



Natural Insights for Well Being®

November 2021

Stress & Cognition

Nutrients aid coping and memory

Green tea, rhodiola, magnesium, and B vitamins

This combination of nutrients effectively reduced social stress in 100 moderately stressed adults, aged 18 to 50. Participants took a placebo, or some combination of 150 mg magnesium, 700 mcg vitamin B6, 100 mcg B1, 1 mcg B12, 125 mg green tea, and 225 mg rhodiola.

Doctors fitted heart rate, blood pressure, and salivary cortisol response monitors to participants who rested for 15 minutes before taking the nutrients. After another 30-minute rest, doctors administered the Trier Social Stress Test, asking participants to prepare a five-minute presentation as part of an imagined job interview.

Describing the results, doctors said, “The combination promoted a relaxed, focused state—indexed by EEG [electroencephalogram]—reduced stress perception, and increased energetic arousal in anticipation and in the immediate recovery from stress exposure.” Up to seven hours later, participants continued to report feeling less stress, negative mood, and anxiety.

L-theanine improved memory, processing speed

Green and black teas contain the amino acid L-theanine, which may affect mood hormones such as serotonin



and dopamine. In this study, 50 healthy adults, average age 58, took a placebo or a single 100.6 mg dose of L-theanine per day for 12 weeks.

Doctors measured reaction time to working memory attention tasks before the first dose, after one dose, and after 12 weeks. While there were no improvements for placebo, after a single dose of L-theanine, reaction time to working memory attention tasks decreased, the number of correct answers increased, and omission errors decreased. The effects remained constant over the 12-week trial.

Doctors noted participants were not allowed to take supplements or medications that might affect cognitive functions, but could consume polyphenol-containing beverages such as green, black, and oolong teas.

REFERENCE: NUTRITIONAL NEUROSCIENCE; 2021, 1909204, PUBLISHED ONLINE

NOVEMBER'S

Healthy Insight Apples Reduce Inflammation

One of the factors in obesity is chronic inflammation, which can lead to heart and circulatory problems. In this study, doctors asked 44 participants, average age 45, average body mass index score 33.4, to either add to their regular diets three whole Gala apples per day, or to avoid apples altogether. Participants also avoided polyphenol-rich foods for two weeks prior to the study.

After six weeks, compared to the non-apple group, those eating apples saw inflammatory factors decline, including C-reactive protein -12 percent; interleukin-6 -12.4 percent; and LPS-binding protein -20.7 percent. Antioxidant capacity also increased by 9.6 percent.

REFERENCE: THE AMERICAN JOURNAL OF CLINICAL NUTRITION; 2021, VOL. 114, NO. 2, 752-63

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Women

Fenugreek and vitamin D promote reproductive health

Fenugreek increased libido in healthy women

Fenugreek contains many of the B-complex vitamins, soluble and insoluble fibers, and iron. In this study, 48 healthy menstruating women, aged 20 to 48, took a placebo or 250 mg of fenugreek twice per day. Doctors used the Menopause Rating Scale (MRS) to assess symptoms in three areas: hot flashes, heart, sleep, muscle and joint symptoms; mood, irritability, anxiety, and fatigue; and reproductive difficulties including libido, activity, and satisfaction, and urinary and vaginal symptoms.

After 43 days, those taking fenugreek saw a 40.38 percent improvement in MRS scores compared to 16 percent for placebo, covering all three symptom areas. Individual symptom scores revealed 41.7 percent

of those taking fenugreek had fewer sexual problems compared to 18.18 percent for placebo. Estradiol, total and free testosterone also increased for those taking fenugreek.

Vitamin D reduced painful menses

Vitamin D may ease menstrual pain. In this study, doctors measured vitamin D levels in 116 healthy women, aged 18 to 32, with regular menstrual cycles. Participants took a placebo or 50,000 IU of vitamin D once per week.

After eight weeks, vitamin D levels increased to 37 from 20 nanograms per milliliter of blood (ng/mL) in the vitamin D group, with no change for placebo. While there was little change for placebo, pain intensity declined steadily through eight weeks for vitamin D. Painful days fell by 50 percent, to

one day from two at the start of the study, requiring less pain medication. Headache and diarrhea also decreased for vitamin D.

REFERENCE: CLINICAL PHYTOSCIENCE; 2021, VOL. 7, ARTICLE NO. 63



Better Circulation

Flavonoids and green tea improve circulatory health

Flavonoids reduced stroke

Most stroke is ischemic, meaning a blood clot blocks a vessel to the brain. Fatty deposits lining vessel walls are the main cause. In this study, doctors followed 55,169 adults, aged 52 to 60,



with no history of ischemic stroke, and an average of 496 mg of flavonoids per day in the diet.

During 21 years of follow-up, those who got the most flavonoids, flavonols, and flavanol oligo-polymers were 10 to 18 percent less likely to have had an ischemic stroke.

Doctors adjusted for factors including demographics and lifestyle, and found that a total flavonoid intake of about 500 mg per day significantly decreased chances for ischemic stroke.

Green tea for diabetic neuropathy

Long-term high blood sugar in diabetes damages nerves throughout the body, often affecting feet and legs

first, followed by hands and arms. In this study, 194 people with the condition, known as diabetic peripheral neuropathy, took a placebo or a daily green tea extract.

At four weeks, pain scores, nerve function, and the ability to feel sensations in the limbs were similar in both groups. Beginning at week eight, those taking green tea saw improved pain scores, nerve function, and ability to feel sensations in the peripheries compared to placebo. These improvements in pain, nerve, and sensations in the limbs continued to increase through the end of the 16-week study.

REFERENCE: AMERICAN JOURNAL OF CLINICAL NUTRITION; 2021, VOL. 114, NO. 1, 348-57

Optimal Exercise

Beta-alanine and fish oil improved performance

Beta-alanine boosted World Tour cyclists

Beta-alanine helps form the amino acid carnosine, which supports muscle endurance in high-intensity exercise. In this study, 12 elite World Cup cyclists in training took a placebo or 20 grams of beta-alanine per day for seven days.

Before and after beta-alanine, doctors measured muscle power



under training loads in a 10-minute time trial. Compared to placebo, the beta-alanine group saw a 6.21 percent increase in average power, a 2.16 percent increase in travel distance, and a 4.85 percent increase in total work, with no difference in cadence or rotations.

Doctors said beta-alanine usually takes several weeks to increase muscle carnosine, and this study proves short-term, high-dose beta-alanine can increase carnosine more quickly, increasing high-intensity cycling capacity and providing a competitive advantage to elite World Tour cyclists.

Fish oil improves exercise recovery

Earlier studies found fish oil reduced exercise muscle damage after

eight weeks. Here, doctors tested fish oil for four weeks in 22 untrained men who took a placebo or 600 mg EPA plus 260 mg DHA per day, within 30 minutes after breakfast, and before exercise.

Using a dumbbell, the men performed 60 elbow-straightening extensions, designed to cause soreness, swelling, and limit range-of-motion. Range of motion decreased immediately in both groups, stayed reduced for three days for placebo, and returned to normal after two days for fish oil. Range of motion was also greater for fish oil, increasing 76.5 percent vs. 53.1 percent for placebo. Creatine kinase, a marker for muscle damage, increased for placebo but not fish oil.

REFERENCE: NUTRIENTS; 2021, VOL. 13, No. 8, 2543

NOVEMBER'S

Ahead of the Curve

Early-Stage Discoveries: Kefir Yogurt, Jackfruit, Tomato Carotenoids

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

Kefir yogurt combats Covid

Doctors isolated a molecule in kefir yeast that reduced damage from the pathogen that causes cholera by disrupting communication between bacterial cells. In a follow-up study, kefir had strong anti-inflammatory effects in several conditions and diseases.

In the lab, kefir eliminated the Covid cytokine storm in mice, restoring balance to the immune system. Doctors said this is the first study to demonstrate probiotic kefir molecules can reduce the virulence of pathogenic bacteria by disrupting communication, and can help restore balance to the immune system.

Jackfruit helps balance the microbiome, improve lipids

In the lab, doctors gave resistant fiber starch from jackfruit seed to some mice on normal or high fat diets, and in a second phase, added bifidobacterium, over a total of eight weeks.

In the first phase, jackfruit had a therapeutic effect on fatty liver cells. In the second phase, jackfruit combined with bifidobacterium corrected the intestinal damage from a high fat diet, helping to restore balance to the microbiome. Doctors believe jackfruit—a prebiotic—combined with probiotics may help develop a synbiotic treatment.

Tomato protects collagen cells

The several carotenoids in tomato may help protect skin cells in the dermis that produce collagen, the main structural protein in skin. Fibroblasts, the most common cell in connective tissue, help heal wounds, and produce collagen.

In the lab, doctors added tomato carotenoids to human dermal fibroblast cell cultures, then exposed them to the oxidant TNF-alpha, which can damage collagen and elastin fibers. As the dosage of tomato nutrients in the dermal cell cultures increased, collagen damage decreased.

REFERENCE: MICROBIOME; MARCH, 2021, VOL. 9, ARTICLE No. 70



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Store Hours:

Monday - Friday: 10 a.m. - 6 p.m.
Saturday: 10 a.m. - 4 p.m.
Sunday: Closed



Anne's Health Foods is located in downtown Hastings. Next to the Walldorff Brewpub and across the street from Jamie's Crafts.

Apple-Celery Salad with Roasted Grapes and Walnuts

While you enjoy this scrumptious salad, please see page 1 for a new study that found adding apples to the diet reduced chronic inflammation in obesity.

Prep time: 15 minutes

Cook time: ~25 minutes

Serves 4

Ingredients:

1/3 lb organic grapes	4-6 sprigs fresh tarragon
Organic olive oil	Hearts of Romaine lettuce, washed, torn into large pieces
1 lemon, juiced and zested	2 sticks organic celery, chopped into 1/3-inch slices
Sea salt and black pepper	2 crisp organic apples, washed, sliced into matchsticks
2 oz shelled walnuts	
1 c organic plain yogurt	
2 tbsp Dijon-style mustard	

Directions: Preheat oven to 350 degrees F. Place grapes on a baking tray, toss with a bit of olive oil, top with zest of 1/2 a lemon, salt and black pepper. Roast for 15 minutes, add walnuts and roast for another 5-10 minutes until grapes are caramelized and walnuts are golden. Remove from oven, let cool. Whisk yogurt and mustard with lemon juice. Add tarragon and mix well. Season to taste with salt and pepper. Place lettuce in a large bowl, add grape-walnut mixture, celery and apples. Toss with yogurt dressing.

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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