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Natural Insights for Well Being®

April 2021

Osteoarthritis Update

Nutrients boost muscle and joint function

CoQ10 for muscle and endurance

Over time, cartilage that cushions and separates bone joints breaks down. In this study, 100 people with osteoarthritis (OA) and 100 without, at least 40 years old, took a series of muscle and physical tests. Doctors measured levels of coenzyme Q10 (CoQ10), and found 75 percent of those with OA were deficient compared to 59 percent for those without OA, with greater deficiencies in more severe cases of OA.

Both those with OA, and those who were aged at least 65, had lower levels of CoQ10. Among those at least age 65 with OA, levels of high-sensitivity C-reactive protein—a sign of systemic inflammation—were higher compared to younger participants with OA.

Among those with OA, those with higher levels of CoQ10 had greater muscle mass, strength, and endurance. Men with OA had lower muscle strength than men without OA. Women with OA had lower scores than women without OA on tests of balance, gait speed, and standing from a seated position multiple times.

Doctors concluded supplementing with CoQ10 may improve muscle function in OA in older adults.

Garlic extract for knee function

The chances of developing



osteoarthritis (OA) of the knee greatly increase in those with obesity. In this study, 50 obese women with OA of the knee took a placebo or 1,000 mg of garlic extract per day.

After 12 weeks, compared to placebo, those taking garlic saw greater improvements in standard tests of physical function, pain, and stiffness. The physical tests included everyday activities such as using stairs, standing up from a sitting or lying position, standing, bending, walking, getting in and out of a car, shopping, putting on or taking off socks, lying in bed, getting in or out of a bath, sitting, and heavy and light household duties.

REFERENCE: ANTIOXIDANTS (BASEL); 2020, VOL. 9, No. 12, 1275

APRIL'S

Healthy Insight

Maintaining Vitamin B6

The B vitamins are essential for producing energy in the body, are water soluble, and leave the body quickly. In this study, doctors found that when vitamin B2, or riboflavin, is low, levels of vitamin B6 are more likely to be low as well. In a group of 407 healthy adults, aged 18 to 92, 37 percent of those who were low in vitamin B6 were also low in riboflavin.

Discussing the findings, doctors said vitamin B6 depends on riboflavin, “which may be the limiting nutrient, particularly in older people, for maintaining adequate vitamin B6 status.”

REFERENCE: JOURNAL OF NUTRITION; 2020, VOL. 150, No. 10, 2699-706

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Muscle

Nutrients improve muscle strength and recovery after exercise

Leucine increased muscle strength in CP

When parts of the brain that control movement are damaged or fail to develop fully, muscles do not function properly, a condition called cerebral palsy (CP). Over time, in those with CP, muscles can shrink and muscle tissue can decline. In this study, 21 adolescents and young adults with CP took a fruit beverage placebo or one with 87 mg of leucine per pound of body weight, per day.

After 10 weeks, while there were no changes for placebo, those taking leucine saw a 25.4 percent increase in muscle strength, and a 3.6 percent increase in muscle volume. Doctors also measured the inflammatory factor, C-reactive protein, and found levels decreased 59.1 percent in the leucine group, while the

placebo group did not change. Those taking leucine also reported better mood and general well-being, and less stress and muscle soreness.

Alpha lipoic acid boosts exercise recovery

Athletes use alpha lipoic acid (ALA) to speed muscle recovery after exercise. In this study, 17 resistance- and endurance-trained male athletes started taking a placebo, or 150 mg of ALA twice per day, two days before a six-day intensive daily training program. During the six-day program, participants took one dose in the morning before, and the second immediately after, training.

On the last day, 30 minutes after the last exercise, in a single back squat, the ALA group maintained or increased

its maximum lifted weight while the placebo group decreased.

REFERENCE: JOURNAL OF NUTRITION; 2021, VOL. 151, No. 1, 59-64



Free Breathing

Probiotics and ginger reduced colds and allergies

Probiotics reduced colds

The most frequent reason people stay home from work or school is an upper respiratory viral infection—the common cold. Earlier studies have



shown probiotics to be effective in reducing the number and severity of colds. In this study, 898 healthy adults, aged 18 to 70, who had at least four colds in the last 12 months, took a placebo or a half-billion colony-forming units of lactobacillus plantarum and paracasei, each, per day.

The study lasted for 12 weeks during the October-to-February cold season. Overall, those taking probiotics had an average 1.24 colds compared to 1.36 colds for placebo over the 12-week period. Among those reporting at least one cold, colds were 30 percent less likely to recur in the probiotics group. Also, those taking probiotics relied on over-the-counter analgesics—cold medicine—18 percent less than did those in the placebo group.

Ginger decreased hay fever

People typically treat hay fever, or allergic rhinitis (AR), with over-the-counter medicines like Claritin®, but there are significant side effects. In this study, 72 people, aged 18 to 70, with a history of AR took 10 mg of loratidine—the active ingredient in Claritin—or 500 mg of ginger extract, per day.

After six weeks, both groups had similar decreases in symptoms, but those taking ginger had increased nasal cavity volume—increasing breathing capacity—while the loratidine group did not change. Ginger had side effects of mild burping, while loratidine resulted in drowsiness, fatigue, dizziness, and constipation.

REFERENCE: JOURNAL OF NUTRITION, 2021, VOL. 151, No. 1, 214-22

Cognition

Cocoa flavanols and omega-3s boost cognition in old and young

Cocoa flavanols boost cognition in adults

“Flavanols are small molecules found in many fruits and vegetables, giving them their bright colors, and are known to benefit circulation,” doctors said. In this study, 18 healthy adult non-smokers took a high-flavanol or low-flavanol cocoa.



Two hours after taking the cocoa, participants breathed air with 5 percent carbon dioxide—about 100 times the content in normal air—which triggered an increase in blood flow to the brain, raising brain oxygen levels. Those in the high-flavanol cocoa group had a stronger and faster blood-flow response, delivering three times the brain oxygenation, about one minute sooner than those in the low-flavanol group.

The high-flavanol group also correctly solved increasingly difficult cognitive tests 11 percent faster than at the start of the study, and compared to the low-flavanols group.

Omega-3s improve cognition in children

Evidence is increasing that cognition improves once omega-3 circulating levels reach a minimum of 6 percent. To measure this, doctors

have recently developed the Omega-3 Index (O3I). Here, doctors reviewed 33 placebo-controlled O3I studies covering a total of over 1,000 participants, aged four to 25, who took EPA and/or DHA supplements.

Overall, in studies of typically developing children, a daily dose of at least 450 mg of DHA+EPA showed cognitive improvement. Some of the studies involved participants with developmental issues such as attention-deficit hyperactivity disorder, where there were no omega-3 cognitive benefits.

Doctors concluded a daily supplement of at least 450 mg of DHA+EPA, and an increase in the O3I to more than 6 percent, increases chances of cognitive improvement in children and adolescents.

REFERENCE: SCIENTIFIC REPORTS; 2020, VOL. 10, ARTICLE No. 19409

Heart & Circulation

Vitamins D and K support healthy heart and circulation

Vitamin D low in sleep apnea

When the upper respiratory tract is partly or fully blocked during sleep, and breathing becomes shallow, excessive carbon dioxide can build up in the bloodstream, altogether a condition called obstructive sleep apnea (OSA). Here, doctors reviewed 29 OSA studies, covering 6,717 participants.

Overall, those with moderate to severe OSA had significantly lower vitamin D levels compared to similar, but healthy study participants. OSA was most common in those with obesity—about six in 10 cases—while taking sleep sedatives, alcohol, family history of OSA, sleeping on the back, nasal congestion, and hormone imbalances

including hypothyroidism, made up the rest of the cases.

Vitamins D and K increase longevity

Doctors in this long-term trial followed 4,742 adults over an average of 14 years, and found 20 percent began the study with low levels of vitamin D, vitamin K, or both. Those low in vitamin D were 22 percent more likely to have died from any cause compared to those with good levels, and for those low in vitamin K, the chances increased 7 percent.

In a related study covering 601 adults, average age 70, after seven years of follow-up, those who were low in

vitamins D and K were more likely to have thickening in the walls of the main pumping chamber of the heart (left ventricle). After 17 years, those low in D and K were 76 percent more likely to have died from any cause compared to those with adequate levels of vitamins D and K.

REFERENCE: RESPIRATORY RESEARCH; 2020, 10.1186/s12931-020-01554-2



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Healthy Body

Vitamin D reduces urinary tract symptoms

Low levels are a factor

We now know that vitamin D is a hormone, with cell receptors throughout the body, particularly in the bladder, urethra, prostate, and pelvic-floor muscles. In this review of 23 studies covering 86,332 participants, those who were deficient in vitamin D, in placebo-controlled trials, were two to three times more likely to have lower urinary tract symptoms. In studies that observed populations over time, but did not treat or try to prevent urinary tract symptoms, participants who were low in vitamin D were up to 37 percent more likely to develop symptoms. Non-Asians, females, and those with urinary incontinence were more likely than

other groups to develop symptoms when levels of vitamin D were low.

Discussing the findings, doctors said low levels of vitamin D were an important factor in developing urinary tract symptoms, and that vitamin D supplements consistently reduced these symptoms, and suggest doctors test for vitamin D levels when treating this condition.

REFERENCE: JOURNAL OF UROLOGY; NOVEMBER, 2020, 101097, 1441



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.

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