

## Bio-Communications Research Institute project: vitamin C and immune system functioning

by Nina Mikirova, Ph.D.

n the scientific world, vitamin C is known as ascorbic acid, meaning "without scurvy." Ascorbic acid has a lot of physiological functions in the body. It is a co-factor for many enzymes involved in the synthesis of collagen, carnitine, and neurotransmitters. The importance of vitamin C can be understood from its maintenance of collagen, which is one third of the body protein and gives strength to our skin, bones, teeth, cartilage, blood vessels, eye lens, and heart valves.

Our research proved that vitamin C supplementation of at least one gram per day correlated with improved immune cell functioning.

Vitamin C contributes to a variety of other biochemical functions. It participates in the biosynthesis of the amino acid, carnitine, and catecholamines that regulate the nervous system. Synthesis of muscle carnitine is important for energy production in the mitochondria.

Ascorbic acid increases dietary absorption of iron and breaks down histamine, the inflammatory components of many allergic reactions.

In addition, ascorbic acid has another very important function. It is a powerful antioxidant. Since ascorbic acid is water soluble, it can work inside and outside the cells. Free radicals seek out electrons to regain their stability. Vitamin C is an excellent source of electrons and, as an antioxidant, vitamin C has the possibility to "scavenge" hydroxyl and superoxide radicals before these destructive substances have a chance to damage lipids, proteins, and DNA. We depend on ascorbic acid for many aspects of our body functioning. There is no scientific evidence that high doses of ascorbic acid are toxic.

Certain population groups have clinical and biological evidence of low vitamin stores. The groups which were identified to have subnormal levels of vitamin C include elderly people, those with peptic ulcerations, patients with rheumatoid arthritis, and patients with malignant diseases. Results of studies in the UK demonstrated that the majority of patients with malignant diseases have a minimal tissue store of ascorbic acid. This can be caused by malabsorption of vitamin C from the intestine of patients or increased ascorbic acid utilization, as occurs in infection.

Vitamin C is recommended for wound healing, prevention and treatment of the common cold, protection against oxidative stress during the development of atherosclerosis, prevention of cardiovascular disease, and as an adjuvant in cancer therapy.

In our study in the Bio-Communications Research Institute, we analyzed the effect of vitamin C supplementation on immune cell functioning.

The immune system is responsible for protection against infection such as bacteria, viruses, and parasites. *continued on page 2* 

### Type II diabetes now for kids

With the growing number of people in the United States, and particularly kids, being obese, "adult onset" diabetes is showing up more and more in them. These are adults and now children who are unable to produce or use insulin. It is often referred to as syndrome X in the earlier stages.

Ron Hunninghake, M.D., says that now one in 10 children and one in six adolescents are obese according to the current guidelines. Many of these children and adolescents are showing up with type II diabetes or the precursor, syndrome X.

Besides the fact that these children and teenagers need to lose some weight, there are other symptoms such as frequent urination, excessive thirst and hunger, weakness, irritability, and slow wound healing, to name a few.

Dr. Hunninghake says that a diet high in protein and good fats and low in carbohydrates is one way to combat both the obesity and type II diabetes problems in children as well as adults.

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## **Nutritional Medicine**

by Ron Hunninghake, M.D.

## Kids and nutrition quiz

Name the most vexing problem in the field of childhood nutrition today: the meteoric rise in childhood obesity.

Name the nutritional issue most threatening to the future health of our kids: childhood Type II diabetes.

Name a commonly overlooked cause of attention deficit disorder: child-hood malnutrition.

Name a central point of focus where law enforcement, educators, government, church, and parents could agree to work together to dramatically reduce adolescent crime and improve the learning environment of the schools: nutrition in the schools.

Identify the behavioral domain of

### Vitamin C—Cont'd from page 1

Pathogens, recognized as invaders of the body and as "non-self," are then destroyed by immune cells. The immune system responds similarly to cells of the body that have undergone changes that can lead to cancer. The body's immune system does not recognize certain precancerous cells as "self." The altered cells are considered as invaders and are destroyed.

Conditions that depress the immune system increase the risk of infection and development of certain cancers. Factors that enhance immunity may lower these risks.

Ascorbate is important for efficient work of immune function. It can improve the neutrophil function and cell-mediated immunity, especially in elderly subjects with a low level of vitamin C in the serum and white blood cells.

In our research project, we analyzed several parameters which may describe the strength of the immune system: phagocytosis, which shows the ability of white blood cells to control bacterial infection; lymphocyte proliferation, which is a key indicator of adaptive immune response; and the ability of white blood cells to eliminate tumor cells.

Our results demonstrated the dif-

kids over which parents have very little control outside the home: food choices.

Name the behavior most likely to regulate a kid's own choice of foods: the parents' food choices, as observed by that kid.

Name the least taught subject in school (including medical school): nu-trition and whole foods.

Name the human behavior most likely to influence risk for heart disease, cancer, obesity, substance abuse, and even accident risk: nutrition.

Name the time of life when learning good nutritional habits will have the greatest impact on overall quality of life and useful longevity: childhood.

ference between phagocyte activity of neutrophils and the level of lymphocyte activation between the two groups of volunteers in our study. The results provided the first proof that ascorbate supplementation may enhance the development of dendritic cells and the ability of T-cells trained by these cells to kill tumor cells.

Ascorbic acid has been shown to stimulate the immune system by enhancing T-cell proliferation in response to activation or infection. These cells are capable of destroying infected cells.

All measured parameters were correlated with age. Levels of phagocyte index, lymphocyte proliferation, and mature dendritic cell yields from monocytes decreased with donor age, but these changes were less pronounced for donors with at least one gram/day supplementation of vitamin C. Mean values of phagocytic activity, lymphocyte proliferation, and dendritic cell yield were calculated for donors younger than 50 and donors older than 50 years. In each age group, comparison was made between supplementing and non-supplementing groups. Immune cell activity was lower in each group of donors without supplementation and increased in groups with vitacontinued on page 3

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### Vitamin C—Cont'd from page 2

min C supplementation.

For example, the mean lymphocyte proliferation index was 28% higher in elderly subjects who took vitamin C supplementation in comparison with elderly people who did not take supplementation.

The result of our analysis allowed us to prove statistically that cell mediated immunity and phagocytosis was improved by vitamin C supplementation and that this improvement was more dramatic in elderly volunteers.

Our research proved that vitamin C supplementation of at least one gram per day correlated with improved immune cell functioning.

There are a lot of other beneficial effects of vitamin C. The most known effect is for prevention or treatment of a cold. Dr. Linus Pauling recommended one to two grams of ascorbic acid for amelioration of the common cold. Trials that tested vitamin C in treating the common cold found evidence of greater benefits with large doses than with lower doses.

Many studies have looked at the association between ascorbic acid intake and the risk of developing cardiovascular disease. An American cohort study demonstrated that cardiovascular mortality was reduced in men and women by vitamin C. In the UK, the study demonstrated that the risk of stroke in people with the highest intake of vitamin C was only half that of subjects with the lowest intake. There is evidence showing the beneficial effect of ascorbic acid supplementation in preventing cardiovascular disease.

Nobel prize laureate, Pauling, and Cameron, recommended high doses of vitamin C (>10g/day) in the treatment of cancer. They believed that ascorbic acid fights cancer by promoting collagen synthesis and prevents the tumor from invading into other tissue. Other theories consider that ascorbic acid prevents cancer by neutralizing free radicals before they can damage DNA or may act as a pro-oxidant to destroy tumors in the early stage. Ascorbic acid and its derivatives were shown to be cytotoxic to human tumor cells.

In our research group, the potencontinued on page 4

## HEALTH HUNTERS AT HOME

## Obesity—a problem for pets, too

According to Tim Lawton, M.D., two in three adults (humans) are overweight and one in three are obese. He added that one is overweight when your body mass index (BMI) is 26 or over.

My BMI hovers at 26 so I guess that I am overweight. Jackie's BMI is just over 26, but she is working to get at or below the magic 25. So am I.

We have three cats, two of which are at the weight they should be and one (Nola) is obese. Nola is between the size of a football and a basketball. She is fat!

But here lies the problem. We feed all three of the cats the same amount of food. Nola eats her bowl of food and then she eats Sheila's bowl and Purrsia's bowl of food.

You begin to see the problem. We cannot keep Nola from eating



all of this food without standing beside the three bowls of food and chasing her away whenever she starts to get into the other two bowls. We could banish her to the out-of-doors or in the garage when we are not at home, but she had a pretty trying childhood and this would be tough on her. Also, when we are at home, we have other things to do besides stand at the bowls and chase her away. It is a big problem and she seems to be getting bigger.

If she drove herself to the fast food drive-through and ordered a couple of orders of French fries, along with a hamburger or two, we could work with her to stop doing this and eat more whole foods. But she can't. She eats the food we give her and the other cats as well.

You and I are luckier than our three cats. We can decide what goes into our mouths. We can decide whether to drive through the place with the arches or get our food from somewhere else.

Ron Hunninghake, M.D., gave a Lunch & Lecture recently on dining in and dining out. He believes in the lowcarbohydrate lifestyle and he had some good suggestions for dining out and staying with the low-carbohydrate lifestyle.

### Low-carbohydrate restaurant ideas:

- Chef salad or grilled chicken Caesar salad, hold the croutons.
- Quiche (don't eat the crust).
- Tomato stuffed with chicken, tuna, or shrimp salad.
- Barbecued ribs, beef, or chicken, with coleslaw and tossed salad (hold the beans, potatoes, bread, and biscuits).

#### Fast food places:

• Grilled chicken sandwich or burger with side salad. Eat 1/2 the bread (or none). Skip fries and desserts.

### Submarine sandwiches:

• Order your sandwich as a salad without the bread.

#### Chinese restaurant:

• Egg drop soup, skewered beef or chicken, or meat and veggie entrees. Avoid egg rolls, noodles, and limit rice to 1/8 or 1/4 cup.

### **French restaurant:**

• Go for clear soups, salads, meats with butter sauces, roast duck, quail, lamb, grilled fish, sauteed veggies. No bread or potatoes.

### Indian restaurant:

• Curried meats, tossed salads, tomato and cucumber salad, stewed zucchini and squash, and creamy spinach. Avoid breaded veggies and potato dishes.

### Italian restaurant:

• Sauteed calamari or antipasto appetizers. Chicken or veal piccata. Grilled fish or pork cutlet. Steamed veggies. Avoid pasta and bread. (One piece of garlic bread contains 14+ carbohydrate grams.)

These suggestions don't work for our cats, but they do work well for you and me.

Dr. Ron said that many people falsely assume that low-carbohydrates is all about fats and meats. As you can see from his recommendations for restaurants, vegetables are included. He also said that people who use this lifestyle eat more veggies and fruit than people on high-carbohydrate diets.

Our suggestion is to use the lowcarbohydrate diet. Whether lean or fat, it will work for you.

-Richard Lewis

## INFORMATION WORTH KNOWING

Thomas E. Levy, M.D., J.D., says that vitamin C is the treatment of choice for many potentially fatal toxins and other toxic medical conditions that poison the body. Vitamin C is effective for many diseases for which no effective treatments currently exist. In his new book, Vitamin C, Infectious Diseases, and Toxins: Curing the Incurable, he cites over 1,200 scientific sources on vitamin C that have been written over the last century. Vitamin C is relatively free of side effects, thus becoming the most non-toxic nutrient and supplement that is available today. The use of properly dosed vitamin C within a comprehensive treatment protocol can also eliminate the need for many toxic prescription medicines. Our questions this month are taken from his book.

Vitamin C, although possessing other important qualities, appears to be a most important stimulus to the flow of

in the body.

- a. blood
- b. electricity
- c. acid
- d. none of the above

Health exists when electrons flow fully and freely. Illness exists when this flow is significantly impaired, and death occurs when this flow stops.

> a. True b. False

A. G. Conney and associates demonstrated that animals having the ability to synthesize their own vitamin C could produce about

times more than their baseline levels when subjected to enough biochemical stress, such as from drugs.

a.	two	b.	four
c.	ten	d.	twenty

Genetically speaking, human beings and a few other animals cannot translate the DNA code for the vital enzyme, L-gulonolactone oxidase, which is needed to convert into vitamin C internally.

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

Dosage levels do not matter in the dispensing of vitamin C since the human body can make adequate use of very little of this nutrient.

a. True b. False

In reviewing the literature, all toxins examined \_ the consumption of vitamin C, which rapidly causes its own problem if not dealt with promptly and aggressively.

- a. reduce
- b. inhibit
- c. accelerate
- d. all of the above

While the dose of vitamin C is important in toxic cases, it is also important how the dose is administered. The best way(s) to give optimal doses of vitamin C is(are) by

a. oral doses

- b. rapid intramuscular push
- c. intravenous drip
- d. all of the above

FOR ANSWERS, SEE PAGE 7

### Naps improve test scores

A 60 to 90 minute nap in the early afternoon improves perceptual skill learning as much as a full night's sleep, according to a report in National Neuroscience by Sara Mednich and colleagues.

The researchers had 73 people do a visual texture discrimination test at 9 a.m., 8 p.m., and again at 9:00 the next morning. Some of the people took a 60 or 90 minute nap in the early afternoon while others went about their normal business.

Those who did not take a nap did worse on the test in the evening than in the morning. By contrast, those who took a nap that included slow wave sleep retained their good performance all day. Naps pay off. H<sub>H</sub>

### Vitamin C—Cont'd from page 3

tial therapeutic effect of very high-dose vitamin C was demonstrated in inhibition of tumor cell growth in the test tube. We showed a 50 percent inhibition of tumor cells with vitamin C concentration at 200mg/dL in dense monolayer cell culture and 400mg/dL for the hollow fiber culture model. Since it is difficult to maintain a high level of vitamin C for a long period of time, we were also interested in seeing if cytotoxicity of ascorbate to cancer cells could be obtained by using lower concentrations of vitamin C in combination with an alternating magnetic field. According to our research results, vitamin C combined with a low frequency magnetic field reduces the amount of vitamin C to induce 50% inhibition of tumor cells.

In spite of numerous reports about the cytotoxic effect and anti-carcinogenic effect of ascorbic acid and its derivatives on tumor cells, the molecular mechanism of its action is not clear. The effect of ascorbic acid was studied on cell proliferation, cell cycle, apoptosis, and signal transduction in tumor cells. Ascorbic acid demonstrated anti-proliferative effect on tumor cells and increased the amount of tumor cell death.

Many animal, clinical, and epidemiological studies analyzed the effect of ascorbic acid in the prevention and treatment of cancer.

Epidemiological studies on vitamin C supplementation and cancer demonstrated clear evidence that high uptake vitamin C supplementation or vitamin C rich food reduces risk of stomach cancer. Ascorbic acid functions as a free radical scavenger in the stomach and prevents formation of carcinogenic compounds from nitrates and nitrites by giving protection to the stomach.

Among other types of cancer, the beneficial effect of vitamin C and other vitamins was demonstrated for cervical cancer.

Supplementation of cancer patients with vitamin C has been shown to improve the quality of life and extend longevity of patients.

The research project was accomplished by the efforts of Hugh Riordan, M.D., Joseph Casciari, Ph.D., Jan Austin, B.S., and Nina Mikirova, Ph.D.

## The Garden and the gardener

### by Melvin D. Epp, Ph.D.

Autumn in the garden this year has been a real treat. There were cooler temperatures and weekly rains. Frost has also been slow in coming this year. The Brightspot Garden continued to produce a full range of vegetables. In mid-October the organic harvest included green beans, broccoli, carrots, chard, collards, cucumbers, kohlrabi, a late-in-the-season muskmelon, okra, green peppers, radishes, scallions, summer squash, sweet potatoes, tomatoes, and turnips. Additionally, there were the green salad items like arugula, mizuna, and several leaf lettuces, together with the herbs, basil, chives, cilantro, horseradish, oregano, rosemary, sage, and thyme.

Autumn vegetables, like the root crops, beets, carrots, sweet potatoes, and turnips, together with the fruits like pumpkins and winter squash, have varying amounts of carbohydrates. However, these vegetables are an excellent source of fiber, vitamins, and minerals, so we need to consume these vegetables regularly. Autumn vegetables are often used in dishes to create comfort foods for sustenance through the long dark evenings and the cold nights that will come shortly. The trick is to prepare the autumn vegetables with herbs and spices to create savory dishes that do not require the addition of sugar.

One of the simplest ways to prepare beets, carrots, pieces of pumpkin or squash, sweet potatoes, or turnips is to cut these vegetables into uniform one to two inch chunks, streusel with olive oil, season with salt and pepper and roast in a hot oven, 400° F until tender. Roasting intensifies flavors, because water is evaporated. If you wish to reduce the intensity of a flavor, consider steaming, braising, or cooking in a little water.

A videotape of my recent Health Hunter Lunch & Lecture on this topic includes a lot more ideas. The tape is available through the Gift of Health. These autumn vegetables are too nutritious to neglect, even if you only prepare them for a weekend repast.

## Herbal History

## Milk thistle, Silybum marianum

Milk thistle has been used clinically by some doctors for cancer, as a kidney protective agent, and to benefit patients who have high cholesterol and other circulatory problems. Other clinical uses for milk thistle and its antiarthritic activities were found in mouse and rat experiments.

Inflammation in the body is often the cause or a contributing factor to many diseases. Anti-inflammatory activity is one of the contributions of milk thistle and silymarin, a product of milk thistle. Silymarin in high doses stimulates the anti-inflammatory process in mice experiments. It also has significant anti-inflammatory and anti-arthritic action in rats, research shows. Other studies support milk thistle and its products in controlling inflammation.

Milk thistle has been shown to be effective in controlling the cholesterol

synthesis of the liver. Silymarin improves the anti-oxidant capacity of the liver, diminishes direct bilirubin concentration and causes an increase in liver enzymes. Based on existing research and the herb's long history of use, some clinicians use milk thistle for liver problems in their patients.

Clinical studies also indicate that milk thistle may be effective in cases of diabetes caused by alcoholic liver cirrhosis. It diminishes the tissue insulin resistance in these diabetics and also prevents other diabetic problems such as neuropathy and eye problems.

Clinical studies of milk thistle's potential benefit should be a priority. Given the safety of the herb, you and your doctor may be advised to use milk thistle. Milk thistle as a food, either ground or as seed oil, appear to be beneficial for both you and your family.



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.

## Life is a miracle!

Do some TV commercials affect you the way they do me? It seems like they are trying to make me unhappy with what I have and that if I buy (fill in the blank) I will be happier, sexier, and more complete.

It is time to wake up and realize that our lives are really a miracle. While we are waiting for big miracles to happen, we can enjoy the everyday miracles. Dr. Riordan is fond of saying that we overcame tremendous odds just to get born in the first place. Every day after that is a gift.

Almost everyone has challenges and unpleasantness in his/her life at one time or another. Many people are facing tremendous odds to even be able to do the small things in life. Still, life is precious to all of us. We just don't always realize the many blessings that we have. Your mental medicine today



is to find at least three things for which you are grateful. They don't have to be "big" things.

Here are three of the things for which I am grateful: one, the brilliant color in a co-worker's blouse as the overhead light shines on it; two, the squeak my chair makes when I turn in it; three, the citrus aroma that is released as I peel an orange. All my senses are alive to the moment. Some days one sense may be stronger than another and each one brings a small break from the sometimes harshness of life.

Sometimes we forget all the many small delights that this miracle of life encompasses. Ted Nance said, "The secret of happiness is not discovered in the absence of trials, but in the midst of them." Take a Mental Medicine break and experience the joy of small delights. Hн

## **CENTER UPDATE**

## High-protein diet improves glucose response

Dr. Atkins has been promoting a high-protein, low-carbohydrate diet for over thirty years. He also noticed that this diet would control the glucose response in diabetics.

Dr. Ron Hunninghake, here at The Center, has been recommending this diet to patients for quite a while and has noticed the same response. People he has on the diet have been able to not only lose weight but to better control their glucose levels.

Research now shows the same response. Mary Gannon and her colleagues, from the Veterans Affairs Medical Center, Minneapolis, Minnesota, found that an increase in dietary protein improves the blood glucose response in persons with type II diabetes.

They studied 12 people with a mean age of 61 years. Each had mild, untreated diabetes and a mean body mass index of 31. A body mass index of 26 or greater is considered overweight.

At the end of the five-week study

period, they reported that a high-protein diet lowered blood glucose after meals and improved overall glucose control. Creatinine clearance, an indicator of kidney function, was unchanged.

Dr. Hunninghake points out that obesity and type II diabetes are on the rise in the U.S. He says that some people indicate that if obesity continues to increase, one in three people born in 2000 will have type II diabetes by the year 2050.

Dr. Hunninghake says that a highprotein, low-carbohydrate approach to one's diet will lower the blood glucose level and insulin resistance for most people as long as they get the carbohydrates low enough. He says that you may need to get your carbohydrates as low as 20 grams per day until you get within about 20 pounds of your ideal weight. Then you can begin increasing your non-starchy carbohydrates a little at a time.  $[H_{\rm H}]$ 

## Case of the month

A 26-year-old woman came to The Center in December of 2001 complaining of having fatigue, tension headaches, tendinitis, vaginal yeast, easy bruising, problems with sleeping, and fibromyalgia. She said that the fibromyalgia had been diagnosed about five years before coming to The Center.

Dr. Riordan thought that a complete vitamin and mineral analysis, along with the amino acids and fatty acids analysis would be valuable. He also felt a complete parasitology examination, cytotoxic food sensitivity, thyroid test, candida yeast test, and Epstein Barr test were among the more important tests for her to have done. He also suggested she have an intravenous vitamin C infusion and a magnesium injection.

She returned three weeks later to get the results of the laboratory testing. From these results, she received prescriptions for Mastic gum for h. pylori, CoQ10 for energy, Knox gelatin to boost amino acids, Prodophilus and Nystatin for candida, chromium, zinc orotate and vitamin B6 for pyrroles. Gram Ascorbs for low vitamin C, and magnesium chelate to help with the muscle spasms.

Dr. Hunninghake added Armour thyroid tablets, MSM powder, Cytomel tablets, and Amiltriptyline tablets over the following year. She continued to come for appointments throughout 2002 and 2003.

When she came for an appointment in October, 2003, she said she feels 95% better than when she first came to The Center. She added that she is now in good spirits, especially the last two weeks. She sleeps 50% to 75% better, even though she still has mornings that she is tired. She has no need for naps.

She drinks two to three quarts of water a day with MSM powder in them now that she has finished nursing her new son. "The pain is gradually getting better-so much less than before. The achiness is gone," she said. She is on a lower carbohydrate diet with lots of almonds and fruits. In short, she is on Щ the road to recovery.

### Answers from page 4

b. A greater amount of vitamin C in the body optimizes the ability of the cells in the body to maintain their health-sustaining communications.

a. When the electron flow is impaired, there is a need for more vitamin C to help remedy this impairment.

c. This automatic ability to adequately step up vitamin C production in the face of stress explains why so many wild animals tend to live healthy for their entire lives.

**a**. This genetic defect is the main reason why humans are more prone to infections and diseases than many wild animals.

b. When adequate vitamin C is not given in a particular clinical situation, the desired recovery will not occur.

• C. Vitamin C should be used in almost all forms of toxicity, whether acute or chronic.

c. Intramuscular vitamin C should only be used when intravenous access is not available. Oral vitamin C is not likely to elevate blood concentrations quickly enough.

## SPECIAL DISCOUNTS

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

### VITAMIN C, INFECTIOUS DISEASES, & TOXINS

By Thomas E. Levy, M.D., J.D.

Vitamin C has been one of the most studied nutrients, with a great deal of this research being done 50 or more years ago. Fresh fruits and vegetables were found to be necessary to ward off scurvy even before their precise chemical makeup was known. Now vitamin C is known to be beneficial in the treatment of many diseases. Learn more about this necessary nutrient. Soft cover. Retail Price: \$24.95

Health Hunter: \$22.46

#### AUTUMN VEGETABLES: HOW TO CONTROL THE CARBS With Melvin Epp, Ph.D.

As fall sets in, we all crave comfort foods to nourish us through the long dark evenings and the cold nights. The fresh autumn vegetables available are primarily storage roots like sweet potatoes, carrots, beets, and turnips and fruits like pumpkins and squash. These are all loaded with carbohydrates. Dr. Epp discusses how to prepare autumn vegetables in ways that emphasize the taste of the vegetables rather than added sweeteners.

## FREEING YOURSELF FROM THE INSULIN DISEASES

#### With Ron Hunninghake, M.D.

Almost all the major diseases of western civilization have at their root a single cause: excessive insulin. Research now demonstrates that the triggering of excessive insulin through excess carbohydrate intake and inadequate protein can promote insulin related conditions. These insulin related conditions include: high blood pressure, elevated cholesterol and triglycerides, central obesity, osteoporosis, Alzheimer's, Type II Diabetes, heart disease, and a host of other common illnesses. Since we now know the underlying cause, it is possible to correct it at its core, thus preventing or reversing the scourge of western civilization.

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November 6	Why Are We Getting So Fat in the USA?
November 13	Benefits for those with "Chronic" Illness
November 20	Whole Foods: More Food for Thought

### Atkins Q & A with Dr. Ron -The Center's Approach to Atkins:

November 27 & 28 - Center closed

December 25 & 26 - Center closed

November 4 Using the Color Code to Simplify Atkins November 11 Atkins & Arthritis: How It Can Help You November 18 Diabetics Doing Atkins: Is it Safe; Is it Effective?

## Now, a tomato a day...

"A tomato a day keeps the cardiologist away" just may be the new saying, according to research reported in the American Society of Nutritional Sciences journal. In a study that evaluated 39,876 women for 7.2 years, the authors found that women who consumed seven or more servings of tomato-containing foods per week had a 30% reduction in cardiovascular disease risk when compared with women who consumed only 1.5 servings of tomato-containing foods a week.

This was a very large study for a significant period of time that gave significant results.

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· Life is a miracle!

project

**Gincose response** · High-protein diet improves

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