

NATURE'S BIN

Naturally

Natural Insights for Well Being®

Circulation & Inflammation

Nutrients improved circulation and reduced inflammation in two new studies

Creatine improved circulation, lowered blood pressure

Athletes have traditionally used creatine to build strength and speed for short bursts of high-intensity exercise, but few studies have tested creatine for its effects on circulation. In this study, 40 healthy, moderately active men, average age 28, took 20 grams of creatine per day.

After one week, while there was little or no change in resting pulse, body mass, and signs of inflammation, systolic and diastolic blood pressure decreased by 1.8 and 1.5 mmHg, respectively.

Blood flow through the smallest blood vessels, known as capillaries, improved, and density of capillaries nearest the skin also increased, contributing to better blood circulation. Doctors now plan studies in those with impaired circulation.

Glucosamine and chondroitin reduced signs of systemic inflammation

Earlier lab studies found glucosamine and chondroitin have anti-inflammatory properties, but there are few studies of the effects of these nutrients in humans. In this study, doctors measured signs of inflammation in 217 men and women,



aged 50 to 75, who were, or were not, taking glucosamine or chondroitin supplements.

Compared to those who did not take chondroitin supplements, men and women who took chondroitin an average of twice per day had levels of the inflammatory factor—high-sensitivity C-reactive protein—that were 36 percent lower than non-users. For glucosamine, compared to participants who did not take a supplement, regular glucosamine users had levels of high-sensitivity C-reactive protein 28 percent lower than non-users.

The researchers also measured a second inflammatory factor, prostaglandin E2, and found similar lower levels in both glucosamine and chondroitin users compared to non-users.

REFERENCE: NUTRITION JOURNAL; 2014, VOL. 13, NO. 115, 1475-2891

APRIL'S

Healthy Insight Mediterranean Diet of Youth?

Each time a cell replicates, the protective caps at each end of its DNA strand—called telomeres—shorten. Over time, when telomeres become too short, the cell replicates imperfectly, increasing chances for age-related disease. Oxidation and inflammation affect telomere length.

Doctors in this study found that, of 4,676 middle-aged women, those who more closely followed a Mediterranean-style diet—with its emphasis on combining antioxidant and anti-inflammatory fruits, vegetables, and nuts—had longer telomeres.

On a scale of 0 to 9, with higher scores being closest to a true Mediterranean-style diet, each one-point increase corresponded to 1.5 fewer years of telomere aging, suggesting greater health and longevity.

REFERENCE: THE BMJ; DECEMBER, 2014, PUBLISHED ONLINE

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What About Adult Asthma?

Two new studies reveal vitamin D benefits in adult asthma

Vitamin D helps control asthma flares

Many of the earlier studies on asthma have focused on young children. This large new study is unique because the young adults who participated did not have other diseases that could complicate the findings.

Doctors compared levels of vitamin D and asthma in 308,000 men and women, aged 22 to 50. About one in 14 had asthma, and vitamin D levels were similar between those with and without asthma. But those with asthma who were also deficient in vitamin D were 25 percent more likely to have severe asthma symptoms, called flares or exacerbations. These included needing prescription oral corticosteroids, more than five prescriptions for rescue

inhalers, and more than four visits to a doctor for treatment.

Vitamin D eased asthma in older adults

Very few studies have been done on asthma in older adults. In this pilot study, 28 men and women aged 65 to 84 with asthma took 2,000 IU of vitamin D per day.

Those with uncontrolled asthma symptoms started the study with vitamin D levels 26 percent below the levels of those whose asthma was well controlled. After 12 weeks, circulating levels of vitamin D had increased for everyone by an average of 40 percent, rising to 34 from 24.3 nanograms per milliliter of blood overall.

In addition, symptom scores

for those with uncontrolled asthma improved to the level of “good control.” Doctors said even without a placebo group, the findings appear to confirm that vitamin D helps control asthma symptoms in older adults.

REFERENCE: ALLERGY; 2014, VOL. 69, No. 12, 1673-80



More Vitamin E Good News

New studies support brain and bone benefits in young and old

More vitamin E, higher IQ in children

Infants with extremely low birth weight—less than 2 pounds, 3 ounces—are usually born at 27 weeks gestational



age or earlier, and are more susceptible to complications and impaired mental development.

In this study, researchers divided 259 school age kids born at extremely low birth weights into three groups based on how long they were given vitamin E supplements as infants; less than six months, more than six months, or no vitamin E supplements.

Compared to no vitamin E and short-term vitamin E, kids who got vitamin E for six months or more had the lowest incidence of mental impairment and better IQ test performance.

More vitamin E, fewer fractures in older adults

Bone fracture and osteoporosis may increase along with chronic oxidative

stress, and vitamin E has antioxidant properties which may counteract this type of bone damage. To test the theory, doctors in this study followed 14,738 older women for 19 years, and 1,138 older men for 12 years.

For women, those who got the least alpha tocopherol vitamin E in the diet were 86 percent more likely to have had a hip fracture over the 19-year follow-up period, while women who took alpha tocopherol supplements were 22 percent less likely.

For men, those with low circulating levels of alpha tocopherol vitamin E were more than three times as likely to have had a hip fracture over the 12-year follow up period compared to men with higher levels of vitamin E.

REFERENCE: ACTA PAEDIATRICA; 2015, VOL. 104, No. 2, E82-9

Healthy Women

Nutrients protect against cancer and DNA damage in women

Selenium reduces chances of colorectal cancer

Although people only need a small amount of selenium, this essential micronutrient found in the soil plays a



key role in metabolism, has antioxidant properties, and may help prevent colorectal cancer.

Doctors in this study measured circulating levels of selenium in 966 men and women with the disease and in 966 similar men and women without colorectal cancer. While there was no link between selenium levels and cancer in men, women who had the highest circulating levels of selenium were 36 percent less likely to develop colorectal cancer compared to women with the lowest selenium levels.

Zinc reduces DNA damage

It is difficult to measure circulating levels of zinc, but doctors said they could measure zinc status by detecting breaks in DNA. In this study, researchers gave

40 Ethiopian women 20 mg of zinc sulfate per day or a placebo. Meat, a rich source of zinc, was only a small part of the diet for these women.

After 17 days, circulating zinc levels had not changed significantly, but a test of breaks in DNA strands showed women who had taken the zinc supplements had 25 percent fewer breaks in DNA.

Discussing their findings, doctors said that the test to measure breaks in DNA, called a comet assay, could be used to determine zinc status. Even though there were no measurable changes in circulating zinc levels, the DNA test was sensitive enough to detect changes in zinc status after the women took zinc supplements.

REFERENCE: INTERNATIONAL JOURNAL OF CANCER; 2015, VOL. 136, No. 5, 1149-61

Protein Muscle Power

Protein supplements help preserve and build muscle

Whey preserves muscle

One of the side effects of dieting can be losing muscle along with fat. Keeping muscle is important because these lean tissues help maintain healthy metabolism, physical activity, and blood sugar control.

In this study, 40 men and women, aged 35 to 65, with body mass index scores from 28 to 50, ate 750 fewer calories per day than their metabolism required. Starting three days before the low-calorie diet, each began taking 27 grams of whey protein, 26 grams of soy protein, or 25 grams of maltodextrin as a placebo, all twice per day.

After 14 days, although the placebo group saw less decrease in lean body mass than whey, those who took whey protein had much higher rates of muscle formation than either soy or placebo,

suggesting whey protein helps preserve muscle while dieting.

Leucine builds muscle

Doctors wanted to see if adding the essential amino acid leucine to a low- or high-dose protein drink would help stimulate muscle building. In the study, 40 healthy men, average age 20, took 25 grams of whey protein, which naturally contained 3 mg of leucine; 6.25 grams of whey protein with either 0.75 grams of leucine, 5 grams of leucine, or 5 grams of leucine plus isoleucine and valine.

Over the next 1.5 hours to 4.5 hours, all groups saw increases in muscle protein synthesis. The largest increase was in the 25-gram whey group, closely followed by the 5-gram leucine group,

leading doctors to conclude leucine stimulates muscle building as effectively in both low- and high-dose protein supplements.

REFERENCE: JOURNAL OF NUTRITION; FEBRUARY, 2015, PUBLISHED ONLINE





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Mediterranean Barley

If you're planning to share this delicious dish with friends, consider making a double recipe! And while you're enjoying, please see page 1 for a new study that found women who ate a mostly Mediterranean-style diet had signs of younger biological age.

Ingredients:

1 c dried barley	1 tbsp balsamic vinegar
2 1/2 c water	1/2 c cilantro, chopped
7 sundried tomatoes	1/2 c Kalamata olives, chopped
2 cloves garlic	1/4 c olive oil
2 tbsp olive oil	Garnish: feta cheese

Directions: Bring barley and water to a boil over high heat. Reduce heat to low, cover and simmer until the barley is tender but firm, about 30 minutes. Drain and cool in a bowl. In a blender, puree sundried tomatoes, garlic, olive oil, and balsamic vinegar. Pour mixture over the barley. Fold in the cilantro, olives, and olive oil. Cover and refrigerate until cold. Stir, garnish with feta, and serve.

Your Good News!™

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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