

NATURE'S BIN

Naturally

Natural Insights for Well Being®

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The Heart of Magnesium

Two new, large studies suggest magnesium is key to heart health

An essential nutrient

The body needs magnesium for hundreds of biochemical reactions, to maintain muscles and nerves, and to regulate heart rhythm. Most Americans don't get enough magnesium.

Less heart disease

In this review, doctors combined data from 16 studies covering 313,041 people worldwide where researchers measured magnesium levels and the likelihood of heart disease. In the first finding, for every increase in circulating magnesium of 0.2 millimoles per liter of blood, chances of developing cardiovascular diseases such as atherosclerosis, heart failure, or arrhythmia, were 30 percent lower. Normal magnesium levels for adults range between 0.74 and 1.07 millimoles per liter.

In the second finding, compared to those who got less, those who consumed higher amounts of magnesium from diet were 22 percent less likely to develop ischemic heart disease; where the heart lacks sufficient blood supply and oxygen.

Benefit seen at 400 mg per day

In this analysis of 19 studies worldwide, covering 532,979 people, researchers probed for a link between



magnesium levels and all forms of cardiovascular disease. Overall, as levels of circulating magnesium or magnesium in the diet increased, chances for any cardiovascular disease declined.

Doctors found that, compared to those who consumed the least, those who got the most magnesium from diet were 15 percent less likely to develop any cardiovascular disease. And, there was a direct link: for each 0.08 millimole-per-liter increase in circulating magnesium levels, chances for cardiovascular disease events declined by 9 percent. Researchers saw the greatest heart benefit when people increased magnesium from 150 mg per day to 400 mg per day.

In discussing their findings, doctors said these latest studies suggest that to lower chances for cardiovascular disease it is important to maintain healthy circulating and dietary levels of magnesium.

REFERENCE: AMERICAN JOURNAL OF CLINICAL NUTRITION; MAY 2013, PUBLISHED ONLINE

SEPTEMBER'S

Healthy Insight Nutrition Bang for Your Buck

To feed kids well but stay within budgets, public schools must balance nutrition with economics. In this study, researchers measured nutrient density and costs of different foods and found that white and sweet potatoes, beans, carrots, and some dark green vegetables are most affordable and nutritious. While dark green vegetables had the highest nutrient scores, beans, white potatoes, and carrots are most popular with kids, making them the smartest choice for school menus. Researchers also said that potatoes are low cost, are naturally low in calories, and deliver high amounts of vitamin C, fiber, potassium, and magnesium.

REFERENCE: PUBLIC LIBRARY OF SCIENCE ONE; 2013, VOL. 8, NO. 5, E63277

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Progress on Diabetes

Nutrients help control and protect from this condition

Vitamins C and E

Those with type 2 diabetes also have chronic oxidative cell damage. In this antioxidant study, 170 adult men and women with type 2 diabetes took 267 mg of vitamin C per day, 300 IU of vitamin E per day, these two together, or a placebo. After three months, compared to placebo, those who took either or both antioxidants saw large drops in fasting and long-term average blood sugar levels. Those who took antioxidants also had higher circulating levels of vitamins C and E, and beneficial decreases in blood pressure.

Inulin helps control blood sugar

Inulin is a plant-based dietary fiber with several beneficial effects in the body. In this study, 49 women with

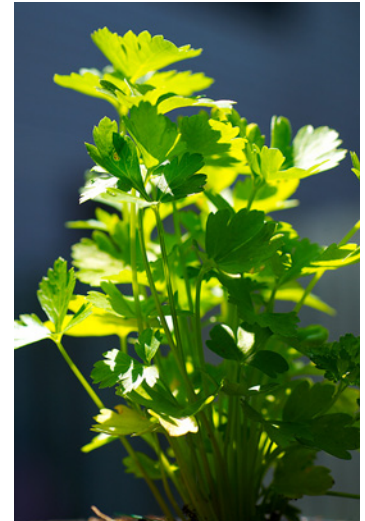
type 2 diabetes took 10,000 mg of inulin per day, or a placebo. After two months, compared to placebo, those who had taken inulin had 8.5 percent lower fasting blood sugar levels, 10.4 percent lower long-term average blood sugar levels, and a 37 percent decline in a primary sign of oxidative stress. The inulin group also saw total antioxidant capacity increase 19 percent.

Vitamin D may protect against type 1 diabetes

In type 1 diabetes, the body produces little or no insulin, and therefore cannot metabolize sugar. Doctors in this study analyzed 1,000 blood samples from healthy people who later developed type 1 diabetes and compared to 1,000 people who remained healthy. Those with the

highest levels of vitamin D were 70 percent less likely to develop type 1 diabetes compared to those with the lowest levels.

REFERENCE: GLOBAL JOURNAL OF HEALTH SCIENCE; 2013, VOL. 5, No. 3, 183-7



Clues to Mature Health

Nutrients reduce illness in mature adults

Vitamin D reduces pneumonia

Earlier studies showed vitamin D defends against infection. In this study, doctors measured vitamin D levels in 1,421 men and women with healthy



lungs at the start of the study. The average level of circulating vitamin D at that time was 43.5 nanomoles per liter of blood, which falls below the 50-nanomole optimal level, doctors said. After 10 years of follow up, compared to those with the lowest levels, men and women with the highest circulating levels of vitamin D were 61 percent less likely to have developed pneumonia at any time during the 10-year follow-up period.

CoQ10 may decline with age, illness

Coenzyme Q10 is present in every cell in the body and helps produce energy. Diseases and drugs, especially statins, reduce stores of CoQ10, and CoQ10 may also decline with age.

Doctors wanted to see if those who are critically ill would be deficient in CoQ10, and in this study compared 36 critically ill people in intensive care to 18 healthy people. None were taking statins.

Compared to the healthy participants, those who were critically ill had much lower CoQ10 levels, with the lowest levels in the eldest of these. Critical illness means a life-threatening situation that requires continuous monitoring. Doctors found that all the critically ill, regardless of the cause, were deficient in CoQ10 and, after discharge saw that CoQ10 levels were lower in those who reported the most difficulty with daily living activities.

REFERENCE: JOURNAL OF EPIDEMIOLOGY & COMMUNITY HEALTH; 2013, VOL. 67, No. 6, 533-6

Healthy Women

Nutrients raise mood and immunity

Omega-3 relieves symptoms of PMS

In this pilot study, researchers measured the severity and duration of PMS in 124 women complaining of symptoms. The women took 2,000 mg of omega-3s per day, or a placebo. After 45 days, while the placebo group had not improved, those in the omega-3 group reported less severe symptoms of depression, lower levels of anxiety, better concentration, and less bloating.



After 90 days, while the placebo group still reported no improvement, the omega-3 group continued to report improvement in all the previous symptoms, plus improvements in feelings of nervousness, less frequent or less severe headache, and less breast tenderness.

Beta-glucan improved mood, immunity

Prior studies have shown baker's yeast beta-glucan reduces symptoms of cold and flu. In this study, 77 healthy women, average age 38, with moderate levels of psychological stress took 250 mg of yeast beta-glucan per day, or a placebo.

After 12 weeks, 29 percent of the

women in the placebo group reported upper respiratory symptoms compared to 10 percent of the women in the beta-glucan group. Energy levels improved 7 percent in the placebo group and 41 percent for beta-glucan. Overall mood scores improved 16 percent for women taking the placebo, and 29 percent for women who took beta-glucan.

Discussing their findings, doctors said women who took beta-glucan reported lower levels of upper respiratory symptoms and that they felt better after taking beta-glucan, which doctors later confirmed in psychological assessments that showed the women had increases in energy and vigor and improvements in their overall sense of well-being.

REFERENCE: COMPLEMENTARY THERAPIES IN MEDICINE; 2013, Vol. 21, No. 3, 141-6

Peak Performance

Nutrients improve professional athletes

Vitamin D improved muscle strength in ballet dancers

Athletes that train indoors during the winter months tend to have low levels of vitamin D due to lack of sunlight. Prior studies have linked low vitamin D levels to impaired performance and increased injury.

In this study, 24 elite classical ballet dancers took 2,000 IU of vitamin D3 per day, or a placebo, during the winter. Doctors tested isometric muscle strength and vertical jump heights, and measured the rate of injury during the trial.

After four months, compared to placebo, ballet dancers who had taken vitamin D had 18.7 percent greater isometric muscle strength and could jump 7.1 percent higher in vertical jumps. Also, dance-stress injuries in the vitamin D group were far fewer and

milder than in those who did not take vitamin D.

CoQ10 boosted elite athlete performance

Coenzyme Q10, an essential energy fuel, occurs in all cells in the body. In this study, 100 elite male and female athletes took 300 mg of CoQ10 per day, or a placebo, during a six-week training period prior to participating in the 2012 London Olympics.

After six weeks, using a cycling ergometer, researchers measured power output and found both groups increased in power but, compared to placebo, the CoQ10 group gained 29 percent more power output capacity.

Doctors said CoQ10 appeared to increase short term, high-intensity performance ability, perhaps by

increasing energy capacity at the cellular level and that, although these results were found in elite athletes, older athletes and "weekend warriors" may benefit from CoQ10 as well.

REFERENCE: JOURNAL OF SCIENCE AND MEDICINE IN SPORT; APRIL 2013, PUBLISHED ONLINE





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'Taties!

You might want to make a double recipe of this crowd-pleaser. Please see page 1 for new research on how nutrient-packed potatoes deliver great nutrition and great value at the same time.

Ingredients:

3 large potatoes	2 tbsp chives
2 to 3 c fresh spinach or leafy greens, chopped	2 tbsp parsley
3 tbsp vegetable broth	1/2 tsp cumin
3 cloves of garlic or 3 shallots, chopped	2 tbsp olive oil or butter
2 tbsp basil	Salt and pepper to taste

Directions: Chop potatoes into chunks and boil until soft but firm, and set aside. In a pan on medium heat, briefly sauté garlic or shallots in broth, add greens, and stir until wilted and soft. Chop the herbs, smash the potatoes, and mix everything in a bowl. Let rest until cool enough to touch and make potato “meatballs.” Preheat oven to 450 degrees and bake for 15 minutes on an oiled or buttered baking sheet. Serve as a hot appetizer, side dish, or as a meal with a green salad.

Thanks for shopping with us!

We're dedicated to discovering the benefits of good nutrition and healthy lifestyle, and hope this issue of Natural Insights for Well Being® informs and inspires you to take an active role in your health. Please ask us to assist you with any natural products you would like to know more about.

These articles provide nutritional information only and do not replace professional medical advice.

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