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# Natural Insights for Well Being®

April 2017

## Autism Update

### Vitamin D plays a role in mothers and their offspring

#### Deficiency during pregnancy

Earlier studies have found impaired language and motor development, and general intelligence, in children whose mothers were deficient in vitamin D while pregnant. In this study of 4,229 children and their moms, doctors measured mothers' vitamin D levels halfway through pregnancy and in umbilical cord blood at birth.

At age six, parents completed behavioral questionnaires. Mothers whose vitamin D levels were lower than 10 nanograms per milliliter of blood (ng/ml) during pregnancy were more likely to have a child with autistic traits compared to mothers whose vitamin D levels were sufficient, which doctors defined as at or above 20 ng/ml. Children whose moms were deficient in vitamin D mid-pregnancy were 3.8 times more likely to exhibit autistic traits compared to kids of mothers with sufficient vitamin D levels.

The number of women deficient in vitamin D more than doubled from mid-pregnancy to birth; 16 percent to 36 percent. This finding is particularly important because the developing baby depends entirely on mother for its vitamin D supply. Doctors said supplementing with vitamin D while pregnant is a safe, accessible, and inexpensive way to reduce chances of



children developing autism spectrum traits.

#### Autism scores improved

In the first placebo-controlled study to measure the effects of vitamin D supplements on autism symptoms, 85 boys and 24 girls, age 3 to 10, took a placebo or up to 5,000 IU of vitamin D3 per day. Doctors defined normal vitamin D levels at or above 30 ng/ml; insufficiency from 20 ng/ml, and deficiency below 20 ng/ml.

After four months, vitamin D levels had increased from 26 to 46 ng/ml in the vitamin D group, and from 27 to 28 ng/ml for placebo. Autism symptom scores decreased 17.7 percent for vitamin D and 1.9 percent for placebo. The vitamin D group also improved in social responsiveness compared to placebo.

REFERENCE: MOLECULAR PSYCHIATRY; NOVEMBER, 2016, PUBLISHED ONLINE

APRIL'S

## Healthy Insight Garlic, Lemon & Healthy Heart

In this study, 112 adults with moderately elevated lipids and blood pressure took 20 grams of garlic plus one tablespoon of lemon juice per day, or no treatment. Both groups were similar for sex, weight, and body mass index scores, and none were taking nutritional supplements or medications.

Participants recorded their diets and physical activity. After eight weeks, while lipids had not improved in the non-treatment group, those taking garlic and lemon saw total and LDL cholesterol and triglycerides decline significantly, and HDL, the "good" cholesterol, increase. Both systolic and diastolic blood pressure also declined for those taking garlic and lemon.

REFERENCE: INTERNATIONAL JOURNAL OF PREVENTIVE MEDICINE; JULY, 2016, PUBLISHED ONLINE

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# Staying Sharp

## Nutrients support healthy brain function in older adults

### Folate and dementia

At the beginning of this long-term study, 1,321 older adults were free from dementia. The study was in France, where manufacturers are not required to fortify foods with folate. Participants filled out a dietary questionnaire, took a psychological test, and interviewed with doctors to determine socio-economic, lifestyle, and health characteristics. After 7.4 years, people who consumed the most folate were half as likely to have developed dementia compared to those who consumed the least folate.

### Vitamin B6 and cognition

At the start of this study, 155 healthy adults, age 60 to 88, had normal cognitive function test scores. Three-quarters of the participants

regularly consumed foods fortified with B-vitamins. After four years, cognitive test scores had decreased slightly, by the amount doctors had expected to see. But, in one out of four participants (27 percent), the rate of cognitive decline was greater than doctors had expected. Doctors found those with lower vitamin B6 levels were 3.5 times more likely to have accelerated cognitive decline.

### Lutein, zeaxanthin, and brain function

One way the body compensates for the natural age-related decline in cognitive function is to use more energy to fuel brain processes. In this study, doctors asked 43 adults, average age 72, to memorize and recall pairs of unrelated words.

People with lower levels of the carotenoids lutein and zeaxanthin had to use more brain power to complete the memory task, while those with higher levels of lutein and zeaxanthin did not require as much brain activity to complete the memory task.

REFERENCE: NUTRIENTS; 2017, VOL. 9, NO. 1, 53



# Diabetes Update

## Magnesium and CoQ10 support circulation and metabolism

### Magnesium, heart, diabetes, and longevity

Doctors measured magnesium in the diets of more than 1 million participants in 40 studies covering follow-up periods from four to 30 years. Overall, those with higher levels of magnesium were less likely to develop several health conditions.



Because of the many studies and conditions, doctors used a standard increment of 100 mg per day to measure health changes in response to magnesium levels.

For stroke, each 100 mg increase in magnesium per day reduced chances for this condition by 7 percent. For heart failure, each 100 mg increase reduced chances by 22 percent. For type 2 diabetes, chances were 19 percent lower, and chances of dying from any cause decreased 10 percent for each 100 mg increase in magnesium per day.

### CoQ10 reduced metabolic syndrome

In this study, 60 adults with metabolic syndrome who were overweight or obese, or who had type 2 diabetes, took a placebo or 100 mg

of CoQ10 per day. After eight weeks, insulin levels had declined for CoQ10 while increasing for placebo. Insulin resistance—when the body does not use insulin efficiently to metabolize glucose—decreased for CoQ10 while increasing for placebo. And the cells responsible for producing insulin functioned better in those who took CoQ10. Total antioxidant capacity in the CoQ10 group improved significantly while the placebo group had declined.

Discussing the findings, doctors said compared to placebo, people with metabolic syndrome who took 100 mg of CoQ10 per day had better insulin levels, less insulin resistance, greater antioxidant capacity, and fewer signs of chronic inflammation.

REFERENCE: BMC MEDICINE; DECEMBER, 2016, PUBLISHED ONLINE

# Healthy Gut

## Resveratrol and synbiotics help balance the digestive system

### Resveratrol and colitis

This is the first placebo-controlled trial to test the effects of resveratrol on oxidative stress levels in ulcerative colitis (UC), an inflammatory condition of ulcers or sores in the lining of the large intestine. While doctors don't know the cause, they believe oxidative stress plays a role.

In this study, 56 people with



active mild to moderate UC took a placebo or 500 mg of resveratrol per day. After six weeks, levels of the important antioxidant, superoxide dismutase (SOD), had decreased for placebo while increasing for resveratrol. Total antioxidant capacity and signs of oxidative stress deteriorated in the placebo group but improved for resveratrol.

While there were no improvements for placebo, measurements of disease activity decreased and quality of life test scores improved for those taking resveratrol. Doctors concluded resveratrol can reduce oxidative stress in those with ulcerative colitis, and improve quality of life.

### Synbiotics and regularity

Waste moves through the

digestive tract at the rate of muscular contractions in the large intestine. When these contractions are slow—a condition called slow transit—waste can accumulate, causing constipation. In this study, 100 people with slow transit took a prebiotic and a probiotic, together called “synbiotics,” twice daily, or a placebo.

The synbiotic group had begun to improve by week four. After 12 weeks, 45.8 percent of those taking synbiotics had normalized transit times compared to 16.7 percent for placebo, and 64.6 percent of those in the synbiotic group showed clinical improvement compared to 29.2 percent for placebo, including increased stool frequency and consistency, decreased transit time, and fewer constipation symptoms.

REFERENCE: ARCHIVES OF MEDICAL RESEARCH; 2016, VOL. 47, NO. 4, 304-9

# Circulation and Longevity

## Nutrients improve blood pressure, lipids, and heart health

### Whey protein, blood pressure and lipids

In this study, 38 healthy, non-smoking men and women with mildly elevated blood pressure, age 30 to 77, were not taking antihypertensive or cholesterol medications. Participants took a whey protein shake or a calcium caseinate shake, each containing 28 grams of protein, twice per day, or a placebo.

After eight weeks, compared to placebo, those in the whey protein group saw a decline of 3.9 mmHg in systolic blood pressure, and 2.5 mmHg in diastolic blood pressure. Also for whey protein, systolic blood pressure at the extremities and centrally had declined by 5.4 and 5.7 mmHg, respectively. Blood vessel flexibility increased for both

whey and calcium caseinate compared to placebo.

Total cholesterol levels in the whey group declined to 188.7 from 195.2 mg/dL, while increasing for placebo, and triglycerides dropped to 102.7 from 116.0 mg/dL, while the placebo group increased.

### Vitamin K2 and longevity

Many people are deficient in vitamin K2, and low levels may contribute to heart disease as much as smoking. Doctors examined data from 168 countries and compared levels of vitamin K2 in the diet and early death from cardiovascular disease (CVD).

Overall, low levels of vitamin K2 were just as likely to cause early CVD death as smoking tobacco. Men

and women in countries where diets provided less than 5 mcg of vitamin K2 per 2000 calories per person per day were more than twice as likely to die early from CVD as those from countries where vitamin K2 exceeded 24 mcg per 2000 calories per person per day.

REFERENCE: AMERICAN JOURNAL OF CLINICAL NUTRITION; OCTOBER, 2016, PUBLISHED ONLINE



# Shop Local

Shifting just 10% of your shopping to locally-owned businesses adds

## \$128 million a year

to our local Tri-Cities economy.

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For every \$100 you spend at a national chain, the total local economic impact is only \$13, yet the same amount spent with local merchants yields \$45.

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A marketplace of more locally-owned businesses ensures greater innovation, competition and diversity in products and services.

Natural Foods Market has been locally-owned for more than 30 years.

## Greens with Lemon-Garlic Dressing

While you enjoy this tangy salad, please see page 1 for a new study that found people with elevated lipids and blood pressure improved both in just eight weeks by eating garlic and lemon.

### Ingredients:

6 c fresh leafy greens, spinach, kale,  
romaine lettuce  
Toasted pumpkin seeds or slivered  
almonds  
Parmesan cheese, grated

### Dressing:

$\frac{1}{3}$  c extra virgin olive oil  
3 tbs fresh lemon juice  
1 large clove fresh garlic, chopped fine  
Kosher salt and ground black pepper to  
taste



**Directions:** Wash, spin dry, trim, and chop the greens. Whisk together lemon juice, olive oil, garlic, salt and pepper. Toss over the greens and top with seeds or almonds. Finish with a sprinkle of freshly grated parmesan cheese.

## 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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