



Natural Insights for Well Being®

November 2020

Cognition

Nutrients boost memory, mood, spatial awareness, and metabolism

GABA for memory, mood, and spatial awareness

In a world with an aging population, doctors wanted to find ways to prevent cognitive decline. In two separate, coordinated studies, each with 60 healthy adults over age 40, participants took a placebo or, in one study, 100 mg of gamma-aminobutyric acid (GABA), and in the second, 200 mg of GABA, per day.

After 12 weeks, compared to placebo and to the start of the study, those taking 100 mg of GABA could better identify and analyze space, visual forms within it, and the relationship between the two. Delayed memory—the ability to recall after a period of time—also improved. In addition to these benefits, the 200 mg group saw improvements in non-verbal reasoning, which is the capacity to understand music and math, and to identify objects through touch.

Quality of life also improved in both GABA groups, including better physical function, self-reported vitality, and feelings of mental well-being. In addition, those taking 200 mg of GABA had increased levels of insulin-like growth factor (IGF-1), which enters the brain, activating brain function, and which doctors believe may be GABA's mechanism of action.



Blueberry for cognition, metabolism

In a first-of-its-kind study, 35 men and women, slightly underweight to obese, but otherwise healthy, drank a beverage containing 25 grams of freeze dried whole wild blueberry powder, equal to one cup of fresh blueberries, or a placebo beverage, along with a breakfast meal.

After this single dose at breakfast, doctors tested learning, memory, reaction time, and the ability to maintain attention while being challenged by stressful distractions. All of these functions improved compared to placebo up to eight hours later.

In addition, two hours after the meal, those taking blueberry had lower glucose and insulin levels than placebo, which doctors said could help people looking to control blood sugar and metabolism after meals.

REFERENCE: JAPANESE PHARMACOLOGY AND THERAPEUTICS; 2020, VOL. 48, NO. 3, 461-74

NOVEMBER'S

Healthy Insight Omega-3 Heart Benefit

This review of 16 placebo-controlled omega-3 trials covered 81,073 people with previous, or higher chances of, adverse heart or vascular events. Studies ranged from one to seven years, at varying doses. Overall, compared to those who took less, those who took more than 1,000 mg per day of EPA with DHA from fish oil were 24 percent less likely to have an adverse heart or circulatory event. Among those with a previous major adverse event, taking at least 1,000 mg of omega-3 fish oil reduced chances of dying from another event by 35 percent. Doctors concluded that world health authorities recommending lower omega-3 intakes may need to update their advice.

REFERENCE: PHARMACOLOGICAL RESEARCH; 2020, VOL. 160, 105060

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Physical Health

Probiotics and selenium improved performance

L. plantarum for triathlete endurance

In an earlier study by these doctors, the probiotic *L. plantarum* reduced inflammation and oxidative stress, improving athletic performance. Here, they wanted to understand how *L. plantarum* might help maintain healthy gut microbiota under the stress of a triathlon. Twenty triathletes, with a minimum five years of training, took a placebo or *L. plantarum* at 30 billion colony-forming units per day, along with their regular exercise program.

After four weeks, those taking *L. plantarum* saw running endurance increase 130 percent compared to placebo. In addition, doctors measured beneficial changes in gut microbiota, including increases in good bacteria, and

decreases in unfavorable strains, in those taking *L. plantarum* probiotics.

Selenium for mature muscle & bone

Having good selenium levels can help maintain aging muscle and bone. In this study of 791 men and women, aged at least 85, more than half were low, consuming less than 40 mcg of selenium per day, while only 14 percent got the adequate 75 mcg amount.

Women, at 73 percent, were much more likely than men, at 27 percent, to be low in selenium. In a test of hand-grip strength, those low in selenium of either sex on average exerted six pounds less pressure compared to those with good selenium levels. In a second test of the time it takes to get up and walk

from a seated position, the low-selenium group took an average 2.3 seconds longer compared to those with higher selenium levels.

REFERENCE: NUTRIENTS; 2020, VOL. 12, NO. 8, 2315



Metabolism

Vitamin E delta-tocotrienol and vitamin C improved metabolism

Delta-tocotrienol vitamin E improved NAFLD

When fat builds up in the liver for reasons other than alcohol, such as obesity, it is called non-alcoholic fatty liver disease (NAFLD). In this study, 71 people with NAFLD took a placebo or 300 mg of delta-tocotrienol twice per day.



After 24 weeks, while the placebo group had not significantly improved, those taking delta-tocotrienol saw a 15 percent decrease in both fatty liver index scores and insulin resistance. A hormone, adiponectin, which helps regulate glucose levels, increased 44 percent, while another pro-inflammatory hormone, leptin, decreased 18 percent.

Body mass index scores decreased by an average of 2.4 in the delta-tocotrienol group, and waist circumference shrank by an average 1.1 inches. Doctors concluded delta-tocotrienol may be an effective therapy for treating NAFLD.

Vitamin C may prevent metabolic syndrome

Inflammation and oxidative stress are two factors in metabolic syndrome

(MetS) that can trigger each other. In this review of 26 vitamin C human trials, doctors found consistent evidence the powerful antioxidant may help prevent MetS.

In one study of 22,671 adults, those with MetS consumed an average of 7 percent less vitamin C per day, while those with high vitamin C diets had smaller waist sizes and lower triglycerides.

In another study, those who regularly consumed 100-percent fruit juice drinks had lower body-mass index (BMI) scores, lower fasting and long-term average glucose levels, and smaller waist sizes. Four other studies linked higher vitamin C levels to lower BMI scores, lower blood pressure, and reduced chances for MetS.

REFERENCE: COMPLEMENTARY THERAPIES IN MEDICINE; AUGUST, 2020, 102494

Vision & Balance

Nutrients beneficial in glaucoma and vertigo

Vitamin B3 improved vision in glaucoma

In the back of the eye, the retina contains millions of optic nerve cells that send light images to the brain, allowing us to see. One type of optic nerve cell, the retinal ganglion, is particularly vulnerable to damage from increased fluid pressure in the front of the eye, a hallmark of glaucoma.

Earlier studies found vitamin B3 (nicotinamide) is low in those with glaucoma, and also that it helps protect optic nerve function, but there were no prior glaucoma studies on B3.

In this study, 57 people with glaucoma on regular medical treatments took a placebo or 3 grams of vitamin B3 per day. After 12 weeks, visual function of the retinal ganglion cells had improved significantly for the B3 group.

Discussing the findings, doctors said, “For the first time, we have shown that daily high doses of B3 can lead to early and significant improvement in those lowering eye pressure through traditional glaucoma treatments.”

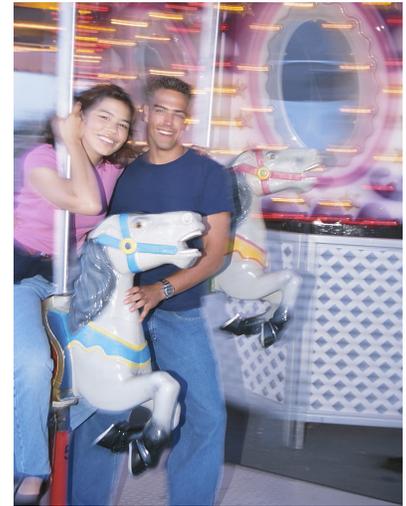
Vitamin D, calcium reduce vertigo

A sudden change in head position can give a sense of spinning, a condition called benign paroxysmal positional vertigo (BPPV). The cause is calcium carbonate crystals, normally embedded in gel in the inner ear, breaking loose and migrating to the semicircular ear canals.

In this study, about half of 1,030 people with BPPV took 400 IU of vitamin D plus 500 mg of calcium carbonate per day, while the other half

took no supplements. Compared to this group, after one year, those taking D with calcium saw BPPV recur 24 percent fewer times per year.

REFERENCE: CLINICAL & EXPERIMENTAL OPHTHALMOLOGY; 2020, 10.1111/ceo.13818



NOVEMBER'S

Ahead of the Curve

Early-Stage Discoveries: Bifidobacteria, Green Tea, Curcumin, Lutein, Zeaxanthin, and Vitamin D

Good results in the lab can lead to larger human trials. Here are some of the most promising recent findings.

Probiotic may treat Celiac disease

People with Celiac disease (CD), who can't metabolize gluten, are low in the bifidobacteria strains of probiotics. Even on a gluten-free diet, those with CD may not be able to rebalance the gut microbiome on their own. In the lab, doctors extracted gluten proteins from wheat flour and exposed them to four strains of bifidobacteria: bifidum, longum, bembidion breve, and animalis; separately and together. The longum strain most effectively broke down the gluten, reducing the toxic gut response (cytotoxic) and inflammation.

Green tea reduced NAFLD

Those with obesity often have non-alcoholic fatty liver disease. In the lab, mice on a high-fat diet got regular exercise alone, got green tea alone, or the combination of the two, for 16 weeks. Compared to exercise or green tea alone, those getting exercise with green tea extract saw a 75 percent reduction in the severity of obesity-related fatty liver disease symptoms.

Doctors said polyphenols in green tea interact with digestive enzymes in the small intestine to partially inhibit the breakdown of carbohydrates, fat, and protein.

Nutrients improved dry eye

Dry eye occurs when the eye does not produce enough tears, or when the tears evaporate too quickly. In the lab, doctors blended curcumin, lutein, zeaxanthin, and vitamin D into an oil suspension, and gave the solution to rats with dry eye. After four weeks, there was significant improvement in tear volume, increase in tear breakup time, improvement in tear film integrity, and reduced overall inflammation. Discussing the findings, doctors said the dry eye benefit may come from these antioxidants lowering oxidative stress.

REFERENCE: JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY; 2020, VOL. 68, NO. 15, 4485-92



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Relief

Black cohosh and rhodiola improved menopause

Physical, psychological, quality of life improvements

In this study, 220 women, average age 52, with menopausal symptoms, took black cohosh by itself at a low or high dose, black cohosh with rhodiola, or a placebo.

After 12 weeks, compared to all other groups, women taking the black cohosh with rhodiola reported the most relief—averaging about 70 percent reductions—from hot flashes, joint pain, genital and general physical symptoms; and a 25 percent improvement in quality-of-life measurements, including social and emotional symptoms.

Discussing the findings, doctors said the menopausal transition usually lasts about seven years, and that black cohosh

combined with rhodiola appeared to effectively reduce general physical, sexual and genital symptoms, and to improve emotional well-being, and that “Given the extended time women may experience the menopausal transition, reducing and improving symptoms with black cohosh and rhodiola in a relatively short 12 weeks is a promising outcome.”

REFERENCE: PHARMACEUTICALS (BASEL); 2020 MAY; 13(5): 102



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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