

Daily Manufacturing, HEALTH CAPS



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PRODUCT SPOT LIGHT

Tocotrienols

Vitamin E (α -tocopherol) has been considered a major cardiovascular nutrient since the Schute brothers in Canada reported that it reversed heart disease. Now, tocotrienols have been shown to be even more effective than vitamin E for protecting the heart. The two combined, as in Daily Tocotrienols is even better. For more information on how it works read: Quershi et al (2001) Novel tocotrienols of rice bran inhibit atherosclerotic lesions in C57BL/6 ApoE-deficient mice. *Journal of Nutrition* 131: 2606-2618.

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RBTI Insights For Super Healthy Bones

By
Dr. A. F. Beddoe, DDS

There continues to be increasing concern about the public health issues surrounding what medical science has named *osteopenia* and *osteoporosis*. Osteopenia's origin is Greek: "osteon" bone and "penia" poverty. So osteopenia is simply bone poverty. Even though osteopenia is not considered a "disease" by medical science, it is considered to be an indicator of susceptibility to osteoporosis. Osteoporosis, on the other hand, is just a more severe osteopenia in which the bone mineral density (BMD) is reduced to the point where bone microarchitecture is disrupted, and the amount and variety of non-collagenous protein in the bone is altered. In other words, the bone has become porous like a honeycomb.

In 2001, national attention was focused on the ever-increasing concerns regarding bone diseases when both the House and Senate jointly commissioned the Surgeon General to issue a first-ever Report to the Nation on the status of research and education on osteoporosis and related bone disease. Furthermore, to setting forth an action plan to comprehensively address the urgent need to reverse the increasing toll of this disease.

In 2004 the Surgeon General's "Report on Bone Health and Osteoporosis" was released. In summary, the Report calls osteoporosis a "silent" condition because many Americans are unaware that their bone health is in jeopardy. In fact, four times as many men and nearly three times as many women have osteoporosis than those that report having the condition. Osteoporosis affects men and women of all races, and while bone weakness manifests primarily in older Americans, the report made a point of emphasizing that strong bones really begin in childhood. Besides reporting the status of bone health the

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Ener-Cell

By
Dr. James Daily III

The name tells at least half the story. Fats and sugars are major sources of cellular energy (the energy that moves your muscles etc), and Ener-Cell supplies critical nutrients to help you use them. The body requires numerous co-factors, including several minerals and most of the B vitamins, to extract and store energy from nutrients. In addition to the vitamin and mineral co-factors, carnitine, coenzyme Q-10, and alpha-lipoic acid are also required for energy metabolism. Even under the best of circumstances, energy metabolism is a "dirty" process with dangerous metabolites formed that can be destructive. The majority of these harmful byproducts are produced in the mitochondria (the energy factory of the cell). Carnitine is essential for the transport of long-chain fatty acids into the mitochondria where they are oxidized to release energy.¹ Carnitine deficiency is known to be associated with muscle fatigue, cardiac insufficiency, and chronic-fatigue syndrome.² Alpha-lipoic acid is as essential to carbohydrate energy metabolism as carnitine is to fat metabolism as an important co-factor in the conversion of glucose derived pyruvate to the high energy molecule, acetyl-CoA. Alpha-lipoic acid is also an important antioxidant in cell membranes and therefore is involved in both energy production and in cleaning up harmful byproducts of energy metabolism.³ Coenzyme Q-10 is an essential part of the electron transport chain that traps energy obtained from both carbohydrate and fat metabolism and uses it to make ATP, the primary "energy currency" of the body. Coenzyme Q-10 is also an important antioxidant for the mitochondrial membrane and has been shown to be especially beneficial for the heart.⁴ Dr Bruce Ames has shown that the combination of car-

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report included recommendations on what Americans can do to decrease the likelihood of developing osteoporosis. One of those recommendations focuses on the value and impact of proper nutrition — especially the consumption of foods that are significant sources of calcium, phosphorus and vitamin D. The report also calls upon health care professionals to help Americans maintain healthy bones “by evaluating risks for patients of all ages ...” and “look for ‘red flags’ that may indicate someone is at risk”.

Enter Dr. Reams’ Biological Theory of Ionization

There is no time like the present for the value of Dr. Ream’s Biological Theory of Ionization (RBTI) to be demonstrated. For health care professionals to be able to help their patients determine if they are at risk for having or developing bone disease, they must be able to establish if there is an ongoing mineral deficiency in progress before their patients’ bones ever begin to get close to the condition labeled *osteopenia* — let alone *osteoporosis*, as demonstrated in a bone density test. Currently employed risk assessment systems, such as the common bone density tests, are only looking at the ongoing effects after the fact, not the cause. There is no dispute that truly strong and healthy bones must begin with proper nourishment in childhood. However, Dr. Reams is the first and only scientist to establish the biologic math for perfect health. From that, he learned to tailor-make diets according to individual body chemistry needs that will result in all tissue, including bones, being made the strongest and healthiest.

So what does RBTI teach us about building and/or maintaining strong bones at any age?

- RBTI tests must first be done and the test numbers properly interpreted.
- RBTI teaches that the liver must have its’ needs for water, oxygen and calcium properly supplied according to viable RBTI test numbers.
- RBTI teaches that there must be enough of the right types of calcium in the daily diet, moving through the intestinal tract, in order for all the organs and tissues of the body, through the liver, to be perfectly supplied with enough mineral energy from the food. Calcium deficiency in the digestive tract means poor mineral energy production and delivery.
- RBTI teaches that food should be our prime source for minerals. However, with the endemically mineral deficient foods available today, the diet must be supplemented only with the correct calcium types and associated minerals and vitamins according only to the test numbers. Furthermore, RBTI reveals how various foods impact a given chemistry of the body for better or worse. In other words, RBTI teaches how to tailor-make diets based on individual bio-math of body chemistry. “*Why guess, when you can be sure*”... how to perfectly feed the bones.
- RBTI teaches how the pH of urine and saliva holds the keys to understanding how to use calcium supplements and which type(s) for the best organ and tissue results. RBTI principles of pH also reveal how vitamin C and D, in whatever form, can only be used if desiring ideal dietary and health to impact the bones or any organ.
- RBTI teaches how Dr. Reams discovered the unique **chemical colloid**, completely different from the typical “dispersed phase” (size related) colloids. Unlike the “dispersed phase” colloids, *chemical colloids* are:
 - Structured like a miniature solar system. That is, they contain their own independent internal power supply, which allows them to move anywhere water moves independent of electromagnetic or ionic charges around them. In other words, *chemical colloids* can levitate in air or water and go with the flow of either.
 - Absolutely vital to the structure of organs and tissues. The harder the substance the more *chemical colloid* must be available to supply the needs of the cells as they are replaced, rebuilt and restored.
 - The ultimate determinate of how strongly bone is built or how quickly bone is restored when minerally depleted. *Chemical colloids* act as friction reducers to the movement of mineral molecules into the cell. RBTI teaches that all minerals (except nitrogen, oxygen, hydrogen and carbon) can only be carried into the cells attached to phosphate. *Chemical colloids* are a significant source of this vital nontoxic phosphate that moves mineral into cells.
 - Are structures that contain from 66 to 84 different minerals, all of which are nontoxic because they only remain and function within the chemical colloid itself as it moves within the biologic entity.
- RBTI teaches that the prime source for *chemical colloids* comes either from high quality (high Brix) foods grown incorporating *soft rock phosphate* according to RBTI soil principles or from the supplement Dr. Reams named **Min-Col** which is specially extracted from a natural substance known as *soft rock (colloidal) phosphate*.
- RBTI teaches that the prime construction material of bone is calcium phosphate, including the chemical colloids, and that bones are the body’s main mineral reservoir. That the body depends on this mineral reservoir anytime the body is unable to get enough mineral, especially calcium, from its diet. Dr. Reams likened this mineral reservoir to a savings account. The first day one does not

get enough mineral out of the food eaten, that is the first day that the body defaults to its mineral reservoir to supply its' needs. When this happens, this is technically the start of degenerative dis-ease, according to Dr. Reams. In other words, osteopenia or osteoporosis result from the body cannibalizing the bones for its' mineral needs, primarily calcium, when it cannot get sufficient supply from the food consumed.

RBTI holds the keys for healthcare professionals to look at and become knowledgeable about the cause as well as the potential for bone softening long before it is considered a disease — simply the best prevention. This is a fact, because RBTI provides the true reference point for real health. It references perfect not “normal.” Standard health evaluation methods only reference “normal.” If one’s health evaluation tests are “normal,” one is considered healthy in standard health systems. If research were to compare bones developed on RBTI references versus bones considered “normal,” based on standard density testing, it would be quite evident that “normal” densities would be considered deficient based on RBTI’s perfect bio-math reference. Take it from one who has looked at all the standard and alternative “health systems” out there, both past and present. RBTI has no match, not even close, bar none. Furthermore, RBTI holds the keys for true health education, while exposing the vast amount of destructive fads and myths believed and practiced in the alternative health arena. Yes, the alternative health arena is full of the blind leading the blind with no real reference point. Yet, RBTI has the only bio-math reference that does not mislead. So, “why guess, when you can be sure” of how to build and maintain super bones with RBTI.

For more information: <http://www.advancedideals.org>

Ener-Cell article continued from page 1

nitine and alpha lipoic acid can actually reverse many of the cardiovascular and neurological effects of aging in mice^{5,6}. Ener-Cell also contains curcumin, a highly potent phenolic pigment from tumeric root. Curcumin is the best natural product we know of for modulating cellular inflammation, a process that can rob the body of energy.⁷ Ener-Cell, therefore, increases cellular energy while reducing the damage caused by energy metabolism. Ener-Cell is especially beneficial to people with unexplained low energy, muscle weakness, chronic fatigue, chronic inflammation, lethargy, poor concentration and related problems.

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Science News



Phthalates, Obesity, and Insulin Resistance

Phthalates are a group of common plasticizers first introduced to the market in the 1920's and commonly used since the 1950's. For many years they have been suspected carcinogens. Now some of them and their breakdown products, are suspected of reducing testosterone levels in men. This leads to abdominal obesity and insulin resistance. A recent report in *Environmental Health Perspectives* demonstrated that men with abdominal obesity and insulin resistance, or both, had higher levels of phthalates in their urine. (In Press: *Environmental Health Perspectives*, Reported in Science News March 24, 2007) Phthalates are commonly found in cosmetics, perfumes, lotions, etc.. They are also in plastics, especially very soft flexible plastics. They tend to be poorly absorbed through the skin and are mostly soluble in oils and organic solvents, not in water. A questionable practice may be heating foods in plastic containers or bags, which could contain the potentially harmful chemicals.

Body Fat and Diabetes

The title of the lead article in the March 2007 *Nutrition Reviews* is: “How effective are lifestyle changes in the prevention of type 2 diabetes mellitus” (F. Savier _Pi-Sunyer, *Nutrition Reviews* 65: 101-110). The author makes a very strong case that lifestyle changes are very effective for both preventing and treating type-2 diabetes. The article quoted a US National Commission on Diabetes report that the diabetes risk is increased 2-fold by mild obesity, 5-fold by moderate obesity, and 10-fold by severe obesity. This is not simply a genetic trait. That is, people who inherit a trait for obesity do not also have an inherited trait for diabetes. When one of a pair of identical twins (with identical genetics) becomes obese, the obese twin has a much higher risk of diabetes. Fortunately, losing weight can actually reverse or “cure” type-2 diabetes in many cases.

Do lifestyle changes have an effect?

A study in Sweden tracked a group of 41 subjects with diabetes and 181 with impaired glucose tolerance. All subjects were placed on diets with the same caloric intake, but were divided into exercise and non-exercise groups. After 5 years the exercise group had lost about 5 lbs (only 1 lb. per year!) and the non-exercise group had gained slightly over 1 lb. In the exercise group, 75.8% had improved glucose tolerance, whereas in the non-exercise group 67.1% had worsened glucose tolerance. Do lifestyle changes have an effect? Absolutely, and they do not have to be huge to make a big difference.

Calcium in Food

It is widely believed by people in the nutrition field (including us) that foods have a lower mineral content now than they did many years ago. In an effort to demonstrate this in an objective and scientific way, I decided to look for hard evidence to support that assertion. I have thus far been unsuccessful in that endeavor, but have made some interesting observations. As seen in the table below, the USDA data over the last 40+ years has a lot of variation in food calcium data from year to year. It is far from consistent. The variations are probably due to differences in methods of collecting and testing foods, not in the actual calcium content of foods. Anyone who would like to, can download the documents for the years above at the following web address: agnic.msu.edu/hgpubs/modus/00000072.htm. Because there is so much variation in the mineral content of foods due to growing conditions and regions it is difficult to know how much of a mineral you are actually consuming. A Rutgers University study compared the ash from mineral contents of foods from various regions. Ash is the mineral residue remaining when all of the non-mineral constituents have been “burned off” by heating in a furnace. Calcium in the ash of the snap beans ranged from 40.5% to 15.5% in the foods tested. However, it could vary even more since the percentage of ash ranged from 10.45% to 4.04%. This is not to say that food nutrient composition data is useless, but it is very important to realize the difficulty of predicting the mineral intake based on food composition data. What you can learn is which foods tend to be higher in a given mineral and include more of that in your diet if you want to increase your intake of that mineral. If foods are eaten from a wide range of locations, your average intake will probably be very close to the published values. The Rutgers' study can be found at: www.rce.rutgers.edu/pubs/bearreport.

Calcium contents of foods from the USDA Nutrient Contents of Foods from years 1960 -2002. Values are in mg/cup.

| Food | 1960 | 1964 | 1970 | 1977 | 1981 | 2002 |
|------------|------|------|------|------|------|------|
| Milk | 298 | 298 | 296 | 302 | 302 | 302 |
| Lima Beans | 46 | 75 | 80 | 63 | 63 | 50 |
| Broccoli | 195 | 132 | 136 | 136 | 136 | 72 |
| Kale | 248 | 147 | 147 | 206 | 206 | 94 |
| Spinach | 223 | 167 | 167 | 167 | 167 | 245 |
| Barley | 32 | 32 | 32 | 32 | 32 | 58 |
| Peanuts | 104 | 107 | 107 | 107 | 107 | 127 |
| Collards | 473 | 289 | 289 | 357 | 357 | 226 |
