

Health Hunters

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NEWSLETTER

FEBRUARY 2010

CoQ10: the energy nutrient

by Chad Krier, N.D., D.C.

Coenzyme Q10 is a fat-soluble vitamin-like substance present in every cell of the body. It serves as a coenzyme for several of the key enzymatic steps in the production of ENERGY within the cell. It also functions as an antioxidant, a potent free radical scavenger. Coenzymes are cofactors that large and complex enzymes depend on for their function. Enzymes are complex proteins that induce chemical changes in other substances without being changed themselves (help with chemical reactions). Coenzyme Q10 helps our mitochondrial (powerhouses) enzymes work to produce energy through its role in the electron transport chain. Mitochondrial enzymes help take our food and turn it into energy. Namely, mitochondrial enzymes utilize carbs and fats to create a high energy phosphate molecule known as ATP (no -- this is not what the Indians used as shelter). All cellular functions in our body require Energy, which comes in the form of ATP.

Raising CoQ10 levels can have a positive impact on many disorders.

CoQ10 is especially important for the cells/tissues that are the most metabolically active like our heart, immune cells, stomach, and gingiva. One thing that needs constant replenishing is our energy reserves. We can only store about 3 ounces of ATP in our body at any one time. Without constant regeneration, exercises like running would deplete our body stores of ATP in 5-8 seconds. CoQ10 not only keeps us up and running by helping in the production of energy,

it also protects our cells through its free radical fighting abilities. It works as a co-antioxidant alongside vitamins E and C by donating its electrons to them (buddies).

We can make CoQ10 from the amino acid tyrosine in a multistage process that requires vitamin B2, vitamin B3, vitamin B5, vitamin B6, folic acid, vitamin B12, and vitamin C. CoQ10 is similar in structure to fat soluble vitamin K. Not only can we make CoQ10 but we can also get it from food sources. Most organ meats such as heart, liver, and kidney contain CoQ10, as well as beef, soy oil, sardines, mackerel, and peanuts. It can be difficult to obtain therapeutic levels of CoQ10 from diet alone. To put it into perspective, it would take one pound of sardines or two pounds of beef, or two and one half pounds of peanuts to provide 30 mg of CoQ10 (yikes!).

A CoQ10 deficient state may occur from low dietary intake, impairment in CoQ10 synthesis (can you say Statins), and excessive utilization of CoQ10 by the body. CoQ10 levels tend to peak around age 20 and slowly decline thereafter. The decrease in CoQ10 levels over time is consistent with the free radical theory of aging which states that aging is an accumulation of oxidants that overwhelm our antioxidant reserves. As our CoQ10 levels decline, so goes our cellular energy production. Diminished energy and antioxidant capacity can equate to not only aging but also disease. With this in mind, it's no surprise that raising CoQ10 levels can have a positive impact on many disorders.

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Meat, processed meat, and prostate cancer

Although fats from meat and other foods seem unrelated to prostate cancer, a new study points to risks from other substances in red and processed meats. Over 175,000 US men of initial age 50 to 71 reported their frequency of eating various foods over the last year. Then they were followed for 9 years, during which 10,313 cases of prostate cancer were found. Men who ate the most red meat and processed meat at entry (average 5.3 oz. and 1.5 oz. per day, respectively), compared to the least (0.7 oz. and 0.4 oz.), had about 30% higher risk for advanced prostate cancer. Similar risks were estimated for barbecued and grilled meat and for the nitrite or nitrate in processed meats such as bacon, ham, hot dogs, and cold cuts. Little or no risk was found for white meat. These results may explain a small part of large national differences in prostate cancer.

—Am J Epidemiol 2009; 170:1165 [H]

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Nutritional Medicine

by Rebecca Kirby, M.D., M.S., R.D.

Adaptability

As we plunge into a brave new year, consider how important adaptability is for not only individuals but also organizations. The famous researcher on stress, Dr. Hans Selye, says that adaptability is perhaps the most distinctive characteristic of life and that the degree of aliveness parallels the extent of adaptability in man and animals... the loss of which is death.

We have an extraordinary capacity for change with the ability to adapt and grow as required for survival. Our physiology is fine tuned to respond to changes that ensure survival. A good example that Dr. Selye explains is the response to cold (very appropriate this winter). Exposure to significant cold will elicit shivering, blood vessels constrict to minimize heat loss, intense muscular activity (jumping around) will generate internal heat production, and eventually if exposure is prolonged the thyroid will adjust to increase internal heat production.

This same body adjustment mechanism is going on at a molecular level. How well our body can respond depends on our participation in providing tools for the healing response since the body has the mechanisms in place for adaptation.

Providing good nutrition, being active, minimizing toxin exposure, understanding and addressing biochemical


individuality, plus a positive forward outlook are just a few examples of ways to optimize the healing response. If we address these healthy choices, we allow our biochemistry to adapt, grow, heal, and readjust. This change and adaptation is tantamount to survival whether it is molecular, attitudinal, or organizational.

Consider organizational adaptation. Organizations are webs of relationships, says author, Margaret J. Wheatley. Life is about the creation of new systems through relationships and through inclusion of people, not exclusion. When our world view starts to look confusing, she says we start applying old solutions more rigidly rather than creating new responses. She points out how human creativity, wisdom, and courage can be employed in creating healthy and enduring organizations.

Being open to new thoughts and changing mental constructs can be confusing, but to quote the author Burt Mannis in *The Leader's Edge*, "In this day and age, if you're not confused, you're not thinking clearly."

Sources:

The Stress of Life by Hans Selye, M.D.

Leadership and the New Science: Discovering Order in a Chaotic World by Margaret J. Wheatley and from an interview with the author by Scott London 

CoQ10: the energy nutrient—Cont'd from page 1

CoQ10 has shown the ability to prevent metastases and enhance remission in breast cancer. Thirty-two patients with high risk breast cancer were treated with 1.2 g linolenic acid, 3.5 g omega-3 fatty acids, antioxidants (beta-carotene, vitamin C, vitamin E, selenium), and 90 mg CoQ10. No patient died during the study and all expressed a feeling of well being. All participants were still living 2 years past the study (researchers expected at least 6 deaths by that time). Remission of breast tumors occurred in 6 of 32 patients (ages between 48 and 82). Morphine dosages used for pain control were reduced,

and metastasis was not observed. It was discovered that 2 of the women who went into remission were taking between 300-390 mg of CoQ10 daily. Around 20% of breast cancer patients have low levels of CoQ10. Those with breast cancer should supplement with CoQ10 in the higher dosage range. CoQ10 may work against cancer through a process called redox cycling and immune system enhancement.

As CoQ10 is important for the health of metabolically active tissues, it has shown benefit in fighting periodontal disease and healing gastric ulcers.

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Low CoQ10 levels are often found in obese patients who may have lower levels of mitochondria in their muscles. Sedentary subjects who supplemented with CoQ10 were able to improve their maximum oxygen consumption and exercise capacity. In rat studies, combining CoQ10 with propionyl-L-carnitine, nicotinamide, riboflavin, and pantothenic acid created positive functional changes on motor performance of skeletal, cardiac, and smooth muscle. The functional changes allowed the rat to increase work capacity by 160%. CoQ10 has also shown benefit in migraine treatment. Supplementing 150 mg per day of CoQ10 for 3 months reduced the number of migraines by 50%. Researchers theorize that migraines may be a result of mitochondrial impairment. Other conditions where CoQ10 has proved helpful include fibromyalgia, muscular dystrophy, allergies, diabetes, and asthma.

By far most of the research on CoQ10 has focused on the cardiovascular system and the brain. CoQ10 is especially indicated for the enhancement of myocardial (heart) function by enhancing energy production, improving contractility (contraction capability) of the cardiac muscle, and providing potent antioxidant activity, in particular prevention of LDL (bad cholesterol) oxidation. Our hearts beat at least 100,000 times per day so they need lots of ATP. CoQ10 levels are often depressed in the myocardial tissue and blood samples of patients with cardiac disease. The magnitude of the deficiency is proportionate to the severity of the disease.

CoQ10 has shown the ability to lower blood pressure (mean decrease in systolic blood pressure = 16 mmHg, diastolic = 10mmHg) in at least 8 clinical studies using dosages in the 100-200 mg per day range. CoQ10 also helps keep our blood flowing by decreasing levels of eicosanoids (chemicals) associated with vasoconstriction and decreased platelet aggregation. CoQ10 has shown the ability to decrease blood viscosity in ischemic heart disease patients and decrease platelet aggregation and platelet size in healthy

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HEALTH HUNTERS AT HOME

Pain management: finding your bliss or your nemesis

by Norvalee Kolar



First of all, I would like to acknowledge that this is not for the sufferers of intractable pain. Theirs is a devastating condition, not easily addressed or dealt with. This is for the majority of us who deal with nagging pain continually. It tends to become a countenance destroyer. It pervades every facet of your life, every day of your life. For me, the trick is focus! You have to find something that can absorb your whole interest. There are many current life-enhancing theories out there, all the way from psychoneuroimmunology to *The Secret*. All teach that you get what you think about.

I happen to be a lover of Baroque music. That is not everyone's choice, just one of many. Whatever floats your boat, as they say. I find it helpful to keep a choice CD going as background to my day. I have many other choices, too. I have specific CDs for mood enhancement, concentration, healing, and addressing the different brain wave levels of alpha, theta, and delta. Believe it or not, I even have a CD called "Cat Calm" to relax my cat. Actually, I've never seen my cat "tense." They seem to have a lock on relaxation.

My experience with pain started in 1979 when I was diagnosed with Lupus, necrotizing vasculitis, and rheumatoid arthritis, all related. It was a toss up between the surface burning pain and the joint pain. At first I was simply devastated. It took a long time to begin to learn how to deal with it. And my first attempts were weak indeed. The first response we hear is, "take a pill." Well, there are many examples in the news daily that disprove the efficacy of that! Besides, I only want to use the least amount of anything "foreign" to my body. To me, that's just sanity. I experimented with meditation: meditation within a pyramid and meditation to music background. For me, mind control is paramount. My mind is more like a gerbil in an exercise wheel. I tried Tai chi. I tried yoga. Most worked initially, during the concentrated learning phase. Once the basics were mastered, I lost

my "edge" so to speak. It finally hit me. The secret for me was in concentration. My occupation during all these tribulations was accounts payable clerk. It was also my salvation. I am extremely poor at math. It was my intense concentration in maintaining my daily job that ultimately served as a release from the constant pain. Either find your "bliss" or your "nemesis." Therein lies your relief. Pain is a personal journey not to be taken lightly.

Reading can be a good distraction or change of focus. If you can get caught up in a well-written book that absorbs your total interest, you've got a leg up on this personal battle. I was lucky enough to get caught up in a series of 18 books following one continuous tale of many generations. But that's not going to happen to very many people. Actually, any readily available paperback that grabs you is a winner in my estimation. Keep your mind focused and entertained.

It is important to keep moving if possible. It is very tempting to be still with joint pain. But this is not a good response. I have found that when I give in to the pain, I actually get more stiff. You need to maintain minimal exercise of the gentle variety. Stretching is vital to flexibility.

Take up a new hobby or reconnect with an old one, maybe a variation on an old one, or anything that can keep your attention focused and away from the pain. And don't discount the value of a "nemesis," that job you have to maintain. It can be a valuable source of "pain relief."

Last of all, daydreaming is not an idle occupation. It is a valid approach to finding your "bliss." You have to be able to dream it before you can do it. My parents' generation felt that day dreaming or being idle was detrimental to the development of a life's goal, but I maintain that it is essential to finding your goal and achieving it. In the long run, you will focus on the pleasant things in life and ease the nagging pain. Bliss or nemesis. It's all in your perspective. [H]

INFORMATION WORTH KNOWING

by Marilyn Landreth, M.A.

For many years, scientists have been searching for the cause of cancer, heart disease, arthritis, and many other diseases. We have learned a great deal about the influence of environment, diet, exercise (or lack of exercise), and toxicity on the development of disease. Lately, we have been hearing more and more that stress plays a part in many diseases. Gabor Maté, M.D., has developed another way of understanding the development of disease through a study of the life history of his patients in conjunction with their ailment. He shares his insight in his book, *When the Body Says No: Understanding the Stress-Disease Connection*. His theories, supported by interviews with his patients, are interesting and informative. Maté stresses the importance of not blaming the patient for his/her illness but to use the information to help him/her heal. He gives a thorough understanding of what stress is and how it affects the body. The last chapter on the seven A's of healing is especially important in understanding the importance of hidden stress and how to deal with it. Dr. Hunninghake will present a more in-depth look at this phenomenon as part of the Lunch and Lecture series. The questions this month are taken from Dr. Maté's book.

1 Psychoneuroimmunology (PNI) is the study of the interaction between the mind and the body. Psychoneuroimmunoendocrinology includes the endocrine or _____ system as part of the whole body response.

- a. muscle
- b. hormonal
- c. visual
- d. auditory

2 Stress is composed of complicated physical and emotional responses. Physiologically, emotions are _____ discharge(s) of the human nervous system.

- a. electrical
- b. chemical
- c. hormonal
- d. all of the above

3 It is always easy for us to know when we are feeling stress, especially if the stress is long-term.

- a. True
- b. False

4 There are three components of the stress response. The first is the event that we interpret as threatening. The second is the part that is processing the meaning of the event. The third consists of various _____ adjustments that are made in reaction to the perceived threat.

- a. psychological and physiological
- b. physiological and behavioral

- c. behavioral and psychological
- d. behavioral and nerves

5 Factors that universally lead to stress are uncertainty, lack of _____, and loss of control.

- a. information
- b. training
- c. money
- d. motivation

6 For some people, it is the absence of habitual stress that creates unease, boredom, and a sense of meaninglessness.

- a. True
- b. False

7 In one study, the immune cells response was compared in two groups of caregivers. The group that reported lower levels of _____ also showed the greatest depression of immune activity.

- a. medicine
- b. ACTH
- c. social support
- d. endorphins

Test of the Month

by Dr. James A. Jackson,
Director, Bio-Center Laboratory


Glutathione (GSH)

Glutathione (GSH) is the most abundant and important intracellular (inside of cells) antioxidant. GSH in red blood cells is a sensitive indicator of intracellular GSH status of all cells, the overall health of cells, and the ability of the cells to endure toxic challenges, especially from toxic metals.

Glutathione is made from three amino acids (a tripeptide) and is involved in removal of free radicals, regulation of the redox state of cells, and the regulation of immune function. GSH levels are thousands of times higher in cells than in plasma. The most active form is reduced GSH (rGSH).

Low levels of glutathione have been reported in heart disease, cancer, AIDS, autism, alcoholism, and neurodegenerative diseases such as Parkinson's and Alzheimer's. Low levels are also found in chronic retention of potential toxic elements (lead, mercury, arsenic, cadmium, manganese, and iron), other chemicals, and some drugs.

If a person has these conditions or an acute exposure to toxic metals, it is essential to provide the body with key nutrients that are involved in glutathione synthesis and to maintain functionally levels of GSH. Some of these nutrients are magnesium, potassium, cysteine, high quality whey protein, alpha lipoic acid, curcumin, oral liposomal GSH, and N-acetyl-L-cysteine.

Measuring the red blood cell level is important towards protecting cells, overall health and longevity, and contributes significantly to safe and effective metal detoxification. The Bio-Center Laboratory measures glutathione and our Center doctors are aware of the value of this test and order it frequently on our patient/co-learners. 

• FOR ANSWERS, SEE PAGE 7 •

Amaranthus

by Gary Branum, Ph.D.

Most of us are familiar with the annual ornamental of Cock's Comb, or *Celosia*. What most of us don't know is that *Celosia* is a member of the family *Amaranthaceae*, a family which includes a number of plants called Amaranths.

Over 60 species of Amaranths are known. Many of these are used, especially in the US, as annual ornamentals. Ornamental amaranths are drought tolerant, fast-growing, and will reseed themselves every year. The plants grow to a height of 4-8 feet, depending on species, and usually produce abundant foliage and seedheads that range in color from purple to gold.

Modern amaranthus species are descended from a number of plants that have been staple food crops for thousands of years. The young leaves of amaranths can be eaten as a vegetable. The leaves can be cooked and eaten as a green or used in salads.

Amaranth greens are a staple vegetable in many parts of the world. In fact, one reference says that the name of the plant in Yoruba (a dialect spoken in parts of Nigeria) is *arowo jeja*, which is translated as "we have money left over for fish." Even *Celosia* leaves and young flowering heads can be eaten, having a soft texture and a taste resembling spinach. They are traditionally eaten as one of the vegetables in a stew or soup, or are combined with peppers and garlic and eaten as a salad. It is suggested that amaranth leaves be used in moderation due to a relatively high level of oxalic acid, just as in spinach.

Would you like to try amaranth grain? Many whole food markets carry quinoa (pronounced *keen-wah*), which is the grain from a plant that is in the family *Amaranthaceae*. Quinoa is valued because of its nutty flavor, its almost complete amino acid balance, and its lack of gluten. Quinoa is frequently prepared like rice and can be substituted for rice in many dishes.

To see amaranth plants, come to the Brightspot Garden during the summer. We usually have two or three plants, primarily as ornamentals. [H]

Physical Medicine

by Chad A. Krier, N.D., D.C.

Shortwave diathermy

Shortwave diathermy is a physical medicine modality used for producing deep, penetrating heat in body tissues. Heat is generated at the cellular level in the body by the passage of high-frequency electromagnetic energy and the buildup of molecular motion.

Diathermy produces a very deep heat, penetrating two inches with an increase of tissue temperature to 105 degrees F. The localized increase in tissue temperature is brought on by dilation (expanding) of the blood vessels in the area. The increased blood flow promotes improved nutrient delivery and waste elimination in the localized tissue. The heat also stimulates collagenase production, which helps to soften scar tissue. In

addition, diathermy promotes immune enhancement (increase in white blood cells) at the local site.

Diathermy can be helpful for the following conditions: bursitis, arthritis, tendonitis, sprains and strains (after 36 hours), neuralgias, sinusitis, otitis media, pulmonary conditions, and fibromyalgia.

Diathermy treatment generally involves placing a diathermy drum type end over the treatment area for 20 minutes.

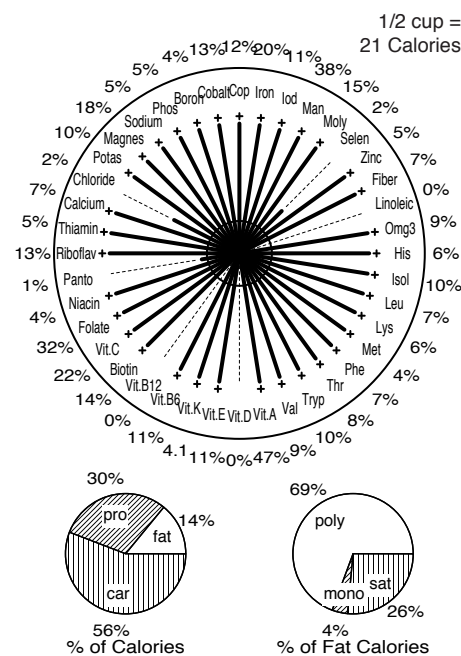
Diathermy can't be applied over areas that contain metal. Contraindications include: pacemakers, pregnancy, peripheral vascular disease, and bone infection. [H]

Food of the Month

by Donald R. Davis, Ph.D.



NutriCircle



SPINACH is one of our richest foods in terms of nutrients per calorie, with at least adequate proportions of nearly all known nutrients. A half-cup serving of steamed spinach, shown here, supplies 4.1 RDAs of bone-building vitamin K, and one-third to one-half of the RDAs for folic acid and vitamin A. Spinach contains 14% fat calories, over half of which is alpha-linolenic acid, an omega-3 fat low in many diets. Although the calcium is poorly absorbed, spinach is an exceptional source of many other nutrients. It is also rich in beneficial phytochemicals not shown here, including lutein, which protects our eyes from macular degeneration and cataracts. Popeye was right!

The length of each bar shows the amount of one nutrient. If a bar extends out to the inner circle, the food has enough of that nutrient to match the calories it contains. The numbers show nutrient amounts in RDAs per serving shown. The pie charts show the sources of calories (left) and the types of fat (right). [H]

Mental Medicine

by Marilyn Landreth, M.A.



Facing fear

Now that we are in the second month of this new decade, do you find that, although it is a new year, you still have some of the same old challenges and concerns along with a few new ones? It seems to me that just when I think I have it all figured out, life throws another curve ball and I have to rethink my automatic response.

Eleanor Roosevelt said, "You gain strength, courage and confidence by every experience in which you really stop to look fear in the face. You are able to say to yourself, 'I have lived through this horror. I can take the next thing that comes along.' You must do the thing you think you cannot do." So learning to really look at whatever challenges are causing your stress or fear would be the first step.

Three universal factors can lead to stress: uncertainty, the lack of informa-

tion, and the loss of control. Accepting that the world has always been an uncertain place and probably always will be can be beneficial. One of our problems is thinking that it should be otherwise. Finding out as much information as possible can go a long way in alleviating fear. Fear of the unknown can be stressful because, most of the time, our imagination makes it worse than it really is. We can never control all areas of life no matter how hard we try. Knowing that we have the ability to go with the flow, even when it takes us outside of our comfort zone, decreases our fear and stress.

Every time we let fear dictate our actions, we are limiting our abilities. Oprah Winfrey said, "Whatever you fear most has no power - it is your fear that has the power." How are you going to face your next challenge? ^[H]

COQ10—Cont'd from page 3

CoQ10 seems to inhibit platelet stickiness in the arteries, helping to prevent thrombosis and embolism. CoQ10 should be used with all heart attack sufferers.

In one study, patients with acute myocardial infarction were given 120 mg per day of CoQ10 for 28 days. CoQ10 supplemented patients showed significant reduction in angina, arrhythmias, and left ventricular dysfunction. A reduction in total cardiac events and decreased indicators of oxidative stress were noted in the CoQ10 supplemented patients. Researchers concluded that CoQ10 can provide rapid protective effects in patients with acute heart attack if administered within 3 days of symptom onset. CoQ10 has also shown benefit in congestive heart failure, cardiomyopathy, and atherosclerosis.

As far as the brain goes, a bulk of the research on CoQ10 has focused on Parkinson's disease. Poor mitochondrial functioning is believed to injure

the dopaminergic neurons in the part of the brain known as the substantia nigra. Mitochondria from platelets of patients with Parkinson's disease have reduced levels of coenzyme Q10. Treatment with coenzyme Q10 does at least partly correct the mitochondrial transport defect associated with Parkinson's disease. Parkinson's studies are utilizing very high levels of CoQ10 (around 1200 to 2400 mg per day) in conjunction with vitamin E with no apparent adverse effects beyond the price of the CoQ10. CoQ10 slows the progression of Parkinson's disease around 44%. The greatest benefits of CoQ10 for Parkinson patients were observed in activities of daily living such as feeding, dressing, bathing, and walking.

Overall CoQ10 has the power to turn on our energy powerhouses to promote vitality. CoQ10 is best taken with food (fat soluble) in the dosage range of 50 mg up to 2400 mg, depending on the situation. ^[H]

Case of the month

A 67-year-old male was first seen in the clinic in December 2005. His complaints consisted of muscle weakness, double vision, and anxiety. Also, myasthenia gravis had been diagnosed in the past. He was having difficulty sleeping and was depressed over the loss of the ability to do simple things.

He saw Dr. Hunninghake who recommended the following tests be performed: adrenal stress index, coenzyme Q10, CRP, DHEA, estradiol, ferritin, testosterone, free T3, vitamins and minerals, amino acids, candida, EFA, hair analysis, and cytotoxic test to measure food sensitivities. A pyrrole level was also done.

The tests showed a high CRP level, which measures inflammation in the body. His candida levels were also elevated. He had low levels of calcium, manganese, and chromium, and an elevated pyrrole level.

He was given vitamin B12 injections, vitamin D, liquid pro omega, inositol, lecithin, manganese, and magnesium. He also takes niacin, Armour thyroid, and MSM powder.

He was seen on December 16, 2009, and is doing well. He continues to take his supplements and is working on his cholesterol levels to reduce them, as they are elevated. He is now being seen every six months for follow-up appointments and will call if he has further problems. ^[H]

Strategy #1: Stay away from the soft, creamy center. That would be the soft, creamy center of the supermarket - aisles 3 through 11, in most grocery stores. While the healthy stuff like dairy, produce, meat, and seafood is usually located around the edges, the interior of the supermarket is almost always packed with highly processed foods made from corn and soy and the 3,000 or more additives manufacturers use to make things that are edible but aren't actually food. From: *Eat This Not That* by David Zinczenko with Matt Goulding.

Please, visit the Mabee Library often, located in lower dome 2.

Answers from page 4

- 1 b. New research is finding how these links are connected all the way down to the cellular level.
- 2 d. Emotions both influence and are influenced by our major organs.
- 3 b. Most people think that stress is always felt as nervous tension, when in truth we cannot always be aware of the physiological responses to stress.
- 4 b. In this system, the definition of the stressor depends on the processing system that assigns meaning to it.
- 5 a. While all of the answers might apply, lack of information is the one that keeps us from understanding options.
- 6 a. Some people can become addicted to their own stress hormones, adrenaline, and cortisol.
- 7 c. Lack of social support (loneliness) was also a factor in the most impaired immune responses during stressful term examination of medical students. HH

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WHEN THE BODY SAYS NO

By Gabor Maté, M.D.

Stress is said to play a part in many acute and chronic illnesses. What is it about stress that affects our health? Does the way we perceive our life affect our health? Dr. Maté proposes how the connections between our emotions affect stress and our health. Hard cover. (\$27.95 HH price \$25.11)

PROBIOTICS: Beneficial Bacteria, the Good Bugs

with Rebecca Kirby, M.D., M.S., R.D.

There are over 400 different kinds of bacteria in our digestive system. The beneficial bacteria or probiotics enhance the immune system, suppress inflammation and allergies, not to mention improve digestion and bowel health. Don't live without them!

HOW MEDITATION CHANGES THE BRAIN with Mary Braud, M.D.

Dr. Braud discusses and presents evidence supporting the benefits of meditation practice, which include improvements in memory and attention and more. Learn what modern science tells us about ancient practices.

GENETICALLY MODIFIED FOODS: Claims, Counter-Claims, and Doubts

with Donald R. Davis, Ph.D.

Most US corn, soybeans, and cotton are genetically modified to improve weed control, but many other, more questionable modifications are planned. A balanced overview of the claims and counter-claims that support the public's right to label disclosure of genetic modifications is given.

• To Order, Fill Out the Form Below •

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- 4 Using Supplements with IVC (Intravenous Vitamin C) Therapy for Cancer
- 11 Mushroom Power - Cancer Prevention and Nutritional Benefits
- 18 The Great Brain Tune Up
- 25 Why Stomach Acid is Beneficial to You

March:

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Special Upcoming Events. . .

April 1 - Health Hunter/Beat The Odds "Ask The Doctors"
Evening event

April 2 & 3 - Health Hunter/Beat The Odds Days
Discount Laboratory Testing & Double Discounts on Gift of Health Items

Exercise in the very old

Exercise improves life and longevity in diverse ways, as shown by many studies in children, middle-aged adults, and the "young elderly." But little is known about the effects of continuing or increasing activity in the very old. A recently reported Israeli study followed 1861 representative 70-year-olds for 18 years. Among those who were active vs. sedentary, there were large differences in mortality. At age 70, 8-year mortality was 15% vs. 27%; at age 78, 7-year mortality was 26% vs. 41%; and at age 85, 3-year mortality was 7% vs. 24%. "Active" subjects were those who reported exercising at least 4 hours a week, jogging or swimming at least twice a week, or walking at least an hour daily. Further, there was significantly higher survival in those who began such activity between ages 70 and 78 or between ages 78 and 85. Those who were active at age 78 were nearly twice as likely as others to live independently at age 85.

—*Arch Intern Med* 2009; 169:1476