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NEWSLETTER

OCTOBER 2004

CoQ10: the energy nutrient

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

f you suffer from fatigue, have a family or personal history of heart disease, gum disease, asthma, or neurodegenerative disorders then this nutrient may be of benefit to you.

Beyond cardiovascular health, CoQ10 has a wide range of applications.

Why is CoQ10 important? Namely, CoQ10 is involved in the manufacture of ATP (not the same thing that the Indians used to live in), the energy currency of all body processes. The process of creating ATP occurs in the mitochondria (tiny powerhouses) inside our cells. Hence, CoQ10 is essential for optimal mitochondrial functioning.

CoQ10 can be synthesized within our bodies. However, nutritional deficiencies, genetic or acquired defects, certain medications such as statin drugs, and increased tissue needs can make the need for supplementation necessary. Further, people over the age of 50 may have increased CoQ10 requirements, as CoQ10 levels are known to decline with advancing age. A CoQ10 deficiency can adversely affect metabolically active tissues in the body. As the heart is one of the most metabolically active tissues in the body, it is easy to see why CoQ10 is often beneficial in those with heart disease.

Indeed, CoQ10's claim to fame has been in the area of cardiovascular disease. It is used in the treatment of high cholesterol, high blood pressure, congestive heart failure, cardiomyopathy, mitral valve prolapse, and angina.

CoQ10 benefits the heart by improving energy production in the heart muscle and by acting as an antioxidant. Biopsy results from heart tissue in patients with various cardiovascular diseases have shown a CoQ10 deficiency in 50-75% of cases. Moreover, CoQ10 deficiency has been shown to be present in 39% of patients with high blood pressure. CoQ10 has, in fact, been shown to lower blood pressure in patients with hypertension.

Beyond cardiovascular health, CoQ10 has a wide range of applications. It has been shown to help with tissue healing in those who suffer from periodontal disease. In fact, it is estimated that between 60-96% of patients with periodontal disease have low CoQ10 status. Maybe we should start replacing that fluoride in toothpaste with CoQ10. CoQ10 also shows promise for those who are overweight. One study noted a significant weight loss achievement by giving obese subjects 100 mg/day of CoQ10. In addition, CoQ10 has also been shown to be helpful in diabetes, immune deficiency, cancer, migraine headaches, and muscular dystrophy. Several studies are looking into the supportive role that CoQ10 might play in cases of asthma and neurodegenerative diseases such as Parkinson's.

The dosage for CoQ10 can vary (50 to 200 mg) depending on the form of supplementation used. The best preparations appear to be soft-gelatin capsules that contain CoQ10 in an oil base or in a soluble form. In order to further enhance absorption, CoQ10 should be taken with foods that include

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Lutein slows agerelated macular degeneration

Age-related macular degeneration (AMD) is the number one cause of vision loss for adults in the U.S. It is a progressive disease of the retina that causes loss of the central vision. Ninety percent of the people with AMD have what is called atrophic or dry AMD.

Being a woman of advanced age, smoking, obesity, and a family history of AMD increase the chance of getting this disease. Low fruit and vegetable consumption also causes AMD.

In a recent study, researchers tried lutein, a carotenoid, to find its effect on AMD. The researchers divided 90 people with AMD (mostly male) into three groups: one received lutein, the second received lutein along with various vitamins and minerals, and the third received a placebo for a year.

Researchers discovered that lutein alone and in combination with nutrients improved the macular pigment optical density, glare recovery, and near visual acuity. The placebo did not.

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Nutritional Medicine

by Ron Hunninghake, M.D.

Purpose

You woke up this morning, got out of bed, did your morning routine, dressed, ate breakfast, and then...what?

How did you know what came next?

"It's Monday, and I go to work after breakfast."

Why?

"I need to earn a living."

For what reason?

"To get the kids through college." "To take care of my aging parent." "To earn enough money to buy that spiffy sports car." "To _____(insert your current big goal)____."

OK, fast forward to the day when you have accomplished your stated goal (if it has a completion point.) Then what happened?

"I felt satisfied, and experienced a sense of accomplishment."

How long did that feeling last?

"Not long because I was already involved in the next project."

What is our true purpose? Is it simply to continue striving to finish "the purpose of the moment, the project

of the week, or the future accomplishment of the year?"

Or is there a higher purpose nestled in there that steers all those other purposes that comprise the business of living?

To be healthy. To be loving. To truly care for others. To make a difference. To be free. To find the spiritual dimension of life. To experience joy. To serve.

These are purposes too. The difference is, these purposes are free of circumstances. No matter what your level of health, you want to be healthy. No matter whether you are married, single, in a relationship, or out of a relationship, you want to give love and receive love. No matter what, you want to be free.

Ironically, these higher purposes are never fully achievable. They are invisible rudders that keep our lives on track...and we will probably never experience their completion in our lives.

Yet, without higher purpose...why even get up?

CoQ10—Cont'd from page 1

some fat (one tablespoon of oil: salad dressing, olive oil, flaxseed oil, peanut butter, etc.). CoQ10 is present in the blood in both oxidized (inactive) and reduced (active) form. During times of increased oxidative stress, more CoQ10 will be converted to its oxidized (inactive form). Thus, it would be wise to supplement with other antioxidants (particularly vitamin E) when using CoQ10. In addition, L-carnitine partners well with CoQ10 by enhancing CoQ10 transport across membranes. Since the response of

CoQ10 can take time, a noticeable improvement in your health might not occur until eight or more weeks after therapy is begun.

Remember, the Bio-Center Laboratory can measure your individual levels of CoQ10 for more targeted supplementation. I personally take 50 mg of CoQ10 per day in support of my mitochondria (I'm crazy about those little guys) and to improve my genetic potential (my upstream family members have been fond of heart attacks).

Invite a friend to a Lunch & Lecture to share the fun, good food, and beneficial information in a relaxing atmosphere.

Sugar sweetened beverages may cause diabetes and weight gain in women

We have suspected it for years. Now researchers confirm that sugar sweetened soft drinks and fruit punch may cause weight gain and Type 2 diabetes—in this case in young and middle-aged women.

Matthias Schulze, Dr.P.H., and colleagues used the results of the Nurses Health Study II to look at young and middle-aged women. The diabetes analysis included 91,240 women free of diabetes and other major chronic diseases at the beginning of the study. The weight change analysis involved 52,603 women. They were followed for eight years and 791 cases of diabetes were confirmed during the follow-up period.

The researchers found one or more fruit punches and soft drinks a day may cause weight gain and Type 2 diabetes. Fruit juice consumption did not. The reason for this, they said, is that fruit punch contains very little juice and a great deal of sugar, similar to soft drinks. Fruit juice contains naturally occurring sugars, fiber, and a lower glycemic index that may have a different metabolic effect than rapidly absorbed added sugars.

Supplement improves fertility in women

Fertility is an ever-increasing problem in the U.S. with one in every six couples having difficulty conceiving a child. This problem is equally divided between men and women.

Researchers recently had 30 women, ages 24 to 46 who had trouble conceiving a child, take either a multivitamin containing vitamins E, B6, B12, folic acid, iron, magnesium, selenium, and the herbal extracts of chaste berry and green tea or a placebo for three months.

Women in the supplement group had hormonal changes that were indicative of greater fertility and after five months five had become pregnant. No pregnancies occurred in the placebo group.

HEALTH HUNTERS AT HOME

Lipoic acid and carnitine: age-essential nutrients

Since I am older than the baby boomers, I am of the age that these types of problems interest me. If lipoic acid and carnitine are nutrients that will help me, I want to know.

The Center has been using lipoic acid with some cancer patients as well as other types of problems and carnitine, an amino acid, for some time now, but will they be good for you and me?

Dr. Tory Hagan, associate professor of biochemistry and biophysics and a Linus Pauling Institute principle investigator has some answers to my question (and yours, I assume), but doesn't suggest how much we should take.

"As individuals age," he says, "there is a greater need for certain substances that may be present in the body or in the diet in sufficient amounts when we're young. We have found two compounds that we call age-essential micronutrients." One of these is carnitine, an amino acid derived from lysine normally synthesized in the liver. Lipoic acid is the other. It is derived in the body from a fatty acid.

Carnitine and lipoic acid are normally used in the body to convert raw dietary fuels into usable forms of energy for our bodies to carry out the metabolic functions. They can also accept and donate chemical groups that become useful properties in our body's energy metabolism.

He says that lipoic acid is commercially available, but it is the left and right hand form—the S and R form, as scientists refer to them. The R or right hand form is used biologically to produce energy from raw fuel sources. It is also a powerful antioxidant. We actually make the R form in our bodies. "The left handed or S form [of lipoic acid] seems to be much less able to reduce to the very powerful antioxidant form. It also doesn't seem to be absorbed in the body in the same way," he adds.

Lipoic acid also acts as a signaling molecule to get more vitamin C into the cells. As we get older, we do not absorb vitamin C as well. By taking lipoic acid, we can overcome a problematic trans-

port protein and get more vitamin C taken up by the cells.

The Linus Pauling Institute's researchers have studied the use of carnitine and lipoic acid in relationship to the hearts in older rats. "The heart is an amazingly active organ that must continue to beat throughout our lives, so it is full of mitochondria—50% of heart volume is actually mitochondria, which produce energy. That tells you how energetically active the heart is," Dr. Hagan points out. Mitochondria are in every cell in our bodies and are the producers of energy in our bodies.

Unlike other organs, the heart cannot store energy to maintain its function. It has only about four minutes of energy reserves and these reserves diminish as we age. This is why heart attacks in the elderly are so much more lethal than for younger persons. "Mitochondria are the Achilles' heel in aging—our vulnerability to age-related problems is closely tied to mitochondrial function," Dr. Hagan said.

In the heart, carnitine and lipoic acid work together very well while accomplishing different end points, according to Dr. Hagan. Carnitine is involved in the process of converting fatty acids into a usable energy form. "If you give supplemental carnitine, you can improve the function of that sick protein, and fatty acids can then be taken into the mitochondria and utilized more efficiently," according to Dr. Hagan. He also found that the mitochondria tend to function better with lipoic acid.

This gives us a brief introduction to the uses of lipoic acid and carnitine as age-essential nutrients. So how much should you and I use? Dr. Hagan says he has only done research on rats and not on humans, so he can't say.

That leaves us with two alternatives. We can have these tested at The Center and then use this information to adjust our levels of these nutrients or we can go to the Gift of Health or our local health food store, get these two nutrients, and take them to see if they make us feel better.

-Richard Lewis

INFORMATION WORTH KNOWING

Pain, fatigue, depression, and sleep deprivation can all play a part in arthritis. If you would like to learn more about the various kinds of arthritis, why problems as well as pain develop, and what you can do about it, then *Strong Women and Men Beat Arthritis* is a book you should read. The lead author is Miriam E. Nelson, Ph.D., an associate professor of nutrition. Dr. Nelson, along with two of the other authors, Kristin R. Baker, Ph.D. and Ronenn Roubenoff, M.D., M.H.S., were involved with research at Tufts University. They found that the right types of exercise, performed correctly, helped to reduce arthritis symptoms. The right nutrition also plays an important role in reducing symptoms. Dr. Nelson is an associate professor of nutrition and has written several books in the strong woman series. The questions this month are taken from their book.

Arthritis means joint disease and it comes from artho (joint) and itis (inflammation). There are about _____ places in the body where joints come together.

- a. 60
- b. 80
- c. 100
- d. 120

There are more than 100 types of arthritis although most fall within two distinct categories. The most prevalent type of degenerative arthritis is _____ and is mainly a disease of middle to old age.

- a. rheumatoid arthritis (RA)
- b. osteoarthritis
- c. lupus
- d. none of the above

Production of cartilage is like a very slow moving lava flow. Specialized cells called chondrocytis (volcano) slowly secret a special cartilage gel (lava).

- a. True
- b. False

Rheumatoid arthritis can attack at any age, even as young as two years of age. In RA, the immune system attacks the synovium, a membrane that surrounds the joint. A large number of ______ invade the area to try to repair damage.

- a. white blood cells
- b. red blood cells
- c. nutrients
- d. none of the above

White blood cell activity causes the metabolism to increase by about 20%. The body needs more calories that must come from

- a. fat
- b. carbohydrate
- c. protein
- d. none of the above

In the Tufts University study it was found that strength training resulted in a reduction in pain by 43%, while physical functioning improved by 44%.

- a. True
- b. False

In conducting the Framingham osteoarthritis study, researchers found that a weight loss of about _____ pounds for most people decreased the risk for pain and stiffness by 50 percent.

- a. five
- b. eleven
- c. seventeen
- d. twenty-five
- FOR ANSWERS, SEE PAGE 7 •

Winning is important to me, but what brings me real joy is the experience of being fully engaged in whatever I'm doing.

-Phil Jackson

Alzheimer's disease and omega-3 fatty acids

Alzheimer's disease is one where the individual gradually loses his or her memory to where he/she cannot even recognize close family members. This happens when waxy protein plaque develops in the synapses, the connective points between the brain cells, preventing the cells from talking to each other.

Researchers recently discovered that omega-3 fatty acids found in fish and canola oil help prevent some memory loss in mice that develop a disease similar to Alzheimer's, according to the journal *Neuron*.

This correlates with research suggesting that fish oil supplements may reduce the risk of Alzheimer's disease in people. Other research shows that docosahexaenoic acid (DHA), an omega-3 fatty acid, is essential to brain functioning and that people with Alzheimer's disease have a very low level of DHA in their blood.

As research continues on Alzheimer's disease, you may be wise to incorporate omega-3 fatty acids in your diet to help prevent the disease. Fish, fish oil, and canola oil are excellent sources of omega-3 fatty acids.

Moderate wine drinkers have lower hypertension-related death rates

Researchers wanted to find out why people living in the Mediterranean part of France have a much lower risk of coronary heart disease than people living in northern Europe and the United States. To do this, they used the data from 36,583 healthy middle-aged men who had normal results from an electrocardiogram and were not taking drugs. The men underwent a thorough physical and then were followed for 13 to 21 years.

The researchers found that a "moderate intake of wine [less than 60 grams a day] is associated with a lower risk of mortality from all causes in persons with hypertension."

The Garden and the gardener

by Melvin D. Epp, Ph.D.

When you tell your neighbor about your garden production, what parameters do you use to describe your produce? Is it weight, inches, or bushels? I guess you would raise a few eyebrows if you spoke of your prized produce in terms of soluble and insoluble fiber, phytonutients, vitamins, and minerals. I am going to suggest that actually you are growing antioxidant capacity.

Reactive oxygen species are generated as by-products of normal cell aerobic respiration that is essential to life. Free oxygen radicals also come from cigarette smoke, pollutants, chemicals, and environmental toxins. Reactive oxygen species can damage molecules like proteins, lipids, and DNA. The human body has developed a very delicate system to eliminate free radicals. Diets rich in fruits and vegetables are considered as excellent sources of antioxidants.

A recent study measured the antioxidant capacity of many foods, including vegetables (*J. Agric. Food Chem.* 2004, 542:4026-4037). I will list a few vegetables in descending total antioxidant capacity (TAC) per serving size. The serving size is expressed in grams, and one pound equals 454 grams.

Vegetable	Serving Size	TAC
Potato, russet, raw	369 (1 potato)	4882
Cabbage, red, cooked	75 (1/2 c)	2359
Potato, red, raw	213 (1 potato)	2339
Asparagus, raw	67 (1/2 c)	2021
Peppers, yel, sweet, raw	186 (1 pepper)	1905
Beets, raw	68 (1/2 c)	1886
Lettuce, red leaf	68 (4 outer leaves)	1213
Sweet potato, raw	130 (1 potato)	1173
Radishes, raw	116 (1 cup, sliced)	1107
Peppers, red, sweet, raw	119 (1 pepper)	1072
Spinach, raw	40 (4 leaves)	1056
Eggplant, raw	41 (1/2 c)	1039
Broccoli, cooked	78 (1/2 c)	982
Onion, yellow, raw	80 (1/2 c)	823
Cabbage, red, raw	35 (1/2 c)	788
Carrots, raw	61 (1 medium)	741
Broccoli, raw	44 (1/2 c)	700
Peppers, gr, sweet, raw	119 (1 pepper)	664
Lettuce, green leaf	40 (4 leaves)	620
Pumpkin, raw	116 (1 cup, 1" cubes	
Peas, green, frozen	80 (1/2 c)	480
Cabbage, common, raw	35 (1/2 c)	476
Corn, canned	105 (1/2 c)	434
Tomato, raw	123 (1 tomato)	415
Cauliflower, raw	50 (1/2 c)	324
Beans, snap, raw	55 (1/2 c)	147
Cucumber, no peel	60 (1/2 c)	60

You do not just grow vegetables; you are growing free oxygen radical scavengers.

Herbal History

Ripe, red tomatos mean lycopene

Of all the common carotenoids, lycopene has proven to be the most active antioxidant. Since the human body is unable to synthesize lycopene, those ripe, red tomatoes and tomato based food products provide at least 85 percent of the lycopene we consume. The other 15 percent comes from watermelon, pink grapefruit, guava, and papaya—all red or pink fruits.

Lycopene is absorbed by our bodies even better from heat processed tomato products than from raw tomatoes and the absorption is further improved by the presence of oil in the recipe.

Researchers claim that lycopene is beneficial in the prevention and treatment of cancer, coronary heart disease, and other chronic conditions.

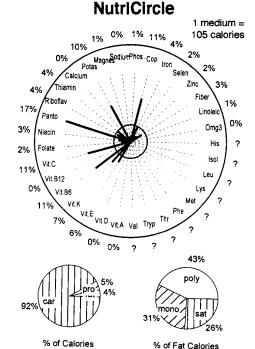
This was tested in an experiment using freeze dried tomatoes (tomato powder) and pure lycopene as a treatment for prostate cancer in older rats. The researchers found that the prostate-specific antigen (PSA) decreased after the intervention of tomato powder. In another study, the researchers discovered that men with prostate cancer who supplemented with tomato extract were found to have a lower grade and size of the tumor, a lower level of the PSA, and lower levels of biomarkers of cell growth and differentiation. High lycopene intake was associated with a lower risk of breast cancer, too.

Coronary heart disease is one of the primary causes of death in the United States. Lycopene in the diet has been shown to prevent the formation of oxidized low density lipoprotein (LDL), a major cause for heart problems such as atherosclerosis and coronary heart disease. The source of lycopene used in these research studies came from either tomato food products or tomato-derived lycopene extracts.

Food of the Month

by Donald R. Davis, Ph.D.

POMEGRANATES are one of the first cultivated foods, and they mark the folklore of the Middle East and Asia. Their leathery, reddish skin packs hundreds of seeds, each inside a juicy, red bulb with a sweet-tart taste. The web site, pomegranates.org, shows a neat way to release the seeds. Some persons eat them whole; others suck their juice and discard the rest. Besides the nutrients in the juice (shown here), pomegranates have more polyphenol antioxidants than blueberries, red wine, and green tea. Modest amounts raise good HDL cholesterol and decrease bad LDL cholesterol, decrease blood pressure, and probably help prevent cancer.



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).

Mental Medicine

by Marilyn Landreth, M.A.

Roses in December

With The Center's thirtieth anniversary coming up, I have been looking through a lot of photographs for some projects to highlight The Center's history. The photographs brought back a lot of great memories and started me thinking about memory. Why do some events stand out so clearly while others are easily forgotten or blurred with time.

Kahil Gibran said, "Yesterday is but today's memory, tomorrow is today's dream." Many of the pictures brought back the early dreams for The Center—dreams that Dr. Riordan shared with Olive Garvey. It took a great deal more than dreams to make this place a reality. My memory of that time involved energy, dreams, and confusion. The confusion came because we did not know what was going to happen.



Were we going to be here for three years or thirty years? In those days there were not many people betting on The Center being here for thirty years.

What memories do you cherish? What memories would you like to gather for the future? Do you remember the good things as well as the bad from days gone by? You never know when you are going to make a memory. Writing in a journal or diary helps to remember those fleeting moments that can mean so much when the challenges of life happen. "God gave us memories so we could have roses in December," was written by anonymous.

Mental Medicine for this month is to create memories that can become the roses in December whenever you need them.

Case of the month

In January, 2004, a 23-year-old woman came to The Center with a diagnosis of bipolar mixed with psychotic tendencies and also schizo-affective disorder. She had a history of illicit drug use and has been hospitalized twice for her problems. She was taking Zoloft, Depakote, Benadryl, Risperdal, and Cogentin and wanted to get off these prescription drugs and get on natural remedies to help solve her problems.

She saw Dr. Riordan for over an hour and then he suggested she have some laboratory work done. She had the blood drawn and urine collected and then completed the remaining part of the evaluation.

She returned in early February to see Dr. Kirby to get her laboratory results. Dr. Kirby suggested she continue increasing her niacin and vitamin C and that she add Super EPA to help with her omega 6/3 fatty acid ratio. In addition, Dr. Kirby recommended Nystatin capsules to help lower her candida levels since they were high. Finally, Dr. Kirby recommended omega flax meal in smoothies as a good source of omega-3 and linoleic fatty acids, zinc for her acne, a course of biotin, Enteropro before breakfast, and to cut out sugar and refined flours in her diet.

Dr. Hunninghake set up a six-step program to get her off the drugs she wanted to eliminate, and she started it. She continued to e-mail, call, and have appointments.

In June, she told Dr. Hunninghake that she was feeling quite well, felt back to her normal self with no depression. She was still taking Depakote and Zoloft, but had reduced them. She had also increased her nutrients.

In July, she said that she was feeling better and better. She is off Zoloft now and has cut her Depakote in half. She is sleeping soundly eight hours every night. She had been living with her mother but moved out in September into her own living quarters. With the help of the nutrients, she is living a life drug free the way she said she wanted to live when she first came to The Center.

CENTER UPDATE

Fitness, obesity, heart disease, and diabetes

Modern people are doing less than their ancestors did but eating the same amount or more food. The result is we have put on a few more pounds of fat—in some cases a lot of fat—leading to obesity. Until recently, there was no data connecting obesity and physical activity with coronary artery disease and diabetes. That has changed.

Two recent articles in *The Journal* of the American Medical Association covered the effects of physical activity on overweight and obesity in women and their chances of getting coronary artery disease (CAD) and diabetes.

In the first of these articles, the researchers examined the effects of CAD on women who had a mean age of 58 years of which 76 percent were overweight. They found that "among women undergoing coronary angiography [heart catheterization] for suspected [heart artery blockage], higher self-reported physical fitness scores were independently associated with

fewer CAD risk factors, less angiographic CAD, and lower risk of cardiovascular events."

In short, better physical fitness means one has a lower risk factor for heart problems.

The researchers in the second article used body mass index (BMI) and physical inactivity as significant predictors of type 2 diabetes. The BMI is a relationship between a person's height and her/his weight. They found that a higher BMI is a major risk factor for getting diabetes and that a lack of physical fitness is a major cause of a high BMI number of 30 or greater. The researchers said that, "Because physical fitness is a significant individual predictor and has a beneficial effect on BMI, it remains an important intervention for diabetes prevention."

These two articles show that physical activity and physical fitness are important to you in preventing both heart disease and diabetes.

Answers from page 4

d. Without the proper cushioning that the joints provide, bones that meet would rub against each other making normal movement impossible.

b. About 80% of all arthritis is osteoarthritis and affects millions of people.

a. Two different types of materials are formed. Collagen (like strong ropes) and proteoglycans (little elasticized "springs").

a. White blood cells are what cause the warmth, redness, swelling, and pain. They don't allow the nutrients to get through to the joints.

c. The metabolism uses up lean muscle mass (protein) rather than fat or carbohydrates. It can lead to muscle wasting.

a. Strength training does more than increase muscle strength. It has been shown to reduce anxiety, boast self-confidence, and lift depression.

b. Gaining that much weight increased the severity of symptoms by the same amount.

SPECIAL DISCOUNTS

Audio Tapes: Regular Price—\$7.95; *Health Hunter* Price—\$7.16 Video Tapes: Regular Price—\$14.95; *Health Hunter* Price—\$13.45

STRONG WOMEN AND MEN BEAT ARTHRITIS

by Miriam Nelson, Ph.D., Kristin Baker, Ph.D., Ronenn Roubenoff, M.D., M.H.S., & Lawrence Lindner, M.A.

Did you know there is a direct connection between a strength-training program and prevention or reduction of arthritis symptoms? Tufts University scientists present a simple plan that has been proven to reduce the pain and immobility caused by arthritis. Softcover. Retail Price: \$14.95 Health Hunter Price: \$13.46

MAGNESIUM: the Bone Strengthening Mineral...and More! with Ron Hunninghake, M.D.

If you were stranded on a desert island with the bare minimum to eat and you could choose one mineral supplement to help you survive, which would it be? Most modern day nutritionists would sing out: "Magnesium!" The list of benefits is staggering. If you need to prevent and/or treat osteoporosis, hypertension, fibromyalgia, chronic fatigue, heart disease, arthritis, migraines,

depression, asthma, PMS, heart arrhythmias, seizures, hyperactivity, and stroke risk then find out how one very essential mineral "does it all!"

VITAMIN C AND CANCER with Hugh D. Riordan, M.D.

Dr. Riordan, founder and director of The Center, shares what we have learned in 29 years of administering high dose vitamin C to people with cancer and viral ailments. Also, learn the latest in how nutrients affect gene expression. Dr. Riordan has vast experience in both areas and gladly shares all he knows and believes.

LEARNING FROM LABELS: What Are We Eating Exactly?

with Rebecca Kirby, M.D., R.D. and Donald Davis, Ph.D.

Nutrition is so key to good health, but when we go to purchase our food are we making informed decisions? Food information is consumer power. If we are what we eat, then let's know what we're eating. Learn how to select nutritious food.

• To Order, Fill Out the Form Below •

TITLE	UDIO OR VIDEO TAPE	PRICE	QUANTITY	TOTAL
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Strong Women and Men Beat Arthritis Magnesium, the Bone Strengthening Mineral	book audio video			
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Upcoming Events...

Lunch & Lectures:

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Health Hunter

Eat whole grain foods to improve insulin sensitivity



Whole foods are always better for you than non-whole foods. Whole grain products are much better than eating white bread or refined cereals. In a recent observational study done by Nicola McKeown, Ph.D., she looked at 54 studies that checked the eating of whole grains and their effect on insulin sensitivity. Many of the studies were published after the turn of the 21st century.

Her conclusion—increase the dietary recommendations to "eat three servings a day [of whole grain foods], a modifiable dietary risk factor, [that] may reduce the risk of developing type 2 [diabetes mellitus] by as much as 30%," she said. Based on these findings, increasing whole grain consumption may improve insulin sensitivity, an underlying metabolic risk factor for type 2 diabetes mellitus.

Alzheimer's disease and omega-3 fatty acids

Supplement improves fertility in women

Lutein slows age-related macular degeneration

 CoQ10: the energy nutrient

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