

# Daily Manufacturing, Inc.

## HEALTH CAPS



Fall 2006

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### PRODUCT SPOT LIGHT

#### Betaine HCL

Many people suffering from indigestion have a condition known as achlorhydria – underproduction of gastric acids. Betaine HCL helps replenish stomach acid and is a highly effective and inexpensive digestive aid for many people. We now have Betaine HCL in capsules instead of tablets, and at the same potency as the tablets they replace.

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### RBTI Insights On Distilled Water ... The Elixir Of Life

Dr. A. F. Beddoe, D.D.S.

*Water* (from the Old English waeter; c.f German “Wasser,” from PIE \*wod-or, “water”) is a tasteless, odorless and colorless substance in its pure state according to standard scientific definitions. Yes, contrary to the promoters of bottled water, pure water is scientifically tasteless. The difference that one detects in tastes of water comes from the presence of different mineral ions that the water molecules contain. However, even the “tasteless” pure water can be seen to have a taste after one has become used to drinking water that has a distinctive flavor present, from the various mineral ions within it.

Water is found in many forms in our environment from water vapor and clouds to waves and icebergs in the sea, glaciers on the mountain and aquifers in the ground. Earth's atmosphere contains 102,000 cubic miles of water equal to 0.031% of the 326 million cubic miles of water on the Earth itself. Water is constantly moving from one form to another by recycling through evaporation, precipitation and run-off in what is called “the water cycle.” Likewise, there is a water cycle within the internal environment of the human body. It was Dr. Carey Reams that found how important water actually was to the body's internal environment and mechanisms.

Without water life cannot exist. Dr. Reams would reinforce how vital water was to biologic life by demonstrating the significance of the amount of water required by different species as compared to humans. A 500 pound steer, for example, requires about 25 gallons of water per day to maintain its life. This works out to a 42% water requirement per pound of weight. Much of the water the steer drinks leaves as heat through vapor form via the skin because of the large skin surface of the steer. Plant life requires three times its weight in water per day. That represents a

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### Vitamin D in Human Health

Dr. Jim Daily III, Ph.D.

Vitamin D has recently been the subject of considerable scientific research and debate. The Food and Nutrition Board of the Institute of Medicine has set the Recommended Dietary Allowance at 200 IU for adults. However, recent research suggests that this is much too low for people who get little exposure to sunlight. Radiation from sunlight is something we must have to survive, but it is killing us all! Sunlight is our natural source of vitamin D, but more people are probably deficient in vitamin D than any other nutrient. However, even calling it a nutrient is somewhat contradictory. Vitamin D is the only “nutrient” that nature never intended for people to obtain from their diet. Even today, young people who live in the tropical and sub-tropical regions of earth and who are regularly outdoors during midday probably do not require any dietary vitamin D.

The state of vitamin D research might be best understood by reading the following paragraph from a recent editorial by Bruce Hollis and Carol Wagner in the American Journal of Clinical Nutrition:

In this issue of the Journal, Van der Meer et al report a high prevalence of vitamin D deficiency during pregnancy in non-Western women in the Netherlands. These investigators found in their study that >50% of women with darker pigment were vitamin D deficient, whereas only 8% of Western women were defined as deficient. Even at first glance, this is a truly remarkable statistic. However, the actual percentage is far greater than reported. The reason for this is quite simple – the authors of this study were very conservative in their definition of vitamin D deficiency. They defined deficiency as circulating 25-hydroxyvitamin D [25(OH)D] concentrations <25nmol/L (10 ng/mL). As far as we are concerned this is an old definition of vitamin D deficiency, and many investigators now define deficiency as

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300% water requirement per pound of weight. On the other hand, a human weighing 100 pounds, requires only about 1.5 quarts of water per day and this works out to only 3.2% water requirement per pound of weight. Yes, the human lives on the highest frequency of all biologic life on earth, but requires the least amount of water to exist of all the forms of biologic life. This is one technical reason why Dr. Reams would say that the human is the hardest to kill of all species of life on earth. It is for this reason, according to Reams, that humans need to pay particular attention to their water drinking habits. Yes, because our water requirement is what it is we are often distracted by our goals and lifestyles, thus through negligence we commonly abuse our water requirements to the detriment of our health and wellbeing.

Dr. Reams was the first person to scientifically understand how and why water is so critical to human life and health. It was his discovery of the role of the liver in the overall electro-chemical nutrition of the body that first disclosed to him how vital water was to liver health. To understand what Reams discovered, about the liver's nutritional requirements, is to know that the liver requires three primary substances to maintain its own vital functions. Those three substances, in order of importance, are Water, Oxygen and Calcium. Thus, the value of water, oxygen and calcium, to the liver, can be compared to a three-legged stool. If one or more of the three legs are not in proportion to the others, i.e. missing and/or deficient, the stool cannot stand or function correctly. In other words, when the water requirement of the liver is not met, the liver's function is constrained. Why is this significant? Because the liver is the organ that manufactures all of the beginning molecules that the body relies on to replace, rebuild and maintain all of its other tissues, glands and organs. Limiting water limits the liver and subsequently its ability to nourish the body.

From a biological standpoint, Dr. Reams' research led him to recognize many distinct properties of water that are critical for the maintenance and proliferation of life that set it apart from other substances. Primary in importance, among these properties that Reams learned about water, is that water must be the carrier of energy "on-frequency." That is to say, water was designed to take on and carry electromagnetic frequency in order to promote and enhance biologic energy exchange and storage vital to high-level wellness of the human organism. This is what led Reams to understand why the best water for human consumption is water that is not only pure, but also wet and high in energy. Oh yes, water can be pure, but not necessarily wet and high energy. According to Reams, water can be pure and yet remain dry. Dry, meaning the water molecule contains very little energy. If you know what it is like to bathe in hard water versus soft water, you will know what Reams was referring to when he used the terms, wet or dry water.

Water is known as the universal solvent. But Reams found that water must be more than a universal solvent in order to function at its optimum in the human's liver and body in general. In order for water to best carry energy, on the human frequency, it must be able to concentrate the electrostatic lines of magnetic flux. That is to say, in the electrical field of the human body, water must be able to store and carry electrical energy on the human frequency for sustaining optimum levels of mineral energy release, transfer and storage. The ideal water, to allow this process to occur in the human body, is steam distilled water. Why steam distilled water? Because its molecules, being free of impurities, are recognized by scientists as a good "dielectric." This simply means that distilled water has the ability to act as an insulator and storage for the ionic electro-magnetic energy it picks up. In doing so, it reduces the force between the ionic energy charges it carries so it can carry more of them. In other words, steam distilled water has the ability to carry or take on more ionic energy on the human frequency than any other type of water because of its unique molecular structure.

What about mineral waters? According to what Dr. Reams taught, mineral waters are the poorest and least beneficial to healthy body chemistry. This is because the mineral being carried in the mineral water molecule blocks the molecule from acting as distilled water molecules described above. Likewise, various tap and well waters also act like mineral waters as far as the body is concerned. The minerals they carry, even though less than that in so-called mineral water, interferes with the water molecules ability to act as an energy storage and carrying system. Some have likened drinking mineral, tap and well water to washing dishes in dirty water.

As for reverse osmosis water, it is pure water but it has not gone through the heating, vaporization and condensation process as steam distilled water. Therefore, it does not possess the high-energy potential of distilled water. In other words, it too cannot function as perfectly as distilled water when it comes to liver and body chemistry needs.

So how much distilled water should a person drink? Dr. Reams taught that one can determine the amount of distilled water they need to consume per day by dividing their weight by 2 and converting the answer to ounces. For example, a 100-pound person would drink ( $100 \div 2 = 50$ ) or approximately 50 ounces (1.5 quarts) of extra water through the day other than that obtained through food and additional beverages. Herbal teas can be counted in as part of water intake however. In order for the liver to make the best use of the calculated daily water needs, it should be divided into at least 20 increments so 1 increment can be consumed every half-hour during 10 hours of the day from 6-7am to 4-5 pm. Some people will do even better by dividing their calculated water intake into 24 increments to be consumed every half-hour over 12 hours. Sometimes, we reduce the calculated water needs by 20% if there is concern for an individual over-drinking because of certain lifestyle or health challenges. On the other hand, during physical exertion or hot weather, there may be a need to increase the calculated water need by a certain amount. The only way to know, accurately, how much water a person needs to consume is "go by the numbers." That was Dr. Reams' favorite expression when pointing out how the RBTI urine and saliva test results (the numbers) will provide the answers, when consulted.

## INTERESTING WATER FACTS:

- 75% of Americans are chronically dehydrated.
- In 37% of Americans, the thirst mechanism is so weak that is often mistaken for hunger.
- Even MILD dehydration will slow down one's metabolism as much as 3%.
- One glass of water will shut down midnight hunger pangs for almost 100% of the dieters studied at the U-Wash.
- Research reveals the lack of water as the #1 trigger of daytime fatigue.
- Preliminary research indicates that proper water consumption each day could significantly ease back and joint pain for up to 80% of sufferers.
- A mere 2% drop in body water can trigger fuzzy short-term memory, trouble with basic math, and difficulty focusing on the computer screen or printed page.
- Proper water consumption, during waking hours, is worth an hour of sleep at night.
- Water research has shown that drinking 5 glasses of water daily:
  - Decreases the risk of colon cancer by 45%.
  - Slashes the risk of breast cancer by 79%.
  - Makes one 50% less likely to develop bladder cancer.

For more information see: [www.AdvancedIdeals.org](http://www.AdvancedIdeals.org)

## Vitamin D article continued from page 2

<80 nmol (32 ng/mL) circulating 25(OH)D/L. This deficiency cutoff is now based on an array of biomarkers that are adversely affected by nutritional vitamin D deficiency rather than on Gaussian distributions of 25(OH)D concentrations as were used in the past.<sup>1</sup>

Vitamin D synthesis is affected by 7-dehydrocholesterol concentrations in the skin, sunlight intensity, clothing, skin pigmentation, and use of sunscreens. Sunlight intensity, especially the intensity of light in the 280-315 nm ultra-violet B range (UVB) is dependent on the angle of the sun, cloudiness, density of the ozone layer, and air pollution. Early morning and late afternoon sun is not intense enough to facilitate vitamin D production. Most vitamin D is produced between 10:00 am and 4:00 pm<sup>2</sup>. This is why the darker skinned women in the study<sup>3</sup> referred to in the above editorial had lower vitamin D status, in fact, 17 of 79 women of Turkish origin had non-detectable circulating levels.

The seriousness and ubiquitousness of vitamin D deficiency is now being recognized by many mainstream scientists and physicians. Vitamin D deficiency is known to cause many problems other than bone loss. Vitamin D deficiency increases the risk for several cancers, diabetes, heart disease, and auto-immune disorders<sup>4,5,6</sup>. There are still many questions about how much vitamin D is ideal, but the current opinion of most researchers is that an ideal daily dose – barring intense sunlight exposure – is about 2,000-4,000 IU per day.

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## Science News



Sixty percent of all cancers have a gene designated p53 that is mutated. Until recently the normal function of the gene (gene product) was unknown. It turns out that p53 encodes a regulatory protein that controls energy metabolism. The mutation causes a switch away from normal aerobic metabolism to anaerobic metabolism – thereby causing the “Warburg effect”. In 1931 Otto Warburg observed that cancer cells tend to prefer anaerobic metabolism and utilize much less oxygen than normal cells. Until now the how and why was not understood. Now, 65 years later, the “how” is at least partially understood. Reference: Matoba S et al. (2006) p53 Regulates Mitochondrial Respiration. *Science* 312 (5780) 1650-1653 (June 16, 2006).

# New Products

## Alpha-Lipoic Acid

Alpha-lipoic acid (ALA) is an essential part of the pyruvate dehydrogenase (PDH) complex, the central enzyme complex that controls both fat and carbohydrate metabolism. Cellular energy production depends on the proper action of ALA and PDH. Alpha-lipoic acid was propelled into the national spotlight when Bruce Ames at UC Berkley reported in a series of papers that it, alone or combined with carnitine, restored old rats to nearly youthful energy and brain function (Proc Natl Acad Sci Feb 19, 2002) Other investigators have reported that it helps diabetic neuropathy and numerous other health problems. **Daily Alpha-Lipoic Acid contains 300 mg of ALA per capsule. Suggested use: 1 capsule three times per day with meals. 60 capsules per bottle.**

## Ener-Cell

Our new cellular energy and restorative formula combines ALA with L-carnitine (another very important mediator of cellular energy) curcumin (we believe to be the most potent natural anti-inflammatory agent) and Coenzyme Q-10 (cellular energy co-factor). This formula is designed to feed and protect the mitochondria (energy factory) of cells. Much of the oxidative damage in the body stems from the oxidation of fats and carbohydrates in the mitochondria. These nutrients help assure that energy is obtained from foods in as efficient manner as possible with as little cellular damage as possible. **Daily Ener-Cell contains 250 mg Alpha-Lipoic Acid, 100 mg L-carnitine, 50 mg Coenzyme Q-10, and 150 mg curcumin. Suggested use: 1 capsule three times per day with meals. 60 capsules per bottle.**

## GlutenAce

Increasing numbers of people are discovering that they have gluten intolerance. As of now, the only way to manage gluten intolerance is to eliminate it from the diet. We are finding that many people have difficulty when traveling, and although they only eat foods they believe to be gluten free, a little invariably finds it's way into foods they do not prepare themselves. A new product coming soon will address this common problem. **GlutenAce** will have digestive enzymes for breaking down gluten along with anti-inflammatory enzymes. Taking this product when eating at restaurants should help reduce the effects of contamination with small amounts of gluten. It is important to remember, however, that this does not make it ok for gluten-intolerant people to eat gluten!

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## American and British Health Comparison

The Journal of the American Medical Association (JAMA, Banks et al. May 3, 2006, 295:2037-2045) reported a comparative study between American and English non-Hispanic white people in the 55-64 year age group. They found that although Americans spend much more money on health care, they are less healthy and have a higher incidence of diabetes and heart disease than their counterparts in England. Even more surprising, the English were just as likely to be overweight, and more likely to be smokers. So why are the English so much healthier than Americans? Many factors that could provide answers were not included in the study, nutritional and exercise comparisons were not made. Nevertheless, two markers of chronic inflammation were notably higher in Americans: C-reactive protein and fibrinogen were both higher. Chronic inflammation appears to be an important causative factor in the etiology of each the diseases in this study. Perhaps a higher level of stress and lower intakes of anti-inflammatory and antioxidant nutrients could be responsible for at least part of the increased occurrence of serious disease in the American population.

## Rapid Weight Loss Hazards

The hazards of obesity are well documented and weight loss is an important health objective for obese people. Rapid weight loss, however, carries its own substantial risks. Bone mineral loss is consistently seen in weight loss studies (See Shapses and Riedt, Bone, Body Weight, and Weight Reduction: What are the Concerns. *American Journal of Clinical Nutrition* June, 2006: 136: 1453-1456). Even losing small amounts of weight results in some bone loss, but rapid weight loss results in large losses. This is partially due to lower dietary calcium intake and benefits of a calcium supplement during dieting is well documented, but it does not entirely reverse the bone mineral loss. The best approach is to combine calcium supplementation with moderate weight loss (1 lb. per week is a good amount). Rapid weight loss also puts people at risk of developing gallstones (<http://win.niddk.nih.gov/publications/gallstones.htm#weightloss>). According to the National Institutes of Health between 10 and 25 percent of people on a very low calorie diet will develop gallstones and about one third of those will have symptoms of gall bladder disease. The hazards associated with rapid weight loss are severe enough to suggest that a slow, sustained weight loss is healthier.

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