilliams.com
- To get important information between issues, sign up for email dispatches at drdavidwilliams.com
- To order nutritional supplements from Mountain Home Nutritionals, call 800-888-1415 or visit drdavidwilliams.com
- To order back issues or reports, call 800-718-8293
- To sign a friend up for *Alternatives*, call 800-219-8591