

CORAL CALCIUM: BELIEVE THE BENEFITS, NOT THE HYPE

By Andy Bowers

In less than 12 months, coral calcium has gone from being virtually unknown to becoming a household word. Most health food stores are currently offering several brands from a variety of manufacturers. Coral calcium infomercials are saturating television, and at last count there were more than 3,600 Web sites promoting coral.

Why all the attention on one simple product? To answer this, we must first examine the origins of this intriguing supplement.

The U.S. coral calcium market started in 1992 with the introduction of little tea bags filled with coral sand from Okinawa. These bags were an ideal product for multi-level marketers (MLM), who used the legendary old age of the Okinawan people as a sales gimmick at a time when there was a total lack of scientific data on coral calcium. Nevertheless, although only 20 percent of the minerals in the tea bags were consumed in each drink, people swore they experienced miraculous benefits when drinking the coral-treated water.

One person who liked these coral tea bags was Clint DeWitt, founder of Coral Inc. DeWitt experienced such profound relief from using these products that he walked away from managing a thriving health club to begin researching and selling coral calcium. However, he did not embrace the MLM form of business, but instead sold the products to doctors and health food stores.

As DeWitt's business grew, the MLM companies started to complain about his low prices. Eventually, his supplier cut him off, forcing DeWitt to locate his own coral calcium source in Okinawa. As he searched for a new supplier, DeWitt made the logical conclusion that if the small amount of minerals from coral-treated water provided some health benefits, then ingesting all of the coral minerals in an ultra-fine powder would be even better. After securing a direct source, DeWitt jumped back into the coral calcium business with the fresh idea of encapsulating a finely ground coral powder.

DeWitt soon formed Coral Inc. and made selling to health food stores his main objective.

These channels were more willing to carry coral calcium products as demand grew sharply resulting from Coral Inc.'s own promotions, radio infomercials on coral calcium, coral calcium's increasing popularity on the Internet, and the zeal of MLM companies.

With 2002 came a rapidly growing coral calcium market, including the arrival of the first television infomercials on these products. However, the content of these programs was shocking, demonstrating a blatant disregard for the laws and regulations concerning health claims and function statements. These included claims such as "Michael J. Fox could grow a new brain if he would just take coral calcium." Others included similar gross distortions of fact, such as "The AMA's own literature says calcium cures cancer," as well as bold-faced falsehoods like "The coral contains microbes that pull the minerals across the intestinal wall" and "Only the coral from below the sea will provide health benefits."

The first reactions voiced by industry insiders were "How can this be allowed?" and "When is that guy going to get locked up?" Surprisingly, the original infomercial is still running even one year later — a clear indication of the understaffed reality of both the Federal Drug Administration (FDA) and the Federal Trade Commission (FTC).

To the Natural Products Industry, these advertisements represent everything bad that has ever been uttered about it. But, the infomercials worked. People called. They used their credit cards. And the masses that elected not to call the 800 number went to their local health food store asking for coral calcium. By March of 2002, most health food stores were looking to stock their shelves with coral calcium products.

Coral Inc. was the only coral vendor at Natural Products Expo West in March

2002. At the NNFA MarketPlace show in June, the company was joined by one competitor. By the time Expo East took place in October, the number of coral calcium exhibitors exceeded 25 booths.

And yet the infomercials keep coming. Most supplement manufacturers now have at least one coral calcium product — and the market just keeps getting bigger! Why does it keep growing?

The answer is simple: Coral calcium is a unique mineral product that delivers noticeable results to most people within 30 days. Millions of Americans have now tried coral, feel the difference, and want more.

Minerals are one of the most basic foundations of health. Coral naturally contains every mineral needed by the body in the proper proportions. Our foods no longer contain the required minerals due to unsustainable farming practices. And if the minerals are not in our foods, they are not in our bodies.

Naturopathic doctors estimate that more than 150 diseases are linked to mineral deficiencies. However, coral minerals are highly absorbable because they have been previously digested by coral polyps and are in a full-spectrum mineral complex with other needed minerals. These minerals help keep our bodies in an alkaline state, preventing diseases from thriving in an acidic pH environment — the unfortunate result of our modern lifestyles. As a result, naturopathic doctors have recommended coral calcium as the best and safest way to return the body's pH to its natural level.

Coral calcium is a phenomenal product in its own right. Even people who have been taking inorganic minerals for years feel the difference from this new form because of its quality, its unsurpassed trace minerals, and its pH-balancing effects. It does not need to be overhyped with blatant falsehoods and twisted truths. Such claims are bad for this industry despite the fact that they have achieved mass awareness for coral calcium supplements. Fortunately, as the infomercials eventually fade away, what consumers will be left with is a valuable supplement ideal for optimal health.

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Andy Bowers is vice president of Coral Inc.



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Selenium

Selenium functions in the body as an antioxidant. Partnered with other antioxidants, this mineral reduces the risk of cancer and heart disease. One reason Asian women experience reduced risk of breast cancer compared with Americans: selenium content of the Asian diet is four times that of US diets. ⁹

Selenium: Cancer Fighter

A study launched more than a decade ago and ending in early 1996 found that selenium may reduce the incidence of some cancers by nearly half. The results were so dramatic that researchers at Cornell University, Ithaca, New York, ended the research three years early. (*Biomed Environ Sci* 10(2-3):227-234, 1997.)

This study was held in the southeastern US where soil, and vegetables, are often deficient in selenium. Many residents of this part of the country may not get enough selenium in their diets, so they may have an increased need for supplements.

Nevertheless, in this study the people taking selenium, compared to the control group, developed 71 percent fewer prostate cancers, had 67 percent less risk of developing esophageal cancer, 62 percent less risk of colorectal cancer and 46 percent less risk of lung cancer.

How does selenium fight cancer? Well, besides acting as an antioxidant, researchers believe that selenium may destroy early cancer growths by inducing cancerous cells to die in a manner termed "programmed cell death." This effect has been demonstrated in the lab but has not yet been observed by scientists in humans or animals.

Despite these dramatic effects on cancer, selenium's greatest benefit

may be on the cardiovascular system. The mineral prevents the oxidation of LDL, the blood cholesterol linked to heart disease. When LDL oxidizes, it may combine with calcium to form plaque, rigid deposits on the walls of the arteries that can block blood flow and precipitate heart attacks.

Selenium and AIDS

More recent research suggests that selenium may help people infected with the human immunodeficiency virus (HIV, the virus that causes AIDS). Supplements of selenium and vitamin E appear to increase the red and white blood cell counts

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in these people, helping them fight off opportunistic infections. Researchers at the University of Miami School of Medicine believe a relationship exists between selenium deficiency and risk of death in those with AIDS. Healthy levels of selenium in the body may delay progression of AIDS. Damage done to the cardiovascular system of people with HIV may also result from a selenium deficiency.

Anti-cataract Mineral

Other studies show that selenium may reduce the risk of developing eye

problems like cataracts or macular degeneration by protecting the lens of the eye. Macular degeneration, the leading cause of legal blindness in people over age 55, attacks the retina, the light-sensitive membrane connected by the optic nerve to the brain. Researchers have found that individuals with cataracts or macular degeneration often lack antioxidants. The percentage of selenium found in a lens with a cataract is 15 percent less than in a normal eye.

Signs of selenium deficiency include: high cholesterol levels, exhaustion, chronic infections, liver problems, heart disease, cancer or sterility.

Selenium is found in many food sources, including grains and vegetables, brewer's yeast, broccoli, brown rice, seafood, wheat germ and whole grains. But since you cannot know how much selenium is in the soil where your food is grown, it is impossible to measure the amount of selenium in your food.

Too much selenium can cause health problems (like hair loss). So follow the directions on packages of selenium and only take as directed.

You should also be sure to take other antioxidants like vitamins C and E with your selenium. Researchers believe that these nutrients work together in the body to ward off the chronic diseases. ¹⁰

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Magnificent Magnesium

Magnesium's role as a mineral indispensable to good health is incontestable.

Although this nutrient is found in foods like kelp, cashews, avocado, apricots, figs and molasses, many Americans eat too few of these comestibles to receive sufficient magnesium amounts.

Most of the magnesium in your body is concentrated in bones and teeth. But each and every cell of every human body also retains trace amounts of magnesium.

Magnesium produces a host of benefits. As a natural muscle relaxant it controls blood pressure. Since blood vessel walls are composed of muscle tissue, magnesium helps the body maintain a steady and even flow of blood throughout the bloodstream. This action helps the oxygen-transporting coronary arteries keep the heart well-nourished. It can also potentially play a role in controlling the deleterious effects of mitral valve prolapse and congestive heart failure.

Unique Dynamics

Magnesium dynamically impacts other dimensions of cardiovascular health. The regular beating rhythm of the heart is regulated in part by the unique chemistry of magnesium. When a struggling heart attack victim or someone suffering a serious arrhythmia is rolled into a hospital ER, one of the first things done by the medical team is to administer intravenous magnesium sulfate. This can help restore the heart's natural rhythm.

Prescription drugs known as calcium channel blockers block calcium from entering muscle and heart cells, which lessens the workload of the heart and eases high blood pressure. Magnesium has a comparable effect

and some experts in the nutrition field even refer to it as "nature's calcium channel blocker."

Aside from its heart and blood vessel prowess, this workhorse mineral has been cited as an important natural aid in the ongoing management and treatment of migraine headaches.

For instance, a study of more than 80 people who suffered persistent migraines found that those who took magnesium supplements for about 3 months experienced a 40% reduction in their headaches (*Cephalgia* 1996; 16:257-263). "Magnesium, given daily, might help prevent

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migraines," observe Joe Graedon and Teresa Graedon, PhD, in *The People's Pharmacy Guide to Home and Herbal Remedies* (St. Martin's).

Bone Help

Magnesium also plays a crucial part in preserving bone health. According to Susan E. Brown, PhD, "Magnesium stimulates the thyroid's production of calcitonin, a bone preserving hormone... (and) also regulates parathyroid hormone, a bone breakdown force." In her book, *Better Bones, Better Body*, Dr. Brown goes on to say, "Overall, magnesium assures the strength and firmness of the bone and makes the teeth harder, and low magnesium levels have been

correlated with abnormal bone crystal formation."

A lack of magnesium may make you more susceptible to osteoporosis bone weakening that can lead to fractures and disability (*Nut Review* 53.3 (1995): 71-74).

Likewise, magnesium has earned credit for easing the effects of premenstrual syndrome (PMS) and painful menstruation in many women. Michael Murray, ND, in his book *Natural Alternatives to Prozac* (Morrow), points out that "Vitamin B-6 and magnesium are very important in the treatment of PMS. Numerous studies have shown impressive effects when these nutrients are given individually... In a double-blind study with magnesium supplementation, magnesium was shown to dramatically relieve PMS mood changes" (*Obstet Gynecol* 78:177-81, 1991).

Getting Enough

So, do you ingest enough magnesium? Steven Bratman, MD, and David Kroll, PhD, observe in *The Natural Health Bible* (Prima) that "magnesium is one of the few essential nutrients for which deficiencies are fairly common."

While magnesium may reduce your chances of kidney stones, if you suffer serious kidney disease, talk to your health practitioner before taking magnesium. vs

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POTASSIUM: MUCH NEEDED MINERAL

The average human body, at approximately 150 pounds, contains half a pound of potassium. That amounts to roughly 1/300 of body weight. But, although it may sound like an insignificant amount, this potassium is vital to health, to well-being, and even to life itself.

A deficiency in potassium can produce fatigue, weakness, irritability, edema (fluid retention), hypertension, irregular heartbeat—and death.

WHAT IT DOES

Potassium is first of all an electrolyte. That is, it carries electrical messages to the nerves, which in turn control every muscle in the body, including the heart muscle. For this reason, a mild potassium deficiency can cause a feeling of weakness and muscle fatigue—and a severe deficiency can cause cardiac arrhythmia and, in some cases, sudden death.

Potassium is also the major fluid-regulator in the body. Its action is closely linked with that of sodium, with potassium predominating within the cell walls and sodium outside. When sodium intake is too high, fluid is retained and potassium is dumped into the urine for excretion. When potassium intake is higher, sodium and fluid are excreted. Since only minute amounts of sodium are actually needed by the body, and since fluid retention increases blood pressure, a higher level of potassium ingestion is beneficial.

Numerous studies have demonstrated that increasing potassium in the diet, especially when simultaneously lowering sodium, lowers blood pressure, particularly in individuals with hypertension or a family history of it.

PLUSES & MINUSES

Potassium occurs naturally in enough foods that the average healthy American (who doesn't also gorge on salt) should get an adequate supply in his diet. The richest sources of potassium are fresh and dried fruits, fresh vegetables, and lean meats, poultry and fish.

Although it might seem that a salad a day will keep the doctor away, if an individual's diet contains a large amount of salt, the potassium in that salad won't stay around long enough to be much help.

Harold Battarbee, Ph.D., an associate professor at Louisiana State University School of Medicine, says, "We'd probably see some dramatic changes in the incidence of hypertension if Americans cut their salt intake to less than three grams a day and started eating an equivalent amount of potassium."

Battarbee, working with pharmacology professor John W. Dailey, Ph.D., found that when rats were given enough salt to cause hypertension, the levels of two adrenal hormones were lowered. However, doubling the rats' potassium intake prevented this decline and significantly slowed the rise in blood pressure.

A study done at London Hospital Medical College compared two groups of young men, one with a family history of hypertension and one without. Results in-

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indicated that potassium significantly lowered the blood pressure of those with hypertension in the family, while it had no significant effect on those whose families had normal blood pressure.

POTASSIUM KILLERS

Diuretics, in the process of flushing accumulated fluid from the body, flush potassium along with it. Diuretics are widely prescribed for hypertension, but a side effect is that those individuals who need potassium most lose a significant part of their supply. It is for this reason that physicians prescribe potassium supplementation so frequently.

The first step in increasing potassium in the body, however, is usually diet. After prescribing a diuretic for hypertension, physicians routinely recommend increasing the intake of potassium-rich foods such as bananas, canteloupe, avocados and leafy vegetables. Often after a short time on a diuretic, blood studies will be done to indicate electrolyte levels, and only if the potassium level is low are supplements prescribed.

The FDA maximum dosage of elemental potassium is 99 mg. per day. When it takes the form of potassium gluconate, a common compound found in tablets, the maximum dose is 600 mg. Manufacturers of supplements report that the chelated form is easily absorbable. However, many physicians favor a powdered supplement which, after being dissolved in liquid for consumption, they feel is most easily absorbed of all.

Other enemies of the body's potassium supply are caffeine, alcohol and extremely hot weather. The fatigue often felt during a heat wave is due to loss of potassium, and taking excess salt at such times exacerbates the problem.

Although one can do himself a lot of good by increasing his intake of potassium-rich foods, in order to derive the full benefit of its bounty one must also cut down on the potassium-killers: caffeine, alcohol, and most of all salt. Doing so will not only normalize the blood pressure but improve the functioning of the muscles and nerves and make you feel better all over.

(References: *Understanding Vitamins and Minerals* by the Editors of *Prevention Magazine*, *Vitamin Bible* by Earl Mindell, *Minerals and Your Health* by Dr. Len Mervyn, and *Your Personal Vitamin Profile* by Dr. Michael Colgan.)

Vitamin D: Versatile Vitamin

The "D" in vitamin D could probably stand for "disguise," as it merely masquerades as a vitamin. For two significant reasons, "D" differs dramatically from its vitamin cohorts:

- Our bodies can manufacture it on exposure to sunlight.
- In its active form it is considered to be a hormone with vital effects on mineral absorption, bone mineralization and some secretions.

D's Diverse Duties

A fat-soluble vitamin (meaning it can be stored for long periods in the body's fatty tissue and the liver), vitamin D plays a key role in the formation of bones. The discovery and consumption of vitamin D virtually eradicated childhood rickets, the classic D deficiency disease that produces stunted growth, arrested tooth development, weakness, softened skull in infants and permanent bone deformities.

A burst of recent research focuses on vitamin D's impressive potential to battle cancer; regulate blood pressure, biological rhythm, mood and behavior; treat certain immunological disorders such as multiple sclerosis and psoriasis; and enhance muscle strength.

Writing in *The Doctors' Vitamin and Mineral Book* (Fireside), Sheldon Saul Hendler, MD, PhD, identifies several promising and impressive new roles for versatile vitamin D: "Proliferation and differentiation, which could have enormous impact on the prevention and treatment of cancer; immunomodulation, which could be important in protection against and treatment of infectious diseases; and maintenance of cell membrane fluidity, which could have significance for all biological processes, including aging."

Building Strong Bones

Vitamin D functions as a sort of traffic cop, directing important bone builders like calcium and phosphorus to destinations where they can best assist bone growth.

"It does this first by making certain these minerals are absorbed in the intestines, second by bringing calcium from bones into the blood and third by helping the kidneys reabsorb the two minerals," explains Binita R. Shah, MD, professor of clinical pediatrics at the State University of New York Health Science Center at Brooklyn, in *The Complete Book of Vitamins*

Manufactured by the body through the sun's energy, vitamin D works with calcium to build strong, healthy bones (and possibly muscles), protect against cancer and regulate a host of physiological functions.

and *Minerals for Health* (Rodale).

Recent research demonstrates that a lack of vitamin D significantly increases the incidence of osteoporosis in the elderly.

Researchers at Brigham and Women's Hospital in Boston, Massachusetts, found that, in a group of women hospitalized for hip fracture, 50% had a previously undetected vitamin D deficiency (*Journal of the American Medical Association*, 251, 1999: 1505-1511).

The Synergistic Effect

"Calcium and magnesium, as well as other minerals and vitamins, should be taken along with vitamin D for [osteoporotic] conditions, as

these nutrients work hand in hand in the body to form and maintain bone mass," say Shari Lieberman, PhD and Nancy Bruning in *The Real Vitamin and Mineral Book* (Avery).

Investigators at the Jean Meyer US Department of Agriculture Human Nutrition Research Center on Aging at Tufts University in Boston reported in the September 4, 1997 *New England Journal of Medicine* that supplements of calcium and vitamin D appreciably reduce bone loss and fractures in older folks.

Let the Sunshine In

Often called "the sunshine vitamin" because it is synthesized through the skin by the activity of the sun's ultraviolet rays (foods are generally low in this vitamin), D accumulates by sun exposure and is believed to guard against cancer.

Dr. Hendler cites US population studies that link higher cancer rate to lower levels of natural sunlight.

D supplements provide a steady uniform source of vitamin D.

Scientists from the University of Pittsburgh Cancer Institute reported on April 14, 1997 to the American Association for Cancer Research that supplemental vitamin D inhibited prostate cancer growth in animals.

Similar work is ongoing into the remarkable powers of this versatile vitamin. ®

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Vitamin E

Vitamin E is a fat-soluble vitamin that performs many important functions in the body. But perhaps its most recognized role is that of an antioxidant. Through its ability to quench free radicals created by metabolic processes and environmental pollutants, vitamin E can help protect cells and other components of the body from such diseases as cancer, heart disease, premature aging and more.

Unlike other vitamins, however, a deficiency of vitamin E does not produce a specific disease with rapidly progressing symptoms. Instead, the results of vitamin E deficiencies usually take years or decades to develop, possibly resulting in a range of degenerative diseases such as cancer and heart disease. Low blood levels of vitamin E have been seen in conditions such as acne, anemia, infections, some cancers, periodontal disease, neuromuscular diseases and Alzheimer's disease.¹

Because the body cannot manufacture this essential nutrient, it must be supplied through the diet. Although foods such as seeds, nuts, grains and some uncooked vegetables such as green peas, spinach and kale are a good source of vitamin E, obtaining levels that many experts believe are needed for optimal health would require the ingestion of too much fat.²

Additionally, many nutrient and drug factors can influence vitamin E absorption and needs.³ High doses of vitamin C, for example, may decrease vitamin E absorption. Supplementation of vitamin E is, therefore, often recommended to meet the Reference Daily Intake (RDI) of 15 International Units (IUs) for adult males and 12 IUs for adult females. Currently, only 44 percent of men and 46 percent of women meet RDI levels of vitamin E, according to the Framingham Nutrition Studies published in the *Journal of the American Dietetic Association*.⁴

Toxicity from vitamin E intake is unlikely, and numerous studies have shown that oral intake of high levels of the nutrient produce no significant side effects in normal individuals. Vitamin E can have an anticoagulant effect, however, and it may intensify an existing coagulation defect produced by vitamin K.⁵

While there is no disputing the importance of vitamin E in maintaining good health, there is some debate over which form of vitamin E is the most bioavailable—synthetic or natural.

The term "vitamin E" describes many substances generally known as tocopherols. The word "tocopherol" was derived from the Greek word "tokos" meaning childbirth, and the verb "phero," meaning to bring forth. This is because the substance was originally identified as being involved in the fertility of rats. The suffix "ol" was added to the word to identify the alcohol contained in the molecule.

Both natural and synthetic tocopherols are used as ingredients in dietary supplements. While d-alpha-tocopherol is probably the most popular form, other natural tocopherols frequently utilized include d-beta-, d-gamma- and d-delta-. Additionally, the substances d-alpha-, d-beta-, d-gamma- and d-delta-tocotrienol have been found to exhibit vitamin E activity.⁶ Synthetic tocopherols are designated by the appearance of the letters "dl," as in dl-alpha-tocopherol.

The debate over synthetic vs. natural vitamin E was recently addressed in a study published in the March issue of the *American*

Journal of Clinical Nutrition.⁶ In the study, 15 pregnant women given a vitamin E capsule containing both the natural and synthetic form of vitamin E five days before birth. Following delivery, researchers found nearly twice the concentration of the natural vitamin E in the mother's blood and nearly three and one-half times more of natural vitamin E than the synthetic vitamin E in their placental cord.

Additionally, a study published in the *American Journal of Clinical Nutrition* indicated that the bioavailability of RRR-alpha-tocopherol (a natural form of vitamin E) is almost three times higher than that of all-rac-alpha-tocopheryl acetate (a synthetic form of vitamin E). The researchers concluded that RRR-alpha-tocopherol is preferable for the treatment and prevention of disease.⁷

While this ongoing debate remains to be settled, vitamin E derived from any source has proven successful in a number of studies published in a number of peer-reviewed journals. Among them:

- A study of nearly 30,000 male smokers between the ages of 50 and 69, reported in the March 18 issue of the *Journal of the National Cancer Institute*, indicated that daily doses of vitamin E reduced prostate cancer risk by one-third and the disease's death rate by 41 percent.⁸

- In combination with vitamin A, 25 IU of vitamin E were shown to cure children in Bangladesh of the bacterial disease, shigellosis. Results were reported in the February 1998 issue of the *British Medical Journal*.⁹

- Researchers reported in the November 1997 issue of the *Journal of the American Medical Association* vitamins C and E may prevent fatty food from clogging the blood vessels and damaging their lining.¹⁰

- According to a study published in the June issue of *Ophthalmology*, vitamin E has shown to sharply reduce the risk of cataracts.¹¹

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Zinc is a body busybody, poking its metallic nose into almost every vital biological process.

As part of more than 200 enzymes, zinc sharpens your senses, energizes your cells and defends your body against attack.

Zinc interacts with DNA, the master molecule found within each cell, to help cells create protein. While zinc is found in all tissues, 90% of the body's zinc is stowed in the muscles and bones.

Deficiency Risk

A child's growth depends on zinc, and zinc deficiency endangers youngsters in many developing countries. In China, zinc supplementation led to coordination and attention gains among school-age children. In addition, zinc has spurred growth in kids with sickle cell disease, a blood disorder that mainly affects African-Americans (*AJCN* 2002; 75:300-7).

In this country, subtle zinc deficiencies can befall older folks. Ailments that burn through zinc stores become more likely as people age, as does the chances that someone will be taking prescription drugs that deplete zinc. "As many as one in three Americans over age fifty is thought to have an undiagnosed zinc deficiency," say Ray Sahelian, MD, and Victoria Dolby Toews, MPH, coauthors of *Finally...The Common Cold Cure* (Avery/Putnam).

Deficiency, in turn, may leave individuals more prone to a number of conditions, including diabetes and heart disease.

Improving Immunity

Zinc has a salutary effect on the immune system's T cells, blood stream patrollers that sound the alarm when they encounter intruders. Not surprisingly, given the increased risk of zinc deficiency that comes with aging, zinc supplements have been found to strengthen the immune systems of older folks who took them (*J Am Geriatr Soc* 1998; 46:19-26).

Running shy of your full zinc quotient can also affect your natural killer cells (NK cells), immune system hit men who destroy infectious agents. What's more, zinc supports vitamin A, another important immunity nutrient.

Despite conflicting research results, many complementary

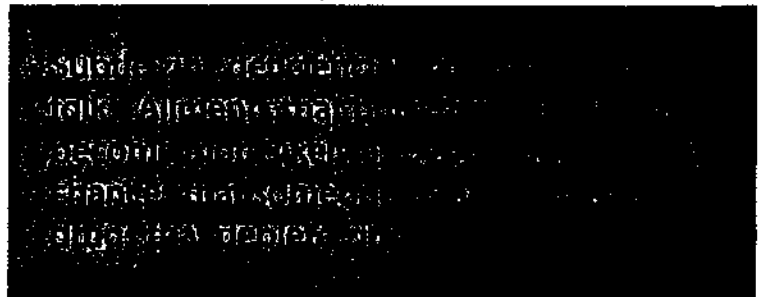
practitioners recommend taking zinc lozenges to short-circuit emerging colds. Besides strengthening immunity, zinc appears to keep cold viruses from replicating and to block nerve impulses that cause nasal congestion and sneezing.

Fostering Fertility and More

Oysters' reputation as a food for would-be paramours is linked to their zinc content. Prostate health depends on plentiful zinc stores.

Zinc is necessary for healthy sperm production. Men who took zinc and folic acid, a B vitamin, increased their sperm count (*Fertil Steril* 2002; 77:491-8). Post-conception, zinc has reduced complications during pregnancy; supplements taken by moms-to-be in poor countries have improved the health of low-birthweight babies (*Lancet* 2001; 357:1080-5).

Zinc's sensory effects have been used to help people under-



going radiation therapy for head and neck cancer regain their sense of taste (*Cancer* 1998; 82:1938-45). Older people often complain that food just doesn't taste as good as it once did; if that happens to you, you may need a little extra zinc. This mineral may also help folks with rheumatoid arthritis, in which the immune system attacks the joints.

Meat and seafood are the best food sources of zinc, so vegetarians often need supplements. Follow package directions: Taking zinc megadoses has been shown to lower immunity. But make sure you get enough of this versatile, wide ranging mineral. ■

Compliments of:



Physical Minerals

athletes, from serious competitors to weekend exercisers, need vitamins and minerals above those recommended by the RDA in order for the body to perform at its optimum level, most health experts agree.

Recent studies have shown that we need adequate amounts of chromium, magnesium, manganese and boron to effectively help the body's enzymes work with vitamins. These major nutrients and trace minerals help activate numerous enzyme systems, while each mineral helps out in more than one system.

CHROMIUM

This is a mineral which is needed in small amounts in the body. Its role is vital for the metabolism of fats and sugars. For the athlete, chromium is a healthy and safe way to convert body fat into muscle. Nutritionally speaking, chromium isn't well absorbed, and as a result a chelated agent or picolinate needs to be combined with chromium. This allows it to bond to other trace minerals.

Chromium also works in the body to support healthy sugar levels, promote lean body mass and appears to curb the appetite as it raises the body's metabolism. The body needs about 50-200 mg. of this micronutrient in order to help cells absorb carbohydrates or glucose (supplying the energy used to contract muscles and allowing it to be used as an effective metabolic fuel). Therefore, a deficiency in chromium can produce a diabetes-like condition.

MAGNESIUM

This mineral can be found in all vegetable and animal tissue. With the correct balance of calcium, magnesium helps regulate the heart, muscles and nerve transmission as it acts to help metabolize carbohydrates.

Some medical experts say we should get at least 300 mg. of magnesium each day, but for athletic performances levels of up to 500 mg. are advised where rapid magnesium loss takes place through sweat and urination.

According to some, the average diet is 200 mg. short of its daily magnesium requirement — and coupled with stress, our body is deprived of even more. Drinking coffee or alcohol also flushes out magnesium prematurely from the body.

A deficiency of magnesium can cause muscles to spasm, twitch and even tremble and then cramp.

MANGANESE

This trace mineral is responsible for transmitting nerve impulses to the muscles and for metabolism, and RDA and DNA production. A deficiency may cause dizziness, lack of muscle coordination, nervous tremors and allergies.

Good sources of manganese include green leafy vegetables, legumes, coffee, tea, nuts, liver, bananas and pineapples. One of the richest sources of manganese is

the germ of cereal grains, and experts say if this isn't in your diet, supplements may be needed.

The amount of manganese recommended for women can be as much as 16 mg. a day, and for men up to 21 mg. As with many trace minerals, manganese is better absorbed if it's taken in chelated form.

BORON

To help the body achieve optimal integrity during exercise, many industry experts recommend boron. This trace mineral aids in incorporating calcium into the skeleton, and a deficiency may result in substantial bone loss for athletes, especially females.

Previously thought to be essential for plants alone, boron appears to play an important role in human nutrition as it relates to bone health. The way in which boron acts in the body is not known, but a deficiency has proved to cause abnormal bone formation.

From animal studies it is apparent that the human requirement of boron is 1-2 mg. daily. Sources high in boron include fruits, vegetables and nuts.

Recent research indicates the average American diet is deficient in all of the above trace minerals, most particularly in those of athletes. When these nutrient gaps are insufficient to meet the demands of the body under emotional, physiological and psychological stresses of intense physical activity, the result will most likely be a substandard level of performance. This leads to increase the risk of serious injury and reduce performance as well as a slower recovery rate.

Sources: *Dr. Wright's Guide To Healing With Nutrition* by Jonathan Wright, M.D., 1990, Keats Publishing, New Caanan, CT; *The Illustrated Dictionary Of Natural Health* compiled by Nevill & Susan Drury, 1989, Sterling Publishing Company, New York; *The Home Study Course In The New Nutrition* by Ruth Yale Long, Ph.D., 1989, Keats Publishing, New Caanan, CT.

From



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Colloidal Minerals

- a fresh look into preventative medicine-

By R.K. Powers

For a super powerful charge of great health to your body Colloidal Minerals might just be the missing link you've been searching for.

New research is stacking up on the vital role minerals, trace minerals, and other micronutrients serve in preventing catabolic and debilitating disease.¹⁻⁴

Authors of *Micronutrient in Health and in Disease Prevention* assert that "it is becoming apparent that major physiological events link micronutrient status to the maintenance of health and the prevention of disease." An article in *The Journal of Pediatrics* concurs stating, "Trace elements perform important function in health and resistance to disease."⁶ J. A. Milner, Ph.D., continues by pointing out numerous animal studies, which prove that inadequate intake of several trace elements leads to abnormal growth and development, and a higher frequency of neonatal death.

There should be no doubt, minerals are essential for living! Researchers are convinced that vital trace elements are a Michael Jordan super defense against disease and ageing.

Perhaps no other time in History have Americans been so well equipped to fight the onslaught of aging and common degenerative illnesses... And perhaps no other time in history have we been so bombarded with disease linked to dietary intake.

From the air we breathe, food we eat, to the bathroom cleaning supplies we use, the enemy is everywhere, and the fight to save your life has only just begun.

Perhaps the #1 killers in America should no longer be defined as HEART DISEASE, DIABETES, CANCER, etc.... We should just say the top six causes of death in America are linked to consumption. Wouldn't this be a great headliner on the cover of Newsweek: ***CONSUMPTION: researchers find is responsible for the top six causes of death in U.S.*** This includes, in order of significance: Diseases of the Heart, Cancer, Cerebrovascular Disease (i.e. strokes, etc...), Accidents, Pneumonia and Influenza, and Diabetes mellitus.⁷

Whether alcohol, food, or drugs (including illegal narcotics, caffeine, nicotine, antibiotics, etc...) your body is getting assaulted at all angles. The semi-health conscious American hears the news about consumption linked to mortality, and decides to throw down his deep fried Chimichanga, and commits to eating more fresh fruit and veggies, increases good protein intake such as beans, fish, chicken and other lean meat, and of course lots of good dietary fiber. Sounds good doesn't it? If only it were that simple. The veggies and fruits you're eating may not be as loaded with good health as you think. Problem is, although the foods may generally be non-harmful, (depending on pesticide, herbicide, or hormone content), they most often are badly deficient in nutrient content, especially essential trace elements that your body needs for day to day survival. Colloidal Mineral Supplementation is imperative.

In fact, one Scientist, with an arena of support says that "demineralization" is the beginning of debilitating disease. Dr. Robert LaFave, writes in an excerpt from a U.S. Research Center Report that, "Without these minerals it is impossible for the regeneration process in the cell to occur. In fact, an enzyme, (which regulates hormones), cannot exist without minerals and trace minerals."⁸

For the last century the agriculture industry within the U.S. has been replacing nutrients in soil through fertilization and other means. Many regions of the world have been studied for soil content as it is linked to health.

For decades now mineral content in a large part of America's farming land is badly deficient in vital trace elements.⁹ The situation is so serious, as it regards to personal health, that the United States senate in 1936 warned the population of a major mineral depletion. The focus was on the personal study of Dr. Charles Northern, of which is supported by research completed at Yale, Rutgers, John Hopkins, Columbia and the U.S. Department of Agriculture. Dr. Northern demonstrated "that countless human ills stem from the fact that impoverished

soil of America no longer provides plant foods with mineral elements essential to human nourishment and health."¹⁰

Millions of acres no longer contain the valuable trace elements. It has been said, up to 99% of all people have a mineral deficiency of some sort. That's not all... "It is not commonly realized, however, that vitamins control the body's appropriation of minerals, and in the absence of minerals they have no function to perform. Lacking vitamins, the system can make some use of minerals, but lacking minerals, vitamins are useless."¹¹

Wake up America! Our soils are being robbed of vital nutrients, which are not being replaced, which leads to deterred resistance of disease and improper development and growth in young people.

Dr. Northern very adamantly and concisely points out that the problem could be very simply solved by adding nutrients to the soil. Well, it's more than 60 years later, although major improvements in soil science have occurred, nutrient density has not. Your personal health and wellness depends on you, not Farmer Brown. It's up to you to get the proper vitamin and minerals that your body requires.

Colloidal Minerals are a great protocol. For thousands of years vegetation builds up amassing into clumps of clay, of which colloids are abstracted. A colloid is an extremely small particle evenly dispensed in liquid. So small, in fact, that it can easily pass through glass, which helps in absorption. A German Biophysicist, Dr. Fritz Albert Popp, discovered that Colloids are actually electric. They carry a negative ionized charge, which is a match made in heaven when paired with the positive charge of the intestinal lining, making absorption assured.

The negative charge of colloid minerals greatly increases the transport and bioavailability of other nutrients from foods, vitamins and other supplements. Secondly, ionization attracts toxins and heavy metals from the body and flushes them out.

Remember, we mentioned size benefit of Colloid Minerals. Dr. Carey Reams, a Biophysicist and Biochemist says

Colloid Minerals range in size from .01 to .001 microns in diameter. This means colloids are able to enter the body in whole form. They are quickly utilized and absorbed in the gastro intestinal tract. In terms you and I can understand, the size is anywhere from four hundred thousandths to four millionths of an inch small.

As with enzymes, vitamins, amino acids and other known nutrients, minerals share part of the Central Stage starring HEALTH and WELL BEING.^{12,13} Did you know that there are actually different levels of feeling good? Well, there are. You might just be a person who has accepted feeling fatigued, run down, and used up. Life doesn't have to be like that.

Colloidal Minerals are being used around the world with thousands of success stories. Dr. Michael Zimmerman, Chief of Staff of the Specialized Clinic for chronic Illnesses and Therapy Resistant Patients in Uberlingen, Germany, says Clark's Colloidal Minerals in Clinical Trial showed that "it activates and speeds the healing process, especially in chronic illness."¹⁴ Some good Colloidal Mineral products contain 7 major elements, and more than 60 trace elements. Major or bulk minerals are needed and used by the body in larger quantities than trace minerals. These include calcium, magnesium, sodium, potassium and phosphorous. Trace minerals are quite simple to define. They are needed in very small 'trace amounts'.

Although trace elements including arsenic, lead, copper, iron, etc... are needed in very minute quantities, doesn't mean that they are not essential for life. In fact, there has been renewed interest in the vital function and pivotal role of which trace elements perform within the human body. The New York Times put major focus in one article entitled, "With Trace Elements Be Cautious". The article speaks about the importance of these imperative minerals, but points out the need to be taken in a balanced fashion. This is why Colloidal Minerals are the perfect solution. Taken from nature they remain unadulterated and have passed many toxicology reports...perfectly safe to your body.

The article states that most people can get the needed trace elements from a well balanced diet, but that Trace Elements are vital in prevention of

disease. It states, "While a good diet may provide enough trace minerals to support normal bodily functions, some research shows that greater amounts of certain trace minerals may prevent disease. For example, research by Dr. Larry Clark at the University of Arizona at Tucson, suggests that higher than RDA levels of selenium may offer protection against cancer."¹⁵

The New York Times made one other vital statement for those concerned about proper health and mineral consumption. Reporter, Karen Baar, in the column "Eating Well" quoted Bob Smith, then president of Doctor's Data, Inc., a laboratory in Chicago. He stated, "I agree with those who say you don't need supplements as long as you are genetically perfect, eat only food grown on virgin soil, and stay away from all toxins like gasoline fumes, cosmetics, carpeting and dry cleaning fluids."¹⁶

Mr. Smith makes a very good point. By now you may be asking yourself just what is it that minerals do. They are responsible for such things as normal growth and sexual development, strong immunity, formation of blood and bone (essential in cartilage formation and production), nerve function and composition of body fluids. Scientists also are beginning to report on many secret things minerals do...things we really don't understand at this present time.

Still not convinced that Colloidal Minerals are right for you? Consider this! One Midwestern town had noted mineral deficiencies in their soil. Calcium to be exact. The direct health results were studied on more than 300 children: 90% had bad teeth, 69% had affections of the nose and throat, smaller glands and diseased tonsils.¹⁷

Colloid Minerals are imperative for health. Consider Copper, if deficient, could vastly increase the risk of heart disease, infertility, heart arrhythmias, higher LDL-Cholesterol, bone fragility, anemia, defects in connective tissue, severe malnutrition, low birth weight, significant malabsorption and, of course, Osteoporosis.^{18, 22}

The benefits of Zinc have been greatly researched within the last ten years. It is greatly needed for immune and sexual function. Nutritional deficiencies of Zinc in human beings are now recognized as being fairly prevalent throughout the world.^{23, 27}

A lack of Manganese can result in poor

A lack of Manganese can result in poor growth, impaired reproduction performance, and more.^{28, 31} This is just one example of the severe importance trace minerals play in human health.

More than 60 trace elements are needed within your body for proper growth, development and function. Let there be no confusion; many health professionals recommend that you continue your regular Multi-Vitamin Supplement Regimen, but add with it the vital Colloidal Minerals and give your body the super turbo-boost charge that you deserve.

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Colloidal Silver ...Awwaaaay!

by Julie Plunkett

What is Colloidal Silver?

It is pure, metallic silver in particles of 15 atoms or fewer, each with a positive electric charge, and suspended in solution. This new particle floats in pure water. The force of the electric charge is stronger than the force of gravity, so the silver particles remain suspended.

What is C.S. used for? It is taken orally (or externally) as a powerful, effective, safe, anti-bacterial, antiviral, anti-fungus, immune enhancing, healing enhancing agent. How does C.S. do all that? The presence of Colloidal Silver near any viruses, fungus or bacteria (only one-celled disease-causing pathogens) will immediately cripple its oxygen metabolizing enzyme (or chemical lung). The pathogen suffocates and dies in a few minutes or less and cleared out of the body by the immune, lymphatic and eliminating systems.

Is the use of Colloidal Silver something new? Not at all! Great Grandma put a silver dollar in the milk to keep it from spoiling as it sat on the back porch in the summer time. The ancient Greeks knew well the medicinal value of silver, the ancients that ate from silver utensils were never sick with infections. The knowledge was passed on to kings, emperors, and other privileged people and their families. The Royalty knew the value of using silver to eat from and store food in and eventually were known as Blue Bloods.

Blue Bloods' blood was known to have a blue tinge due to minute traces of silver. C.S. was commonly used in America prior to the discovery of antibiotics and it was used for everything from A to Z. (It is noteworthy to mention the severe rate of antibiotic resistance occurring to date. It is a very serious issue and Colloidal Silver could very well be our saving grace.)

Is C.S. potentially toxic? No... it is absolutely non-toxic to mammals, reptiles, plants and all multi-celled beings; and is of no consequence to the kidneys.

The most extreme side effect known from the use of C.S. is called algeria, where the skin takes on a grayish appearance. It is harmless and there are no recent cases of algeria known even with the resurgence in the use of C.S.

Are some C.S. products better than others? Yes... Despite recent controversial articles appearing in health related print media, the fact is 99% of the Colloidal Silver products on the market are too low in potency, are not truly colloidal and some don't even test out to have detectable silver content. Despite recent statements regarding C.S. potencies, appearances and safety levels, the fact remains that these articles are written by manufacturers that do not possess the technology or proprietary technique to produce a true, high potency, Colloidal Silver that will stay in the solution. The fact is the darker the solution, the more concentrated, thus the more beneficial. A red tinge results from greater than 15 atoms per microcluster particle. (Unfortunately, it appears that manufacturers are willing to publish negative propaganda about the truly excellent C.S. products because they themselves cannot figure out how to make the .001 size micron, which enables the chemist to produce a high potency solution, i.e., 500-1000 ppm, which stays in solution indefinitely. People's has sold hundreds of bottles of 500 ppm and those loyal customers are extremely impressed with the results they're getting with no side effects. Ultimately, the real life facts of everyday use of C.S. by thousands of consumers tells the story of which C.S. products are best.

What are some of the A-Z uses of C.S.? Acne, AIDS, appendicitis, athletes' foot, bladder infection, burns, candida, cancer, cholera, conjunctivitis, dermatitis, dysentery, herpes, impetigo, lyme disease, malaria, meningitis, pneumonia, prostate, rhinitis, ringworm, sinusitis, staph, strep, thrush, tonsillitis, warts, all viruses, yeast infection, cat-related conditions, wounds, and impure water. C.S. is reported as safe during pregnancy.

The FDA presently has no restrictions on C.S. Use as directed.

People's carries Colloidal Silver in 500 ppm in 2oz and 4oz bottles as well as Colloidal Gold by Innovative Natural Products.