Remove Heavy Metals from Body

Introduction

Fulvic (not to be confused with folic acid) is rapidly being recognized as one of the key elements in many outstanding health and scientific breakthroughs of the 21st century. Although it's healing benefits have been known and used for centuries in some parts of the world, modern scientists and doctors are just starting to recognize it's extraordinary potential. Fulvic has always occurred naturally in organic plants and soils, but is only recently being used by those who understand it's amazing benefits.

Fulvic can balance and energize the cell life and biological properties it comes into contact with. If the individual cell is restored to its normal chemical balance and electrical potential, we have given cells life where death and disintegration would normally occur. Researchers have known for years that at least 90 nutrients are needed to maintain optimum health. These nutrients include a minimum of 59 minerals, 16 vitamins, 12 amino acids and 3 essential fatty acids. But eating good tasting food and swallowing a lot of vitamin pills does not guarantee absorption or utilization of these vital nutrients. When the body does not absorb nutrients from food or supplements, the door is open for disease.

Scientists have found that Fulvic is the element that makes nutrients absorbable, resulting in a dramatic impact on all kinds of diseases and health problems that afflict us today. They call it the elixir of life and the

Fulvic - The Miracle Molecule

"If I had to chose between the liquid mineral and electricity, electricity would have to go."

Dr. Clyde Sandgrin

Fulvic is called Nature's Miracle Molecule because it does so many things ... it wears so many hats. Benefit claims are a little short of astonishing. For internal use they are:

- Increased energy
- ·It's a ferocious antioxidant and free radical scavenger
- •Chelates heavy metals and body toxins, removing them from the system
- ·Makes cell walls more permeable and transports nutrients into the cells
- •Extends the time nutrients remain active increasing the availability of essential nutrients
- •Increases metabolism of proteins, contributing to DNA and RNA synthesis
- ·It's a powerful natural electrolyte
- ·Restores electrochemical balance
- ·Increases activity of enzyme systems
- ·Helps rebuild and stimulate the immune system
- ·Increases bioavailability of nutrients
- ·Dissolves and complexes minerals in the soil making them bio-available
- •Prepares nutrients to inter-react with each other
- ·Increases absorption of oxygen and decreases acidity
- ·It has antibiotic properties

Reported beneficial claims for external use:

- · Treating open wounds, cuts and abrasions
- · Healing burns with minimum pain or scarring
- · Killing pathogens responsible for athletes foot
- Acting as a wide spectrum anti-microbial and fungicide
- · Treating rashes, skin irritations, insect and spider bites
- · Neutralizing poison ivy and poison oak

The agricultural benefits of Fulvic have enormous potential to heal soils of the world and neutralize radioactive and toxic wastes. It also decreases the need for antibiotic use in feed lot animals and birds, increasing healthy growth.

Fulvic Origin and Overview

In the Beginning

In the beginning the earth was blessed with optimum organic growing conditions. The rich humus soil was teaming with millions of beneficial microbes that created Fulvic. The vegetation was lush and abundant, which is evidenced by ancient remains that geologists call humic deposits.

Many people don't realize that plants cannot uptake undissolved minerals directly from the soil. The molecules are too large to use. In Mother Nature's original plan, the beneficial microbes working at the roots of plants and trees create what we call Fulvic to dissolve the large mineral molecules. The Fulvic then assists the plants in up-taking this dissolved mineral rich substance. With the help of Fulvic, minerals in the soil and a little sunshine, these healthy plants are able to manufacture vitamins. The excess Fulvic that wasn't used by the plants washed down into the drinking water, giving an extra dose of Fulvic, dissolved minerals and vitamins to all who enjoyed it. A healthy life was sustained for these ancient civilizations because their water was rich in Fulvic and dissolved complexed minerals, and their fruits and vegetables were nutrient rich.

And all was well with Mother Nature's plan, until Man discovered that NPK would force the quantity and size of food crops. Unfortunately, like pesticides and chemicals, NPK also kills the microbes in the soil that manufacture Fulvic. The downside of throwing off the natural balance of minerals was ignored, and raising healthy plants took a backseat to raising big, beautiful "looking" and profitable crops. Without the protection and nourishment of Fulvic, diseases attack the plants ... which necessitates the use of chemical pesticides that further destroy any beneficial microbes that may have be lingering.

Because of this revolving cycle of chemical use in today's farming, most diets don't provide the amount of Fulvic needed to sustain health. Without Fulvic, plants, animals nor people are able to assimilate minerals, vitamins or other nutrients, leading to the epidemic of disease that modern man experiences.

The Benefits of Fulvic in Today's World

Complexed Fulvic Minerals are not Toxic Heavy Metals

Cells have the ability to accept or reject minerals, including aluminum, lead, arsenic, mercury, etc., at their discretion when presented as organic, dissolved and complexed substances. When metals, minerals and trace elements become complexed into Fulvic, they take on an entirely new property of availability, unlike their original form. Many organic minerals are not used to "nourish" cells, but instead, are needed to act as electrodes in the fulvic electrolyte solution. In that capacity they are most essential for bio-reactions, electron transfer, catalytic reactions and transmutations. Without them you may be missing many of the bio-reactions they enable. Vital-Earth's Fulvic Mineral Complex contains 68 to 74 complexed minerals in trace amounts, and should not be confused with metallic minerals. Fulvic Mineral Complex has a balanced pH on the alkaline side, ranging from 7.0 to 7.8.

Fulvic has the ability to complex and remove toxic metals and other toxins from the body. Fulvic mineral solutions have been ingested by people since the beginning of mankind, yet have never been shown to cause toxic mineral build up in humans or animals because they are organic.

to signate.

account for the health problems that are causing concern today in our "Fulvic starved" society.

Outstanding Chelator

Because of Fulvic's low molecular weight, it has the ability to readily dissolve and bond minerals and nutritional elements into its molecular structure. Nutrients that have been chelated by Fulvic are in an ideal natural form to interact with and be absorbed by living cells. Fulvic is so powerful that one Fulvic molecule is capable of carrying 60 or more minerals and trace elements into the cells.

Supercharged Electrolyte, Ferocious Free Radical Scavenger and Antioxidant

It has been said that cellular electrical energy is the life force of the body. Cells disintegrate and die when electrical energy is reduced. It is believed that electrical and chemical balances within the cell can be created and controlled by electrolytes ... the body's mini battery changers

Scientists tell us Fulvic is one of the most powerful natural electrolytes known to man. The supercharged Fulvic molecules balance cellular life ... restoring the electrical potential that was once normal to the cell by charging, regenerating, regulating and delivering their living energies to the living cells

Fulvic maintains the ideal environment for dissolved mineral complexes, elements and cells to bio-react electrically with one another causing electron transfer, catalytic reactions and transmutations into new minerals. It helps with human enzyme production, hormone structures, and is necessary for the utilization of vitamins. It has been found necessary for metabolic processes.

It is also one of the most powerful natural antioxidants and free radical scavengers known. It has the unique ability to react with both negatively and positively charged unpaired electrons and render free radicals harmless. It can either alter them into new useable compounds or eliminate them as waste. Fulvic can similarly scavenge heavy metals and detoxify pollutants.

Fulvic Mineral Complexes are Better than True Colloidal Minerals

True colloidal minerals by themselves are not readily useable by cells. It is the Fulvic in conjunction with minerals that makes them effective. Many colloidal minerals on the market contain a small amount of Fulvic, which is responsible for any results they may produce. Vital-Earth's Fulvic Mineral Complex is 100% Fulvic in solution that contains 68 to 74 naturally occurring, plant derived minerals and trace elements.

Amino Acids

When properly nourished, individual cells are capable of producing many of their own amino acids, enzymes and other factors necessary for all metabolic processes. Each cell burns its own energy, maintains itself, manufactures its own enzymes, creates its own proteins and duplicates itself. It is essential to understand that the total metabolism of the body is the sum of the metabolic operations carried on in each individual cell. Humans can produce all but eight amino acids within their cells. Fulvic Mineral Complex promotes the natural production of amino acids within the body.

Growth and Maintenance Nutrients

Scientists have identified at least 90 growth and maintenance nutrients which must be continuously supplied to sustain life. If we fail to supply adequate Fulvic nutrients, the cell will experience a breakdown. When the breakdown is substantial we have the onset of disease.

Modern Farming Destroys Fulvic

Gone are the Minerals

In the beginning, our naturally fertile soils contained adequate amounts of humic and Fulvic produced by microbes within the soil. They delivered nutrients and minerals to the plants.

Largely, modern agriculture has one goal – to product an abundance of attractive, saleable products. Since the farmer is paid by the bushel, yield is more important than nutritional content. To control the diseases that are a by-product of sick soil and forced yield, excessive amounts of nitrate fertilizers are applied to the soil ... a practice that stunts and destroys the vital microorganisms that are essential in creating the Fulvic that converts minerals to plant nutrients.

Sick Soils = Sick Plants = Sick People

When microbes are depleted from the soils, inorganic minerals cannot be converted into the organic minerals needed by plants.

Excessive use of nitrate fertilizer inhibits the formation of normal plant proteins and stimulates an over-abundance of unused amino acids that attracts insects. Since pests were created to eat diseased plants, sicker and sicker farm crops increase the food supplies for insects, leading to increased infestation. The farmer's reaction is to apply more pesticides and fungicides to save his infested crop. This in turn inhibits or destroys even more vital microorganisms that are essential in converting minerals to plant nutrients.

As a nation of consumers eating this inadequate food, we are creating widespread mineral and vitamin deficiencies. Your body has little

As a reduit of consumers eating this inadequate rood, we are creating widespread inherial and vitanining denomines. Four body has little chance of maintaining good health year after year if it is consistently deprived of the tools it needs for proper function and to keep itself well.

Although it seems that many diseases appear suddenly, the sad truth is they are the result of years of deficiency that could have easily been reversed through proper nutrition and supplying adequate Fulvic. Disease starts at a cellular level long before any serious symptoms appear.

The Vitamin Connection

Increased dosages of vitamins and minerals to treat many human and animal ailments have been advocated by leading researchers for decades. However, it is crucial to remember that vitamins cannot complete their function in the cell's metabolism without the presence of the appropriate and specific mineral co-factors and Fulvic. Therefore it is crucial that all the vitamins, all the minerals and Fulvic are provided in a base line supplement in order to receive consistent, significant results. Additional individual supplements can be added as needed.

Cell Wall Permeability and Absorption

One of the strongest advantages of Vital-Earth's Fulvic Mineral Complex is its liquid form. Absorption of a liquid greatly exceeds traditional tablet or capsule supplements, because absorption starts in the mouth. Sensors in the mouth determine what digestive enzymes are needed to process the food or liquid being consumed. By the time that substance travels down the esophagus and reaches the stomach, digestion, absorption and utilization are well underway. As with any nutrient or supplement, the only way your body can benefit is if it is absorbed. Fulvic enhances this process with all foods, herbs, and supplements.

Fulvic makes elemental minerals and vitamins more absorbable by complexing them (refines, purifies, combines and re-refines) into organic, ionic forms that are easily transported into and through membranes and cell walls. Once the nutrients meld into the Fulvic complex, they become bioactive and bio-available.

Free Radicals

Free-radicals are highly reactive molecules or fragments of molecules that contain one or more unpaired electrons. They circulate through the body causing great damage as they bond to and injure tissue. In addition to destroying tissue, they magnify the probability that injured cells will become susceptible to a great number of infections and diseases ... or mutate and cause cancer.

If a healthy body is your goal, then you must take action to protect yourself against free-radical attacks. Dramatic increases of freeradicals in our air, food and water in recent years have put a tremendous strain on the body's natural defense mechanisms. Our first line of defense against free-radicals is a generous supply of free-radical scavengers, called antioxidants. Fulvic is the most powerful and versatile anti oxidant known to science

According to Chen Y Sesei and M Schnitzer, Fulvic has the ability to dramatically reduce the oxidative effects of free-radicals. This means Fulvic could potentially help your body ward off disorders such as cancer, premature aging, wrinkling of the skin and arthritis ... all of which are thought to be hastened by oxidation.

There are three identified categories of free-radicals, and numerous identified free-radical scavengers. Each one of the free-radical scavengers eradicate a different category of free-radicals. Without Fulvic, its very complicated to get the correct free radical scavenger in the correct amount.

Fulvic- the Super Antioxidant

For an antioxidant to bind to a free-radical, the antioxidant molecule must have unpaired electrons of equal and opposite charge to that of the unpaired electrons of the free radical.

The beauty of Fulvic is that it is a bi-directional super antioxidant that carries both a negative and a positive charge. It can act as an acceptor or a donor in the creation of electrochemical balance. If it encounters free-radicals with unpaired positive electrons, it supplies an equal and opposite negative charge to neutralize the bad effects of the free radicals. Likewise, if the free-radicals carry a negative charge, the Fulvic molecule can supply positive unpaired electrons to nullify that charge. Fulvic is such a powerful, natural electrolyte that it can eradicate any form of free radical.

In Summary

Fulvic consists of an immense arsenal and array of powerful phytochemicals, biochemicals, supercharged antioxidants, free-radical scavengers, super oxide dismutases, nutrients, enzymes, hormones, amino acids, antibiotics, antivirals and antifungals. Fulvic is a bio-available chelated molecule that can also chelate. As a refiner and transporter of organic minerals and other cell nutrients, it has the ability to turn bad guys into good guys by chelating and humanizing free-radicals. Depending on the chemical makeup of the free-radical, they can be incorporated into and become a part of life sustaining bio-available nutrients. In the event that the chemical makeup of the free radical is of no particular benefit, it is chelated, mobilized and carried out of the body as a waste product. Many of the substances that make up humic matter have yet to be discovered and catalogued among the known and documented organic chemicals. We are beginning to realize that what we know about Fulvic is just the tip of the iceberg. Now you can see why Fulvic produces such amazing health benefits for the consumers taking it.

Today's Epidemics of Disease

Headlines from Johns Hopkins, Reuters, the Associated Press and other medical news services continually discuss concern over the widespread and rapid increase of incurable infectious diseases, degenerative diseases, autoimmune and mental disorders. The incidence of heart disease, cancer, diabetes, arthritis, osteoporosis, multiple sclerosis, Parkinson's disease, asthma, AIDS and a host of other illnesses are reported to be advancing in epidemic proportions.

Medical research from scientists, doctors and pharmacologists from around the world are showing that the humic extract, Fulvic, can prevent, treat and sometimes even reverse many diseases that are thought to be incurable.

Autoimmune Disorders

Autoimmune Disorders is a catch-all phrase that includes a number of diseases such as Graves Disease, Lupus, MS, Parkinson's Disease, Fibromyalgia, Alzheimer's and rheumatoid arthritis. It is believed that the body attacks its own tissues and organs. Nutritionally oriented researchers feel the root cause is a virus.

In a recent issue of Annals of Rheumatic Diseases, doctors found that people with some autoimmune disorders have lower levels of common antioxidants in the blood. It is speculated that the naturally occurring antioxidants in these cases are being used to mop up damaging free radicals.

It is not clear whether the lower levels of antioxidants are the result of decreased intake, low absorption, or inadequate transport. An adequate supply of Fulvic would solve all of these conditions. Fulvic, when administered both topically and orally is proven to regulate the immune system and to work as potent antioxidants and anti-inflammatory agents. Serious diseases are sometimes 20 or 30 years in the making and may require lengthy and consistent treatment of this miracle molecule, as well as dietary changes, before a complete recovery is seen. However, it is important to remember that any disease can progress to a point-of-no-return where so much damage has been done to organs and cells that the condition cannot be reversed.

Thyroid Epidemic

A study by Dr. E. Chester Ridgeway, the University of Colorado's chief endocrinologist, says that an estimated 13 million Americans may have undiagnosed thyroid problems. He states that even mild thyroid problems may cause serious consequences. Pregnant women with thyroid problems are in jeopardy of having children with lower IQ's.

In many cases, natural therapies can prevent, treat and even reverse thyroid disease, including hypothyroidism, hyperthyroidism, Graves Disease and Wilson's Syndrome.

Symptoms of low thyroid could include; serious mental problems, depression, anxiety, seizures, ADD and ADHD, poor concentration, mental confusion, memory loss, cold hands and feet, low energy, difficult weight loss, migraine headaches, acne, low blood sugar, high cholesterol, heart disease, cancer, arthritis, diabetes, lung cancer, susceptibility to infections due to low immunity, and female problems. Thyroid malfunction is generally due to buildup of dangerous toxins, chlorinated substances, viruses, pathogens, infections, pesticides, altered enzymes or hormones in the tissues of the thyroid gland. A prime objective for anyone with a thyroid problem is to eliminate intake of all toxins, while removing toxic buildup within the body.

Fulvic is one of the safest and most powerful antiviral substances known. It could be called nature's antibiotic. But unlike chemical antibiotics, Fulvic may be used indefinitely without creating antibiotic resistance strains of disease.

Diabetes and Fulvic

Dr. Paul Zimmet of the International Diabetes Institute and the World Health Organization reported that the prevalence of diabetes is expected to double or even triple by the year 2010.

Most medical doctors and diabetes associations do not know that scientists in remote parts of the world are making significant inroads into the treatment and prevention of diabetes mellitus with Fulvic extracts and herbs. Dr. Bhattacharya from the Institute of Medical Sciences at Banaras Hindu University in India recognized that Fulvics produced significant success in preventing and combating free radical damage to pancreatic islet B cells, which is the widely accepted cause for diabetes mellitus. Dr. Bhattacharya's clinical studies showed that Fulvic diminished the development and progression of diabetes, and assisted in the treatment. Studies showed that patients became more energetic and the tingling, painful feeling and numbness in nerve endings disappeared.

Tuberculosis Solutions

An obscure and highly technical U.S. Government report shows that there is a direct correlation between natural soil substances (humic and fulvic) and the absence of tuberculosis in humans. This report and many other studies reveal that Fulvic contains a powerful spectrum of natural micronutrients, phytochemicals, anti-viral and antibiotic-like agents that directly inhibit and destroy disease pathogens, while fortifying and regulating the immune system, increasing overall health.

A report from the U.S. Department of Interior, Bureau of Mines, shows a direct correlation between coal miners that were exposed to humic substances and their complete absence of tuberculosis.

Canca

Studies show that cancer needs an acid pH to survive. Vital-Earth's Fulvic Mineral Complex falls in a neutral to alkaline range of 7.0 to 7.8 pH. It has also been shown that cancer cells produce their own oxidants that send signals through protein pathways, bombarding surrounding cells uncontrollably with damaging free-radicals. Super antioxidants work to obstruct the signaling protein pathways, neutralizing the spread of cancer.

Fulvic is nature's most powerful antioxidant. Studies throughout the world show that Humic / Fulvic molecules carry both a negative and a positive charge, making them both donor and acceptor free radical scavengers and antioxidants. Although Fulvic taken orally may not reverse an advanced case of cancer, it has the potential of slowing its growth and is a powerful preventative, especially if accompanied by an alkaline forming diet.

HIV / AIDS

One pharmaceutical company has patented a humic based drug that purifies blood for transfusions, killing the HIV virus without damaging blood cells. The humic extract, Fulvic, has proven to be the most effective natural treatment against viruses of all kinds. Studies show that Fulvic is effective against common colds and flu viruses, including respiratory tract viruses, retroviruses, influenza viruses, and herpes simplex viruses.

Weight Loss

One side effect that many overweight people experience after taking Fulvic Mineral Complex on a regular basis is weight normalization / loss. Mineral deficient people and animals do not feel satisfied after eating a full meal. They eat larger quantities of food than most people, eat more meals, and snack excessively as their bodies are desperately searching for minerals. When adequate Fulvic Minerals are supplied, cravings diminish or go away, meals are not desired as often and smaller meals become the norm. As a result of these changes that occur naturally, it is common for overweight people to lose from 15 to 30 pounds in their first month or two without going on a specific diet. In following months the weight loss is less dramatic but steady. People of normal weight are unaffected.

Ancient Use

The use of Fulvic to treat disease has been documented back to the 15th century Ming Dynasty. In China, Humic and Fulvic was commonly used in hospitals and among the general population for the widespread treatment of diseases.

Since 1978, many medical schools and hospitals in China have engaged in extensive studies on the toxicology and pathological aspects of Humic and Fulvic and their clinical applications. Hundreds of research papers have now been published nationally in China ... some having appeared in international journals. Humic / Fulvic medicines are approved for internal and external use by the Chinese Drug Administration because of their non-toxicity. Hospitals in China reported that elderly patients regained appetite, slept better and became more energetic when given Fulvic on a regular basis.

Fulvic based products are being used in Germany for internal and external use for relief of rheumatism, and gastric disturbances in humans and animals. Studies of patients with gastric and duodenal ulcers showed that 91% improved when treated with Fulvic. Other studies coming from India show that Fulvic is considered to be a powerful anti-aging therapy that also helped with symptoms of dementia.

Longevity and Anti-Aging

There are 5 documented cultures across the world whose people routinely live healthy, disease free lives to the age of 120 to 140. These amazing people have several denominators in common; They all live at a very high elevation; the annual rainfall is less than 2 inches, there is no industry to pollute the air, water or food, only natural fertilizer is used on their crops, their water source is "Glacial Milk", which is high in minerals and Fulvic, and Western allopathic medicine is not available to them.

We cannot duplicate many of the conditions that these remote cultures are blessed with, but we can do a lot to help ourselves by avoiding packaged grocery store foods that contain chemicals, additives, artificial colorings, hydrogenated oils, MSG, carbonation and refined sugar. But perhaps most important of all is to supplement with the Fulvic minerals that these long living, healthy cultures have an abundance of. When the Fulvic intake is adequate, most people report having more natural energy, sleeping better, being able to ward off colds and the flu, and reversing diseases. Many report a natural strengthening of muscles, firming of connective tissue which results in diminished wrinkling of the skin.

User's experience:

It is common for people to report experiencing a wonderful sense of well being after taking Fulvic Mineral Complex consistently over a period of time. Road rage, crankiness, unreasonableness are all replaced with an inner peace and calm, including a more relaxed reaction to life's ups and downs.

We've had reports of previously bickering siblings enjoying playing together harmoniously. One family told us their children liked themselves so much better that they would ask for their "vitamin medicine".

Cranky seniors become more pleasant and cheerful.

Professional people handle the ups and downs of business with clarity of thinking and less stress.

Recreational athletes find more stamina and energy.

Weight loss is a commonly reported benefit of overweight people.

More restful sleep, better memory.

Reversal of many diseases such as Graves Disease, high blood pressure, adult onset diabetes, and stress reduction, just to name a few. Now you can see why scientists call Fulvic Nature's Miracle Molecule

- [1] N. Scenecssi (1990). Analytical Chmiica Acta, 232-75. Amsterdam, The Netherlands Elscvier.
- [2] William R. Jackson (1993) Humic, Fulvid and Microbial Balance: Organic Soil Conditioning, 329. Evergreen Colorado: Jackson Research Center
- [3] M. Schneitzer. Proceedings of the Symposium on Soil Organic Matter Studies, Braunsweig
- [4] M. Schneitzer. Proceedings of the Symposium on Soil Organic Matter Studies, Braunsweig
- [5] Aiken, G.R., McKinght, D.M. \$ MacCarthy, P (1985). Humic Substances of Soil, Sediment and Water. New York: Wiley-Interscience
- [6] Azo, S & Sakai, I. Soil Science and Plant Nutrition (Tokyo)
- [7] Buffle, J (1988) Complexation reactions in aquatic systems: An analytical approach Chichester: Horwood
- [8] Schnitzer, M., & Dodama, H (1977). Reactions of minerals with soil humic substances. In J.B. Dixon & S.B. Weed (Eds.). Minerals in soil environments, Madison WI: Soil Science Society of America
- $\hbox{\cite{thmulum10.99} In Roger J. Williams, (1977). The Wonderful World Within You. Bio-communications Press, Wichita, KS}\\$
- [10] F. Chaboussou (1980). Les Plantes Malades de Pesticides Bases Nouvelles D'unePrevention Contre Maladies et Parasites (Plants made sick by pesticides new basis for the prevention of diseases and pests). Paris
- [11] Rick Aluise, Health and Vitality, Vital-Earth Minerals, Grand Junction, CO
- [12] Bari, Italy Analytica Chimica Acta, Amsterdam, The Netherlands, Elsevier.