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Natural Insights for Well Being[®]

April 2019

Sports & Exercise

Nutrients boost strength, aid recovery, and burn fat

Ashwagandha, muscle strength & recovery

Ashwagandha is an herb with rejuvenating properties, according to Indian Ayurvedic medicine. In this study, 38 recreationally active men, average age 26.5 years, who trained no more than two to three times per week, took a placebo or 500 mg of ashwagandha extract per day.

After 12 weeks, those taking ashwagandha saw a 90 percent increase in leg strength, adding 20 pounds more than placebo during the squat exercise. Upper body strength also increased by 60 percent during the bench press. Men in the ashwagandha group reported recovering 14 percent faster than placebo, while those in the placebo group reported 40 percent more muscle soreness vs. ashwagandha.

Whey, casein proteins burn fat

Burning—or oxidizing—fat is a major goal of fitness training, with fasting during aerobic exercise a popular approach. Because there is little available research, doctors in this study tested 11 healthy men, average age 23.5 years, in four sessions, each after an 8- to 10-hour fast.

During one session, the men got a placebo. In a second, a 25-gram dose of maltodextrin. In the third and fourth



sessions, 25 grams of whey protein, then 25 grams of casein protein. After waiting 30 minutes each time, the men performed a 30-minute, low-intensity treadmill exercise reserving 55 to 60 percent of their available heart rate.

During and after exercise in the whey and casein sessions, doctors measured higher energy expenditure and fat burning activity, compared to the maltodextrin or placebo sessions.

Discussing the results, doctors said that fasting alone did not change energy expenditure or fat burning during or after exercise. But taking whey or casein protein 30 minutes before exercise increased the rates of energy expenditure and fat burning after exercise, with casein burning more fat than whey during exercise.

REFERENCE: NUTRIENTS; 2018, VOL. 10, No. 11, E1807, PUBLISHED ONLINE

APRIL'S

Healthy Insight Folate for Healthy DNA

While doctors know mothers' low folate increases chances for neural tube birth defects, new research shows folate deficiency impairs healthy cell division and DNA replication in adults, creating far more chromosomal damage than previously thought.

In this study, when white blood cells from men were deficient in folate, abnormal cell division increased. Doctors said the deficient cells lost all or part of their chromosome, causing the daughter cells to inherit the incorrect amount of DNA after cell division. This could explain why diseases like infertility, mental health issues, and cancers, may have a link to low folate.

REFERENCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES (USA); 2018, VOL. 115, No. 51

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Healthy Metabolism

Nutrients promote healthy metabolic function

Vitamins C and E in metabolic syndrome

New research suggests people with metabolic syndrome (MetS) may need more vitamins C and E. MetS diets are often high in saturated fat, which can injure gut walls and allow bacteria to leak into circulation. The body, thinking it is being attacked, releases white blood cells to kill the leaked bacteria, a process that destroys vitamin C. So, those with MetS can eat the same amount of vitamin C as healthy people but still have lower concentrations of vitamin C.

Vitamin C also protects vitamin E, doctors explained, adding, “If you don’t have the vitamin C, the vitamin E gets lost, and then you lose both those antioxidants and end up in the vicious

circle of depleting your antioxidant protection.”

Ashwagandha and hypothyroidism

Every cell in the body depends on thyroid hormones to regulate cellular metabolism. In hypothyroidism, the body does not produce enough thyroid hormones, leading to low energy, poor metabolism, and weight gain. In this study, 50 men and women, aged 18 to 50, who were nearing a diagnosis of hypothyroidism, took a placebo or 300 mg of ashwagandha twice per day.

After eight weeks, those in the placebo group had not improved, with levels of one type of thyroid hormone decreasing. In the ashwagandha group,

signs of thyroid function had improved within four weeks, and continued to improve through eight weeks, bringing measures of thyroid function and thyroid hormone levels into the normal range.

REFERENCE: REDOX BIOLOGY; DECEMBER, 2018, 101091; PUBLISHED ONLINE



Healthy Metabolism II

Nutrients improve MetS, gut health, and reduce fat

Vitamins C, D, and metabolic syndrome

People with metabolic syndrome (MetS) have at least three of these five



conditions: fat around the waist and abdomen, high blood pressure, high blood sugar, high triglycerides, and low HDL, the “good” cholesterol. Any of these conditions can deplete stores of vitamins C and D.

In this study, 141 men and women with MetS took 500 mg of vitamin C, or 2,000 IU of vitamin D, per day, with or without 30 minutes of daily endurance exercise. A placebo group either did or did not exercise.

After three months, all vitamin groups with or without exercise saw trends toward improvements in the five MetS conditions. Those in the vitamin D-with-exercise group had the most significant improvements in weight and systolic blood pressure.

Synbiotics rebalance gut, reduce fat mass

Synbiotics combine prebiotics and

probiotics. This is a follow-up from an earlier study that had good results reducing fat in overweight adults after six months taking bifidobacterium with or without prebiotic fiber. Here, doctors followed participants for six more months after stopping treatment.

Participants that had taken probiotics alone continued to see an increase in beneficial gut bacteria. Those that had combined probiotics with prebiotics developed a greater variety of beneficial bacteria, as well as reducing inflammatory factors in the gut.

Doctors identified a particular gut bacteria, Christensenellaceae, with a strong link to lean body mass, lower waist-area body fat, and lower cholesterol. Those in the synbiotics group saw increases in this beneficial bacteria.

REFERENCE: DIABETOLOGY & METABOLIC SYNDROME; NOVEMBER, 2018, PUBLISHED ONLINE

Circulation

Omega-3s and vitamin D improve circulation

DHA and EPA preserve memory

Doctors had thought DHA was the primary omega-3 fatty acid to improve circulation in the brain. This study also supports a role for EPA. In the study, 38 people with borderline high blood pressure, aged 40 to 85, took a placebo or 1,600 mg of DHA plus 400 mg of EPA per day.



After 20 weeks, compared to placebo, women in the omega-3 group saw a 26 percent increase in brain blood-flow response under low-oxygen conditions. In men, the link between brain nerve-signaling activity and increased brain blood-flow became stronger, as levels of EPA in red blood cells increased.

Discussing the findings, doctors said these preliminary observations suggest the omega-3s DHA and EPA may enhance blood flow in the brain in response to low-oxygen situations and cognitive stimulation.

Vitamin D improves circulatory fitness

Earlier vitamin D studies measuring heart and lung fitness have been inconsistent. In this large, nationally

representative sample, doctors measured vitamin D levels in 1,995 people, aged 20 to 49, and compared to their heart and lung fitness. Researchers used a test of maximum oxygen consumption capacity as the gauge of cardiorespiratory (CR) fitness.

Overall, those with the highest levels of vitamin D had 4.3 times the CR fitness as those with the lowest levels. Doctors then adjusted for age, gender, race, body-mass index scores, smoking, high blood pressure, and diabetes, and still found a 2.9-times increase in maximum oxygen consumption compared to those with the lowest vitamin D levels. As levels of vitamin D increased, oxygen consumption capacity also increased.

REFERENCE: NUTRIENTS; 2018, VOL. 10, No. 10, 1413

Age Gracefully – Mind & Body

Nutrients preserve cognition, bone, and muscle in older adults

Omega-3s, carotenoids, vitamins improve cognition

The usual way doctors measure nutrients in the diet is by a food questionnaire. Here, researchers measured groups of nutrients circulating in the bloodstream—nutrient biomarker patterns (NBP)—and compared to several measures of brain function including general intelligence, executive function, memory, and brain network efficiency.

Doctors measured NBPs in 116 older adults with healthy cognition. Overall, five NBPs were linked to better cognitive performance: omega-3s and -6; lycopene; omega-3s alone; carotenoids; and the B vitamins riboflavin, folate, B12, and vitamin D.

Three NBPs were linked to better

brain network efficiency: omega-6, omega-3s, and carotene. Also, omega-3s stimulated the brain region for general intelligence while omega-6 and lycopene stimulated the brain region controlling attention and executive function.

Summarizing the results, doctors said the connection between brain network efficiency and cognitive performance has a direct link to the level of nutrients.

DHEA preserves BMD, muscle mass in women

As the body ages, androgens and estrogens decrease, triggering lower bone mineral density and muscle mass. Doctors reviewed four DHEA studies covering 585 men and women, aged 55 to 85, who were not using sex hormone

therapy.

Overall, women taking DHEA saw increases in bone mineral density in the lumbar spine, total hip, and trochanter femur joint at the hip. Also, women gained an average 1.1 pounds of fat-free (muscle) mass, while men saw about a 1-pound decrease in fat mass. Doses in the studies ranged from 50 mg to 75 mg of DHEA per day, and lasted from 12 to 24 months.

REFERENCE: NEUROIMAGE; DECEMBER, 2018, VOL. 188, 239-51



Store Hours:
Monday-Friday: 9-6
Saturday: 9-2
Sunday: Closed

Help for IBS

Synbiotics relieve symptoms and fatigue in irritable bowel syndrome

Probiotics combine with prebiotics to form synbiotics

Doctors don't know what causes irritable bowel syndrome (IBS), but emerging evidence suggests a healthy microbiome—good bacteria in the gut—may help prevent the condition. In this study, 30 men and women with IBS took a placebo or a comprehensive probiotic combination plus the prebiotics fructooligosaccharides and inulin, and slippery elm bark.

After eight weeks, while there were no changes for placebo, those taking the synbiotics reported significantly less abdominal pain and bloating, more frequently well-formed stool, and less fatigue.

Discussing the findings, doctors said there was a trend toward greater improvement in symptoms as the doses of synbiotics increased. “In summary, this study indicates that high-dose synbiotics containing lactobacillus, bifidobacterium, and fructooligosaccharides are effective and safe for the treatment of abdominal discomfort, abdominal bloating, formed stool frequency, and fatigue symptoms in IBS.”

REFERENCE: KOREAN JOURNAL OF FAMILY MEDICINE; OCTOBER, 2018, 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.