

Blood glucose readings after high-dose intravenous vitamin C

by Dr. James A. Jackson

t has been discovered that highdose intravenous ascorbic acid (AA), at 15 grams or higher, will cause a "false positive" on various finger stick blood glucose strips read on a "meter." This is of major importance in a cancer patient receiving this treatment if the patient has diabetes.

For some reason, the strips appear to be "reading" ascorbic acid as glucose. The two molecules are very similar. This false positive does not occur when the test on glucose is performed on serum using the reference hexokinase glucose method, the procedure used in our laboratory.

This is of major importance in a cancer patient receiving this treatment if the patient has diabetes.

To check and see if the IV AA will elevate a patient's glucose, the Bio-Center Laboratory and Center physicians tested serum glucose levels in six patients receiving various levels of IV AA. The results are shown below:

Grams of	Pre IV AA	Post IV AA
<u>AA</u>	glucose	<u>glucose</u>
15 grams	92 mgs/dL	85 mgs/dL
15 grams	89 mgs/dL	85 mgs/dL
25 grams	130 mgs/dL	103 mgs/dL
50 grams	81 mgs/dL	85 mgs/dL
50 grams	88 mgs/dL	92 mgs/dL
50 grams	101 mgs/dL	86 mgs/dL

In another study, a volunteer (me)

received 25 grams of intravenous AA in water (Mega-C-Acid Plus, Ascorbic Acid Injection, 500 mg/mL, Merit Pharmaceuticals, Los Angeles, CA 90055. (Note: One drop of this solution on the glucose strip gave an error code E4, "Too high to read!").

Before the infusion, a pre finger stick glucose, a serum glucose, and a plasma AA were performed. After 30 minutes into the infusion (Mid), and immediately after the infusion (Post), another finger stick glucose, serum glucose, and plasma AA were performed. The results are shown in the following table:

Finger stick glucose*, serum glucose*, and plasma AA', pre, mid, and post 25 grams ĪV AA

Pre IV AA Mid IV AA Post IV AA

Finger stick

110 mg/dL 251 mg/dL 363 mg/dL glucose Serum glucose 110 mg/dL 103 mg/dL 96 mg/dL Plasma ascorbic

acid 3.2 mg/dL 69.2 mg/dL 101 mg/dL

*=Precision Xtra Instrument® XCA170-2151 and MediSense® Precision Xtra blood glucose strips, lot #40872, Abbott Laboratories, Abbott Diabetes Care, Alameda, CA 94502: Glucose control solution MID®, lot #57802, range 67 to 123 mg/dL. Controls run before and after were 97 mg/dL and 101 mg/dL.

*=Enzymatic method run on the COBAS MIRA Plus® using a reagent kit, Glucose-SL Assay®) from Diagnostic Chemicals Limited, Oxford, CT 06478. The method is a totally enzymatic method using hexokinase and glucose-6-phosphate dehydrogenase.

'=High Performance Liquid Chromatography method performed on 3.0 mL of plasma mixed with cold 4.5 mL of 3% metaphosphoric acid, mixed by vortex, centrifuged, and the sample run immediately or frozen. See www.biocenterlab.org for more information on this test.

continued on page 2

High protein diets won't increase heart risk

Eating high protein/low carbohydrate diets, such as the South Beach diet or Zone diet, won't increase the dieter's risk of heart disease, according to a research paper that appeared in the New England Journal of Medicine.

For this article, Thomas Halton, ScD, of the Harvard School of Public Health, and colleagues, analyzed data from the Nurses Health Study that involved 82,802 women over 20, including 1,994 new cases of heart disease.

Researchers divided subjects into 11 groups based on carbohydrate, fat, and protein consumption as a percentage of total calories.

"Our findings suggest that diets lower in carbohydrates and higher in protein and fat are not associated with increased risk of coronary heart disease in women," the researchers concluded.

Women who ate a diet highest in vegetable protein and fat were about 30% less likely to develop heart disease than women who ate the most carbohydrates, the researchers said.

Inside this issue...

Vitamin C, glucose, and cancer
are coming
Information worth knowing
Please eat the daisies
Test of the Month-Homocysteine 5
Skin healthy herbals
Food of the Month-Portabello Mushroom 5
Is spring ever coming?
Health Hunter to celebrate 20th anniversary. 6
Case of the month
Special discounts
Upcoming events
How much vitamin D do you need? 8
, , , , , , , , , , , , , , , , , , ,

EDITORIAL BOARD

Gary Branum, Ph.D.

Joseph Casclari, Ph.D.

Donald R. Davis, Ph.D.

Michael J. Gonzalez, D.Sc., Ph.D.

Ron Hunninghake, M.D.

James Jackson, Ph.D.

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

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

Xiaolong Meng, M.D.

Nina Mikirova, Ph.D.

Neil Riordan, Ph.D.

PUBLICATION INFORMATION

Editor: Richard Lewis
Associate Editors: Marilyn Landreth
and Barbara Dodson

Health Hunter Newsletter is published as a service 10 times a year by the Olive W. Garvey Center for Healing Arts, a division of The Center for the Improvement of Human Functioning International (CIHFI), a non-profit organization. Memberships are \$25 for one year, \$30 for outside the U.S.; \$45 for 2 years, \$55 for outside the U.S.; and \$60 for 3 years, \$75 for outside the U.S. To join, see the order form on page 7 of this issue. (Prices good through 2007.)

© 2007/CIHFI

Special written permission is required to reproduce, by any manner, in whole or in part, the material herein contained. Write: Permissions, 3100 N. Hillside Ave., Wichita, KS 67219, USA. Phone: 316-682-3100.

The information in this publication is meant to complement the advice and guidance of your physician, not replace it.

Share information about The Center with your family and friends by inviting them to visit our website. Meet us at the following address:

www.brightspot.org or correspond with us by E-mail: healthcoach@brightspot.org

Nutritional Medicine

by Ron Hunninghake, M.D.

Vitamin C, glucose, and cancer

Dr. James Jackson's fascinating account of the false positive glucometer readings following an intravenous ascorbic acid infusion highlights an important characteristic of vitamin C that makes it clinically useful in treating cancer: the vitamin C molecule is strikingly similar to the glucose molecule.

Almost all living creatures, with the exception of humans, primates, guinea pigs, and fruit-eating bats, make their own vitamin C. This means that for most living things, vitamin C is not a vitamin. A vitamin, by definition, is a nutrient that must be derived from food or supplementation. Ascorbic acid can readily be synthesized from glucose in 99% of the creatures that roam this planet.

We humans have the actual DNA that transcribes the enzyme necessary to make ascorbic acid/vitamin C...but it is inactive and useless. Other mammals, such as goats, synthesize ascorbic acid in great abundance, up to the human equivalent of 14,000 mg a day when they are healthy, and the amazing amount of 100,000 mg a day when they are sick or injured!

Cancer cells appear to mistake ascorbic acid for glucose, given its similar structure. If a large amount of ascorbic acid is available, tumor cells will take it up. A PET scan to detect cancer is nothing other than an infusion of glucose molecules that have been tagged with a radioactive isotope. The detector simply locates the greatest uptake – that's where the cancer is.

By infusing sodium ascorbate (ascorbic acid that has been buffered with sodium bicarbonate) we humans can achieve blood levels of ascorbate sufficient to fool tumor cells into gorging themselves with huge amounts of vitamin C. At these high levels, a pro-oxidant effect kicks in, hydrogen peroxide builds up, and the tumor cells are killed. Healthy cells will not take up ascorbate this way, and they are spared.

Why our human ancestors tost the ability to synthesize ascorbic acid is unknown. What we do know is that present and future generations of humans can now take advantage of vitamin C's similarity to glucose to help in the fight against cancer.

Blood glucose—Cont'd from page 1

After the post blood measurements, finger stick glucose values were performed at 30 minute intervals up to 3 1/2 hours in order to determine how long the AA would affect the blood glucose strips. One hour after the post IV AA (363 mg/dL), the finger stick glucose was 269 mg/dL; after two hours it was 181 mg/dL; 3 1/2 hours later it was 138 mg/dL. The readings were discontinued since the patient had not eaten lunch or dinner. It would appear that in this case, it took two hours for the glucose measurement on the finger stick to fall to half the pre-IV level (181 mg/dL from 363 mg/dL). Of course, higher blood levels of AA may prolong this time, based on the serum half-life of AA.

The plasma AA concentrations are interesting. The product insert for the blood glucose strip states that vitamin C levels of up to 2.3 mg/dL will not interfere with the glucose reading. The pre level was 3.2 mg/dL and DID NOT interfere with the strip, (110 mg/dL on both the strip and serum glucose).

However, values of 69.2 mg/dL of plasma AA increased the finger stick glucose to 251 mg/dL, and 101 mg/dL increased the finger stick to 363 mg/dL! None of the serum glucose results were affected.

In two other cases reported to Dr. Jackson (using the same ABBOTT system), both finger stick glucoses read 495 mg/dL. In one elderly patient with continued on page 3

Blood glucose—Cont'd from page 2

metastatic colon cancer and diabetes, a finger stick glucose was performed after a high dose IV AA treatment. Her finger stick glucose read 495 mg/dL! She was given 30 units of insulin and later went into hypoglycemic shock! Her husband was a physician and fortunately she recovered. When contacted by us, the daughter was instructed to obtain a finger stick blood glucose and serum glucose before the next IV injection. Because of anemia, only a finger stick glucose was performed; it read 131 mg/dL. After the IV AA treatment, the finger stick glucose was 495 mg/dL while the serum glucose was 151 mg/dL!

In the second case, a patient with diabetes received a high dose IV AA treatment. While walking away, she fainted. The finger stick glucose was 495 mg/dL. They phoned us and were asked to do a serum glucose from the local laboratory. It was normal. They also had one of their employees give a serum glucose sample. She then received a 15 gram IV AA infusion. At the end of the IV infusion, another serum glucose was performed. Both the pre and post IV AA serum glucose tests were normal.

We have had five reports of false positive finger stick glucose readings after high-dose IV AA. We know of two other physicians who also found out this interference. Unfortunately, we do not have the name of the other meters or finger stick products, but since the test principle is probably the same in all strips, the interference will also occur.

The authors hope that all healthcare workers will be aware of this potential for false positives on the finger stick glucose method following high dose IV AA and caution the diabetic patient to wait about six to eight hours before performing the test. If a glucose test is needed before that time, a serum glucose may be from a certified laboratory. It does not appear that oral intake of vitamin C in any form will affect the finger stick glucose procedure. We have included this warning of false positive finger stick glucose results on all IV AA protocols and on our websites. H_{H}

HEALTH HUNTERS AT HOME

Health Hunter/Beat The Odds Days are coming

Can you believe it? Health Hunter/Beat The Odds Days are almost upon us. Thursday, April 5 through Saturday, April 7 will be the days it will be held.

The Health Hunter/Beat The Odds Days opens on Thursday evening with a question and answer session with the doctors answering any questions you have and presenting a short explanation of the health panels. The Taste of Health Restaurant also has good snacks for you this evening.

There are 11 panels being offered for the April Days just as there were in the past couple of sessions last year that include:

- Basic Antioxidant Health
- Heart Health
- · Breast Health
- Prostate Health
- Eye Health
- Brain Health
- · Bone Health
- Preconception/Fertility Health
- Skin, Hair, and Nails Health
- Mega Health-Basic
- Mega Health-Comprehensive

Take, for instance, the Breast Health panel. This is important to women. If they do not have breast cancer, they can see how well they are doing in keeping the nutrient package in their bodies to help prevent cancer from occurring.

For those women who are in treatment for breast cancer, they can see how well they are doing to get the important nutrients in their system to help relieve them of cancer and to help prevent it from recurring. All of this is at a large discount for what you would spend if you bought the tests individually at the normal price.

The Breast Health panel will find out if your vitamin D is adequate. Vitamin D is a fat-soluble vitamin that has anti-estrogen activity, is necessary for normal cell growth, and suppresses cancer. Selenium, an important trace mineral, is also in the panel. This important antioxidant enzyme helps destroy hydrogen peroxide.

Another nutrient in the Breast Health panel is CoQ10. High levels of CoQ10 can mean a lower risk of cancer. Folic acid deficiency, also checked in the panel, is associated with cancer of the epithelial cells, including the ductile tissue of the breasts. Vitamins A, C, and B6 in the blood and a urine vitamin C are also checked. Another nutrient included in the panel is lycopene. These are all important in destroying free radicals and inhibiting carcinogens.

As a bonus, the Gift of Health in the Marge Page Dome is offering a double discount for Health Hunter members on nutrients they sell during the Health Hunter/Beat The Odds Days. That is a 20% discount in place of the regular 10% Health Hunter discount. This is a popular time to stock up on the nutrients you usually get from the Gift of Health and at double the savings.

Donna Kramme says the Gift of Health even takes orders over the phone from people who find it is too far to come and pick up nutrients. She says that the phones are busy all day long with people calling with large orders to make sure they get the extra discount offered during the Health Hunter/Beat The Odds Days.

The big thing is getting the results of the laboratory panels in your hands so that you can read the results and make the necessary changes in your nutrient package that they indicate. Jerry Tiemeyer, the manager of the laboratory, says that the lab's goal is to have the results mailed out two weeks after you give your blood and urine. He says they have made this date or beaten the deadline in the past. That is something to look forward to receiving.

Also, the doctors schedule a panel discussion in late May as part of the Lunch and Lecture series so that they can answer any questions you may have regarding the tests you received.

The Health Hunter/Beat The Odds Days are an excellent chance for you to get the information you need and the nutrients you want and all for a big discount. That is good news.

-Richard Lewis

INFORMATION WORTH KNOWING

by Genavieve Meyer

Are you plagued by gastrointestinal problems, anemia, fatigue, and headaches? Do you find yourself being treated for a myriad of symptoms with little or no relief? If you answered yes to these questions, you may be one of the nearly 1% of Americans who are afflicted with celiac disease. Celiac disease is a hereditary autoimmune disorder that is characterized by intolerance to gluten. Affecting approximately 1 in every 100 people, celiac disease is as common as hereditary high cholesterol. Despite its prevalence, 97% of celiac disease sufferers remain undiagnosed, making it one of the most under-diagnosed conditions in the United States today. In their book, *Celiac Disease: A Hidden Epidemic*, Dr. Peter H.R. Green and Rory Jones discuss the diagnosis, treatment, and control of this all too common ailment. The questions this month are taken from their book.

Autoimmune disease is a condition whereby the body's immune system attacks its own tissues. It has been shown that once a person becomes afflicted with an autoimmune disease, the odds of developing another are largely increased. While autoimmune disorders affect approximately 3% of the general population, they affect ______ of those with celiac disease.

a. 45%

b. 30%

c. 15%

d. 10%

The secondary conditions associated with celiac disease can become more extensive and dangerous as the disease progresses and the amount of food absorbed by the body lessens. According to recent studies, up to 35% of adults who are newly diagnosed with celiac disease already have established

- a. anemia
- b. type 1 diabetes
- c. osteoporosis
- d. hyperthyroidism

Despite the rising awareness of celiac disease, the condition is still one that is difficult to properly diagnose. The disease is all too often misdiagnosed due to the fact that many of the symptoms of celiac disease can and do occur in other conditions. The only definitive means of accurately diagnosing celiac disease is a combination of blood dot and saliva testing, the gold standard for diagnosis.

- a. True
- b. False

For someone with celiac disease, the only safe amount of gluten to eat is none at all. While the exact amount of gluten that can be consumed

daily without resulting in intestinal damage has not been scientifically proven, a recent study from Finland calculates it to be approximately

a. 100 mg

b. 65 mg

c. 50 mg

d. 30 mg

The _____ are the work horses of the small intestine that allow us to absorb the nutrients we need to survive. In a person with celiac disease, the body damages or destroys these ____ which results in a dangerous malabsorption of crucial nutrients.

- a. villi
- b. crypts
- c. duodenum
- d. ileum

A person suffering from celiac disease is gluten intolerant. Gluten is the trigger by which celiac disease is manifested. In order to display symptoms, gluten must be consumed. In fact, celiac disease is the only autoimmune condition in which an environmental trigger has actually been pinpointed.

- a. True
- b. False

The majority of people with celiac disease display little or no gastrointestinal (GI) symptoms, but suffer from the complications of malabsorption and related autoimmune diseases. Especially in such "silent" manifestations of celiac disease, patients may go undiagnosed or misdiagnosed for many years. Most patients are diagnosed in their fourth to sixth decades of life and have symptoms for approximately years prior to diagnosis.

- a. 3
- b. 5
- c. 7
- d. 9

• FOR ANSWERS, SEE PAGE 7 •

Please eat the daisies

by Gary D. Branum, Ph.D.

As you begin your landscape planning for this spring, why not add another dimension to your flower garden? Many plants produce beautiful flowers which can also be used as an edible garnish to liven up your plate at dinnertime.

First a word of caution. If you choose to try edible flowers, a few simple rules must be followed.

Be sure to properly identify the plant. Not all plants produce edible flowers, and some flowers are actually poisonous. This shouldn't be a problem if you grow the flowers from seed rather than try to pick wildflowers.

Don't use commercial flowers. They contain dyes, hormones, pesticides, and fertilizers that may be harmful.

Don't eat flowers that you pick near a roadside. They will be contaminated with oil and other substances from the passing traffic. Roadsides are also treated with chemicals by the highway department.

Now, back to the good part. Here's a short list of plants that are easily grown and which produce edible flowers. The flavors vary considerably, from peppery to sweet. Plant a few of your favorites and try them out to see which ones you like.

Chive blossoms are a pale lavender with a flavor like mild onion. Use them to garnish a salad.

Anise hyssop is an herb that is usually grown for its leaves, but the flowers make an attractive addition to salads, with a mild licorice flavor.

Marigolds exhibit a variety of flavors, depending on the particular cultivar. The flavor may be tangy, peppery, or spicy. You can use them as a garnish on salads, soups, and pasta or rice dishes.

Carnation and its smaller relatives pinks, Sweet William, and dianthus are edible. Use only the petals, not the white base of the flower, to lend a unique sweet overtone to your salads. Use dianthus to add a nutmeg or clove hint.

Hibiscus flowers can be used sparingly in salads, imparting a citrus-cranberry flavor.

Many of us ate honeysuckle flowers as children, and the flowers can be used as a sweet addition to some dishes. The berries are NOT edible.

So, plant flowers and enjoy!

Test of the Month

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

Homocysteine

First of all, it is pronounced homosis-TAY-een, not homocysTEEN. They are two different compounds, even though they both come from the essential amino acid methionine (see below).

Homocysteine is metabolized to other products and requires the "B" vitamins folic acid, B₆, and B₁₂ as cofactors. When these vitamins are low, homocysteine may build up in the blood. A study in 1,200 elderly persons showed the lower the level of these B vitamins, the higher the homocysteine level.

This means prolonged elevation of blood homocysteine may lead to atherosclerosis, regardless of whether cholesterol is normal or elevated, and 10% of the overall risk of coronary artery disease can be blamed on excessive homocysteine. Another study showed that for each 5-umo1/L increase in blood homocysteine, the risk of middle-aged men dying of ischemic heart disease rises by 1/3.

It is recommended that homocysteine be measured in people with a strong family history of atherosclerotic disease and/or those with early (before age 50) symptoms of coronary heart disease, stroke, or peripheral vascular disease.

Elevated homocysteine also may be associated with spina bifida, rheumatoid arthritis, and some cancers. Homocysteine is a blood test done in our laboratory and is included in many of our Health Hunter/Beat The Odds panels. The "normal range" is 4 to 15 umo 1/L. However, many suggest treatment start (with B vitamins) when the level exceeds 6-umo 1/L.

Homocysteine is one independent risk factor for heart disease that can be treated with nutrition. Since homocysteine causes atherosclerosis and atherosclerosis is a type of inflammation, this is a good test to combine with the HS-CRP discussed in the February issue.

Herbal History

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

Skin healthy herbals

Skin Deep is an herbal combination that promotes healthy skin renewal. It contains herbs that support the proper functioning of the organs of elimination (kidney, liver, GI, and skin). Skin Deep is useful in cases of dry, scaly, and itchy skin. It can be used for skin conditions like eczema, acne, psoriasis, and dandruff. It is also useful in conditions that require increased elimination from the body like gout and rheumatic conditions. This formula works as an alterative (blood and lymph cleanser), anti-inflammatory, digestive aid, urinary stimulant, and is supportive to the detoxification systems of the liver.

Skin Deep contains Burdock, Oregon grape root, Sarsparilla, Yellow dock, Nettle, and Horsetail. Burdock (Arctium lappa) is an alterative, anti-inflammatory, diuretic, digestive stimulant, choleretic (stimulates bile production in the liver), and a mild laxative. Oregon grape root (Mahonia) is an anti-inflammatory, cholagogue (stimulates bile flow from the gallbladder), stomachic (improves functioning of the stomach), and a mild laxative. Sarsparilla (Smilax ornate) is thought of as a good lymph mover. Yellow dock (Rumex crispus) helps with healthy liver functioning (detoxification). Nettle (Urtica) is a diuretic herbal that supports the urinary tract. Horsetail (Equisetum) acts as a mineral rich diuretic.

Skin deep is used to help the body better assimilate nutrients while eliminating waste products by supporting the organs of absorption, detoxification, and elimination.

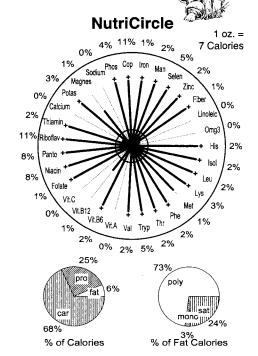
I usually recommend taking 1/4 teaspoon of the liquid tincture 3-4 times daily for various skin conditions. 理

Food of the Month

by Donald R. Davis, Ph.D.

PORTOBELLO MUSHROOMS are

large, brown mushrooms native to North America and Europe. Sometimes marketed under the name, portabellas, they are larger and have more flavor and firmer texture than common white mushrooms, a close relative. They can be sautéed, grilled, or baked. They are popular in vegetarian burger recipes because of their slightly meaty flavor. Small, brown crimini mushrooms are immature portobellos. A 1-oz. serving contains surprising amounts of nutrients for its mere 7 Calories-5% to 11% of the RDAs for three B vitamins. copper, selenium, and tryptophan, plus many others in lesser amounts.



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). $\boxed{\mathbb{H}}$

Mental Medicine

by Marilyn Landreth, M.A.

Is spring ever coming?

This time of year is always an exciting time for me—looking for the first robin of spring and for the first tiny shoots of green to peek through the frozen earth. The older I get, the longer it seems to take for those first signs of spring. Winter seems to drag on forever. Doug Larson said, "Spring is when you feel like whistling even with a shoe full of slush." I'm ready to get rid of all the snow and slush. I want light, sun, and longer daylight hours!

One of the sure signs of spring in the country was the road-graders springing into action. As soon as the weather started warming up, the big yellow monsters would be parked around the corner from our house. In the evening or weekend we would sneak away from the house and pretend that we were driving the big machines.



Since they were open without doors we could sit on the seat, grab the steering wheel, and make noises like we were big machine drivers. During the day, the machines would be digging out the ditches along the country roads. Their shiny blades would leave a wonderful sharp bank where we children would draw our names or make seats in the side of the bank to rest on our homeward trek from school.

How do you feel about winter? Are you looking for the advent of spring? Do you have fond memories of the changing seasons when you were a youngster? Or are you like Victor Hugo who said, "Winter is on my head, but eternal spring is in my heart." Keeping the promise of spring in our hearts year round is wonderful mental medicine.

CENTER UPDATE

Health Hunter to celebrate 20th anniversary

It is hard to believe that Health Hunter is actually having its 20th anniversary in April of this year. We are planning a small celebration, but more on that later.

When the Health Hunter Newsletter started, there were only six pages loosely filled with articles scrounged occasionally from journals or taken from around The Center. Now, there is a wealth of material in the medical journals that are appropriate for the Health Hunter Newsletter's eight pages.

Also, columns have come and gone during the 20 years until coming up with the excellent selection we have now. Genavieve Meyer writes "Information Worth Knowing"; "Mental Medicine" is written by Marilyn Landreth, M.A.; Chad Krier, N.D., D.C., does "Herbal History"; Donald R. Davis, Ph.D., creates "Food of the Month"; "Nutritional Medicine" is written by Ron Hunninghake, M.D.; Gary Branum, Ph.D., does the Gardening column; and James Jackson, Ph.D., writes the "Test

of the Month," to name a few.

Now, here is a preview of what is planned to celebrate Health Hunter's 20th anniversary. On Thursday, April 5 from 4-5:30 p.m. in upper Mabee Dome we will be having a party. There will be a birthday cake and other snacks from the Taste of Health Restaurant. Plan on staying after the party for the free Health Hunter/Beat The Odds Presentations on Health Panels and "Ask the Doctors" which begins at 6:00 p.m.

We will also have a special offer on Health Hunter memberships. So, come out and join Health Hunter or renew your membership. You can always bring some people with you to join also. This special offer will be available through the end of the year.

Bringing friends with you will be worthwhile. Between April and September 2007, we will be having a contest to see who can sponsor the most new memberships during this time. So bring your friends to join Health Hunter and enjoy the party.

Case of the month

A 49-year-old woman came to The Center in August of 2005 with breast cancer. She had a double mastectomy just a month before and was recovering from that.

After her appointment with Dr. Hunninghake, she completed her clinical appointments and started intravenous vitamin C. This bothered her standard doctor where she lives. The doctor wanted her to do the standard form of chemotherapy using harsh chemicals.

She started with 15 grams of vitamin C the first day and increased it to 25 grams on the second day. This was increased to 50 grams a few days later. Dr. Hunninghake wanted her to take 25 grams of vitamin C twice a week, but she said that it would difficult for her to come twice a week since she lived about 100 miles from The Center. She and the doctor settled on 50 grams once a week.

As time went on, her blood plasma vitamin C level was remaining well above the 300 level so she started taking intravenous vitamin C every other week. As the plasma vitamin C level remained above the 300 level, she cut the intravenous vitamin C to once a month. She continues that schedule today.

At the first of 2007, her plasma vitamin C dropped just below the 300 level so Dr. Hunninghake increased her oral vitamin C level to near the bowel tolerance level rather than increase her intravenous vitamin C to more than once a month. During all this time, her tumor markers have remained quite low, something that makes her and Dr. Hunninghake very happy.

She was here quite recently for her monthly intravenous vitamin C. She is a very positive woman who keeps her spirits very high.

In spite of the form of aggressive cancer she had, she said that intravenous vitamin C is her form of chemotherapy. It has worked in the past and it continues to work for her. Her doctor at home continues to look doubtfully on intravenous vitamin C, but, as she says, "It works for me."

Answers from page 4

b. Studies show that more than 30% of patients diagnosed with celiac disease after the age of 20 develop at least one other autoimmune disease.

c. Osteoporosis is one of the most common complications of celiac disease with some degree of bone loss noted in 75% of patients.

b. Blood tests are oftentimes an important first step to a celiac disease diagnosis, but an intestinal biopsy is currently the diagnostic standard.

d. This is considerably *less* than a teaspoon of birthday cake.

a. The villi not only provide the fluids and enzymes that break down certain foods, they also supply the "gatekeepers" that enable the food components to enter the body.

a. While the bodily targets for immune response are understood in most other autoimmune diseases, an environmental cause has not been identified for any of them other than celiac disease.

d. The longer individuals have untreated celiac disease, the more likely they are to acquire other autoimmune diseases.

SPECIAL DISCOUNTS

Audio Tapes: Regular Price—\$7.95; Health Hunter Price—\$7.16 Video Tapes: Regular Price—\$9.95; Health Hunter Price—\$8.95 CDs: Regular Price—\$14.95; Health Hunter Price—\$13.45 DVDs: Regular Price—\$14.95; Health Hunter Price—\$13.45

CELIAC DISEASE by Peter H. R. Green, M.D. & Rory Jones

Celiac disease is an autoimmune disease that affects one person in 100. It is a hereditary condition that damages the lining of the small intestine, leading to a loss of essential nutrients. This book explains the disease in an understandable manner. Hard cover. Retail Price: \$22.95 Health Hunter: \$20.66

OVERDOSED AMERICA

with Donald R. Davis, Ph.D.

According to author John Abramson, M.D., drugs are oversold and their dangers suppressed. We are bankrupting ourselves on "healthcare," yet we are less healthy than those in other countries because we neglect cheaper, more effective ways. Before your next costly prescription, consider Abramson's eye-opening research and what we can do to protect our health and pocketbooks.

BECOMING A PATIENT AT THE CENTER CAN CHANGE YOUR

LIFE with Ron Hunninghake, M.D. Would you like a place where the staff helps you discover actual root causes of chronic illness? Do you believe that natural therapies can help you but are overwhelmed by too many choices? Learn how our new patient experience will help you answer these questions.

TEETH: YOU ONLY HAVE ONE SET—HOW TO KEEP THEM A

LIFETIME with Ron Hunninghake, M.D. & Estel Landreth, D.D.S.

You must take care of two environments inside your mouth in order to keep your teeth. The *external* environment of your teeth and gums depends upon good hygienic care. Maintaining a healthy *internal*, cellular environment with individualized nutrition is also demonstrated.

• To Order, Fill Out the Form Below •

TITLE	AUDIO TA	PE, VIDEO circle		D, OR DVD	PRICE	QUANTITY	TOTAL.
Celiac Disease (Book)							
Overdosed America	audio	video	CD	DVD			nci 45 - 24 (24)
Becoming a Center Patient	audio	video	CD	DVD			
Teeth	audio	video	CD	DVD			
Health Hunter: One-Year Mer Two-Year Mer Three-Year M ** Kansas resider *** Add \$3.00 for f	mbership/r embership nts add 7.3% irst book or t	enewal - So/renewal	\$45 (\$55	for outside 75 for outsid	the U.S.) de the U.S.)	Subtotal Sales Tax k Handling TOTAL	
Payment:	sa 🖵 a	m. Exp.	Disc	cover 🖵 I	M. C. E	Exp. Date	
Card #		•					
Ship to:							
Name			Add	dress			
City			Sta	ite		Zip	
Mail form and payment to: The Center for the Improvemen	nt of Humar	n Functionir	ng Interna	ational • 3100) North Hillside	e • Wichita, Kansa	as 67219
						Prices goo	d through 2007.

Upcoming Events...

Lunch & Lectures:

March:

8 Going Wheat—less!!!

Watch for the new Lunch & Lecture brochure!

Spring Lunch & Lectures begin March 29.

April 5 - Health Hunter 20th Anniversary Celebration
April 5 - FREE Health Hunter/Beat The Odds
Presentations on Health Panels
and "Ask the Doctors"

April 6 & 7 - Health Hunter/Beat The Odds Days

How much vitamin D do you need?

Vitamin D is one of those fatsoluble vitamins that accumulate in the fat cells of the body. You actually have a way of storing vitamin D in your body, unlike the water-soluble vitamins you need to get on a daily basis.

The recommended daily allowance (RDA) established by the Food and Nutrition Board for vitamin D is currently 50 micrograms per day (ug/d). John R. Hancock and colleagues, writing in *The American Journal of Clinical Nutrition*, are now recommending 250 ug/d after an extensive review of the current research covering vitamin D. "Collectively, the absence of toxicity in trials conducted in healthy adults that used vitamin $D \ge 250$ ug/d (10,000 IU vitamin D3) supports the confident selection of this value as the [Tolerable Upper Intake Level]."

RETURN SERVICE REQUESTED

NON-PROFIT ORG.
U.S. POSTAGE
PERMIT NO. 858
WICHITA, KS 67219

A Publication of The Center for the Improvement of Human Functioning International, Inc. 3100 North Hillside Avenue Wichita, KS 67219 USA

Health Hunter

you need?

Skin healthy herbals

· Please eat the daisies

 Blood glucose readings after high-dose intravenous vitamin C

INSIDE THIS MONTH'S ISSUE