

alkalize • energize • balance body pH

Alkalize Now

pH Balance PROGRAM™



DR. DONALD L. HAYES, D.C.

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DR. DONALD L. HAYES, D.C.



Ceutamated Worldwide, LLC

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Please consult a medical or health professional should the need for one be indicated.

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The information in this book is not a medical treatment. It is for educational purposes only and not intended and should not be considered as a replacement for consultation, diagnosis or treatment by a duly licensed healthcare provider.

Please consult a medical or healthcare provider should the need for one be indicated.

The products mentioned in this book and the statements made about the products have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

The products in the **Alkalize Now Program to Promote Healing & Improve Health** must be used in conjunction with a sensible diet and exercise. Injury repair, building better bones, wellness and weight loss results vary depending on the individual.

Consult your healthcare provider before starting any weight loss or wellness program.



Success...

It's All About **Attitude!**

If you don't like
who you are and where you are...
don't worry!

You are not **stuck**
with who you are
and where you are...

You **CAN** grow.

You **CAN** change.

You **CAN** be
the person
you **want** to be!





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ALKALIZE NOW—PROMOTE HEALING & IMPROVE HEALTH



Welcome

FROM THE DESK OF DR. HAYES

Alkalize Now Program Overview

Health Is A Balance Among All The Systems Of The Body

Balance and coordination among every body system is necessary for total health and vitality. Why is it important for all body systems to be in balance with each other? Our bodies are made up of 75 trillion cells and if the systems of the body were to work independently, you can only imagine the massive amount of chaos that would develop and quickly lead to sickness, disease and death.

Our body's cells are so interconnected that when you improve the balance of any one system it helps improve the balance and vitality of every other system. When you improve the balance of the cardiovascular system it improves the balance of the digestive system. When you improve the balance of the nervous system it improves the balance of the lymphatic system. And when you improve the Acid/Alkaline balance of the body, you improve the balance of every other system in the body at the same time. Therefore, a person's degree of health depends on their degree of balance, perfect health equals perfect balance.

Acid/Alkaline Balance

As strange as it may sound perfect balance in the body begins in the bloodstream. Furthermore, the repair of injuries, reduction of inflammation, building of strong bones, and increase of energy and vitality begin there as well.

In order to function properly the blood and other body fluids must maintain a very narrow Acid/Alkaline balance. The Acid/Alkaline balance in the body is measured by the pH factor. The pH, potential of hydrogen, ranges from 0, extreme acidic, to 14, extreme alkaline. A pH below 7 is acid and above 7 is alkaline. There is a tenfold difference between each number. For instance, a pH of 5 is 10 times more acidic than a pH of 6.

Optimally, we want the fluids in our bodies to have a pH level, which is between 7.35-7.45. If the blood's pH falls below 7.35 or raises above 7.45 the body cannot function properly. Because of this narrow range the body spends a tremendous amount of energy and uses the

majority of its alkaline mineral reserves to keep the pH at these levels. Injuries repair faster and health challenges in general improve quicker when the pH is maintained in this alkaline zone. This is true for every man, woman and child. At this level of pH, the body is highly oxygenated; it detoxifies and heals itself; its cells are energized; and it has a strong immunity to diseases. Unfortunately, the vast majority of Americans have an acidic pH level below 7.0

Why Maintain An Acid/Alkaline Balance?

The key factor to promote healing and improve health is maintaining a balanced Acid/Alkaline state in the body. When this balance is maintained, the body is a well-oxygenated environment. An acid is a caustic erosive sour substance that has an electropositive charge. An acidic body often referred to as metabolic acidosis, has thick blood that over coagulates and does not oxygenate properly. The cells cannot dispose of their wastes; therefore, the body's ability to heal acute or chronic injuries or health challenges in general is impaired. This impairment is characterized by sick blood, diseased cells, inflammation, excess body fat and suppressed immune functions. Acidic blood blocks vitamin absorption and starves your body of essential micronutrients, creates toxic buildup in clogged cells, slows down organ function and makes you feel sluggish and weak, prevents proper digestion and creates excess gas and bloating, causes unhealthy weight gain, speeds the aging process and makes you look older! These conditions are ideal for contracting and breeding various microorganisms, including viruses, bacteria, fungi, yeasts and parasites. Any kind of infection can thrive in an acid body. A lowered immune system results in low resistance to infections, colds, flu, low energy, and allergies. Other common acidic disorders are characterized by tightness, tension and stiffness that can include back, neck, leg and arm pain.

How Did We Get So Acidic?

Our epidemic of acid accumulation is a direct consequence of our current lifestyle habits. Most of us have acquired a way of living that creates a great deal of stress on our bodies that leads to huge imbalances on all of the systems of the body. Forced to have these stresses and imbalances the body does what it can to stay in balance and survive. Nearly all of today's chronic diseases of aging are a byproduct of the body doing its best to restore a level of balance. It's important to note that it's not the stomach acid that is a significant problem, but rather the acidic blood which reflects the state of acidosis within the tissues of the body.

High acidity enters our bodies by eating processed foods, pre-packaged foods, sugary foods, white flour products, dairy products, including milk, cheese, ice cream, alcoholic beverages, drugs, processed table salt, foods grown and processed with pesticides, preservatives, antibiotics, or hormones. Meats, including beef, chicken and turkey, also promote acidity. Because of the acid overload in our environment, most of our drinking water now contains acid. Even stress creates excess acid. If you're not getting enough sleep or "alkaline exercise" you probably have more acid than your body can handle. Your cells are absorbing acidic toxins much faster than you can get rid of them through your colon, lungs, skin and kidneys. The bottom line is that no injury or illness can repair as quickly or heal as completely without balancing pH and flushing excess acid waste from the body. If we are too acidic, we are unhealthy and we will heal much slower if at all.

Benefits of An Alkaline System

On the other hand, an alkaline substance is one that neutralizes acid, and has an electronegative charge. Increasing alkalinity means increasing oxygen. Since the alkaline blood, contains excess oxygen, the heart does not have to work as hard. Injuries, which must have blood to repair, are more likely to heal faster and more complete when the surrounding tissues and blood are alkaline. Aging is accelerated when natural acid salts build up in the walls of your cells, causing them to stiffen, thicken, wrinkle and dry up. This causes cells to lose their ability to receive essential nutrients and oxygen that are required for injury repair, health and healing. By the same token, aging is slowed when acid waste is removed from the body.

As a general rule, acid substances tighten; and alkaline substances relax. Minerals are alkaline because they relax the body from tightness, tension, stiffness and spasms. Due to the alkalinity of minerals, they loosen toxic tissues in the body and cause them to release their toxins. Eating fruits and vegetables is the best way to obtain a large amount and variety of alkaline minerals on a daily basis.

Provide Your Body What It Needs To Be Alkaline

The basic premise regarding the overproduction of acids in the body is that as countries become more “advanced and automated”, eating fast foods and saturated fatty meat and dairy proteins become the norm. These foods are converted into strong acids that must be eliminated from the blood and or removed from the body through various organs including the kidneys. Acids tend to accumulate in the body’s injured tissues and weakest and most devitalized joints and organs because the blood supply to these areas is usually compromised and the immune cells typically incapacitated.

The concept of Acid/Alkaline imbalance is extremely significant and central to all aspects of healing. In fact this concept serves to unite all forms of health care, both allopathic and alternative, since no one disputes it. Double blind research studies are not needed to understand that alkaline neutralizes acid, we all learned that in elementary school. Given the research on decreasing alkaline reserves and a tendency toward metabolic acidosis for most Americans it seems logical that working to improve the Acid/Alkaline imbalance is a good place to start.

Conventional medicine is unrivaled when it comes to dealing with “acute medical emergencies” and the thoughtful use of pharmaceutical drugs. However, the primary health aim for each and every one of us should be to promote healing and prevent adult chronic degenerative disease from occurring in the first place. To do so it is important to take responsibility and provide your body all that it needs to be healthy which should always include, rest, proper diet, clean water, nutrition, regular exercise and an alkaline diet

Thomas Edison was credited with saying: *“The doctor of the future will give no medicine, but will interest his patients in the care of the human frame, in diet and in the cause and prevention of disease.”*

Alkalize Now 3-Step Program – Drink, Eat & Move

Every acid molecule that passes out of the body via the kidneys must take an important “alkaline” mineral with it, which contributes to the loss of the body’s alkaline reserve. So, the

healing process, no matter what type of injury or what health challenge we suffer from, or our simple desire to maximize our wellness potential, begins with re-establishing the body's depleted "Alkaline Reserve." To best accomplish this, consider *The Alkalize Now 3-Step Program* outlined below as follows; Chapter One; Drink "Alkaline", Chapter Two; Eat "Alkaline" and Chapter Three; Move "Alkaline".

Alkalize Now – To Support Injury Repair

Tissue repair due to home, sports, automobile, or work injuries are complex processes that involve a series of biochemical and cellular reactions, beginning with inflammation and followed by the repair and remodeling of the injured tissue. While damage to soft connective tissue was once believed to be irreparable, there is now scientific evidence to the contrary. Connective tissue repair and remodeling involves the formation of collagen fibers and ground substance. When there is damage to connective tissue it is important to address the nutritional requirements for the synthesis of both the collagen fibers and the proteoglycans. Many nutrients are involved in connective tissue repair including, vitamins, minerals, amino acids, bioflavonoids and a whole class of micronutrients called phytonutrients that are not vitamins, minerals or fiber, but that have a dynamic health enhancing effect and a big reason the major health agencies recommend a minimum of 5 different fruits and vegetables daily.

Bioflavonoids—Bioflavonoids are plant-derived substances with strong antioxidant activity and possible pain-relieving properties. It is believed that bioflavonoids may help to relieve pain by inhibiting prostaglandins. Additionally, since some prostaglandins are known to induce elastase and other catabolic hydrolases, it is plausible that their suppression may benefit connective tissue. Furthermore, bioflavonoids are thought to benefit connective tissue by binding to elastin, preventing its degradation by elastases released as a result of inflammation. In addition to this apparent enzyme inhibition, bioflavonoids have demonstrated enzyme activation, namely that of proline hydroxylase, an enzyme necessary for collagen cross linking.

Additional research regarding the biochemistry of bio-flavonoids and their therapeutic effects are still required, but the current science looks very promising. There is some clinical experience that supports their effectiveness in safely reducing both pain and inflammation in many cases.

Phytonutrients—There is a growing body of evidence and research demonstrating the vital role our diet plays in the healing of all types of tissue damage and inflammation. Eating a diet rich in fresh fruits and vegetables that are high in alkaline ash minerals, will help to ensure an abundance of phytonutrient natural plant-based chemicals to promote health and healing.

It's wise to reduce foods that are relatively high in arachidonic acid, a non-essential fatty acid found in animal products and peanuts, and increase foods rich in alpha-linolenic acid and its end products, essential fatty acid compounds found in fresh vegetables, flax and pumpkin seeds, walnuts, cold water ocean fish, and specialized fruit and vegetable extracts.

The American Journal of Clinical Nutrition stated: *"Today, with our high sodium, high protein, high processed food diets, we are even more in need of the alkaline ash minerals, especially potassium, found so predominately in the super greens. These minerals act as buffers to neutralize excess acid. If not present in sufficient quantities, the body "steals" these much mineral needed*

buffers from our bones and thus such deficiencies are thought to be a leading cause of osteoporosis.” Implementing ***The Alkalize Now 3-Step Program*** outlined below can help you be effective in supporting connective tissue repair and wound healing.

Alkalize Now – To Reduce Inflammation

Most people think about inflammation in relation to some type of injury like a sprained ankle where swelling occurs. While this cause/effect relationship is true, the most common cause of inflammation is diet. Scientific research has demonstrated that most chronic conditions that plague people today are caused by diet-induced inflammation.

Some of the more notable conditions that are attributed to diet-induced inflammation are; muscle aches, joint pain, osteoporosis, arthritis and the chronic diseases of aging. Even feeling tired and less vital is promoted by inflammation. The main lifestyle factors that cause chronic inflammation include a poor diet, stress, and sedentary living.

Dietary factors are perhaps the key cause of chronic inflammation, because a diet that promotes inflammation can even affect people who exercise regularly and are not overweight. Diet is the key link for causing or preventing inflammation. Numerous studies are being published every month that demonstrate how we can reduce inflammation with nutrition.

Inflammation – A Lack of Homeostasis?

The basic concept of homeostasis is that it is a biochemical electrical balance in the body that when present, creates healing. When the body stays out of homeostasis too long, and too often, stresses on all other body systems result.

Abusive foods such as sugar, fried foods, hydrogenated fats, foods containing too many chemicals, and foods that are too acidic, upset our body chemistry. Commonly, these chemical changes express themselves as an alteration in the relationships between minerals. No mineral is an island, as they function only in relation to each other. If one mineral in the bloodstream becomes depleted, as in the case of acidosis, other minerals can become non-functioning and or toxic.

Eating Healthy To Reduce Inflammation

By choosing to eat healthy foods and eliminating foods that are harmful to you, you can dramatically improve your health and ensure that inflammation will not affect you. In most cases when you improve your diet you will improve your health. Implementing ***The Alkalize Now 3-Step Program*** outlined below can help you be effective in achieving and maintaining homeostasis and, in turn, reverse inflammation.

Alkalize Now – To Build Strong Bones

If you compare a brick wall without mortar to a brick wall with mortar to determine overall strength it's quite obvious that a brick wall's strength is dependent on the mortar. When you use this analogy for bone strength and think of the bricks as calcium and the mortar as the other 17 nutrients crucial to building strong bones it becomes very clear that simply adding more calcium (bricks) may make the wall higher, but not stronger. To build strong bones for life we need more than just bricks. We also need mortar, and lots of it. If our bones were just sticks of calcium they would break as easy as chalk, but of course they're not. Bones are living cells called osteoblasts that are immobilized in a lattice work of collagen whose spaces are filled by crystals of hardened minerals, including calcium.

Strong Bones Need More Than Calcium

If Bone Mineral Density (BMD) Tests measured only calcium, the test name would be changed to bone calcium density test. Since BMD tests does not just measure calcium, but all the minerals in bone it does not distinguish between bricks and mortar. The other 17 minerals needed to build strong bones and prevent fractures are:

Boron • Copper • Fluoride • Folic Acid • Essential Fatty Acids • Magnesium
Manganese • Phosphorus • Protein • Silica • Zinc • Vitamin A • Vitamin C
Vitamin B6 • Vitamin B12 • Vitamin D • Vitamin K

Fruit & Vegetable Alkaline Diet – Key To Strong Bones & Fracture Prevention

Research clearly does not support the notion that milk, dairy products and calcium, help reduce fracture risk. Nearly 150 studies over more than 30 years involving more than 500,000 people and lasting up to 22 years make a poor case for the notion that milk, dairy products and calcium offer any kind of a solution for osteoporosis. In fact, milk and dairy products might actually be part of the problem. Keep in mind the countries that consume the most milk and dairy have the world's highest fracture rates, and large prospective trials show that as consumption of milk and dairy increases, so does fracture risk.

How Do You Build Strong Bones? – An Alkaline Diet & Weight Bearing Exercise

In 1968 Daniel Bernstein M.D., of Johns Hopkins, published an article in the prestigious medical journal *Lancet*, which stated that the conventional medical approach to osteoporosis was wrong and that consuming a more alkaline diet would be more effective. Most osteoporosis researchers at the time felt this was a radical position to assume and we're upset to find a distinguished researcher recommending such a different approach to bone health. By the middle of 1970 more studies began to appear to support the alkaline diet concept. Research began in full force in the 80's and 90's to the point that today many researchers now consider an alkaline diet and weight bearing exercise the best, most cost-effective way to strengthen bone and reduce fracture risk.

How Does An Acid Diet Contribute To Bone Loss?

High school chemistry class taught us that an alkaline substance will neutralize an acid. In real life people take an antacid tablet made of calcium carbonate, which is highly alkaline, to neutralize indigestion from too much stomach acid. Calcium in the body plays the same acid-neutralizing role in the blood. Our bones contain three types of calcium compounds and when the blood's pH falls below normal, the body must restore it to normal as fast as possible. It does this by pulling calcium into the blood from where the body stores 99% of its calcium, the bones.

What In The Diet Makes The Blood Acidic?

Protein is the primary item that makes the blood acidic. Proteins are made from 20 different amino acids and after digestion the amino acids enter the bloodstream. A high-protein diet reduces the blood pH to the lower normal range, forcing the body to take steps to raise the blood's pH by extracting calcium compounds out of bone. The process is complex involving special bone dissolving cells called osteoclasts, but the simple truth is that a high-protein acid

diet drops the blood's pH and in order to restore it to the optimal range, the body draws calcium compounds from the bones.

Does Fruit & Vegetable Protein Cause Less Calcium Loss?

Depending on the type of protein, animal versus plant-based vegetable protein, calcium loss from bone differs. With regard to osteoporotic fractures, animal foods are the main issue. Compared with fruits and vegetables, animal foods increase blood acidity much more for two reasons, animal foods contain the most protein and animal foods are low in natural alkaline buffers. Fruits and vegetables are different because they are low in protein and high in alkaline nutrients. As fruits and vegetables get digested, only small amounts of amino acids enter the bloodstream, along with lots of alkaline nutrients. The alkaline material completely buffers the acids and the body does not have to reach into the bone bank for calcium. Dozens of studies show that, compared with fruits and vegetables, animal foods cause more bone loss.

The Scientific Cause & Correction Of Osteoporosis

Anthony Sebastian, M.D., professor at the University of California, San Francisco, led the research team that published the 2000 survey of worldwide fracture rates. Sebastian showed that the intake of animal protein rises, so does the rate of hip fracture. His research also showed that as intake of vegetable protein rises, the rate of hip fracture falls. Dr. Sebastian concludes, "The high incidence of hip fracture in industrialized countries is caused by the cumulative effects on bone of the body's chronic high net acid load. This high net acid load, in turn, is the result of disproportionate consumption of animal (acid) foods relative to vegetable (alkaline) foods. Otherwise healthy individuals who eat net acid-producing diets are in a chronic state of low-grade metabolic acidosis. The body adapts through dissolution of bone. Over decades, the magnitude of a daily positive acid balance may be sufficient to induce osteoporosis. Moderation of animal food consumption and an increased ratio of vegetable-to-animal food consumption may confer a fracture-protective effect."

It's All About Calcium Balance

The typical American diet is high in meat and dairy foods which draws a lot of calcium compounds from bone that leads to an excessive fracture rate. It's all about calcium balance which is best explained by the faucet and drain, inflow and outflow analogy. It doesn't matter how much calcium you eat if your pulling it from your bones and flushing it down the drain in your urine. With an alkaline diet consisting of lots of fruits and vegetables and little meat, poultry, fish and dairy, you keep the faucet open more than the drain. Calcium comes in through the diet, so you build bone. But very little goes out, so you don't lose it.

Can You Get Enough Calcium For Strong Bones Entirely From Plant Foods?

Many consumers believe that it's not possible to get enough calcium for strong bones without milk and dairy foods, not true! About one-third of the typical American's calcium intake comes from nondairy sources; fruits, vegetables, grains, beans, nuts, seeds, eggs, and animal foods. Few Americans realize how much calcium can be obtained from fruits and vegetables. Compared with calcium from dairy foods, as much, or more, of the calcium in many fruits and vegetables enter the bloodstream. In particular, about one-half to two-thirds of the calcium in dark green leafy vegetables like spinach, chard and kale gets absorbed. In addition,

plant foods are alkaline, so they don't force the body to draw calcium compounds from bone and they also contain the other nutrients necessary to build bone.

No Need To Become A Vegetarian

Many people are not ready to choose a vegetarian lifestyle. The good news for those who are not is that to enjoy strong bones, reduced inflammation and heal faster, there's no need to completely swear off meat, poultry, fish, eggs, milk, cheese, yogurt, pizza, and ice cream. Instead eat only small portions of acid generating foods while simultaneously consuming an alkaline drink such as The Greens First Wellness Shake every morning, and eating lots of fruits and vegetables throughout the day. Lots of fruits and vegetables and little to no meat is also recommended by organizations such as the National Cancer Institute, the American Heart Association, the American Dietetic Association, and the Centers for Disease Control and Prevention. They all endorse a plant based alkaline diet that includes at least 5 servings of fruits and vegetables a day and preferably six to ten, with less meat, fewer high-fat dairy products and less fast food and junk food.

Strong Bones For Life

By choosing to eat healthy foods and eliminating foods that are harmful to you, you can dramatically improve your bone health. Implementing *The Alkalize Now 3-Step Program* outlined below can help you be effective in preventing bone loss and achieving support for bone growth.

Alkalize Now – To Increase Energy & Gain Vitality

If you always feel sick and tired, try to drink and eat high alkaline foods, and exercising using a highly alkaline exercise routine. By now you know that our health depends upon the balance of our inner body systems and in specific our Acid/Alkaline balance. If you haven't known this until now, chances are you may already be acidic. You may also feel the symptoms of acidity like always feeling ill and fatigued, chronic headaches, aches and pains in your joints and muscles, etc. These are just some of the minor symptoms of metabolic acidosis.

Premature aging can start as early as 25 years of age. If you are 25 to 30 years old and you are always feeling low on energy with lots of aches and pains in your body, you probably are acidic. Other symptoms of an acidic body are anemia, asthma, and other serious symptoms of the major chronic diseases of aging. These can all be the result of a possible Acid/Alkaline imbalance.

This is where a high alkaline drink and alkaline food diet can help you. Because alkalized food can balance your inner terrain and help equalize the acidity in your body. A high alkaline drink and alkaline food diet can make you healthier and full of energy.

You need exercise coupled with a high alkaline drink and diet. Exercising will allow you to activate some reserve energy that you may need during work and sports. Find a fun sport then stick to that routine. You should engage in some type of weight bearing exercise, the simplest being a walking routine.

Make a little sacrifice by changing some of your bad "acidic" habits. Excessive poor food choices, alcohol and smoking can be a big contributor to metabolic acidosis. A little lifestyle change can go a long way for your health.

The ultimate solution is to drink alkaline and change to a high alkaline diet. With high alkaline foods, you will be able to alkalize your body and garner the benefits of increased energy and vitality.

Alkalize Now 3-Step Program – Drink, Eat & Move

Every acid molecule that passes out of the body via the kidneys must take an important “alkaline” mineral with it, which contributes to the loss of the body’s alkaline reserve. So, the healing process, no matter what type of injury or what health challenge we suffer from, or our simple desire to maximize our wellness potential, begins with re-establishing the body’s depleted “Alkaline Reserve.”

To best accomplish this, consider *The Alkalize Now 3-Step Program* outlined below as follows; Chapter One; Drink “Alkaline”, Chapter Two; Eat “Alkaline” and Chapter Three; Move “Alkaline”.

With *The Alkalize Now 3-Step Program*, you can discover the secrets to help return your body to normal optimum function, promote better healing, lose weight naturally, gain overall vitality and improve the quality of your life.

The Alkalize Now 3-STEP PROGRAM



drink.

STEP 1
Drink Alkaline
Wellness Shake Daily



eat.

STEP 2
Eat Alkaline Foods



move.

STEP 3
Whole Body Vibration &
Weight Bearing Exercises

The process begins the moment you turn the page—GOOD LUCK TO YOU!

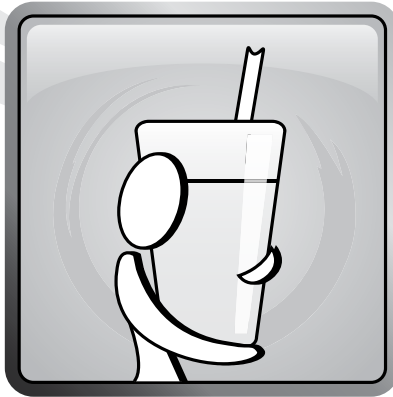
Yours in Health,

Donald L. Hayes, D.C.

Dr. Donald L. Hayes, D.C.
Founder & President, Ceautamed Worldwide, LLC
Greens First.com

CHAPTER

1



drink.

STEP 1



STEP 1—DRINK ALKALINE.

Why Should We Drink Alkaline?

Most of us have heard that diets high in fruits and vegetables which are high in alkaline minerals, can help us heal better, lose weight, reduce our risk of heart disease, cancer, diabetes, high blood pressure, cataracts, macular degeneration, osteoporosis, arthritis and even wrinkles. As a matter of fact, according to the National Cancer Institute, 8 to 10 servings a day can cut our risk of some cancers in half!

The human body maintains its health through the process of homeostasis, a system of self-regulating mechanisms. Due to all the stresses exerted on our bodies in our day-to-day lives, homeostasis is difficult to maintain. Once our bodies fall out of balance, a state of “dis-ease” sets in, which if left uncorrected ultimately leads to illness. The key to becoming and staying healthy is to ensure that balance is maintained.

Many people that are not suffering from any obvious signs of illness express that they have less energy or less flexibility than they would like. They have minor yet nagging aches and pains, constant stress or an inability to get a good night’s sleep. These nagging symptoms are common to millions of people in our nation while tens of millions more suffer from far more serious health problems. Most people have forgotten what being truly healthy actually means. Health is not merely a condition of being symptom free. It is a state of abundant energy and mental and emotional well-being.

In 1998, the University of Naples in Italy studied an elderly population and found that those who lived the longest and were the healthiest ate a lot more fruits and vegetables than those who died before their time. Therefore, it comes as no surprise that the USDA Food Guide Pyramid advocates eating 5 to 9 servings of fruits and vegetables per day for optimum health!

Food science has just recently come to realize that there is much more to micronutrient nutrition than just vitamins and minerals. Indeed, there may be well over 1,000 different plant chemicals, known as phytochemicals that may have metabolic activity in humans! These include classes such as the alkaloids, carotenoids, coumarins, flavonoids, isothiocyanates, polyphenols, and polysaccharides, just to name a few! Some serve as antioxidants fighting free radicals, some assist the liver in detoxification, others modulate the immune system and hormone metabolism.

Further study has shown that the fruits and vegetables that come in rich vibrant colors, like tomatoes, carrots, spinach, broccoli, blueberries and raspberries, are much more potent and beneficial than the pastel colored produce like iceberg lettuce, bananas, celery, corn and potatoes.

Furthermore, certain foods may contain greater quantities of antioxidants, fibers, probiotics, and even specific medicinal substances, the latter being especially true of many edible herbs and spices.

Alkaline Super Foods & the Standard American Diet (SAD)

As we have become more aware of the amazing and broad spectrum of health, anti-aging, and disease preventing benefits of foods especially high in this “new” array of such micronutrients, a new name for them has arisen, the “Super Foods”.

The “S.A.D.” fact remains, in spite of all the support from mainstream medicine organizations like the *American Heart Association* and *American Diabetes Association*, and governmental health organizations like the *National Institutes of Health*, the *National Institute on Aging*, the *USDA*, and even the *U.S. Surgeon General*, few of us eat the recommended minimum of two fruits and three vegetables daily.

Even counting the “pale” plant foods like French fries, green-gassed bananas and iceberg lettuce, few achieve the daily minimum. Only a small percentage of the population enjoy the optimal nine servings that emphasize fresh and organic phytochemical-dense and alkalizing deep green and brightly colored fruits and vegetables!

The reasons for this lack are many and varied, and deeply ingrained in our American culture and lifestyle, though it can no longer be accounted to ignorance. What are obviously needed are an educational initiative, as well as new ways for people to enjoy the benefits of fruits and vegetables. This is an introduction, and for some, a review of the power and importance of many of the super foods available to us today. Our S.A.D. choices in food must change. Education and the new advances in food technologies are the keys.

ORAC Intakes, Health Outcomes & the Common Diseases of Aging

“If these findings are borne out in further research, young and middle-aged people may be able to reduce risk of diseases of aging—including senility—simply by adding high-ORAC foods to their diets,” *Floyd P. Horn, administrator, Agricultural Research Service’s Human Nutrition Research Center on Aging at Tufts University in Boston.*



ORAC, short for Oxygen Radical Absorbance Capacity, is a test tube analysis that measures the total antioxidant power of foods and other chemical substances. Antioxidant power is the ability to neutralize oxygen free radicals. *Therefore ORAC testing is a way to measure how many oxygen radicals a specific food can absorb. The more oxygen radicals a food can absorb, the higher its ORAC score.*

Foods that score high in ORAC testing may protect cells and their components from oxidative damage. So suggests the latest studies of animals and human blood at the *Agricultural Research Service's Human Nutrition Research Center on Aging at Tufts University in Boston.* (ARS is the chief scientific agency of the *U.S. Department of Agriculture.*) In other words the higher a food's ORAC score, the better it is at helping our bodies fight diseases like cancer and heart disease.

Oxygen radicals are chemicals that are naturally formed inside our bodies by the process of oxidation. They are normal byproducts of everyday functions like digestion and physical activity. We are also exposed daily to polluted air, ingest oxidized or partially rancid foods, and oxidizing radiations from the sun and various electrical appliances which all add additional oxygen radicals to our systems.

Free radicals destroy our health in many ways. A good illustration of the harmful effects of oxidation and a body that has too much acid, is rusting. When metal rusts it becomes weak and flaky, it starts to degenerate or decay until it no longer performs its functions well. Eventually the metal "fatigues" and "fails". **THIS EXACT SAME PROCESS HAPPENS IN OUR BODY!** Just like in rusting, the cells, organs, and other parts of our body can be made weak by oxidation. This can lead to diseases like cancer, heart disease, cataracts and macular degeneration, osteoarthritis, chronic obstructive pulmonary disease (COPD), senile dementia and other neurodegenerative diseases, and perhaps even skin aging and wrinkling!

The Free Radical Theory of Aging is the thesis that oxidative damage culminates in many of the above maladies of aging is now well accepted in the health community. Therefore, *if our bodies can quench these oxygen radicals before they do damage and balance our body's pH levels, then they won't hurt us.* Chemicals that neutralize oxidation from free radicals are called antioxidants. The antioxidant evidence has spurred skyrocketing sales of antioxidant vitamins. But several large trials have had mixed results on vitamin pills as far as achieving the desired benefits. This may be because there are hundreds, maybe even thousands, of antioxidant phytonutrients (plant chemical nutrients) in natural plant



foods and herbs that play a major role in health and wellness. Some of these phytonutrients we have identified, many more as yet remain to be identified. What we do know is that most of these powerfully beneficial plant compounds are not found in vitamin pills. Therefore, it is not surprising that science has found those who eat 8-10 servings of fruits and vegetables a day suffer from a much lower incidence of the common chronic degenerative diseases of aging as compared to those who eat only 2 or 3 servings a day.

By the year 2050, nearly one-third of the U.S. population is expected to be over age 65. If further research supports these early findings, *millions of aging people may be able to guard against many of the worst and most common diseases simply by adding high-ORAC foods to their diets!* This could save much suffering, as well as reduce the staggering cost of treating and caring for the elderly.



Dr. Guohua Cao, a physician and chemist, developed the ORAC test while he was a visiting scientist at the National Institute on Aging in Baltimore, Maryland. According to Dr. Cao, “The ORAC value covers all the antioxidants in foods... You cannot easily measure each antioxidant separately, but you can use the ORAC assay to identify which phytonutrients are the important antioxidants. It may be that combinations of nutrients found in foods have greater protective effects than each nutrient taken alone.”

New, natural plant chemicals are being discovered every day. We don't know as yet which ones, in what amounts, best fight cancer and other diseases. But we do know that, as our knowledge is so limited, it is best to get these plant chemicals from plant foods, not just supplements, to fully enjoy the disease-fighting benefits.

One of the things science has proven is that *dark greens and brightly colored plant foods are the ones with the highest ORAC scores* such as spinach, kale, broccoli, blueberries, wild tart cherries, raspberries, elderberries, prunes, tomatoes, carrots and the like.

It is important to understand that the ORAC values of fruits and vegetables cover a broad range. Dr. Cao instructs us that, “you can pick seven with low values and get only about 1,300 ORAC units. Or, you can eat seven with high values and reach 6,000 ORAC units or more. One cup of blueberries alone supplies 3,200 ORAC units.” Generally the minimum recommended “5-a-day” vegetables and fruits program is considered to be supplying about 1750 ORAC units daily.

In the studies, eating plenty of *high-ORAC foods raised the antioxidant power of human blood 10 to 25 percent.* Based on the evidence so far, some experts suggest that *daily intake be increased to approximately 5,000 ORAC units to have a significant impact on plasma and tissue antioxidant capacity and helps to alkalize the body for improved health.*

The Greens First Wellness Shake – A Powerhouse of Nutritional Benefits

The Greens First Wellness Shake is an easy, delicious and nutritious solution for the entire family to alkalize your body first thing in the morning to optimize your health.

Just take a look at all the nutritious ingredients and how they can help promote healing, help build better bones and improve your overall health and vitality...

The Super Greens: Spirulina, Chlorella & Young Barley Greens

Super Greens are those pigment rich dark green plants and friendly photosynthetic algae that make up most of the very foundation of complex life on earth. By this statement we mean that such green foods make life possible, for they serve at the beginning of the food chain upon which other plants, and the more complex animals, all depend, directly or indirectly. As such these dark green foods contain all the essential building block nutrients or precursors upon which all other life eventually depends.

In the oceans and great lakes these super foods are one-celled organisms called spirulina and chlorella. They are some of the oldest, most successful and most resistant organisms and provide most of the oxygen dissolved in water.

On land, these foods are the young spring time sprouts or shoots of the seed producing green grasses and the green herbs, a most excellent example of which is young barley green shoots.

Spirulina is a primordial aquatic micro-blue green algae. Spirulina takes its energy directly from the sun and the minerals in waters that are naturally highly alkaline, or commercial aqua-farms where purity can be monitored. It grows so fast that Spirulina accounts for up to one half of the oxygen on our planet!

Spirulina contains over 100 vitamins, minerals, amino acids, enzymes and phytonutrients! Spirulina contains high levels of easily absorbed natural cell protectors (antioxidants) including chlorophyll, alpha and beta carotene and phycocyanin, the latter found exclusively in Spirulina!

Spirulina is approximately 65 - 70% amino acid proteins, which is greater than beef steak by far! Spirulina is a natural treasure trove of organic vitamin B12, iron, chromium, selenium and essential fatty acids (GLA). Indeed, Spirulina contains 50 times more blood building iron than spinach and 10 times more bone building calcium than milk. Spirulina is the highest natural plant source of stamina building Vitamin B12, has more good fats (GLA /EFA) than evening primrose oil, and more Vitamin E than raw wheat germ!

Spirulina also contains growth factors that support and promote the growth of friendly intestinal flora. Such a food is properly called a pre-biotic. "People have used foods like yogurt (containing pro-biotics) and Spirulina throughout



history...these foods improve immune system function and...are a beneficial addition to our diet.” (*Judy van de Water, associate professor of rheumatology, allergy and clinical immunology, UC Davis*).

Spirulina, like all edible dark green plants, is also highly alkalizing, meaning that it helps restore the acid–base balance. In other words, Spirulina helps neutralize the acidity caused by eating excess meats, starches, sugars, soft drinks and preserved foods, as well as by excess stress, excess exercise, environmental pollutants, drugs, alcohol, coffee and tobacco.

Spirulina is also rich in photosynthetic pigments which makes it a great heavy metal detoxifier. Doctors Sklar and Schwartz of Harvard School of Dental Medicine showed an extract of Spirulina’s antioxidants prevented cancer in animals.

“Spirulina increased antibody responses and the activity of natural killer cells, which destroy infected and cancerous cells in the body.” —*UC Davis Health System, Weekly Update, Dec, 2000, pp. 1-2*

Chlorella is the number one selling health food supplement sold in Japan. Chlorella, a unique single-celled fresh water green algae, contains high concentrations of chlorophyll, nucleic acids, amino acids, enzymes, antioxidant carotenes, and vitamins and minerals, especially zinc. (The latter is often deficient in athletes and vegetarians.)

Chlorella actually contains twice as much chlorophyll as Spirulina. Chlorophyll, the phytonutrient that makes plants green, deodorizes, detoxifies and promotes the body’s natural healing.

Chlorella is the most researched “green product” resulting in proof of numerous health benefits including improved immune system function, heavy metal and pesticide detoxification, “anti-tumor activity”, and, because of chlorella growth factor (CGF), enhanced white blood cell activity and quicker wound and ulcer healing! *Drug Chemical Toxicology, Vol 7, No 1, pp. 51-71 and Immunotoxicology, 1999, Vol 21, No 3, pp.609-619.*

Please note that as Chlorella, unlike Spirulina, has a cellulose wall that humans cannot digest, it is important that “cracked cell wall” Chlorella be used. Cracked cell wall Chlorella is what is used in the Greens First product.

Michael Rosenbaum, MD, MSC, Director of Orthomolecular Health Medical Society, writing in the *M.D.’s Nutritional Bulletin, Special Addition, Spring 2001, p.1*, states that chlorella is, “by far the best and most powerful of the nutraceuticals, foods that provide your body with the proper nutrition to heal itself...There is nothing better for finally helping you feel the way you want to feel!”

Chlorophyll has also been studied for its potential in stimulating tissue growth, and in stimulating red blood cell production. Perhaps most remarkable is the similarity between chlorophyll and the red pigment in blood. Indeed, chlorophyll is just a hemoglobin molecule with magnesium in the middle instead of iron!

According to an article in the *Journal of the National Cancer Institute*, 1995, Vol 87, No 11, p. 7, chlorophyll fed to laboratory animals reduces absorption of three dietary carcinogens: heterocyclic amines (found in cooked muscle meats), polycyclic hydrocarbons (found in smoked and barbecued foods), and aflatoxin (a toxin produced commonly by mold that infects grains and peanuts). The chlorophyll forms complex compounds with the chemical carcinogens while they are still in the digestive tract, limiting their absorption and distribution.

Chlorophyll has also been found useful to treat some disorders of the pancreas and reduce fecal, urinary, and body odor in geriatric patients.

Barley Grass is considered the most nutritional of the green grasses. When the great herds of the plains have survived the dry season or winter, nature provides them with the most nutritious of foods for themselves and their soon to be born, young, green sprouting grasses. Indeed green grasses are the only vegetation many herbivores eat and as such supply their sole nutritional support from birth to old age! But before green grasses undergo the reproductive cycle that creates the grains, they are in the grass stage, and the grasses contain about the same vitamins and minerals as dark green vegetables!

When these grasses are harvested at a young age, they have a different chemical makeup from their adult counterparts. For example, wheat grass has 32 g of protein per 100 g, while wheat flour has only 13 g per 100 g. Wheat grass has about 23,000 International Units (IUs) of vitamin A per 100 g, while wheat flour has none. We can see then that the young grasses offer us much greater nutrition.

Barley grass juice powder, low temperature spray dried from pure organic juice, not milled grass, is a green powerhouse that brings you a wide spectrum of natural nutrients in natural proportion, as well as chlorophyll, live enzymes, and a unique and powerful antioxidant: 2nd-O-glycosylisovitexin, reported to have antioxidant activity equal to or superior to vitamin E.

Green barley leaves contain a multitude of the body's spark plugs, enzymes. Enzymes are the catalysts for the body's essential chemical reactions and are responsible for our digestive processes, for providing cellular energy, and for antioxidant effects. Despite their importance, most people do not get the enzymes they need. This is because heat destroys enzymes, and most of our foods, whether cooked at home or processed, are heated and the enzymes destroyed. The world's greatest expert on green barley is Yoshihide Hagiwara, M.D., an associate professor at the department of environmental toxicology at UC Davis. Dr. Hagiwara believes that there may be thousands of active enzymes in green barley, especially super oxide dismutase (SOD), a major detoxifying enzyme sometimes recommended in combating arthritis.



The young barley juice powder contains 13 times as much carotene as that of carrots, 55 times as much Vitamin C as that of apples and 5 times as much iron as that of spinach. Its potassium content works to balance the sodium in salt and so many other processed foods. Many people note a diuretic effect like the “water pills”, frequently followed by lowering of an elevated blood pressure!

Recently, research has unveiled many other possible benefits of green barley leaves. Extracted compounds may have cholesterol lowering effects, anti-inflammatory benefits, and anti-ulcer properties.

Dr. Hagiwara says, “*It was clear to me, then, that the leaves of the cereal grasses provide the nearest thing this planet offers to the perfect food. For reasons of palatability, higher nutrient content, and favorable harvesting features, green barley stands out as the best among these.*”

The More Familiar Super Greens: Spinach, Kale & Parsley

The dark green “leafies”—spinach, kale and parsley—are also super abundant in vitamins, inerals, carotenes and chlorophyll, the great detoxifier. (That is why parsley and chlorophyll are used in natural breath fresheners!) Of particular note are folic acid (vitamin B9), vitamin K, calcium, iron , and potassium, and the antioxidant phytonutrients lutein and zeaxanthin.

According to the *USDA*, folic acid is the most common dietary vitamin deficiency in the U.S., being deficient in 3 out of 4 diets. Indeed, only recently have we become generally aware that folic acid deficiency is the usual cause of the unfortunately not uncommon neural tube birth defects. And many medications, including birth control pills and estrogen, ncrease the need for folic acid! —*Nutritional Science News, 2001, Vol 6, No 9; p. 338*

Green leafy vegetables are well known as being high in bone building calcium. But did you know that Vitamin K is needed for strong bones, too? *The Framingham Health Study* showed that those with the highest vitamin K intake had three times less hip fracture from osteoporosis! (*Analyst, 1988:113:393-7*). In Japan vitamin K is approved as a drug to treat osteoporosis! Fewer yet realize that a recent analysis of published research on vitamin K oncluded, “*A substantial part of the population is mildly deficient in vitamin K, and at the later stages this deficiency may contribute to (not only) increased bone fracture risk, (but) arterial calcification and cardiovascular disease, (too).*”—*Hematology Oncology Clinical North America 2000, Vol 14, No 2, pp. 339-53.*

The cartoon character Popeye sang, “I’m strong to the finish ‘cause I eats me spinach”. This was mostly thought related to its rich iron content, which is also true of kale and parsley. Today, with our high sodium, high protein, high processed food diets, we are even more in need of the alkaline ash minerals, especially potassium, found so predominately in the super greens. These minerals act as



a buffer to neutralize excess acid. If not present in sufficient quantities, the body “steals” these much mineral needed buffers from our bones, and thus such deficiencies are thought to be a leading cause of osteoporosis. —*American Journal of Clinical Nutrition* 2000, Vol 73, pp. 118-122.

The discovery that there is a whole class of micro-nutrients, called *phytonutrients*, that are not vitamins, minerals or fiber, but had dynamic health enhancing effect, is a big part of the reason the major health agencies recommend a minimum of 5 different fruits and vegetables daily.

One such class of phytochemicals are the antioxidant carotenes, of which the pro vitamin A beta carotene is the most familiar. However, though the dark green “leafies” are a rich sources of beta carotenes, there are numerous nonvitamin A carotenes found in these foods as well. Two of the most researched are lutein and zeaxanthin. According to *Health Sense, August 2000, Vol. VI, issue 8*, numerous studies show that maintaining sufficient levels of lutein and zeaxanthin, the only carotene antioxidants active in the retina of the eye, can prevent macular degeneration and cataracts, two leading causes of age related blindness, and preserve youthful visual sensitivity!

High consumption of green leafy vegetables containing lutein and zeaxanthin were determined to be the protective agents that explained the low incidence of lung cancer in Fiji where 80% of the men smoke! *International Journal of Cancer: 1995, Vol 64 No 63, pp. 18-23*. The February 2000 edition of the *American Journal of Clinical Nutrition* linked lutein to a 17% reduction in colon cancer risk.

Non-Green Super Carotenoids: Carrots & Tomatoes

There are two more carotenoid super foods that are in the Greens First Wellness Shake® that we must mention, namely carrots and tomatoes.

Carrots are well known for their pro-vitamin A beta-carotene content, the abundance of which is responsible for their bright orange color. “There was an evident increase in the risk of breast cancer for decreasing amounts of beta-carotene...the risk of breast cancer approximately doubled among the subjects with blood levels of beta-carotene at the lowest quartile” (*American Journal of Epidemiology* 2001, Vol 12, No 153, pp. 1142-7.). According to the *International Journal of Cancer*, food items most strongly related to decreased risk for ovarian cancer were raw carrots and tomato sauce. Consumption of fruits, vegetables, food items and supplements high in carotene and lycopene were cited for reducing the risk of ovarian cancer.

Tomatoes turn bright red because of the pigment called lycopene. Lycopene has drawn attention because of its link in lowering the risk of lung and prostate cancer (*Journal National Cancer Institute*,



December 6, 1995). Food items most strongly related to decreased risk for ovarian cancer were raw carrots and tomato sauce. According to the *International Journal of Cancer*, 2000, Vol 94, Issue 1, pp. 128-134 consumption of fruits, vegetables, food items and supplements high in carotene and lycopene may also reduce the risk of ovarian cancer.

The Cruciferous Vegetables

When it comes to cancer fighting, the real champs may be the cruciferous vegetables. Cruciferous vegetables contain detoxifying phytonutrients with rather unfamiliar names like isothiocyanate, sulphoraphane and indole-3 carbinol, or IC-3 for short. These plant micronutrients work by speeding up the production of enzymes, especially in the liver, with which our bodies convert toxic, mutagenic, cancer causing substances into less harmful, even beneficial substances. —*Medical Committee for Aging Research and Education, Year 2001, Issue 2, Abstracts, p.5.*

The 2000 January 5th issue of the *Journal of the National Cancer Institute* proclaims that the cruciferous vegetables, such as broccoli, cauliflower, cabbage and brussels sprouts, substantially lower the risk of prostate cancer in men. Numerous studies also suggest a protective role in uterine, cervical and breast cancer in women as well (*Cancer Chemotherapy and Pharmacology*, 1991, No 28, pp. 255-8.)

Fruit: Berry, Berry Good For You!

As a recent *Newsweek* article said “*The day when doctors say—‘Take 10 cherries and call me in the morning’—may not be far off.*”

Most known phytonutrients are strongly related to pigment. Just as phytonutrient antioxidant carotenoids tend to dominate in the dark green greens and bright red and orange vegetables, the richly red/blue pigmented *flavonoids*, with names like *isoflavones*, *anthocyanins*, *flavonols*, *catechins* and *phenols*, tend to be dominant in the fruits and herbs.

And the richest source of pigment and antioxidants in the fruit group are generally found in the blueberries, raspberries, tart dark cherries, and deep purple plums/prunes. Indeed, these fruits are the most potent source of antiaging antioxidants of any commonly eaten foods!

Antioxidants have been shown to increase immune function and decrease the risk of infection and cancer. Antioxidants help by preventing or repairing damage done to the body's cells by free radicals. Simply put, a free radical is a molecule with a free electron. Electrons like to be in pairs. An antioxidant, such as vitamin C, vitamin E or *beta-carotene*, may donate one of its electrons to the free radical. If no antioxidants are present, a free radical takes an electron from vital cell structures, damaging the cell and eventually leading to disease.

Just like Pac-Men, the flavonoid antioxidants in berries, cherries and



plums “eat up” free radicals in the bloodstream helping prevent the development of cancer. These Flavonoids have even been called, “*Mother Nature’s all-natural chemotherapy agents*”.

Fruit phytonutrient flavonoids also play a role in preventing the development of heart disease by discouraging fatty deposits in the arteries. Flavonoids even slow wrinkling, protect the eyes from cataracts and macular degeneration, and protect the aging brain. Indeed, they are a main reason why fruits and vegetables have been called “*Natures Anti-Aging Wonders!*”

Is it any wonder then that most scientists believe it is far better to get a daily healthy dose of dozens of different *phytonutrients* from micro-nutrient dense “super foods” than it is to take a mega dose of a few *synthetic* antioxidant vitamins and minerals?

For example, the 17 identified compounds in tart cherries that have antioxidant properties are considered, in total, to be superior to the activity of vitamins E and C. In addition, they contain compounds that help relieve the pain of arthritis, gout and even headaches with daily consumption!

Blueberries are by far the greatest common whole food source of eye/vision and brain/ mind protecting antioxidant flavonoids, being full of blue anthocyanins. Cranberries, raspberries and tart cherries are the richest fruit source of ellagic acid, a naturally occurring plant phenolic flavonoid phytonutrient that is known as a potent anti-carcinogenic compound. Clinical tests conducted at the *Hollings Cancer Institute at the Medical University of South Carolina (MUSC)* show that ellagic acid may be the most potent way to prevent cancer! In addition, you should know that all the berries, not just cranberries, help prevent recurrent urinary tract-bladder infections (UTIs).

Four More Fabulous Flavonoids: OPC’s, Quercetin, Green Tea & Red Wine

Oligomeric proanthocyanidins (OPC’s) are super rich in the anthocyanin bioflavonoid group of phytonutrients. Found abundantly in berries, the very richest sources are grape seed and pine bark extracts. These have been shown to be powerful antioxidants that are significantly more active than vitamins C and E, and are thought to protect against carcinogenic changes —*Journal of Clinical Oncology 2000, No 18, pp. 668-83.*

Quercetin is the major representative of the antioxidant flavinol group, which group is particularly known for preventing the oxidation of low density lipoproteins (bad cholesterol). Quercetin is found in fruits and vegetables, most notably onions and green apple skins. That is the major reason why onions and green apples help prevent hardening of the arteries and the heart attacks and strokes that arteriosclerosis causes (*Biomedical Pharmacotherapy 1997, No 51, pp 305-310*). Quercetin has also consistently demonstrated a potent anti-tumor effect —*Cancer Chemotherapy and Pharmacology, 1991, No 8, pp. 255-8.*

Green Tea is rich in antioxidant polyphenols that are thought to be the most active ingredient as pertains to green tea’s much purported benefits of preventing cancer, heart disease, osteoarthritis, gum disease and even tooth decay. The benefits of these green tea flavonoid catechins polyphenols for the heart are greater than that of red wine, without the

alcohol! (There is a 10% increase in breast cancer for every alcoholic beverage consumed on a daily basis according to authors Smith, Warner SA, et al in *Alcohol and Breast Cancer in Women: A Pooled Analysis of Cohort Studies, JAMA, 1998, Vol 7, pp. 535-40.*)

Red Wines are more protective of heart disease than white wines because of the phytonutrient, resveratrol, which gives dark grapes their deep red/blue color. “Resveratrol (a stilbene found in grape skin extracts) is able to inhibit the initiation and promotion of tumors, and cause pre-cancerous cells to return to normal.” (*Science, 1997, Vol 275, No 5297, pp. 218-220*). By extracting the resveratrol as a phytonutrient supplement, one can get the antioxidant immune enhancing and heart protecting benefits of red wine, dark grapes and grape juice.

Fruit & Vegetable Extracts

In order to approximate the health benefits of eating 5 to 9 serving of dark green, red, orange, blue and purple fruit and vegetables daily, food scientists have created fruit and vegetable extracts from the most nutrient dense organic varieties. These extracts become highly concentrated phytonutrient super food supplements. Findings reported in the 38th annual meeting of the *American Society of Cell Biology* show us that these supplements enhanced “multiple immune functions...especially for people whose immune functions have been diminished”. Dr O’Neill, Ph.D., of *BYU’s Dept. of Microbiology* was quoted as saying, “Fruit and vegetable extracts may be protective against cancer.”

Is Organic Food More Nutritious?

The Journal of Alternative and Complementary Medicine 2001, Vol 7, No 2, pp. 161, reported the results of part of the doctoral dissertation of Virginia Worthington, Ph.D., of *John Hopkins University*, Baltimore. Dr. Worthington found that the composition of conventionally grown American food has declined dramatically in the past 60 years. For example, iron is lower by 32 percent, calcium by 29 percent, magnesium by 21 percent. She also found that organically grown produce was higher in most vitamins and minerals and lower in potentially harmful nitrates. Organic foods were 29 percent higher in magnesium, 27 percent higher in vitamin C, and 21 percent higher in iron. Using the USDA recommendation of at least five servings of fruits and vegetables a day, Dr. Worthington concluded that consuming organic produce could make the difference between a deficient and adequate diet!

The Probiotics: Friendly Microorganisms

Evidence for probiotics, “friendly” microorganisms (like *L. acidophilus*, *L. Casei*, *L. Rhamnosus* and *B. Longum*) is impressive according to *Dan Lukaczer, N.D.*, writing in the *Sept. 2001, Vol.6, No, 9 edition of the Nutritional Science News*.



Inflammatory bowel disease, urinary tract infections, diarrhea and even heart disease and colon cancer risk are favorably affected by these symbiotic bacteria we host in our alimentary tract. No wonder we call them “friendly”! Probiotics are so effective in inhibiting virally induced gastrointestinal infections in children that hospitals, infamous as vectors for drug resistant pathogens, are studying their prophylactic use when admitting children.

Of note, one of the ways we get “inoculated” with probiotics is through soil organisms on plants. But our highly washed, even irradiated, vegetables may not contain near as many as we might get “eating from the garden”. And our frequent ingestion of chlorinated water, antibiotics, and other medications, along with low fiber, high sugar diets do not favor the growth of symbiotic microorganisms in our intestines.



Fermented plant foods like sauerkraut or tempeh, natto, and milk products like yogurt, are important probiotic sources as well. As dairy sensitivity is so common, especially in those with chronic bowel problems, when supplementing dairy-free probiotics are to be generally preferred.

“Friendly bacteria can... prevent cancerous tumors; inactivate viruses; produce natural antibodies and vitamins; reduce cholesterol... and even more wonders.” —*Dr David Williams, editor of Alternatives For The Health Conscious Individual.*

Plant Enzymes, Digestive Dynamos!

Natural plant enzymes, like amylase, lipase, cellulase, lactase, protease, bromelain and papain (from pineapple and papaya) help us to digest starches, fats, cellulose, milk sugar and proteins, respectively. Raw foods, or foods processed below 108 degrees Fahrenheit, maintain their enzyme activity. Of course, only man cooks his food. In contrast, animals eat a “raw” and therefore a relatively more or less *enzyme rich diet*. The proposed advantages of a diet rich in raw and low temperature processed plant foods, or supplementing these natural plant enzymes, are well stated in the following quote by *I. V. Jimenez-Velasquez, Vice-Chair of the Department of Medicine, University of Puerto Rico School of Medicine*, “As we age, our natural digestive enzymes are depleted, allowing food to ferment (rot) in the digestive tract. Many experts believe that this undigested matter becomes quite toxic, causing many of the health problems associated with aging, such as joint distress, ulcers, bloating and constipation.”

Natural Plant Polysaccharides: Soluble & Insoluble Fibers

Three of the “healthiest” polysaccharide fiber combinations are found in oats, brown rice, and apples. These natural plant foods contain high amounts of beneficial soluble and insoluble polysaccharides fibers and a wide variety of vitamins and minerals. Insoluble fibers are responsible for increased bulk that reduces the risk of cancer, promotes healthy digestion, reduces the absorption of sugars in diabetic patients and the risks of recurrent urinary stone

disease in people with kidney disease.

Soluble polysaccharides, known popularly as “soluble fibers”, are responsible for lowering cholesterol and lipids thus reducing incidence of heart disease. The most effective cholesterol lowering soluble polysaccharide is oat betaglucan (beta gum). Indeed, the FDA has given special status for oat beta-glucan approving its cholesterol lowering claims.

Rice Bran

Rice Bran contains 21% fiber, 21% lipids, 13% amino acids and a variety of vitamins. Most of the fiber in rice bran is insoluble. It is the richest source of IP-6, a proven anticancer phytonutrient. It is also a rich source of tocotrienols, a vitamin E fraction that has 40 to 60 times the antioxidant activity of regular vitamin E (alpha tocopherol).

Apple Pectin

Apple Pectin is a soluble fiber that binds to toxins and excess bile and cholesterol in the gut. Just one of the reasons, “an apple a day keeps the doctor away”.

“Soluble fiber from foods such as oat bran, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease.” FDA, 2001. In allowing this health claim, FDA concluded that the betaglucan soluble fiber of whole oats is the primary component responsible for the total and LDL blood cholesterol-lowering effects and increased bile acid secretion that helps digesting food.



Lecithin

Lecithin is found in almost every tissue of the human body. But lecithin is present in greater concentrations in the brain as a component of the myelin sheets that cover nerve cells and other nerve cell membranes. Oral lecithin, a major source of phosphatidylcholine, is used to treat dementia and Alzheimer’s disease and other disorders of the nervous system in which memory is affected. It has also been shown to decrease total cholesterol while raising HDL, the “good” cholesterol, and lower homocysteine, thus lowering the risk for heart attack, stroke, and hardening of the arteries. Further more, lecithin promotes healthy liver function, including bile flow, fat breakdown and medication detoxification, while also improving athletic performance!

However, current lecithin and choline consumption rates may be lower, especially in certain “at risk” populations, because foods with the highest lecithin concentrations, like eggs and beef liver, are still considered by many to be too high in fat and cholesterol. Granulated lecithin is extracted from soy beans, its highest natural plant source. (Soy lecithin does not contain significant soy protein or protein isolates.) “We recommend trying lecithin for reducing risk of coronary heart disease, fatty liver, and to improve mild memory impairment.” *D. W. Johnson, Ph.D., D.J. Mokler, Ph.D., Department. of Physiology and Pharmacology, College of Osteopathic Medicine, University of England.*

Herbs, Roots & Spices

Medicinal plants have a long tradition in every culture. Many are safe to be eaten regularly in small amounts with few contraindications, even with concomitant prescription medicines.

Milk Thistle is the popular name of a plant of the daisy family native to the Mediterranean region, and later introduced to most areas of Europe, North and South America. Its scientific name is *Silybum marianum*. The stalk and leaves of this herb have been eaten as an every day salad vegetable and used medicinally for more than 2000 years! The main uses for milk thistle are stimulating, regeneration, and promoting proper function of the liver and gallbladder. A phytonutrient extract of the seed has been prepared and investigated in both the laboratory and the clinic as a liver protectant and antioxidant. This extract is known to contain silymarin, rich in a mixture of phytochemicals known as flavolignans. A standardized extract of milk thistle adjusted to 70-80% silymarin has been used by medical doctors to treat hepatitis, to protect against the toxic effects of poisons and to detoxify the body after the exposure to chemical pollutants such as solvents, paints and glues. “Milk thistle regenerates healthy liver cells and has an excellent safety profile at therapeutic dosages.” *American Journal of Health System Pharmacist, 1999, Vol 56, pp 1195-97.* It also “supports proper liver functioning through a number of mechanisms.” *Hepatology, Year 2001 Vol 34, No 3, pp. 595-603*

Red Beet Root has long been known as a very nutritious food. Beet root has traditionally been used by herbalists to support kidney and liver functions and to treat coughs and infections. Beet is indigenous to Europe and North Africa. Its scientific name is *Beta vulgaris*. Scientists have demonstrated that beet root avoids the addition of fat to the liver in animals. A phytochemical alkaloid known as betaine, in high concentration in red beet root, appears to be responsible for this effect. —*PDR for Herbal Medicine, 2000, Medical Economics, p 67.*

Cinnamon Powder is a plant originally from Sri Lanka and Southeast India still used extensively as a condiment and to treat gastrointestinal disorders. Its scientific name is

Cinnamomum zeylanicum. Cinnamon alcohol and aldehydes, present in the volatile oil that gives cinnamon its characteristic odor, kill many unfriendly bacteria and fungi that would like to inhabit our intestines. Cinnamon extracts also enhance the effects of the hormone insulin, (Dr. Richard Anderson, *Vitamin and Nutrition Laboratory, Beltsville MD, Human Nutrition Research Center USDA*), which is good news for diabetes since it lowers blood sugar in a moderate way. According to Dr. Doss: “It is a spice that helps equalize (high) blood sugar levels without making them dip too low.” —*Larry Doss MD, peer reviewed medical author and lecturer.*



Aloe Leaf Powder was called the “Plant of Immortality” by the ancient Egyptians. A plant originally from Africa, aloe is either identified as *Aloe vera* or *Aloe barbadensis* by botanists. Aloe gel and latex have found multiple applications in cosmetics and as medicine. Aloe gel is better known for its wound healing properties, as well as a “general tonic” or even as a “cure-all”. Aloe gel has been variously described as a cleanser, antiseptic, nutrient, and moisturizer. Aloe has been hailed as benefiting the immune system (by fighting viruses), supporting tissue healing, ameliorating certain inflammatory disorders, improving digestion and gastric ulcers, and even reported as useful in asthma relief. *Pennies NS. Inhibition of arachidonic acid oxidation in vitro by vehicle components. Acta Derm Venerol Stockh 1981; 62:59-61.*

A controlled clinical trial has been published on the traditional use of the aloe gel in treating diabetes. In this study carried out in India a significant reduction in blood sugar and triglycerides was observed in the treatment group. *S Yongchaiyudha and co-workers published in the Journal, Phytomedicine Vol 3, No 3, pp. 241-243, 1997.*

Turmeric Rhizome Extract, is a spice from India and South East Asia long regarded for its medicinal, flavoring and coloring properties. Its use dates more than two thousand years. Turmeric was listed in the Assyrian herbal records dating from about 600 BC and by the Greek physician Dioscorides in the first century AD. Its scientific name is *Curcuma longa*. Turmeric has a warm, bitter taste and a yellow color. It is frequently used in the kitchen to flavor or color curry powders, mustards, butters and cheeses. The rhizome (root), regarded as stomachic, tonic and blood purifier is rich in phytochemicals known as diarylheptanoids or curcuminoids. These chemicals have many health promoting effects including antioxidant, lipid lowering and anti-inflammatory properties. Some benefits occur even in very small doses. “Ramirez-Bosca and her colleagues (2000) selected eight subjects with elevated fibrinogen levels and treated them with 20 mg of *Curcuma longa* (turmeric) extract per day. After only 15 days, previously elevated levels of fibrinogen dropped like a rock in all eight subjects.” (*Ward Dean, M.D, Fibrinogen: Biomarker of Aging and Important Cardiovascular Risk Factor: Reversal with Turmeric (Curcuma longa), Age, Year 2000, No 114, pp. 207-220.*)

Brown Rice Protein

Brown Rice Protein is a valuable ingredient in Greens First Boost. Brown Rice is unpolished rice with immeasurable benefits for human health. Brown rice is known to contain various functional compounds such as gamma-oryzanol, dietary fiber, gamma-aminobutyric acid, complex carbohydrates, vitamin E and B vitamins.

Brown Rice is a good source of vegetarian/vegan protein and a viable alternative for those who wish to get their protein from a non-dairy source. Brown Rice Protein offers another choice for adding more protein to the diet for energy and good health. Brown Rice is gluten free, which means that those who are sensitive to gluten or have celiac disease can consume brown rice protein powder.

Protein from Brown Rice is also non-allergenic, so it won't upset the digestive system of those who are sensitive to food allergies and may assist in lowering or modulating serum cholesterol levels. *Effect of pre-germination time of brown rice on serum cholesterol levels of hypercholesterolaemic rats. J Sci Food Agric. 2010 Jan 30;90(2):245-51.*

Vegetable Pea Protein

Greens First Boost also contains this type specific type of protein. Vegetable Pea Protein is a natural, vegetable-based protein powder derived from yellow peas (*Pisum sativum*). Yellow peas are more commonly known as “split peas” and are used extensively in food preparation such as in soups & purees.

Most commercially available protein powders are derived from soy, rice, eggs, or dairy, which are often problematic for those with allergic dietary concerns. We’ve chosen Pea Protein as an additional protein in Green First Boost because it is a plant-based, hypoallergenic protein that yields a high biological value (65.4%). The BV is an accurate indicator of the biological activity of protein. It measures the actual amount of protein deposited per gram of protein absorbed. High BV proteins are a better choice for increased nitrogen retention, enhanced immunity and IGF-1 (insulin-like growth factor stimulation.) Vegetable Pea Protein may also be superior for reducing lean tissue loss from various wasting states than proteins with a low BV score.

Pea Protein is ideal also ideal for vegans or anyone interested in better health and offers an excellent nutritional profile, is free of gluten, lactose, cholesterol and other anti-nutritional factors. Vegetable Pea protein is also a good source of beneficial Amino Acids, an environmentally friendly source of protein and highly suitable for sustainable agriculture. *Effects on parameters of glucose homeostasis in healthy humans from ingestion of leguminous versus maize starches. Seewi G, Gnauck G, Stute R, Chantelau E. Eur J Nutr. 1999 Aug;38(4):183-9*

Flaxseed

Flaxseed is an important ingredient in the Healthy Oil-Essential Fatty Acid Blend in Greens First Boost. Although flaxseed contains all sorts of healthy components, it owes its healthy reputation primarily to three ingredients:

- Omega-3 essential fatty acids, “good” fats that have been shown to have heart-healthy effects. Each tablespoon of ground flaxseed contains about 1.8 grams of plant omega-3s.
- Lignans, which have both plant estrogen and antioxidant qualities. Flaxseed contains 75- 800 times more lignans than other plant foods.
- And Fiber. Flaxseed contains both the soluble and insoluble types of fiber.

Although *Lilian Thompson, PhD*, an internationally known flaxseed researcher from the University of Toronto, says she wouldn’t call any of the health benefits of flax “well established,” research indicates that flax’s possible health benefits include reducing the risks of certain cancers as well as cardiovascular disease and lung disease.

Recent studies have suggested that flaxseed may have a protective effect against cancer, particularly breast cancer, prostate cancer, and colon cancer. At least two of the components in flaxseed seem to contribute, says *Kelley C. Fitzpatrick, M.Sc., director of health and nutrition with the Flax Council of Canada.*

The Greens First Wellness Shake contains all of these powerful ingredients. Now, let’s find out what the Greens First Wellness Shake is and how to make it...

What Is The Greens First Wellness Shake?

The Greens First Wellness Shake is a quick, nutritious and delicious way for you and your entire family to alkalize your body's pH levels and easily get the whole food nutrition you need to promote healing, build strong bones and improve your overall healthy & vitality.

The delicious tasting Greens First Wellness Shake® is created by mixing and matching one scoop of Greens First® (Original or Berry) and one scoop of Greens First Boost® (either Chocolate or Vanilla) together in the same shaker cup with 8-10 ounces of cold, pure water.

The Greens First Wellness Shake® is the smart way to start the day first thing in the morning to get the alkaline support you need or, you can take the Wellness Shake anytime for a natural & alkalizing energy boost without stimulants.

Greens First Wellness Shake—

An Easy Way To Alkalize & Nourish Your Body

The Greens First Wellness Shake® provides the anti-oxidant protection of more than 15+ servings of organic, alkaline, fruits and vegetables PLUS all three food groups consisting of vegan/vegetarian protein, complex carbohydrates and healthy oils. The Wellness Shake also provides you with 40 different micronutrients including 15 vitamins, 15 minerals, 8 essential amino acids and 2 essential fatty acids.

Let's take a closer look at the individual products that make up the Wellness Shake – **Greens First®** (Original & Berry) and **Greens First Boost®** (Chocolate & Vanilla).

GREENS FIRST (Original & Berry)

Healthy Never Tasted So Good! Both Greens First Original and Greens First Berry help to alkalize your body's pH levels plus they give you something unexpected...GREAT TASTE!

Greens First Original®—A Nutrient-Rich, Antioxidant Super-Food Drink

Greens First® Original balances, supports and nourishes your whole body. It surpasses the raw food nutrition of 15+ servings of certified organic fruits and vegetables and it contains 49 different super foods, extracts and concentrates including supergreens, organic fruits & vegetables, probiotics, soluble and insoluble fibers, herbs, spices, natural flavonoids and enzymes.

Greens First Berry® is also a nutrient-rich, antioxidant super food with a special "Orchard Blend" that helps to alkalize, balance and nourish your whole body and provide more than 15+ servings of certified organic fruits and vegetables. Greens First Berry has been specifically formulated for those who want to get their fruits & vegetables in a delicious, convenient whole food drink mix without gluten or other common allergens. It works synergistically in your body and provides a wide spectrum of antioxidant protection. Our hand-selected Vegetable Power™ and Super Antiox™ Blends help your body protect against unstable free radicals that can damage cells and assist in promoting overall health & well-being.



Greens First Boost (Chocolate & Vanilla)

Greens First Boost® is a vegetarian/vegan, gluten free, nutrient balanced & fortified whole food product that was specifically created to be added to Greens First (Original or Berry). It gives you all the nutrients you need to jump start your day in a delicious, convenient shake. Our pure and wholesome blend nourishes, supports, and balances your body with a natural source of non-GMO brown rice and vegetable pea protein, super greens, healthy essential fatty acids, antioxidants, prebiotics, vitamins and minerals. It's the perfect start for the Alkalize Now Program as well as anti-aging strategies, overall-wellness and weight management.



Greens First Wellness Shake®—The Perfect Alkaline “Instant Breakfast”

Why should you consider having a Greens First Wellness Shake® for breakfast? Breakfast is the most important meal of the day. Breakfast provides you with the energy and nutrients for the activities during the morning and helps to prevent that mid-morning slump as well as helps to increase concentration.

Studies show that breakfast can be important in maintaining a healthy body weight because people who skip breakfast to cut calories, quickly encounter low blood sugar that will soon trigger the brain with a very powerful hormone forcing them to either eat too much for lunch, or snack all day long.

University of Colorado researchers headed by Dr. Holly Wyatt found that people who eat breakfast maintain weight loss better than those that don't. Breakfast eaters burned up more calories during the day, particularly if it contains some form of protein, such as that found in the Greens First Wellness Shake®.

The body converts the amino acids from protein into blood sugar that acts like tiny time release capsules that can keep you from overeating. People who skip breakfast are unlikely to make up their daily requirement for many essential vitamins and minerals that a simple Greens First Wellness Shake® would have provided. Nutrient imbalance can lead to a host of problems including poor healing, weak bones, obesity, fatigue, chronic disease and overall ill health.



HOW TO MAKE THE GREENS FIRST WELLNESS SHAKE



Greens First Wellness Shake®

MAKE IT YOUR WAY by mixing & matching the products! Mix together 1 scoop of **Greens First**® (Original or Berry) and 1 scoop of **Greens First Boost**® (either Vanilla or Chocolate) within 30 minutes of getting up, as your Alkaline Power Breakfast or anytime Energy Booster! Alkalize & nourish your body with one delicious shake!

Mixing Directions:

- Add 8-10 ounces of pure, cold water to the shaker cup.
- Add one scoop of Greens First® (Original or Berry)
- Add one scoop Greens First Boost® (either Vanilla or Chocolate)
- Shake well, drink & enjoy!
- Drink 6 oz. of water after each Greens First Wellness Shake® for best results.



SMOOTHIE RECIPES

These smoothies are a great way to jump start your day or an anytime energy booster!

Creamy French Vanilla Smoothies

For those who love vanilla, following are recipes that provide additional ways to enjoy your **Greens First Wellness Shakes**. Try them out and be creative with ideas of your own!



Banana-Bo-Bana

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1 whole fresh or frozen banana
- 1-2 scoops of **Greens First Boost®-Creamy French Vanilla**
- 1 scoop of **Greens First®** (Original or Berry)
- 1 teaspoon vanilla

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Frozen Strawberry-Banana Finale

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1 whole fresh or frozen banana
- 1/2 cup frozen or fresh strawberries
- 1-2 scoops of **Greens First Boost®-Creamy French Vanilla**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Cherry-Peach Dazzle

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1/2 cup whole fresh or frozen mixed cherries
- 1/2 cup fresh or frozen peaches
- 1-2 scoops of **Greens First Boost®-Creamy French Vanilla**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Blueberry-Banana Blast

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1/2 cup whole fresh or frozen blueberries
- 1 whole fresh or frozen banana
- 1-2 scoops of **Greens First Boost®-Creamy French Vanilla**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Peachy Keen

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1 ripe fresh peach, sliced or chopped (or 1/2 cup frozen peaches)
- 1 whole fresh or frozen banana
- 1-2 scoops of **Greens First Boost®-Creamy French Vanilla**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Orange-Kiwi-Strawberry Sunset

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1 orange (extract the seeds, if any)
- 1/4 cup fresh or frozen kiwis
- 1/4 cup fresh or frozen strawberries
- 1-2 scoops of **Greens First Boost®-Creamy French Vanilla**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.

Rich Dutch Chocolate Smoothies

Chocolate lovers are in for a treat! Once you taste these recipes, you may agree...healthy never tasted so good!



Chocolate-Banana Almond Joy

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1 whole fresh or frozen banana
(plus, 1/2 cup strawberries, if desired)
- 1 teaspoon of pure almond extract
- 1-2 scoops of **Greens First Boost®-Rich Dutch Chocolate**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Chocolate-Raspberry Secret

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1/2 cup fresh or frozen raspberries
- 1 whole fresh or frozen banana
- 1-2 scoops of **Greens First Boost®-Rich Dutch Chocolate**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Chocolate-Strawberry Pleasure

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 3/4 – 1 cup fresh or frozen strawberries
- 1-2 scoops of **Greens First Boost®-Rich Dutch Chocolate**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.

Rich Dutch Chocolate Smoothies



Chocolate-Cherry Holiday

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 3/4 cup fresh or frozen cherries
- 1/2 fresh or frozen banana
- 1 teaspoon of cherry extract
- 1-2 scoops of **Greens First Boost®-Rich Dutch Chocolate**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Chocolate-Mint-Kiwi-Pineapple Paradise

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1 teaspoon mint extract
- 1/2 cup fresh or frozen kiwis
- 1/2 cup fresh or frozen pineapple
- 1-2 scoops of **Greens First Boost®-Rich Dutch Chocolate**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.



Chocolate-Peanut Butter Shake

- 10-12 oz. cold water
- 4 ice cubes (if desired)
- 1 to 2 Tablespoons of natural peanut (or almond) butter
- 1-2 scoops of **Greens First Boost®-Rich Dutch Chocolate**
- 1 scoop of **Greens First®** (Original or Berry)

Add water (& ice cubes) plus the scoops of **Greens First Boost®** and **Greens First®** to blender. Mix for 15 seconds. Add remainder of ingredients & blend until smooth.

We All Scream For Ice Cream!

YES! You can indulge your fancy for ice cream when it's made with the **Greens First Boost®** either the Rich Dutch Chocolate or the Creamy French Vanilla shake mix! Scoop it into a low fat cone or put it in a bowl, then top with mixed frozen berries & sliced almonds. It's fun, delicious and "oh so healthy"!



Greens First Boost® Rich Dutch Chocolate Ice Cream

- 4 oz. of water
- 8 oz. of crushed ice cubes
- 4-5 scoops of **Greens First Boost®-Rich Dutch Chocolate**

Add all ingredients to blender.
Blend into the smooth texture of ice cream.



Greens First Boost® Creamy French Vanilla Ice Cream

- 4 oz. of water
- 8 oz. of crushed ice cubes
- 4-5 scoops of **Greens First Boost®-Creamy French Vanilla**

Add all ingredients to blender.
Blend into the smooth texture of ice cream.



Everyone Loves The Greens First Boost® Creamy & Delicious Ice Cream!

CHAPTER

2



eat.
STEP 2



STEP 2—EAT ALKALINE.

Poor Food Choices Can Cause Acid To Build Up In Our Bodies

Research published in the prestigious *Journal of Gerontology*, conducted at University of San Francisco Department of Medicine by Drs. Lynda Frassetto and Anthony Sebastian, clearly demonstrates that as we get older our bodies accumulate acid wastes. (*J Gerontol A Biol Sci Med Sci.* 1996 Jan; 51(1):B91-9)

The scientists reported they found a significant increase in blood acidity and a correspondingly significant loss of alkaline reserves with increasing age from 20 to 90 years, indicative of a progressively worsening low-level metabolic acidosis.

In looking at the research one can clearly see that the alkaline reserves of humans remains fairly constant until the age of 40 where it abruptly begins a linear downward spiral. Coincidentally, the researchers noted that adult degenerative diseases such as obesity, diabetes, heart disease, osteoporosis, high blood pressure and others start to appear at the age of 40 and gradually worsen with age.

The researchers attribute the accumulation of acid and the reduction of the alkaline state as we age, to eating the Standard American Diet and concluded that the role of age-related metabolic acidosis in the cause of adult degenerative disease warrants consideration.

How Acid Producing Fast Foods Affect Health

Among other things, the pH scale was created to determine if the body is acidic or alkaline. Experts agree that the more alkaline the human body is the better chance it has of being healthy. Remember, when pH levels are imbalanced, proper absorption and utilization of nutrients is interrupted, eventually resulting in nutritional deficiencies. The initials pH stand for “potential of hydrogen” and the scale runs from 0 to 14, with extreme acidity at 0 and total alkalinity at 14.



A tissue's life expectancy can be calculated by how acidic or alkaline it happens to be. Any life form that is immersed in total acid (pH level 0) will quickly die. The longer a body is in contact with acid the more it is damaged and the longer it will take to recover.

The majority of foods that we tend to eat due to our busy lifestyles are acid producing and harmful. These acid forming foods create intense cravings due to various acid components in the foods that also create in us a low-level addiction, which draws us back to eating them on an almost daily basis. In order to break this addictive cycle and reclaim and maintain health and vitality a person must begin to alkalize their bodies on a daily basis.

Unhealthy pH levels or a disruption of proper acid-alkaline balance can be the root cause of many health conditions. Proper body function and a complete state of wellness is impossible unless appropriate pH balance is maintained.

The Typical Breakfast Is An Acid Trap

All the food we eat influences our body pH level. Where most people go wrong, especially for breakfast, is to consume foods and drinks like orange juice, toast, honey, sweet rolls, muffins, waffles, pancakes etc., which contain huge amounts of sugar and simple carbohydrates and they are very acidic to the body, thus promoting high levels of yeast and fungi growth. Also, traditional high protein breakfast foods like omelets, bacon, sausage, meats etc. also compromise the inner fluids and ultimately lead to higher acid levels in our body. The body is continuously fighting to neutralize the excessive acid and to retain pH balance.

The 80/20 Rule For A Proper Alkaline Diet

A proper, slightly alkaline diet, suggests taking in at least 80% of alkalizing foods, like a variety of fruits and green vegetables, and never more than 20% of neutral and acidifying foods. Acid forming foods are, amongst others, meat, dairy products, chocolate, bread and all kind of other yeast products, alcohol, carbonated drinks and coffee and tea. Try to avoid those foods, instead consume as much alkaline forming foods as possible, like vegetables, greens, sprouts, and most kind of seeds. The Greens First Wellness Shake is a perfect solution for breakfast to start your day with an alkaline drink that gives you all the nutrients you need to start your day out right.

Also, refer to the Acid-Alkaline Food Chart as a quick reference guide of what to eat and what not to eat.



Alkaline Food Chart

Eat 80% of Alkalizing Foods

ALKALINE DAIRY

Acidophilus
Kefir/Yogurt
Whey

ALKALINE FRUITS

Apples
Apricots
Avocados
Bananas
Berries
Cantaloupes
Cherries
Currants
Dates
Figs
Grapes
Grapefruits
Guavas
Kumquats
Lemons
Limes
Loquats
Mangoes
Melons
Nectarines
Oranges
Papayas
Passion Fruits
Peaches
Pears
Persimmons
Pineapples
Pomegranates
Quinces
Raisins
Strawberries
Tamarinds
Tangerines

ALKALINE VEGGIES

Bamboo Shoots
Green Beans
Lima Beans
String Beans
Sprouts
Beets
Broccoli
Cabbages
Carrots
Celery
Cauliflower
Chard
Chicory
Chives
Collards
Cowslip
Cucumber
Dandelion
Dill
Dock
Dulse
Eggplants
Endive
Escarole
Garlic
Horseradish
Jerusalem Artichoke
Kale
Kohlrabi
Leeks
Legumes (not Lentils)
Lettuce
Okra
Onions
Oyster Plant
Parsley
Parsnips
Peppers (Green or Red)

Potatoes
Pumpkin
Radish
Rutabaga
Sauerkraut
Sorrel
Spinach
Squash
Turnips
Water Chestnuts
Watercress

ALKALINE MEAT

No Meat Is Alkaline

ALKALINE NUTS

Almonds
Chestnuts
Coconuts

ALKALINE MISC.

Ginger
Honey
Kelp
Alfalfa
Clover
Mint
Sage

PRIMARY ALKALINE MINERALS

Cesium
Calcium
Magnesium
Potassium
Manganese

Acid Food Chart

Eat No More Than 20% of Neutral and Acidifying Foods

ACID CEREALS

ALL Flour Products
Buckwheat
Barley
Corn
Corn Flakes
Grape Nuts
Oatmeal
Rice
Rye

ACID DAIRY

Butter
Eggs
Cheese
Cottage Cheese
Cream
Ice Cream
Custards
Milk (Pasteurized)

ACID FRUITS

All Preserved /Jellied
Canned – Sugared
Dried – Sulfur
Cranberries
Olives

ACID VEGETABLES

Artichokes
Asparagus
Beans (Dried)
Brussels Sprouts
Garbanzo Beans
Lentils
Rhubarb

ACID MEAT

All Meat is Acid
Fish
Chicken
Turkey
Duck

ACID NUTS

Peanuts
Pistachios
Walnuts
Macadamia

ACID MISC.

Alcohol
Brine
Coffee & Cocoa
Candy
Chocolate
Curry
Dressings
Drugs
Jams & Jellies
Mayonnaise
Pepper
Preservatives
Spices
Sauces
Sugar
Soda Drinks
Vinegar
Lack of Sleep
Stress
Worry

Breakfast—The Most Important Meal of Your Day

Mom Was Right—Breakfast IS the most important meal of the day! It is also the meal where you should consume the most calories to get your metabolism started to burn fat throughout the day.

THE BEST WAY TO START THE DAY IS:

Take the **Greens First Wellness Shake**® first thing in the morning within 30 minutes upon arising. Simply mix together one scoop of **Greens First**® (Original or Berry) and 1 scoop of **Greens First Boost**® (either Vanilla or Chocolate) to give yourself a healthy boost of energy in the morning. Alkalize & nourish your body in one easy step!



Also, you can choose a great power breakfast by whipping up one of the delicious **Smoothie Recipes outlined on Pages 31-34.**

Other Breakfast Options:

- 1/2 cup cooked oatmeal topped with 1/2 cup raspberries
- 1/2 medium grapefruit and 1/2 piece of a dry whole wheat English muffin
- 1/2 - 1 cup fresh blueberries mixed into 1/2 cup millet cereal
- 1 cup of high fiber, low sugar cereal with 1 cup rice or almond milk, topped with 1/2 cup strawberries
- 1 poached egg, 8 oz low sodium vegetable juice and a dry piece of whole wheat toast
- 1/4 cantaloupe topped with 1/4 cup blueberries and a dry 7 grain muffin
- 2-3 scrambled egg whites with mixed veggies, onions, peppers, mushrooms, etc. & dry whole wheat toast.
- 1/2 cup of any cooked cereal (Kamut, Quinoa, Amaranth) with honey or 1 teaspoon brown sugar with 1/2 cup of your favorite berries on top.

Lunch—The Second Biggest Meal of Your Day

If you want to lose weight, you can take another Wellness Shake for lunch. Because the Wellness Shake is so low in calories, you can have a shake and a light lunch to carry you through the day.

Some “Light” Lunch Options

Packing or preparing a lunch instead of eating at a restaurant can really be a great way to start eating healthier.

Here are a few nutritious lunch ideas that taste great and can be made in a few minutes. If you don't have time to make your lunch, look for low fat ideas like the ones listed below.



- Mixed green salad with tuna or chicken breast, light salad dressing, 10 whole-wheat crackers, 6 ounces light yogurt.
- Vegetable soup (homemade or small can of low sodium), 5 whole-rice or low fat rice crackers and an orange.
- Low-fat chicken salad in a whole-wheat pita pocket, 1/2 cup low-fat cottage cheese with 1 cup strawberries.
- 1 cup bean soup, side salad with low-fat dressing, 5 whole-wheat crackers, 1 cup melon.
- Turkey wrap (made with whole-wheat tortilla, lettuce, light mayo, tomato and veggies of choice), 1/2 cup sugar-free pudding.
- 1 cup tuna macaroni salad (made with tuna packed in water, whole-wheat pasta and light mayo), side salad with light salad dressing, 1 small piece fresh fruit.
- Spinach salad with grilled chicken breast, light salad dressing, 1 cup berries, 6 ounces light yogurt, 1 slice whole-wheat bread.
- Black & red beans over 1/2 cup of brown rice, 1 small piece fresh fruit, side salad with light dressing.
- 1 cup whole-wheat pasta salad with chickpeas and veggies of choice (use light Italian dressing), 1 small piece fresh fruit.
- Asian chicken salad (grilled chicken breast, lettuce, peapods, carrots, mandarin orange slices packed in juice, drained), low-fat sesame dressing, 1 medium whole-wheat roll.

Dinner—The Smallest Meal of Your Day

If you are not on a weight loss program and eating 3 meals a day, dinner should always be the smallest meal of your day. Try not to eat anything after 6:00-7:00 PM or at least eat no later than 3 hours before you retire for bed.

Healthy Dinner Options:

Chicken and turkey are low fat options that are great starters for many low fat dinners. We suggest you buy organic whenever possible. Salmon & fresh fish are also options, but only eat fish about one time per week because of the possible mercury content. Try and get wild fish instead of farmed fish for fresher alternatives that may contain less mercury. Beans and lentils are wonderful vegetarian, low fat options.



- Lentil Soup (Green or Red): These beans are quick to cook and high in nutrients. Pair with a Caesar salad with low fat dressing and 1 slice of watermelon.
- Stir-fry chicken (4-6 oz.) with unlimited amount and variety of vegetables such as carrots, mushrooms, onions, snow peas, celery, and garlic. Stir-fry with olive oil, canola oil or vegetable broth for even lower fat. Pair with a spinach salad with low fat dressing. Have a selection of fruit for desert.
- 1 cup organic chili with beans. Pair with a side salad with low-fat dressing, 5 whole-wheat crackers, and 1 cup cantaloupe melon.
- Grilled chicken wrap (made with whole-wheat tortilla, lettuce, light mayo, tomato and veggies of choice) with 1 cup of tomato soup and 1/2 cup sugar-free pudding.
- 6 oz. low fat turkey burger on whole wheat bun, sliced tomato, mixed green toss salad with light salad dressing, 1 cup of fresh strawberries & cinnamon.
- 4-6 oz. wild salmon, steamed asparagus, 1/2 cup brown rice, organic baby green salad, low fat dressing, 1 cup blueberries over applesauce, topped with cinnamon.

Meal Selection Guides

The one question that always comes up is: “What should I eat today?”

This simple Food Selection Chart helps you choose foods from each category for a healthy meal that is in alignment with your weight loss plan.

Simply choose one Carbohydrate, one Protein and one Vegetable from each of the lists to make up your meal. Remember, you can add as many servings of vegetables as you want!

We suggest you always choose local organic foods!

Select 1 Carbohydrate, 1 Protein & 1 Vegetable for a Healthy Meal
Remember-Select 80% Alkaline Foods and
20% Acid Foods for an Alkaline Diet

(Also Refer To The Acid-Alkaline Chart For Additional Guidelines)

HEALTHY CARBS

ALKALINE

Apple
Banana
Cantaloupe
Corn
Cherries
Grapes
Guava
Melon
Oranges
Peaches
Pineapple
Strawberries

ACID

Cranberries
Oatmeal
Whole Grain Cereal
Whole Wheat Bread
Whole Wheat Pasta

PROTEINS

(4 to 6 oz. Servings)

ALL MEATS ARE ACID

Chicken Breast
Beans & Brown Rice
Beans & Legumes
Buffalo
Crab
Eggs (1-2 whites only)
Haddock (fish)
Green Peas
Ground Round Beef
Lamb
Legumes
Lentil Beans
Lobster (no butter)
Round Steak (lean)
Salmon (wild only)
Shrimp
Swordfish
Tuna
Turkey Breast
Turkey (lean ground)

VEGETABLES

(Unlimited)

ALKALINE

Asparagus
Beets • Broccoli
Carrots
Cauliflower
Celery
Chard, Swiss
Cucumber
Eggplant
Endive • Leeks
Lettuce • Onions
Parsley • Parsnips
Peppers
Peas, green
Pumpkin
Squash • Spinach
Watercress

ACID

Artichokes
Asparagus
Beans (Dried)
Brussel Sprouts
Garbanzo Beans
Lentils
Rhubarb

Foods to ENJOY and Foods to AVOID!

FOODS TO ENJOY

Home Cooking Is Best!
 Almond Butter or Nuts
 Almond Milk (Non Dairy)
 Apples
 Balsamic Vinegar
 Bananas
 Berries
 Brown Rice
 Cherries
 Flaxseed Oil (Cold Pressed)
 Grapes
 Herbal Teas
 Non-Dairy Products
 Oatmeal
 Olive Oil (Cold Pressed)
 Pears
 Peaches
 Melons
 Rice Crackers
 Sweet Potatoes
 Tomato Sauces
 Water-Water-Water
 Whole Wheat Tortillas
 Whole Wheat Bread
 Wild Rice

ENJOY UNLIMITED
VEGGIES!



TIPS ON EATING

Never Finish Your Plate

Break the habit of always finishing your plate. Once you feel full, stop eating! Save the leftovers for another meal.

Chew Slowly

This is a good way to slow down your eating so your stomach begins to feel full. Chewing helps with digestion & burns calories.

Take Smaller Bites

Take bites that only cover 1/3 to 1/2 of the spoon or fork.

Mom Was Right Again!

Chew your food, slow down and enjoy what you eat! And listen to your stomach, when you are full, don't eat anymore!

FOODS TO AVOID

Alcohol (Beer, Cocktails, Wine, Liquor)
 All Dairy Products
 All Fast Food
 All Types of Soda
 Bagels
 Bread (White)
 Butter & Margarine
 Cake
 Candy
 Cheese
 Cheese Sauces
 Chips
 Coconut Oil
 Coffee & Tea
 Cookies
 Corn Syrup (High Fructose)
 Crackers (White)
 Creamy Dressings
 Donuts
 Desserts
 Ice Cream
 Junk Food
 Partially Hydrogenated Vegetable Oil
 Pie
 White Sugar Products

Why Should I Avoid Certain Foods?

Why Should I Stop Using So Much Alcohol, Dessert, Junk Food, Soda & White Sugar?

Foods that are high in sugar, as well as most junk foods, have little to no nutritional value and are not good for your body. These foods are commonly known as “negative nutrients”. In 1981, researchers from the *Center of Science in the Public Interest* presented 31 separate studies that showed such foods were related to “heart disease, diabetes, hypertension, obesity, behavioral disorders, hyperactivity” and more. *The Kellogg Report* indicates that “Sugar rich, nutrient-poor foods take up a disproportionate share of many American diets—leaving individuals in caloric excess, increasingly fat, yet still hungry and malnourished.” (*The Kellogg Report*, 1989.)



Why Should I Stop Using So Many Dairy Products?

In October 2002, *The American Journal of Clinical Nutrition* refuted the claim that milk and dairy products can help you lose weight. Their studies proved that “dairy products are loaded with fats that are easily stored under your skin as body fat”. Further studies on milk, even non-fat milk, have found links to increased risk of heart disease and hypertension. *William B. Grant, PhD* found in a multi-country review that there are “high associations between non-fat milk or milk carbohydrates” and heart disease. (“*Milk and Other Dietary Influences on Coronary Heart Disease*”, 1998)

Why Should I Stop Using So Many Products With White Flour?

There are 39 different vitamins and minerals in one kernel of wheat. To make white flour, the wheat is “refined” which means that almost all of the nutrition is stripped away. Only a few of those nutrients are synthetically sprayed back into the flour when it is labeled “enriched”. White flour is so nutrient deficient and so highly processed, it has led some researchers to report that eating white flour is almost the same thing as eating white sugar. Why do they say that? It’s because when you eat products with white flour, your body reacts with increased cravings, low energy and fluctuations in your blood sugar—just like eating sugar. So it’s best to eat products with whole grain flour. Research has shown that whole grain intake has been found to be “consistently associated with a reduction in the risk of heart disease.” (*Journal of Women’s Health*, 2003)

Why Should I Stop Drinking So Much Coffee?

Coffee contains caffeine. Caffeine triggers fat storage as it increases the body’s release of insulin. *Henry Kahn, M.D. of Emory University School of Medicine* states, “Coffee causes the body to secrete stress hormones, which causes a greater tendency to store fat, particularly belly fat.” *The Research Team at Duke University* proved that coffee can increase stress levels which contributes to heart disease and high blood pressure. (*Psychosomatic Medicine*, 2002)

CHAPTER

3



move.

STEP 3



STEP 3—WBV & WEIGHT BEARING EXERCISE

Whole Body Vibration Therapy (WBV)

As a therapy, **whole body vibration** (sometimes abbreviated as **WBV**) was explored by Russian scientist Vladimir Nazarov, who tested vibration on cosmonauts in an effort to decrease the loss of muscle and bone mass in space. As there is minimal gravitational force in space, muscles and bones are not loaded as they normally are on earth. Cosmonauts (and astronauts) in space lose their muscular strength very quickly, which is why they are not able to easily walk when they come back to earth. The decrease of bone density increases the risk of bone fractures, so it's not safe to stay in space for extended periods. The aerospace industry in the former Soviet Union worked with vibration training. Before their departure, cosmonauts were subjected to special training sessions so that the density of their bones would increase and their muscular strength would rise.

A particular form of WBV is vibration training, which is becoming increasingly popular. Initially, vibration training was mainly used in the fitness industry, but the use of vibration equipment is expanding quickly. It is now widely used in physical therapy, rehabilitation and professional sports, but it is also increasingly used for beauty and wellness applications.

What Is Whole Body Vibration?

The first applications of vibration for the improvement of human performance were developed in ancient Greece; a saw covered in cotton was used as a tool to transmit mechanical vibrations to the part of the body that was not functioning properly. In the 1880s and 1890s, Dr. John Harvey Kellogg was utilizing vibrating chairs, platforms and bars at his Battle Creek, Michigan sanitarium. These methods were part of his “wellness” strategies for inpatient and outpatient populations.

The immediate predecessor of modern vibration training is Rhythmic Neuromuscular Stimulation (RNS). In former East Germany Dr. Biermann was experimenting with the use of cyclic oscillations and their effects on the human body back in the sixties (*Biermann, 1960* ^[1]).

In that same era the Russian scientist Nazarov translated these findings into practical uses for athletes. He observed a substantial increase in flexibility and strength after the application of vibrations in the athletes he studied (*Kunnemeyer & Smidtleicher, 1997* ^[2]). The Russians also carried out experiments with “Biomechanical Stimulation” for the benefit of their athletes as well as in their space program. Unlike WBV devices on which the user stands, Biomechanical Stimulation uses vibration stimulation directly on muscles or tendons.

The Russian Space Institute (RSI),^{[3][4][5]} the European Space Agency and NASA are experimenting with various types of vibration training systems in order to get the ultimate benefits from the vibration stimulus. Due to the lack of gravity in space, astronauts and cosmonauts exhibited muscle atrophy (muscle impairment) and bone loss, which forced them to return to earth rather quickly. For rehabilitation after prolonged space flights, Russian scientists experimented with biomechanical stimulation. Once the Iron Curtain had been dismantled, the West could finally profit from the information and experience that had been gained in the previous years.

Whole-body vibration platforms enable the user to train various skeletal muscles, and trigger other body reactions. The effects are used in sports, fitness, aesthetics, rehabilitation and medical therapies. Several hundred peer-reviewed papers have been published on the effects of WBV, and the number of research studies conducted every year is accelerating. Effects described in the studies include: muscle strength and toning, cellulite reduction, improved bone density, heightened secretion of hormones associated with exercise, and depressed response of hormones associated with stress. Several inventions regarding whole body vibration devices have also been patented.

There are currently many whole body vibration machine brands and types of machine available. These vary in quality, design specifications and manufacturing materials. Some machines are able to provide the benefits that are described in the studies, others do not. In fitness centers or when buying for home use intended results need to be matched with the machine type and quality chosen. There are machines designed specifically for physical fitness training or muscle build while others are efficacious in physical therapy.

How It Works

As apparent from its name, in WBV, the entire body is exposed to vibration, as opposed to local vibration (Biomechanical Stimulation, BMS), where an isolated muscle or muscle group is stimulated by the use of a vibration device. Whole body vibration is implemented through the use of a vibrating platform on which static poses are held or dynamic exercises can be performed depending on the type and force of the machine. The vibrations generated by motors underneath the platform are transmitted to the person on the machine. The intensity, defined by the parameters frequency, amplitude, magnitude (light vibration versus heavy vibration) and the direction of these vibrations are essential for their effect.

Vibration Platform Types

Vibration platforms fall into different, distinct categories. The type of platform used is a moderator of the effect and result of the training or therapy performed (*Marin PJ, Rhea MR, 2010*^[6]). Main categories of machine types are:

- 1. High Energy Lineal**, found mostly in commercial vibration training studios and gyms. The vibration direction is lineal/upward eliciting a strong stretch-reflex contraction in muscle fibers targeted by the positions of training program.
- 2. Premium Speed Pivotal**, (teeter-totter movement) used for physiotherapy work at lower speeds and exercise workouts at “premium” speed, up to 27 Hz. Both commercial and home units are available.

3. Medium Energy Lineal, the majority of lineal platforms produced. These are usually made of plastic; some have 3-D vibration which is low quality. They give slower and less consistent results.

4. Low Speed Pivotal units. These can give “therapy” benefits. Other machine types are low Energy/Low amplitude lineal and Low energy/High amplitude lineal with varying uses from osteoporosis prevention, therapy for improved blood circulation and flexibility and limited fitness training.

In order to elicit a stretch reflex in the muscles, the major contributing factor to the training results that can be achieved with vibration platforms, the up-down movement is the most important. The platform is vibrated upwards to work directly against gravity and therefore is called “hyper-gravity”. High Energy Lineal Machines can overload the muscles up to 6 times (6G) in the upward phase; meaning the person on the platform is weight training using their own body mass.

The training frequency (Hz) is another of the important factors involved. Prof. Bosco was the first scientist to prove that every person has his own muscle frequency. The human body is designed to absorb vertical vibrations better due to the effects of gravity; however, many machines vibrate in more than one direction: sideways (x), front and back (y) and up and down (z). The z-axis has the largest amplitude and is the most defining component in generating and inducing muscle contractions.

Concerning the z-movements, two main types of system can be distinguished (*Marin PJ et al. 2010*^[6], *Rittweger 2010*^[7], *Rauch 2010*^[8]):

- Side alternating (pivotal) systems, operating like a see-saw and hence mimicking the human gait where one foot is always moving upwards and the other one downwards, and
- Linear systems where the whole platform is mainly doing the same motion, respectively: both feet are moved upwards or downwards at the same time.

Systems with side alternation usually offer a larger amplitude of oscillation and a frequency range of about 5 Hz to 35 Hz. Linear/upright systems offer lower amplitudes but higher frequencies in the range of 20 Hz to 50 Hz. Despite the larger amplitudes of side-alternating systems, the vibration (acceleration) transmitted to the head is significantly smaller than in non side-alternating systems (*Abercromby et al. 2007*^[9]). This difference can be a determining factor when choosing a platform for therapy versus training effects.

Mechanical stimulation generates acceleration forces acting on the body. These forces cause the muscles to lengthen, and this signal is received by the muscle spindle, a small organ in the muscle. This spindle transmits the signal through the central nervous system to the muscles involved (*Abercromby et al. 2007*^[9], *Burkhardt 2006*^[10]).

Due to this subconscious contraction of the muscles, many more muscle fibers are used than in a conscious, voluntary movement (*Issurin & Tenenbaum 1999*^[11]). This is also obvious from the heightened EMG activity (*Bosco et al. 1999*^[12], *Delecluse et al. 2003*^[13]).

Immediate & Short Term Training Effects

More motor units (and the correlating muscle fibers) are activated under the influence of vibration than in normal, conscious muscle contractions. Due to this, muscles are incited more efficiently (*Paradisís & Zacharogiannis 2007* ^[141]; *Lamont et al. 2006* ^[151]; *Cormie et al. 2006* ^[161]; ; *Bosco et al. 1999* ^[121], *2000* ^[171]; *Rittweger 2001* ^[181], *2002* ^[191]; *Abercromby et al. 2005* ^[201]; *Amonette et al. 2005* ^[211]). The immediate effect of WBV is therefore that the muscles can be used quickly and efficiently, rendering them capable of producing more force. However, this process will only be effective if the stimulus is not too intense and does not last too long, because otherwise performance will diminish due to fatigue.

Another immediate effect of WBV is an improvement of circulation. The rapid contraction and relaxation of the muscles at 20 to 50 times per second basically works as a pump on the blood vessels and lymphatic vessels, increasing the speed of the blood flow through the body (*Kerschán-Schindl et al. 2001* ^[221]; *Lohman et al. 2007* ^[231]). Subjects often experience this as a tingling, prickling, warm sensation in the skin. Both *Stewart (2005* ^[241]) and *Oliveri (1989* ^[251]) describe the appearance of vasodilatation (widening of the blood vessels) as a result of vibration.

Long Term Effects

In order to have any effect on the body in the long term it is vital that the body systems experience fatigue or some sort of light stress. As in other kinds of training, when the body is overloaded repeatedly and regularly, the principle of supercompensation applies. This principle is the cause of the body adapting to loading. In other words: performance will increase.

This effect has been proven several times in scientific research for both young and elderly subjects (*Roelants et al. 2004* ^[261], *Delecluse et al. 2003* ^[131], *Verschueren et al. 2004* ^[271], *Paradisís et al. 2007* ^[141]). The only placebo-controlled study to date (*Delecluse et al. 2003* ^[131]) concluded “specific Whole Body Vibration protocol of 5 weeks had no surplus value upon the conventional training program to improve speed-strength performance in sprint-trained athletes”. Therefore there is no clear indication that the vibrations actually do have added value when performing static exercises.

From research into the structural effects of vibration training it can be deduced that the increased strength resulting from WBV training can definitely be compared to the results that can be attained with conventional methods of training. But there are indications that better results may be achieved with WBV in the area of **explosive power** (*Delecluse et al. 2003* ^[131]).

Another important difference between conventional training methods and WBV is that there is only a minimum of loading. No additional weights are necessary, which ensures that there is very little loading to passive structures such as bones, ligaments and joints. That is why WBV is highly suited to people that are difficult to train due to old age, illness, disorders, weight or injury. On the other hand, it is also highly suitable for professional athletes who want to stimulate and strengthen their muscles without overloading joints and the rest of the physical system (*Cochrane et al. 2005* ^[281]; *Mahieu et al. 2006* ^[291]).

Other than its influence on the muscles, WBV can also have a positive effect on bone mineral density. Vibrations cause compression and remodeling of the bone tissue Mechanostat^[30]^{[31][32][33]}, activating the osteoblasts (bone building cells), while reducing the activity of the osteoclasts (cells that break bone down). Repeated stimulation of this system, combined with the increased pull on the bones by the muscles, will increase bone mineral density over time. It is also likely that improved circulation and the related bone perfusion due to a better supply of nutrients, which are also more able to penetrate the bone tissue, are contributing factors (*Verschueren 2004* ^[27], *Jordan 2005* ^[34], *Olof Johnell & John Eisman, 2004* ^[35], *Rubin et al. 2004* ^[36]).

Furthermore the Berlin Bedrest Study (BBR) proved that 10 minutes of vibration training 6 times a week prevented muscle and bone loss in total bedrest over 55 days (*Rittweger et al. 2004* ^[3], *Felsenberg et al. 2004* ^[4], *Bleeker et al. 2005* ^[5], *Blottner et al. 2006* ^[37]).

In preventing falls and the bone fractures that often result from them, enhancing bone mineral density is not the only important issue. Increased muscle power, postural control and balance are also factors worthy of consideration. Studies involving elderly subjects have shown that all of these issues can be improved using whole body vibration (*Roelants et al. 2004* ^[26], *Bautmans et al. 2005* ^[38], *Bogaerts et al. 2007* ^[39], *Kawanabe et al. 2007* ^[40]).

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WEIGHT BEARING EXERCISE— The Alkalize Now Walking Program

One of the best ways to build strong bones, lose weight and gain overall vitality is to do weight bearing exercises. Weight bearing exercises are exercises that force the muscles to work against gravity or working against some resistance. These exercises help enhance bone growth and increases bone density as well as overall health. The muscles and bones gain strength when a force is added and allows the bones to absorb more calcium. Weight bearing exercises are the only type of exercise that stimulates the cells to grow new bone and prevent osteoporosis. Weight bearing exercises not only prevent bone loss, but some studies suggest that it can also replace current bone loss. Besides helping to build stronger bones, the exercises in this chapter are also for healthy weight loss, increasing energy and improving overall health and well-being.

It's simple! Walking is one of the easiest and most beneficial forms of weight bearing exercise. All you need is a good pair of shoes, comfortable clothing and desire. (Share some time with your family or friends—walk together!) Check with your healthcare provider before starting any exercise program.

How to Start: First of all, start out slow and easy. Just walk out the door. For most people this means head out the door, stretch a bit, walk for 10 minutes, and walk back. That's it? Yes, that's it. Do this 3 times per week. If this was easy for you, add five minutes to your walks next week (total walking time at least 15 minutes). Keep adding 5 minutes until you are walking as long as desired.



WALKING PROGRAM GUIDELINES

| | |
|---------------------------------|---------------------------------|
| Frequency..... | 3 Times per Week (Minimum) |
| Warm Up Time..... | 3-5 Minutes of Light Stretching |
| Walking Time | 15 Minutes |
| Total Walking Time | 20 Minutes |
| Cool-Down..... | 3-5 Minutes of Stretching |

If you have the time and energy, you can always benefit from more walking!

Watch your posture. Walk tall. Think of elongating your body. Hold your head up and eyes forward. Your shoulders should be down, back and relaxed. Tighten your abdominal muscles and buttocks and fall into a natural stride.

Be sure to drink plenty of water before, during, and after walking. Be certain to incorporate the warm up, cool down and stretches into your routine. Start your walk at a slow warm up pace. Then walk for the desired length of time. End your walk with the slower cool down pace and stretch well after your walk. Stretching will make you feel great and assist in injury prevention.

The toughest thing about starting a fitness program is developing a habit. You should walk fast enough to reach your target heart rate, but you should not be gasping for air. You should be able to conduct a conversation when you are walking.

- Ask a friend or neighbor to walk with you. Get into the buddy system.
- Walk in a park and enjoy nature; Walk during your lunch hour at work.
- Always take the stairs and not the elevator.
- Get a treadmill & walk as you are watching TV or listening to music.
- Walk in the mall, go early before the stores open or have fun people watching as you walk!



7 Other Weight Bearing Workouts

Before beginning any weight bearing exercise program, remember these important guidelines:

- Check with your healthcare provider before you start any exercise program.
- If you have osteoporosis, you may not be allowed to do all weight bearing exercises. You may need to perform exercises for osteoporosis later in this chapter. Individuals with osteoporosis are at risk for fractures, regular exercise may cause too much force for some people with osteoporosis. If you suspect you have osteoporosis, talk with your healthcare provider about a bone mineral (density) test to determine if you have osteoporosis.

1. Strength Training

Lifting weights, using the weight machines at your health club, or doing calisthenics, are forms of strength or resistance training. You're working against some form of resistance -- whether it's a set of "free" weights, your own body weight, or weight machines -- to stress a sequence of muscles and bones. Strength training at least twice a week, says the surgeon general, is needed to stimulate bone growth.

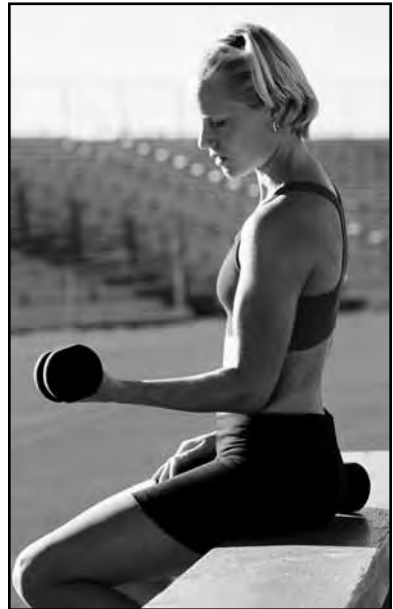
2. Yoga

A study reported in *Yoga Journal* found an increase in bone mineral density in the spine for women who did yoga regularly. From the slow, precise Iyengar style to the athletic, vigorous ashtanga, yoga can build bone health in your hips, spine, and wrists -- the bones most vulnerable to fracture.

Standing poses like Warrior I and II work the large bones of the hips and legs, while poses like Downward Dog work the wrists, arms, and shoulders. Both the Cobra and Locust poses, which work the back muscles, may preserve the health of the spine. Yoga also sharpens your balance, coordination, concentration, and body awareness -- and thus helps prevent falls.

3. Tai Chi

Tai chi -- a form of slow, graceful moves -- builds both coordination and strong bones. A study reported in *Physician and Sports Medicine* found that tai chi could slow bone loss in postmenopausal women. The women, who did 45 minutes of tai chi a day, five days a week for a year, enjoyed a rate of bone loss up to three-and-a-half times slower than the non-tai-chi group. Their bone health gains showed up on bone mineral density tests.





4. Dancing

Dancing can be a fun way to exercise and lose weight. The hottest trends in dance today are Salsa, Samba, Lindy Hop, Rhumba, East Coast Swing, Foxtrot, and Tango. Use those hips to get your heart pumping in more ways than one, build strong bones and lose weight while you're at it.

Or try the newest aerobics, kickboxing, or step class at your health club or local Y. New classes emerge every few months to keep members motivated. A lot of them now combine strength training with dance or step moves -- and will perk up your balance as well.

5. Hiking

The work of weight-bearing -- and the impact as your feet hit the ground -- can increase bone density, especially in your hips. It's just like walking, and then

some. You'll get even more impact on those bones if you're going uphill or downhill, and that can improve bone health even more. More impact on your feet and legs translates into more bone density, says the surgeon general.

And with hiking, boredom is rarely an issue. You're often socializing and meeting new people, as well as expanding your horizons as you see new landscapes.

6. Racquet Sports

Tennis, squash, and paddle tennis can rally your bone density and shed pounds. You're stressing your racquet arm, wrist, and shoulder every time you hit the ball, and working your hips and spine with all that running around -- and chasing down wild balls.

If you're going for racquet sports, go for singles. You'll get a lot more from your workout in terms of bone health, since you'll be running around more.

7. Golf

Walk the 18 holes if you can! Shouldering that golf bag around 18 holes, and swinging the big clubs to drive the ball long, adds up to a lot of upper-body work. And chasing balls lost in the rough, means plenty of work for your hips and spine.



Exercising With Osteoporosis— Stay Active The Safe Way

If you have been diagnosed with osteoporosis, it is important to take a few precautions and ask your healthcare provider which exercises are best for you. You may choose the **Alkalize Now Walking Program** or any of the 7 Weight Bearing Exercises in this chapter. If you choose any of the 7 Weight Bearing Exercises in this chapter, carefully review the next section, for certain movements that you should avoid and simply exercise sensibly. Again, check with your healthcare provider especially if you have osteoporosis before starting any new exercise program.

Movements To Avoid If You Have Osteoporosis

- **Avoid High-impact exercises, such as jumping, running or jogging.** These activities increase compression in your spine and lower extremities and can lead to fractures in weakened bones. Avoid jerky, rapid movements in general. Choose exercises with slow, controlled movements.
- **Avoid Exercises in which you bend forward and twist your waist, such as touching your toes or doing sit-ups.** These movements put pressure on the bones in your spine, increasing your risk of compression fractures. Other activities that may require you to bend or twist forcefully at the waist are golf, tennis, bowling and some yoga poses. If you have bone thinning in your spine, you may want to forgo any deep backbends in yoga.
- **Avoid Exercises Where You Could Fall**—Because your fracture risk is higher than normal, do not try any exercise with the potential for serious falls, like downhill skiing, ice skating, or inline skating.
- **One final tip: Be patient.** The bone-building phase in young adults—at its speediest—takes three to four months, and it may take a lot longer if you have osteoporosis or are older. Bones change slowly—but they do change.



Additional Exercises For Osteoporosis

1) Flexibility Exercises

Being able to move your joints through their full range of motion helps you maintain good balance and prevent muscle injury. Increased flexibility can also help improve your posture. When your joints are stiff, your abdominal and chest muscles become tight, pulling you forward and giving you a stooped posture.



Stretches are best performed after your muscles are warmed up — at the end of your exercise session, for example. They should be done gently and slowly, without bouncing. Avoid stretches that flex your spine or cause you to bend at the waist. These positions may put excessive stress on the bones in your spine (vertebrae), placing you at greater risk of a compression fracture.

2) Stability and Balance Exercises

Fall prevention is important for people who have osteoporosis. Stability and balance exercises help your muscles work together in a way that helps keep you more stable and less likely to fall. Simple exercises such as standing on one leg or movement-based exercises such as tai chi can improve your stability and balance.

Swimming and water aerobics have many benefits, but they don't have the impact your bones need to slow mineral loss. However, these activities can be useful in cases of extreme osteoporosis, during rehabilitation following a fracture or for increasing aerobic capacity.





CHAPTER

4

**HEALTHY LIFESTYLE
CHOICES**



HEALTHY LIFESTYLE CHOICES

Fiber – Another Key To A Healthier Life

Dietary fiber, often referred to as “roughage”, is the edible portion of plant cell walls that is resistant to digestion but is an extremely beneficial component of our diets. Fibers such as vegetables, fruits, nuts, and whole grains also have high amounts of vitamins and minerals necessary for healthy body functioning, and of course a huge side benefit of eating foods rich in fiber is that they taste good.

Not only does fiber help ward off many diseases, but it’s been shown to aid in weight loss by reducing food intake at meals. This is because fiber-rich foods take longer to digest and thus result in an increased feeling of fullness and satiety. In addition, the more gradual absorption slows the entrance of blood sugar into the blood stream, thereby preventing large blood glucose and insulin spikes.

Types of Fiber: Soluble and Insoluble

There are two types of fiber—soluble and insoluble. Both soluble and insoluble fibers are undigested. They are therefore not absorbed into the bloodstream. Instead of being used for energy, fiber is excreted from our bodies. Although neither type is absorbed by the body, they have different properties when mixed with water, hence the designation between the two.

Soluble fiber is “soluble” in water. When mixed with water, it forms a gel-like substance and swells. Soluble fiber has many benefits, including moderating blood glucose levels and lowering cholesterol. The scientific names for some soluble fibers include pectins and gums. Advantages of consuming soluble fiber are the production of salubrious compounds (antioxidants, anti-aging and anti-carcinogenic compounds) during the fermentation process.

Insoluble fiber does not absorb or dissolve in water. It passes through our digestive system in close to its original form. Insoluble fiber offers many benefits to intestinal health, including a reduction in the risk and occurrence of colorectal cancer, hemorrhoids, and constipation. The scientific names for some insoluble fibers include cellulose and lignins. The advantages of eating insoluble fiber is its ability to increase bulk and therefore soften stools and shorten transit time through the GI tract.

Due to the overlap in function between the two types of fiber and the difficulty in measurements of each type, the *National Academy of Sciences* is recommending that the terms

Soluble and Insoluble gradually be eliminated and replaced by specific beneficial effects of each fiber. Thus you may hear less about “soluble versus insoluble fiber” in the future.

Foods Rich In Fiber

Plant foods contain both types of fiber in varying degrees, according to the plant’s characteristics. Examples of foods rich in soluble fiber are fruits, vegetables, brown rice, barley, and nuts. Most of insoluble fibers come from the bran layers of cereal grains. Examples of foods rich in insoluble fiber are wheat bran and whole-grain breads and cereals.



How Much Fiber?

There is no RDA for fiber, but the American Dietetic Association recommends eating 20-35 grams of dietary fiber per day or 10-13 grams for every 1,000 calories in the diet. The average American significantly falls short of the recommended amount of fiber, consuming on average only 5-10 grams per day. When making a food choice decision, don’t worry about choosing a specific type of fiber, eating enough fiber is more important! Since dietary fiber is found only in plant products (i.e., fruits, vegetables, nuts, whole grains and legumes), these are essential to a healthy diet. If you eat at least 6-9 servings of fruits and vegetables as well as 6 servings of grain products per day (at least 3 of which are whole grains) you are very likely meeting your fiber requirements.

Ways To Increase Dietary Fiber

- Choose whole fruits and vegetables (with peels when possible) instead of juices.
- Replace white flour with whole wheat flour in all baked goods.
- Select whole grain bread, pasta and cereals in place of similar processed versions.
- Choose brown rice over white rice.
- Replace meat with beans, lentils or other legumes.

Using A Fiber Supplement

If you have difficulty eating the necessary whole foods to obtain your fiber requirement you may be a candidate for supplementation. First you may consider taking a high quality fruit and vegetable powder product that mixes easily in water or juice every morning in addition to three stabilized rice bran caplets, two times a day, which contain at least 800mg of fiber per caplet. Stabilized Rice Bran has been clinically tested in humans and has been shown to be an excellent non-bloating fiber product that helps promote a healthy bowel. Stabilized

Rice Bran contains proteins, antioxidants and phytonutrients, which provide excellent nutrition and help to maintain a healthy and clean GI tract. We recommend **Rice Fiber First™** as a superior daily fiber supplement.

Rice Fiber First With Stabilized Rice Brand Is More Than Just A Fiber

The majority of dietary fiber products on the market are psyllium-based. Most of these products produce carbon dioxide and methane in the intestinal track, which can produce bloating, gas and discomfort! **Rice Fiber First™** caplets are made with stabilized rice bran, which is a “friendly fiber”, promoting regularity; alleviating occasional constipation while helping your body digest food more quickly and easily!



Stabilizing Rice Bran— The Processing Makes It Last

What's different about **Rice Fiber First™** is the processing. All rice bran is not created equal. Without our patented stabilization process, the powerful array of vitamins, minerals, phytosterols and antioxidants would be destroyed in a matter of minutes. Why? Lipase, which exists naturally in the bran layer, comes in contact with the bran's oil and begins rapid degradation of the bran within seconds after removing the bran from the rice kernel. Delicately deactivating the destructive effects of Lipase activity, while maintaining 100% of the nutrition in rice bran can only be accomplished by means of our all natural, non-chemical process.



Rice Fiber First™ caplets contain this superior nutritional fiber with significant quantities of gamma oryzanol, minerals, vitamins, antioxidants and several other phytonutrients.

Rice Fiber First™ is an important part of the Lifetime Wellness Solution and can be part of an effective cleanse, detoxification or part of a nutritionally balanced diet or weight management program.

Research Supporting Stabilized Rice Bran

Stabilized Rice Bran Promotes Normal Blood Sugar Levels

20 grams of stabilized rice bran a day, when given in two equal doses of 10 grams each before breakfast and before dinner for eight weeks to human subjects, has been shown to support normal glucose parameters. (Ref: *Cheruwanky et al., U.S. Patent # 6, 126, 943, Oct. 3, 2002*).

Stabilized Rice Bran Maintains Normal Cholesterol Levels

Stabilized Rice Bran has been clinically tested in humans. A total of 46 individuals were included in the study. They were provided Stabilized Rice Bran in two equally divided doses of 10 grams each, once taken before breakfast and another before dinner in milk/juice for a period of eight weeks. The results of this study suggest that Stabilized Rice Bran significantly helps to promote normal cholesterol levels. The results indicate that Stabilized Rice Bran is useful as part of a cholesterol health diet. (Ref: *Cheruwanky et al., "Method for Treating Hypercholesterolemia, Hyperlipidemia, and Atherosclerosis," U.S. Patent No. 6,126,934, Oct. 2000*).

Stabilized Rice Bran supports normal blood cholesterol by premature emptying of the gall bladder and trapping the bile salts, which thereby prevent re-absorption. It is believed that the high quality fiber in Stabilized Rice Bran, along with the major bioactive compounds such as tocopherols, tocotrienols, gamma oryzanol, phytosterols, and inositol present in the product, synergistically help in supporting a healthy cardiovascular system. By normalizing the cholesterol level, Stabilized Rice Bran enables the liver to keep cholesterol and other lipids under check and helps to support gallbladder health.



Stabilized Rice Bran Promotes Bowel and Colon Health

Stabilized Rice Bran is an excellent non-bloating fiber product that helps promote a healthy bowel. Stabilized Rice Bran contains proteins, antioxidants and phytonutrients, such as gamma oryzanol, inositol hexaphosphate (IP6) and phytosterols, which provide excellent nutrition to the gut and help to maintain a healthy and clean gut. It also contains a short chain sugar complex, known as fructooligosaccharides (FOS), which is not digestible in the gut but serves as food to the friendly bacteria, such as *Lactobacillus acidophilus* or *L. sporogens* to proliferate. Stabilized Rice Bran helps in fermenting the undigested food in the colon producing short chain fatty acids, such as butyric and propionic acids in the gut. Scientific data indicates that the short chain fatty acids play an important role in promoting a healthy colon. Other commercially available dietary fibers produce carbon dioxide and methane during colonic fermentation, resulting in abdominal distention, discomfort and gas. Stabilized Rice Bran in the diet promotes bowel regularity and helps alleviate occasional constipation. It provides bulk to the waste and decreases the colonic transit time by several fold, thereby, helping to promote colon health.

Stabilized Rice Bran for Gallbladder Health

A diet rich in fiber also helps to promote a healthy gallbladder. This is due to its ability to promote normal cholesterol levels. Furthermore, researchers showed the effectiveness of a high rice bran dietary fiber intake in reducing renal calcium excretion. (*A. Jaben et al., Dietary Fiber: The Effectiveness of a high bran Intake in Reducing Renal Calcium Excretion, Urol. Res. 1992, 20:3-6*).

“What has been the world’s largest food resource has shown significant therapeutic value in treating cardiovascular conditions, arthritis, diabetes and any other illnesses.”

—Betty Kamen, PhD

The Bottom Line

In summary, the recommendations for daily fiber intake call for about 25 grams for women and 35 grams for men, and research shows we are getting only about 10 grams. Since the health benefits of different types of fiber vary, the best advice is to eat an array of plant-based foods, including fruits, vegetables, legumes, and whole grains. Worry less about targeting specific types of fiber and focus more on getting your daily requirement from as many different foods as possible.

If you have a busy lifestyle and eating the daily requirements of fruits, vegetables and fiber are not possible for you and your family, consider the simple solution of taking the **Greens First Wellness Shake** and **Rice Fiber First™** caplets on a daily basis to help increase your energy and overall well-being.

Reduce Your Stress

Studies indicate that 9 out of 10 people suffer from stress in their daily lives. *The National Women's Health Resource Center*, June 2003 reported that 90% of those who responded described their level of stress in their daily life as “moderate or higher”.

Stress DOES Have An Effect On Your Health!

Mental and/or emotional stress also imbalances every hormone system in your body and contributes to ill health. Stress weakens your resistance, increases the chance of disease, contributes to fat gain and puts you on the fast track to aging. Proper rest and stress reduction will help you lose weight and increase your health and vitality!

Simple Ways to Reduce Stress

- Get plenty of sleep
- Listen to beautiful, relaxing music
- Avoid stressful movies and television programs
- Make time for relaxation—Balance work and play
- Have dinner with friends or family on a regular basis
- Join a health club
- Learn to meditate
- Learn how to say “no”—Cure the “disease to please”
- Develop affection in your relationships
- Join a stress management class
- Laugh more and hug often



Why Drinking Water is So Important

Most people say, “I drink a lot of liquids—I drink soda, tea, coffee or juice.” These are not considered water for your body and they will seriously reduce your effectiveness for losing weight.

Even though we drink soda, tea, coffee or juice, most of us are technically dehydrated and don't even know it. As the body ages, it is essentially “drying out”. Many experts now believe staying hydrated is one of the key factors in slowing down the aging process and helping people to lose unwanted body fat.

WHY SHOULD I DRINK MORE WATER?

- Water decreases your appetite by filling you up.
- Water helps to decrease fatty food and sugar cravings.
- Water rids your body of waste & toxins and relieves constipation.
- Water relieves fluid retention.
- Water helps lubricate the joints, reduces sodium buildup and is great for your complexion.

HOW MUCH WATER DO I NEED TO DRINK?

- Drink a minimum of at least eight 8-ounce glasses (2 quarts) of water every day.
- Another easy way to determine how much water you should drink is:
Take your body weight, and divide by two. This is the minimum number of ounces you should drink daily.

WHAT ARE SOME IDEAS TO HELP ME DRINK MORE WATER?

- Adopt the habit of bringing water with you wherever you go and drinking it often.
- Give up sodas that actually dehydrate you and choose to drink water instead.
- You can flavor water with lime, lemon or orange slices.
- After your **Greens First Wellness Shake**® in the morning, drink at least 6 oz. or more of water.
- If you feel like snacking, grab your water and drink away!



Going Organic—The Healthier Option

Everyone from researchers to doctors, health advocates and even the government is encouraging people to eat more fruits and vegetables.

It's true—a diet rich in a variety of brightly colored fruits and vegetables has been shown to help lower the risk of heart disease, reduce cognitive decline, minimize age-related macular degeneration and lower the risk of certain cancers.

But it is also very important to realize that regular fruit and vegetables today are generally covered with the residue of pesticides. These toxins can damage children's nervous systems and chronic low level exposure to environmental toxins might increase the risk of certain cancers and degenerative neurological disorders such as Parkinson's disease. For these reasons, it's important to choose organic foods when you can.

What Does Organic Mean?

According to the national standards for organic foods established by the U.S. Department of Agriculture (U.S.D.A.), organic foods must be grown without the use of most conventional synthetic fertilizers or chemical pesticides. Also these foods have not been genetically modified, irradiated to kill bacteria or fertilized with sewage sludge from waste treatment plants. Organic dairy, eggs, poultry and meat products come from animals that are given organic feed and no antibiotics or growth hormones.

Other Reasons to Eat Organic

1. Organic Food May Be More Nutritious

Growing research is showing that organic foods have better nutritional profiles than conventionally grown food. Recent reports from the Organic Center found that organic plant-based foods are 25% more nutrient dense than conventional foods and have a higher concentration of total antioxidants and polyphenols, vitamins C and E and more of the flavonoids called quercetin. Many report that organic food tastes better too!

2. Organic Food is Safer

The evidence is clear, organic foods do reduce our exposure to potentially toxic, harmful pesticides. A Seattle, Washington study reported that when children switch to organic foods, it provides “dramatic and immediate” protection from two harmful pesticides that are commonly used in conventional agriculture.

3. Organic Food is Better for the Environment

In a recent study, organic farming produced the same yields of soybeans and corn as conventional farming, but used 30% less energy, water and no toxic pesticides. Organic farming techniques improve soil quality by 30% - 40%. The Organic Center estimates that by increasing US organic food sales to only 10% by 2010, it will not only improve the quality of our drinking water, but it will also help to eliminate 2.9 billion barrels of imported oil annually and transform 25,800 square miles of degraded soils into rich cropland.



When to “Opt for Organic”

Because it is often more expensive to choose organic products, you may wish to prioritize your purchases. Generally, it is best to choose organic versions of the foods you eat more often. Also, the nonprofit Environmental Working Group (www.ewg.org) often updates its list of the “Dirty Dozen”—the 12 fruits and vegetables that are most contaminated with toxic pesticides and fertilizers. Choose organic versions of these types of produce. Also, be certain to be diligent in washing off all fruits and vegetables that you consume, whether they are conventional or organic. (Even organic produce may harbor bacteria.)

Choose organic versions of the fruits and vegetables that tend to have the highest levels of pesticide residues. According to the nonprofit Environmental Working Group (EWG), here’s the latest news on produce:



THE DIRTY DOZEN

Highest Level of Pesticides—Go Organic With These Selections

Apples • Bell Peppers • Celery • Cherries • Imported Grapes • Lettuce
Nectarines • Peaches • Pears • Potatoes • Spinach • Strawberries



THE CLEANER BUNCH

Least Likely To Contain Pesticides

Asparagus • Avocado • Bananas • Broccoli
Mango • Pineapple • Sweet Corn

Many grocery stores are now carrying organic varieties of fruits and vegetables. Check with your local grocery store or look for natural food stores such as Whole Foods for a healthy selection. To quickly determine if fresh produce is organic, check out its Product Look-Up (PLU) sticker. Unlike those on conventional produce, the organic PLU codes will have 5 digits and generally begin with a “9”.

Fats—The good and the bad

Make the Right Choice

Some fats, such as saturated fat (which is found in most animal based foods) raise cholesterol and increase your chances of developing heart disease. But other fats, such as omega-3 fatty acids and monounsaturated fats (found in foods such as olive oil and avocados) appear to protect the heart and assist in cognitive function. Here's the scoop on which ones to use and which ones to avoid:



AVOID THESE FATS

Saturated Fats—Diets that are high in saturated fat are linked with increased LDL (“bad”) cholesterol and increase the risk of developing heart disease. Saturated fats are found in animal products such as butter, cream, whole milk, cheese, fatty meats & un-skinned poultry. The only plant source of saturated fat is coconut oil. It is often touted for various health benefits, but if you are concerned with cardiovascular health, try to avoid this oil and choose healthier options containing only monounsaturated fats.

Trans Fats—This fat is damaging to the heart. It is found in many margarines and processed foods like baked goods, chips and deep-fried foods. Trans fats extend the shelf life of products and they can be used over and over for frying foods. Eating just 4 grams of trans fats a day greatly increases the risk of heart disease. Just 1 serving of French Fries has 5 grams and a Danish pastry has 3 grams. Research has shown that these dangerous fats also promote chronic inflammation, diabetes and different forms of cancer. Avoid trans fats by reading food labels—don't buy products containing vegetable shortening, hydrogenated fats or partially hydrogenated fats.

LIMIT THESE FATS

Omega-6 Fatty Acids—Essential Fatty Acids, such as Omega-6 and Omega-3 are necessary for human health, but the body does not make them. You must obtain these essential nutrients from food. Most Americans get too much Omega-6 Fatty Acids and not enough Omega-3's. This imbalance may help to increase the risk of inflammation, heart disease, cancer and Alzheimer's disease. Avoid vegetable oils such as sunflower, safflower, corn and soy oils as they are high in Omega-6 which promotes inflammation and pain. High-oleic sunflower and safflower oils are a bit better as they are richer in healthier monounsaturated fats. You can occasionally use small amounts of grapeseed oil, evening primrose oil, or black currant seed oil—but don't use them regularly.

ENJOY THESE FATS (Sparingly)

Monounsaturated Fats—Olive oil and canola oil contain monounsaturated fats which help to lower the LDL (“bad”) cholesterol without affecting the HDL (“good”) levels. Because of this fact, these oils are the best and a much better choice than polyunsaturated vegetable oils. Organic extra virgin olive oil should be your main cooking fat. Because it's less processed, it's rich in antioxidants that help to prevent the oxidation of LDL (“bad”) cholesterol. If you use canola oil, choose only organic, expeller-pressed varieties. Remember to use all oils sparingly, especially if you are on the **Greens First® Weight Loss to Wellness Program**.

Remember, the “ideal” cooking oil should contain higher amounts of monounsaturated and polyunsaturated fats and have minimal or no saturated fats and trans fats.

The “Bad Cooking Oils” mentioned below contain high percentages of trans fat or saturated fat. Some, such as coconut oil, even contain more saturated fat than animal products!

| QUICK REFERENCE GUIDE TO FATS | |
|---|---|
| The Bad Fats | |
| Saturated Fats | <ul style="list-style-type: none"> • Raise total blood cholesterol • Raise LDL cholesterol (bad cholesterol) |
| Trans Fats | <ul style="list-style-type: none"> • Raise LDL cholesterol (bad cholesterol) • Lower HDL cholesterol (good cholesterol) |
| The Good Fats | |
| Monounsaturated Fats | <ul style="list-style-type: none"> • Lower total cholesterol • Lower LDL cholesterol (bad cholesterol) • Increase the HDL (good cholesterol) |
| Polyunsaturated Fats & Omega 3 Fatty Acids | <ul style="list-style-type: none"> • Lower total cholesterol • Lower LDL cholesterol (bad cholesterol) |

| Good Cooking Oils | Limit These Cooking Oils | Bad Cooking Oils |
|--------------------------------------|--|--|
| Extra Virgin Olive Oil Canola Oil | Grapeseed Oil Flax Seed Oil Peanut Oil Safflower Oil Sunflower Oil | Butter Coconut Oil Corn Oil Palm Oil Palm Kernel Oil Vegetable Shortening |

Omega-3 Fatty Acids

It can be difficult to get enough omega-3 fatty acids through diet alone—especially if you don’t eat fish at least twice a week. With all the news about the mercury in fish, many people are considering Omega-3 oil supplements.

Ask your healthcare professional about Omega-3 First—an ultra-pure, high potency healthy oil supplement.



Tips for Healthy Eating Out

Watching calories while eating out? The good news is today's restaurants have plenty of options! Here are a few tips on how to make the most of your dining-out experience:

Baked Potato Toppings

Ask for salsa with a baked potato instead of sour cream, butter, cheese, or bacon. Salsa is very low in calories and a healthy alternative with a lot of spice.

Beverages

Choose water, diet soda, or unsweetened tea or coffee instead of regular soft drinks or alcoholic beverages. This will save a lot of calories.

Customize Your Order

Don't be afraid to ask for special low-calorie or low-fat preparation of a menu item. Today, many restaurants will be happy to accommodate your request.

Dessert

If you are craving dessert, opt for something lower in calories and fat, like sorbet, fresh berries or fruit. Or better yet, share your dessert with your dining partner.

Fish

Fish and seafood dishes are great choices for the diet-conscious diner, but keep in mind to order them baked, broiled, sautéed, poached, steamed or grilled rather than fried.

Flavorings

Select foods that are flavored with spices and fresh herbs, as those items are more likely to have lower fat and sodium content. Many ethnic cuisines embrace this philosophy, so why not order something Latin American or Asian? You can be adventurous and healthy at the same time!

Grilled Food

When ordering grilled fish or vegetables, ask that the food either be grilled without butter or oil, or prepared "light," with little butter or oil.

Look For Low Fat Cooking

Look for items on the menu that are baked, grilled, dry-sautéed, broiled, poached, or steamed. These cooking techniques use less fat and are generally lower in calories.

Main Dishes

Select entrees with fruits and vegetables as key ingredients, as they are a good source of dietary fiber, as well as of many vitamins and minerals. However, some vegetarian dishes can be higher in calories if prepared with cheese, butter and other calorie-rich ingredients.

Meat

For meat dishes, look for leaner cuts, such as skinless chicken breasts, turkey burgers, pork loin, and beef sirloin.



Navigate the menu

If you're in the mood for pasta, look for tomato-based sauces rather than cream-based sauces. Tomato-based sauces are much lower in fat and calories. In addition, the tomato sauce (or marinara sauce) can count as a vegetable!

Salads

A salad is typically a good choice, but be aware that dressings and toppings like cheese and croutons can add fat and calories. So go for low fat or non-fat dressing alternatives and have the dressing on the side. (Just dip your fork into the dressing first, then the salad—you'll be amazed at how much less dressing you'll consume!)

Sandwiches

Order sandwiches with mustard rather than mayonnaise or "special sauce." Mustard adds flavor with virtually no calories. Other sandwich tips: choose whole grain bread, skip the cheese, and add vegetables as toppings. Also keep in mind that chicken salad, tuna salad and egg salad are made with mayonnaise.

Side Dishes

If you have a choice of side dishes, opt for baked potato or steamed vegetables. Even if choices are not listed, ask to substitute vegetables or a baked potato for French Fries.

Soups

When choosing a soup, keep in mind that cream-based soups are higher in fat and calories than broth-based soups. Soup can serve as a great appetizer to a meal, or as an entree. Most soups are low in calories and will fill you up.

Soy Sauce

Always ask for reduced-sodium soy sauce.



Whole Grain Options

Choose items made with whole grains. Examples include whole-wheat bread, tortillas and pasta, and dishes made with brown rice.

Enjoy Your Restaurant Experience

- 1) Share an appetizer or a dessert with a friend. Half the dish equals half the calories.
- 2) Stop eating when you are full—listen to the cues your body gives you.
- 3) Take half of your meal home. The second half can serve as a second meal. (Two meals for the price of one: What a deal!)
- 4) If you want to eat less, order two appetizers, or an appetizer and a salad, as your meal.
- 5) Virtually all restaurants offer healthy menu items. If you know what to look for and opt to customize your meal, you can have a nutritious meal whenever, wherever!

The Spend Less / Eat Well Guide

You may think that eating well is expensive, but there are a great variety of ways to save money besides clipping coupons and waiting for “sale days”. If you are trying to eat on a budget, you may think that frozen pre-made dinners are a good value for your money. But, homemade meals tend to be cheaper in the long run and contain fresher and healthier ingredients.

Dollar Stretching Tips

Cook One Day for Two Meals

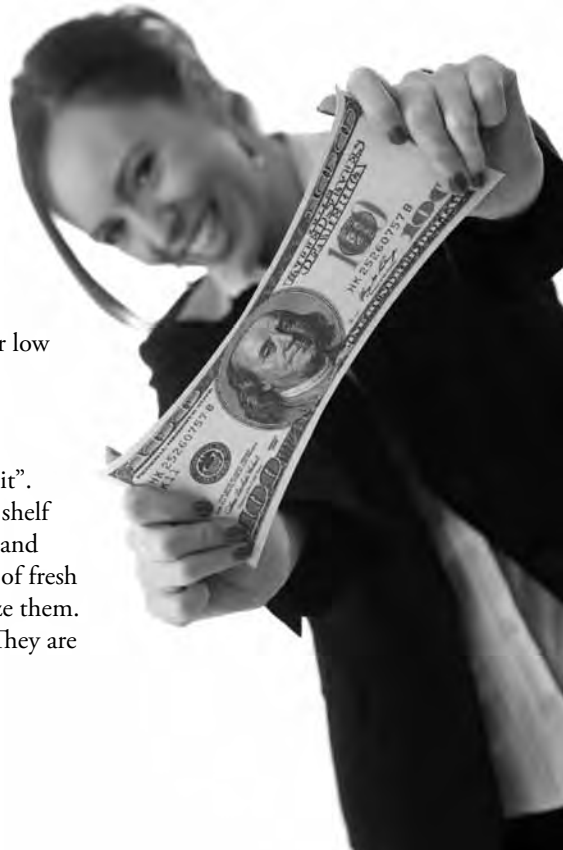
When you are planning your meals for the week, take a moment to think about foods that can be used for two or more recipes. Use whole grain bread for sandwiches, and then use the leftover for bread crumbs or croutons for salads. If you buy a head of broccoli, you could add it to pasta one night and the next night, cook the stalks & a few florets in vegetable broth until soft and puree it for soup.

Fresh Is Best

If possible, it's best to buy fresh foods whenever you can. Stock up on inexpensive basics like celery, carrots and squash. Get creative on how you prepare these items. Stay away from meals in boxes. They are generally considered “dead” food with very little nutritional value. Frozen food is a good alternative and is surprisingly high in nutrition. Often, it is a good choice, especially if the food is out of season. Frozen food is generally a better choice than canned foods. If you are buying canned foods, look for the shortest list of ingredients and always opt for low sodium.

Buy In Bulk

When buying in bulk, compare the cost “per unit”. Most stores will display the cost per unit on the shelf price tags. Buy staples such as nuts, grains, rice and pasta in bulk. You can also buy large quantities of fresh berries, peaches and produce in-season and freeze them. Avoid buying food in single-serving packages. They are generally more expensive.



CHAPTER

5

**ALKALIZE NOW
WEIGHT LOSS PROGRAM**



ALKALIZE NOW WEIGHT LOSS PROGRAM

Is An Acidic pH Imbalance Making You Over Weight?

The Acid/Alkaline balance is not only essential for proper healing and improving overall health, it is a key factor in helping you with healthy weight loss.

Here are some facts you may not know... Billions are spent on weight loss programs but the percentage of overweight people continues to climb.

The number of overweight people increased dramatically during the last 40 years of the 20th Century. According to government studies, the following statistics reveal some startling facts about weight gain.

| Percent of U.S. Populace Overweight (20 years of age and over) | | | | | |
|---|----------------|----------------|----------------|----------------|------------------|
| Year | 1960-62 | 1971-74 | 1976-80 | 1988-94 | 1999-2000 |
| USA | 44.8% | 47.7% | 47.4% | 56% | 64.5% |
| <small>SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Surveys.</small> | | | | | |

One factor that rarely gets discussed when talking about weight loss strategies is body acidity. In addition to serving as a source of ready energy, body fat is also used by the body to regulate pH, the measure of how acidic or alkaline your system is. Remember, for optimum health, your body’s pH must remain at 7.35-7.45 and even minor shifts in pH can make oxygen delivery to the body’s cells more difficult.

The pH of your blood also has an important role in regulating insulin, which is a key to maintaining a healthy weight; an insulin imbalance can trigger the onset of diabetes. In addition, healthy thyroid function is closely linked to pH levels, since pH is crucial to maintaining optimal levels of iodine in the body, without which the thyroid cannot function. In order to keep pH levels normal, the body continually flushes out toxins through the colon, the kidneys, the sweat glands and the lymph system. When more toxins accumulate than the body can handle at a given time, it stores the excess in fat cells that serve as a buffer to protect your organs.

Therefore, one of the easiest ways to speed up fat loss can be to re-balance your body’s pH levels and rid your body tissues of excess built-up toxins.

Facts To Remember About Acid/Alkaline Balance & Weight Loss

Fact #1:

Acids build up in the body. A few contributing sources include processed foods, sugars, too much meat and dairy, environmental pollution, chemical cleaners and cosmetics, polluted water, pesticides, and stress. An overload of acids in the body will act as a poison to it.

Fact #2:

The body stores acid poisons in fat cells. This is what the body does in order to keep the acid poisons out of vital organs.

The body tends to hang on to the fat to keep the acid poisons from doing more damage in other areas of the body.

When the body can't store the acid poisons in the fat cells, they are stored in vital organs and/or excreted through the skin causing skin eruptions or rashes.

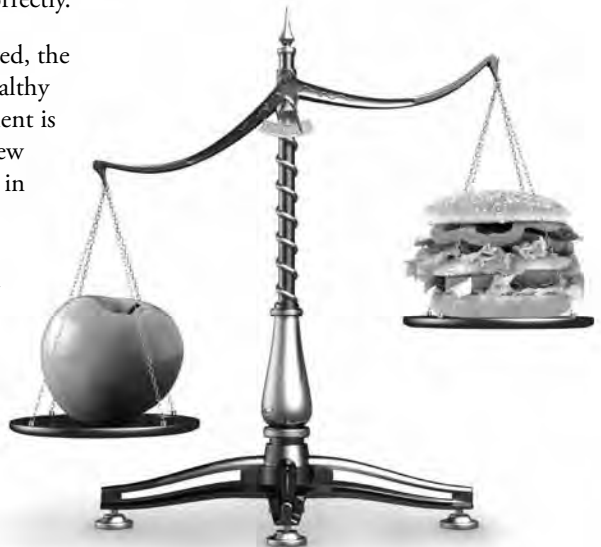
Fact #3:

The body uses a balancing mechanism to ensure high levels of acid poisons do not circulate in the blood stream. The blood of the body needs to be at a pH of 7.35-7.45 which is slightly alkaline, and the rest of the body works to ensure this happens. When the blood remains between 7.35 and 7.45 on a consistent basis, the body has the ability to adjust to a normal healthy state which includes ideal weight. Your cravings will change. Your life will change... for the better.

Your body will be working against any weight loss program which is not geared to move the pH of internal systems into the appropriate balance.

Exercise and diet are two major factors that help balance the pH and maintain a healthy body when done correctly.

Above that, when pH balance is achieved, the body instinctively drops to its ideal, healthy weight. As soon as the acidic environment is eliminated, there will be no need for new fat cells to form, and the remaining fat in your body is no longer needed to store acid wastes, and therefore simply melts away. The Alkalize Now way of life can recapture your health and vitality as well as assist you in healthy weight loss. You will not only see the difference in the way you look, but also feel the difference.



Alkalize Now Weight Loss Program

12-Week Challenge

4 Step Weight Loss Program

The first steps for the **Alkalize Now Weight Loss Program**, 12-Week Challenge are the same 3 steps in this book used to promote healing & improve health.

Step 1. Drink Alkaline.

Step 2. Eat Alkaline.

and

Step 3. Move.

For weight loss, you will add one more step which is...

Step 4. Measure,
to set your goals and
record your progress.



Alkalize Now Weight Loss Program

4-STEPS



drink.

STEP 1

Drink The Alkaline
Wellness Shake
Daily



eat.

STEP 2

Eat More
Alkaline Foods



move.

STEP 3

Whole Body Vibration
and
Weight Bearing Exercise



measure.

STEP 4

Measure
& Set Goals

To begin your Alkalize Now Weight Loss Program, 12-Week Challenge:

Review Chapter One – Step 1. Drink

Drink Alkaline. When you are on the Alkalize Now Weight Loss Program, 12 Week Challenge, you will be taking the Greens First Wellness Shakes 2 times per day, for Breakfast and Lunch. Review How To Take The Wellness Shake For Weight Loss on Page 91.

Review Chapter Two - Step 2. Eat

Eat Alkaline. Review the Acid/Alkaline Food Charts, Meal Selection Guidelines and other information in this chapter. Your goal is to eat 80% alkaline foods and no more than 20% acid foods for maximum benefit.

Review Chapter Three – Step 3. Move –

Whole Body Vibration & Weight Bearing Exercise

This chapter has various exercise suggestions and guidelines as well as a simple walking program to get you moving!

Review Chapter Four – Healthy Lifestyle Choices

In this chapter, you will find tips and guidelines to improve your overall health and help you with permanent weight loss.

Now-The Next Step Is Measure

In this chapter, take your measurements, record your personal information in the charts provided and set your personal goals!

Most people find that if they are consistent and follow the plan that is outlines, they will achieve amazing results in a short period of time.

After 12 weeks, evaluate your progress and then decide if you wish to continue your success and lose additional weight. If you wish to continue, you can proceed on this same program for an additional weeks until you reach your weight loss goals.



measure.

STEP 4



STEP 4—MEASURE & SET GOALS

Take the following Measurements & Set Your Personal Goals.

1) Take a “Before” Photograph

The most important thing to do before starting the program is to take a “Before” photo. The Before photo becomes a motivator to continue the program later. Continue to take photographs every 12 weeks until you reach your Goal Weight. *(Tape photos to Pages 87-90).*

2) Set a Realistic Goal Weight

Set a realistic goal weight that you wish to reach within 12 weeks. If you continue another 12 week program, continue to set goals until your desired weight is attained.

3) Set a Daily Calorie Limit to Reach Goal Weight

Men: Ideal Weight _____ x 5.5 + 900 calories = Your Caloric Limit Per Day

Women: Ideal Weight _____ x 4.0 + 850 calories = Your Caloric Limit Per Day

To know how many calories you’re eating per day you can use a calorie counter & record it! Monitor everything you eat. Never consume less than 1200 calories per day.

4) Weekly Weight Measurements

Because weight fluctuates naturally, weigh yourself only once a week. Instead of focusing on scale weight, look for other indications of success like the way clothes fit and the inches lost. Scale weight is not always the best way to measure success. If a person is exercising regularly and building muscle they may gain weight because muscle weighs more than fat. *[See Personal Measurement Chart on Page 12]*

5) Bi-Weekly Body Circumference Measurements

Take nine (9) different body measurements and add them all together for “total” inches. The nine measurements are neck, chest, right arm, left arm, rib cage, waist, buttocks, right thigh and left thigh. When taking the measurements, make sure the tape is flat against the skin. Record the measurements and measure all areas weekly, at the same time each day, preferably early morning. *[See Personal Measurement Chart on Page 12]*

6) Bi-Weekly Body Fat Percentage Measurements

Use inexpensive plastic skin calipers to measure folds of skin and fat in several spots on the body. Although not as precise as complex professional systems, calipers are easy to use and usually cost less than \$20.00, including complete instructions.

[See Page 13]

PERSONAL MEASUREMENT CHART

Your Realistic Goal Weight: _____ lbs.

| | |
|-----------------------------------|-----------|
| Start of 12-Week Challenge | |
| Date: | _____ |
| Current Weight | _____ lbs |
| Total Inches: | _____ |
| Waist Measurement: | _____ |
| % of Body Fat | _____ |

| | |
|--|-----------|
| After Completion of 12-Week Challenge | |
| Date: | _____ |
| Current Weight | _____ lbs |
| Total Inches: | _____ |
| Waist Measurement: | _____ |
| % of Body Fat | _____ |

| Measurement | Start | 2 Wks | 4 Wks | 6 Wks | 12 Wks | 6 Mos | 12 Mos |
|--|-------|-------|-------|-------|--------|-------|--------|
| Date | | | | | | | |
| My Weight | | | | | | | |
| Weight Lost | | | | | | | |
| 1) Neck | | | | | | | |
| 2) Chest | | | | | | | |
| 3) Right Arm | | | | | | | |
| 4) Left Arm | | | | | | | |
| 5) Rib Cage | | | | | | | |
| 6) Waist | | | | | | | |
| 7) Buttocks <i>(6" below waist)</i> | | | | | | | |
| 8) Right Thigh | | | | | | | |
| 9) Left Thigh | | | | | | | |
| TOTAL INCHES | | | | | | | |
| INCHES LOST | | | | | | | |
| Body Fat % | | | | | | | |
| Body Fat % Lost | | | | | | | |

Body Fat Measurements

What Is Body Fat Percentage?

Your body fat percentage is a measurement of the percentage of your total body weight that comes from fat tissue. As an example, if you weigh 190 pounds and 57 pounds of that is from fat, your body fat percentage would be 30%. [57 lbs. divided by 190 lbs. = 0.30 or 30%]

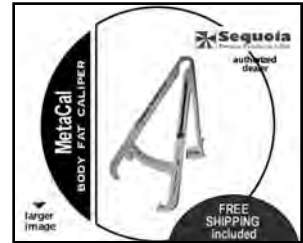


Why Is Body Fat Percentage So Important?

When your body fat percentage is higher than average, you may have a higher risk of weight-related problems which may lead to chronic disease and other health problems.

How Do I Measure Body Fat?

One of the easiest ways for home users to measure body fat percentage is the body fat caliper. This simple device measures folds of skin and fat in several areas of your body. Although it may not be as precise as a professional model in your healthcare provider's office, it is easy and inexpensive to use. So, if your healthcare provider doesn't calculate body fat measurements, then you can check on the internet or your local store to purchase a body fat caliper and conduct the test yourself. They are generally under \$20 and come with complete instructions.



Weight Loss & Body Fat Percentage

When you are losing weight, you are also losing body fat. You may also lose some muscle as well, so you want to make certain you are exercising as part of your overall **Greens First® Weight Loss to Wellness 12-Week Challenge**. You want to ensure that as you lose weight, you are losing mostly fat and not muscle.

| BODY FAT CHART FOR WOMEN AND MEN | | |
|----------------------------------|---------------|---------------|
| BODY TYPE | WOMEN | MEN |
| Obese | 35% or more | 25 % or more |
| Over-Fat | 29-35% | 20-25% |
| Above Average | 25-29% | 18-20% |
| Normal | 22-25% | 15-18% |
| Lean | 17-22% | 10-15% |
| Athletic | Less than 17% | Less than 10% |

MY MEASUREMENTS & PHOTOS

STARTING THE PROGRAM—MY “BEFORE” PHOTO

Main Measurements

Start Date _____

Starting Weight _____

Waist (inches) _____

Hips (inches) _____

Buttocks (inches) _____

Thighs (inches) _____



PLACE
YOUR PHOTO
HERE

MY MEASUREMENTS & PHOTOS

MY 12-WEEK PROGRESS

Main Measurements

Start Date _____


Starting Weight _____

Waist (inches) _____

Hips (inches) _____

Buttocks (inches) _____

Thighs (inches) _____



PLACE
YOUR PHOTO
HERE

MY MEASUREMENTS & PHOTOS

MY 6 MONTH PROGRESS

Main Measurements

Start Date _____


Starting Weight _____

Waist (inches) _____

Hips (inches) _____

Buttocks (inches) _____

Thighs (inches) _____



PLACE
YOUR PHOTO
HERE

MY MEASUREMENTS & PHOTOS

MY 12 MONTH PROGRESS

Main Measurements

Start Date _____


Starting Weight _____

Waist (inches) _____

Hips (inches) _____

Buttocks (inches) _____

Thighs (inches) _____



PLACE
YOUR PHOTO
HERE

HOW TO TAKE THE WELLNESS SHAKE FOR WEIGHT LOSS

Drink A Wellness Shake For Breakfast & Lunch

Make it YOUR WAY by mixing & matching the products. The delicious tasting **Greens First Wellness Shake**® is created by adding one scoop of **Greens First**® (Original or Berry) and one scoop of **Greens First Boost**® (either Chocolate or Vanilla) together in the same shaker cup with 8-10 ounces of cold, pure water. Alkalize & nourish your body in one easy step!

Remember-Smoothie Recipes can add fresh fruit & fun to your shake!

- **Add 8-10 ounces of pure, cold water to the shaker cup.**
- **Add one scoop of Greens First® (Original or Berry)**
- **Add one scoop Greens First Boost® (either Vanilla or Chocolate)**
- **Shake well, drink & enjoy!**
- **Drink 6 oz. of water after each Greens First Wellness Shake® for best results.**

General Guidelines

- **Take the Wellness Shake first thing in the morning within 30 minutes upon arising.**
- **Take the shake before consuming coffee.**
- **Have fresh fruit or veggies as a healthy snack at 10:00 am.**
- **Have another Wellness Shake at noon.**
- **Consume a healthy snack at 3:00 pm.**
- **Eat a low fat, healthy dinner at 6:00pm**
- **Try not to eat any other food after 6:00-7:00 pm**

**Note: Do not use as a replacement for more than 2 meals or consume less than 1200 calories per day. Always consult with your healthcare provider before starting any weight loss program.*



Questions and Answers

1. What's the plan if I want to lose weight?

Consume the Greens First Wellness Shake 2 times per day.

Take one shake for breakfast and one for lunch with healthy snacks in between. Have a sensible, low fat dinner. The **Greens First Wellness Shake**® is made by mixing 1 scoop of **Greens First**® (Original or Berry) & 1 scoop of **Greens First Boost**® (either Vanilla or Chocolate) together in 8-10 oz of cold water. It is best taken within 30 minutes upon arising. Take a look at the delicious Smoothie Recipes to add creative, healthy ingredients to your shake!

2. What's the plan once I've reached my weight loss goal?

Consume Greens First Wellness Shake in the Morning.

Continue to take the **Greens First Wellness Shake**® which is 1 scoop of **Greens First**® (Original or Berry) & 1 scoop of **Greens First Boost**® (either Vanilla or Chocolate) mixed together in 8-10 oz of cold water, first thing in the morning within 30 minutes upon arising. Remember to drink 6 ounces of pure water after every Wellness Shake to activate the natural ingredients and produce the best results.

3. What should I do if I get hungry within 2 hours of taking a shake?

Remember—Drink 6 ounces of water after you finish drinking the entire Greens First Wellness Shake. As you consume the shakes on a regular basis, you will notice that your feeling of “fullness” will increase dramatically, especially during the first 7 days of the program. You can also have a low calorie natural food snack such as a piece of fruit or veggies in between the shakes. Also, to make the shake more filling, add a banana or other fruit suggested in our Smoothie Recipe Section. (See Pages 31-34.)

4. Can you suggest a good snack to eat during the day in between the shakes?

Organic raw vegetables such as celery, cucumbers, carrots, snow peas, etc. are a great snack in between your shakes. Also fresh organic fruit such as apples, pears, oranges, melons and grapes are wonderful. Watch out for power bars as they generally contain fat and loads of calories! A handful of raw, organic mixed nuts (with NO salt) are also a good snack.

5. Is there a solution to control my “evening cravings”?

If the evening cravings sneak up on you, you can drink another shake as a late evening snack. As you go through the program, your cravings will tend to gradually decrease. Remember to drink at least 8 to 10 glasses per day of pure water along with the shakes.

Eat Healthy, Decrease Calories

In any weight loss effort, we support decreasing your calories as outlined by the *International Journal of Obesity*, October 2001. This report indicates that the best way to successfully lose weight is to follow a low-calorie eating regime that includes fruits, vegetables, fiber-rich foods, whole grains and unsaturated fats, such as canola or olive oil.

First, determine what your Ideal Weight would be and then calculate your caloric limit per day. See the formula below:



Calculate Calories to Lose Weight

Set a Daily Calorie Limit to Reach Your Goal Weight

Men

Ideal Weight _____ X 5.5 + 900 calories = Your Caloric Limit Per Day

Women

Ideal Weight _____ X 4.0 + 850 calories = Your Caloric Limit Per Day

To know how many calories you're eating per day you can use a calorie counter and record it! Monitor everything you eat. To make it easy write it down in the 90 Day Food & Exercise Diary and choose delicious & healthy meals from the Healthy Living Cook Book found on your healthcare provider's GreensFirst.com website.

Never consume less than 1200 calories per day.

Always check with your health care provider before starting any weight loss program.

TIPS FOR WEIGHT LOSS SUCCESS

TIP #1: Curb Your Hunger

One of the most frequently-asked questions of any weight management program is “How do I curb my hunger?” Here are a few tips that can help:

- **Have healthy snacks nearby:** Go through all of your cupboards and the desk drawers at work. Throw away all the junk food and replace it with healthy snacks that you can easily grab. One of the biggest culprits for psychological cravings is falling blood sugar levels. If you keep your levels steady, you simply won't crave the same things. The easiest way to combat cravings is to avoid them in the first place
- **Drink water.** Dehydration confuses the body and will often make it feel hungry, especially if it's cool out. A small glass of water each hour will keep your stomach full and keep you hydrated.
- **Wait.** Real cravings stay with you but psychological ones don't. If you've eaten enough and are hydrated, putting off a decision for 15 to 20 minutes will help the craving dissipate.
- **Distract yourself.** Along the same lines, if you start doing something else the feeling of hunger will usually pass. If you've been working in front of a computer but feel the need to eat, do something else. Get up, walk around or make a phone call—changing your mindset might be all you need.
- **Exercise.** If you start to exercise and your cravings aren't physiological, you'll feel better almost instantly. If they are physical, you'll never be able to really get into your workout, which is a sign that you need to eat.
- **Challenge your craving.** Some people like to attack things head on, and prefer to tell their cravings “Go ahead and take your best shot. I don't need food and I'm not eating!”
- **Keep healthy snacks around.** Sometimes you just can't take it, especially if you're on a restricted-calorie diet. Keeping healthy snacks around will help. Have a piece of fruit or some raw veggies. If that doesn't help, you'll know your craving is psychological.
- **Change your routine.** Habit can affect a craving, so shake up what you do, even if it's just slightly. Turn off the lights in your kitchen and try not to use that room. Change the lighting of your house, move your desk, sit differently, get up every so often and stretch, or drink water—do anything different. Forcing simple changes can make it easier to follow through with tougher ones.



“What if I Hit a Plateau in Losing Weight?”

TIP #2: 6 Plateau-Busting Steps

Hitting a weight loss plateau is a common experience for most people who are on a weight loss program. It can be one of the most de-motivating things to happen. Thankfully, you CAN overcome that plateau with these simple and specific steps:

1. Start off on the right foot: Take the **Greens First Wellness Shake**® first thing in the morning within 30 minutes upon arising. Simply mix together one scoop of **Greens First**® (or Greens First Berry) and 1 scoop of **Greens First Boost**® (either Vanilla or Chocolate) to give yourself a healthy boost of energy in the morning. Alkalize & nourish your body in one easy step!

Also, you can choose a great power breakfast by whipping up one of the delicious **Smoothie Recipes outlined on Pages 64-68**.

Not only will you get the nutrients you need to start the day, your stomach will feel satisfied. Eating breakfast actually kick starts your metabolism so that you burn more calories and have more energy throughout the day!

2. Be careful of the little things: It's easy to lapse into complacency over time so again, we suggest that you keep a food diary. Writing down what you eat each day can help you to spot those times when you might be taking in more food than you realize. A little snack here and there can (and will) add up to a lot of extra calories.

3. Sometime, it's not the food per se that is the cause of the plateau. For example, work or family stress may be the culprit instead. Stress can make you want to dig into that tub of chocolate ice cream. If you are feeling stressed, it's important to acknowledge it right now, and go find some relief other than reaching out for more (typically unhealthy) food. Go take a walk, listen to music or play with your dog or cat instead!

4. Eat more often: Instead of eating 3 big regular meals each day, opt to have 5 smaller meals. Have a **Greens First Wellness Shake**® [Mix together one scoop of **Greens First**® (or Greens First Berry) and one scoop of **Greens First Boost**® (either Vanilla or Chocolate) together in 8-10 oz of cold water] for breakfast at 7:00AM, a healthy snack at 10:00AM, another Wellness Shake for lunch, a healthy snack at 3:00PM and a sensible, low fat dinner at 6:00 PM. After you eat, your body releases the hormone insulin, which causes your body to store fat. The larger the meal, the more insulin your body releases. Smaller, more frequent meals keep insulin levels lower and more stable. The less insulin you have in your blood, the more body fat you'll burn, and the less you'll store.

5. Try water first: If you're feeling “hungry,” try drinking a glass of water first before you go grab something to munch on. Sometimes we confuse thirst for hunger, and end up eating more food unnecessarily.

6. Avoid snacks at night: After you've had your dinner, do not snack. And never, ever eat just before you go to bed. Take it from Oprah—she says that one of the secrets to her successful weight loss is that she does not eat anything after 7:30pm—not even a grape! (If you just can't make it, take another **Greens First Wellness Shake**®. It's so good for you and will curb your cravings!)

8 KEY CONCEPTS FOR SUCCESSFUL WEIGHT LOSS



1. Learn to Read Labels

If you want to lose weight, it is essential to pay attention to food labels. Counting calories is impossible without this skill. You should know how to find a food's caloric and fat content and its serving size. Comparing labels among different foods and beverages is crucial for making the healthier choices required to lose weight.

2. Snack Smart

You can help prevent overeating and maintain blood sugar levels by eating healthy snacks in between the **Greens First Meal**®. Getting too hungry will sabotage your efforts to eat healthy and practice portion control. Aim for a healthful, satisfying snack, such as an apple, celery or low fat cheese or a handful of nuts. Eating more may seem counterintuitive, but smart snacking will help you lose weight.



3. Eat More Grains and Produce

Whole grains, fruits & veggies do more than provide nutrients that improve your health and reduce disease-risk; they can also help you lose weight. They're naturally low in calories, so you can eat more of them and have less room in your diet for less-than-healthy foods. Plus, the fiber in whole grain foods and produce will help you feel fuller longer (which helps you control portions and avoid overeating) and as a result, lose weight.



4. Drink Plenty of Water

Water helps you lose weight in several ways: If you tend to have a problem with "water weight," drinking more water can help alleviate bloating. Replacing high-calorie drinks (like soda) with water cuts hundreds of calories. You shouldn't wait until you're feeling thirsty to drink water; thirst can be mistaken for hunger, causing you to overeat. Proper hydration improves your sense of well-being, which will keep up your motivation to lose weight.



5. Get Moving

It is easier to lose weight and keep it off when you move your body. Enjoy getting out in nature by taking a brisk walk or riding a bike. Work your way up from 10 minutes to 30-40 minutes a day, most days a week, and you could reap health benefits and weight loss results in a matter of weeks. Plus, exercise boosts your metabolism, making it even easier to lose weight. . Review Chapter 3. Step 3, Move for other exercise guidelines.

6. Practice Portion Control

Measuring food may seem like a chore—but it will prove invaluable in your efforts to lose weight. Start out by comparing a measured standard serving of foods to your typical helping. You may find you usually consume two or even three times the recommended serving. In time you will reprogram your brain to eyeball portion sizes, a key skill for losing weight.



7. Write it Down

What's the first thing you should do if you want to lose weight? Keep a food diary! All you have to do is jot down what, when, and how much you eat in a notebook like **The 90 Day Food & Exercise Diary** which can be found at your healthcare provider's office or on their GreensFirst.com website. The simple, user-friendly design makes it easy to keep track of your progress. The **90 Day Food & Exercise Diary** is your personal record book for 12 weeks, giving you a clear picture of your current eating habits so you can identify the changes you need to make to lose weight. It's helpful and it's friendly. And most importantly, it keeps you motivated and committed to becoming a healthier you!



8. Use Low Fat Cooking Methods

The way you cook is as important as what you cook. Easy-to-follow guidelines can be found in the **Healthy Living Cook Book: Favorite Recipes for a Healthier Way of Life** found at your healthcare provider's office or their GreensFirst.com website. This Cook Book provides a variety of flavorful recipes that are low in sodium and processed sugar as well as quick and easy to prepare to lose weight and stay in shape!

CONCLUSION

AN ALKALINE LIFESTYLE—A LIFETIME WELLNESS SOLUTION

The information in this book encourages you to adopt an alkaline lifestyle and behaviors that promote better healing, stronger bones, healthy weight loss and enhance the quality of your life.

I also believe, that wellness is a positive approach to living - an approach that emphasizes the whole person. It is the integration of the body, mind, and spirit; and the appreciation that everything you do, think, feel, and believe has an impact on your state of health.

As you follow these simple lifestyle guidelines, you'll also realize how wonderful it is to be able to increase your energy, enjoy a more restful night's sleep, have less body fat, fewer aches & pains while you gain a renewed sense of vitality and overall sense of well-being.

This book has come to an end, but hopefully, it's just a new beginning for you. I hope you continue your journey to better health long after the last words of this book have been read.

~ Good Luck and Good Health To You! ~

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