Mother Earth's Storehouse Inc
Natural Food & Vitamin Centers

Natural Insights for Well Being®

January 2020

Eye & Mind

Nutrients preserve vision, improve cognition

Carotenoids protect the eye, boost cognition

The deep yellow and orange pigments, in the macula of the eye, called carotenoids, protect the eyes from damaging blue light. Now, new research suggests important links to cognition for these essential nutrients.

In this study, 59 healthy adults took a placebo or 10.86 mg of lutein, 2.27 mg of zeaxanthin, plus meso-zeaxanthin; or double these carotenoid amounts, per day. After six months, macular pigment density measured at the eye retina had significantly increased in both carotenoid groups.

Doctors also measured cognitive factors and, in the carotenoid groups, found significant increases in a protein that promotes the growth and survival of nerve cells (neurons), known as brain-derived neurotrophic factor, or BDNF. At the same time, levels decreased for an inflammatory factor, interleukin-1-beta (Il-1β) that can lower BDNF levels.

In tests of cognition, while the placebo group did not change, both carotenoid groups saw improved scores in verbal memory, sustained attention, and physical and mental reaction times.

Discussing the findings, doctors said the changes in BDNF and Il-1β over the course of the study suggest regularly consuming macular carotenoids interrupts the inflammatory cascade

that can lower BDNF levels, helping to preserve vision and cognition.

Vitamin D levels low in uveitis

Non-infectious uveitis (NIU) is the inflammation of the uvea, the pigmented layer between the inner retina and outer layer of the eye; a serious, sight-threatening condition that, when active, must be treated immediately. In this study, doctors measured vitamin D levels in 74 people with active NIU, in 77 with inactive NIU, and in a healthy non-participating, local population.

The group with active NIU had the lowest levels of vitamin D: 46 nanomoles per liter of blood (nmol/L). Those with inactive NIU had 64 nmol/L of vitamin D, and local non-participants had 62 nmol/L. Taking vitamin D supplements and getting sunshine both decreased NIU activity.

Reference: Physiology & Behavior; 2019, 112650; Published Online

JANUARY'S

Healthy Insight

Exercise Bounce-Back

Heavy exercise can damage muscle and delay recovery. In this study, 20 healthy young men took a placebo or 800 mg of maritime pine extract per day, for 14 days before, and two days after, an exercise test designed to damage muscle. The test involved lower body exertion until the men reached maximum oxygen capacity exhaustion. Before and after the exercise, doctors measured levels of malondialdehyde (MDA), a compound that increases when fatty acids in the body oxidize. For up to 48 hours after the exercise test, MDA levels increased for the placebo group and decreased significantly for those taking maritime pine extract.

Reference: Journal of Dietary Supplements; 2019, 1578847, Published Online

This Issue

Parkinson's Update

Two nutrients ease a variety of symptoms in Parkinson's disease

NAC boosts dopamine

Nerve cells (neurons) in the brain need the chemical messenger, dopamine, to properly activate the body and brain. In Parkinson's disease (PD), neurons that produce dopamine break down or die. N-acetyl-cysteine (NAC) plays a role in improving dopamine function.

A smaller, earlier study demonstrated NAC boosted dopamine in the area of the brain damaged by PD. In this next phase, 42 men and women with PD got daily intravenous injections of 23 mg of NAC per pound of body weight, or on alternate days, tablets containing 1,200 mg of NAC; while others got no NAC.

After three months, while those not receiving NAC had not changed, those in the NAC groups saw up to an 8.3 percent increase in a protein that recycles dopamine after it is released in the brain, as well as fewer symptoms such as tremors, slow movement, rigidity, and disturbed mood.

Low vitamin D in Parkinson's

Studies of vitamin D and Parkinson's disease (PD) have had inconsistent results. In this study, doctors measured vitamin D levels in 182 people with PD compared to 185 healthy people.

On average, those with PD had vitamin D levels 13 percent lower than healthy people, with 69 percent falling below 50 nanomoles per liter of blood, the level doctors consider sufficient. Also, those with lower vitamin D were more likely to fall, to have difficulty getting and staying asleep, and more symptoms of depression and anxiety.

Reference: Clinical Pharmacology and Therapeutics; 2019, Vol. 106, No. 4, 884-90

Good Digestion

Probiotics and bioflavonoids ease digestive symptoms

The body's "second brain"

The gastrointestinal tract includes the esophagus, stomach, liver, and small and large intestines. Recent evidence suggests a strong link between this system and the brain, with each one able to influence the other.

Probiotics decreased IBS

Irritable bowel syndrome (IBS) involves many symptoms including cramps, abdominal pain, bloating, gas, diarrhea and constipation, and can affect work and home life.

In this review of 11 recent probiotics studies conducted during the last five years, 63.6 percent showed improvement in IBS symptoms with probiotics compared to placebo. Studies using multiple strains of probiotics, most commonly lactobacillus and bifidobacterium, were more effective in relieving IBS symptoms than studies using a single probiotic strain.

Hesperidin improved NAFLD

Non-alcoholic fatty liver disease (NAFLD) means excess fat has built up in the liver due to causes other than alcohol. The process can start when chronic high blood sugar levels increase fatty acids and triglycerides in the liver. One result is insulin resistance—the inability of the body to use insulin to efficiently metabolize sugars. Metabolic syndrome, obesity, and diabetes often accompany NAFLD.

In this study, 50 people with NAFLD took a placebo or 1,000 mg of hesperidin per day while following a healthy lifestyle, good dietary habits, and regular physical activity. After 12 weeks, while there were no changes for placebo, two enzymes that signal liver damage had decreased significantly for hesperidin. Total cholesterol, triglycerides, and liver fat levels also declined, and doctors noted decreases in three factors of chronic inflammation, including high-sensitivity C-reactive protein.

Reference: Nutrients; 2019, Vol. 11, No. 9, 2048

Mood

B-vitamins and St. John's Wort boost mood, ease depression

B-vitamins improved mood, reduced stress

Stress is often the most pressing health complaint today. Researchers in this study identified 18 available placebo-controlled mood trials covering 2,015 participants using at least three types of B vitamins, and lasting at least four weeks.

All the studies contained vitamins B6 and B12, except one that included folate. Vitamins B1, 2, 3, and 5 were present in 16 of the 18 studies. Most used dosages twice the U.S. recommended daily value, with some as much as 10 to 300 times.

Eleven of the 18 studies reported positive effects for B vitamins compared to placebo for overall mood or some facet of mood. Eight of the studies involved people who were more vulnerable to mood disorders, and five of these found a significant mood benefit. While findings were not significant for depression or anxiety, B vitamins did have a positive effect on stress.

St. John's Wort reduces postmenopausal symptoms

The antioxidants in St. John's Wort—flavonols, bioflavonoids, and proanthocyanidins—may have antidepressant effects. In this study, 75 postmenopausal women, aged 45 to 60, took a placebo or a 0.99 mg extract of St. John's Wort hypericum perforatum per day.

After two months, 80 percent of those in the St. John's Wort group had no depressive symptoms compared to 5.7 percent for placebo, based on a standard depression scale. Also, on a rating scale of 11 menopause symptoms, including frequency and intensity of hot flashes, symptoms decreased by 62.9 percent for St. John's Wort compared to 2.9 percent for placebo.

Reference: Nutrients; September, 2019, 11092232, Published Online

Intense Exercise

Hesperidin and curcumin boost performance and recovery

Hesperidin boosts power, speed, and energy

Earlier human and animal studies found the antioxidant bioflavonoid hesperidin improved antioxidant capacity, reduced inflammation, and improved aerobic exercise performance.

In this study, 15 healthy-weight, amateur cyclists who had trained more than a year for six to 12 hours per week, and who regularly consumed citrus fruits, alternately took a placebo or 500 mg of hesperidin five hours before each of two exhausting cycling tests.

Compared to the placebo phases, during the hesperidin tests, average power increased 2.27 percent, maximum speed increased 3.23 percent, and total energy rose 2.64 percent. Doctors also noted small improvements in antioxidant activity after the hesperidin phases.

Curcumin reduced muscle damage, soreness

Prior studies found curcumin reduced oxidative stress and inflammation after exercise. Doctors wanted to test its effect on muscle damage and soreness. In this study, 19 men took a placebo or 1,500 mg of curcumin, which contained 69 mg of curcuminoids, per day, for 28 days. Before and after taking curcumin, the men performed an eccentric muscle-damaging protocol that contracted muscle while extending under load.

Although there were no differences in signs of oxidative stress and inflammation after taking curcumin, doctors did find a 31.4 percent decrease in levels of an enzyme that signals muscle damage, called creatine kinase, compared to levels in the placebo group. Muscle soreness was also 14.2 percent lower for curcumin compared to placebo.

Discussing the findings, doctors said curcumin reduced muscle damage and perceived soreness while allowing the natural inflammatory response that follows exercise.

Reference: Nutrients; 2019, Vol. 11, No. 8, E1898

Mother Earth's Storehouse
Natural Food & Vitamin Centers

300 Kings Mall Court
Kingston, NY 12401
Phone: (845) 336-5541

1955 South Road
Poughkeepsie, NY 12601
Phone (845) 296-1069

249 Main Street
Saugerties, NY 12477
Phone (845) 246-9614

Store Hours:

Kingston: Monday-Friday: 9:00 a.m. - 9:00 p.m.
Saturday: 9:00 a.m. - 7:00 p.m.
Sunday: 11:00 a.m. - 5:00 p.m.

Poughkeepsie: Monday-Friday: 9:00 a.m. - 9:00 p.m.
Saturday: 10:00 a.m. - 8:00 p.m.
Sunday: 11:00 a.m. - 5:00 p.m.

Saugerties: Monday-Thursday: 9:00 a.m. - 7:00 p.m.
Friday: 9:00 a.m. - 8:00 p.m.
Saturday: 9:00 a.m. - 6:00 p.m.
Sunday: 10:00 a.m. - 6:00 pm.

Staying Strong

Omega-3 and resistance training preserve muscle

Older adults gained strength, lowered blood pressure

Even in healthy adults, muscle tissue mass naturally declines with age at a rate of about one-half to one percent per decade. Muscle function, or strength, also declines one to two percent over that time. In this study, 28 healthy men and women, average age 66.5, took a placebo with or without resistance training, or resistance training plus 2,100 mg of EPA and 720 mg of DHA from fish oil per day.

The resistance training consisted of handgrip exercises, rising from a seated to a standing position as often as possible in 30 seconds, and measuring distance completed in a six-minute walk.

After 12 weeks, the two resistance training groups saw handgrip strength increase 5.3 percent for placebo, and 9.4 percent for fish oil, while the non-resistance-trained placebo group lost 3.9 percent handgrip strength. Only the fish oil/resistance training group saw a decrease in blood pressure, by 7.8 and 4.5 mmHg, systolic and diastolic, respectively.

Reference: Sports (Basel, Switzerland); 2019, Vol. 7, No. 7, E167, Published Online

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.