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Remember!

DHA and cranberry preserve cognitive health, improve circulation

Omega-3 reduced chances for dementia

In prior studies, the omega-3 DHA showed promise in reducing chances for developing Alzheimer's disease (AD) in those with a greater genetic disposition to develop the condition. In this study, doctors wanted to more objectively measure the long-term status of DHA in the body by isolating DHA content in red blood cells. In 1,490 dementia-free participants, aged at least 65 years, who had fasted for 12 hours, researchers drew blood, and immediately froze the red blood cells.

Following up after a median 7.2 years, those who had the highest red-blood-cell levels of DHA at the initial blood draw were 49 percent less likely to have developed AD compared to those with the lowest DHA red blood cell levels. Those in the high-DHA group were also likely to survive AD-free for an average 4.7 additional years. Doctors said the study findings suggest a "robust association" between dietary DHA and preventing or delaying AD.

Cranberry improved memory, brain nerve function

Cranberry contains antioxidant anthocyanins, flavonols, and other anti-inflammatory nutrients. In this study, 60 cognitively healthy people, aged 50 to



80, took a daily placebo or a cranberry powder supplement. Before and after treatment, doctors assessed cognition, brain function, and brain-nerve signaling.

After 12 weeks, those taking cranberry saw improvements in memory of everyday events, brain-nerve function, and increases in blood flow to areas of the brain that directly support cognition in older adults: the right entorhinal cortex, accumbens, and caudate.

In addition to the cognitive and circulatory benefits, those taking cranberry saw decreases in LDL cholesterol while levels of the beneficial cholesterol, HDL, remained stable. The placebo group did not improve in any of these measures.

REFERENCE: NUTRIENTS; 2022, VOL. 14, NO. 12, NU14122408

SEPTEMBER'S

Healthy Insight Vitamins for Oral Health

People who had sufficient levels of vitamins A, B1, B2, and E in their diets were more likely to have good oral health. This study covered 8,959 adults who had a periodontal exam, which doctors then compared to nutrient levels participants had reported in food-frequency questionnaires over the prior five years.

Discussing the findings, doctors said, "When within reasonable limits, supplemental intake of vitamins A, B1, B2, and E helped reduce the prevalence of periodontitis." Several hygiene factors, along with insufficient levels of these nutrients, can cause tissues surrounding teeth to become inflamed, form pockets, and result in poor oral health, a condition called periodontitis.

REFERENCE: NUTRIENTS; 2022, VOL. 14, NO. 12, 2466

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Eye

Carotenoids and vitamin D preserve visual health

Carotenoids in lactating moms

Carotenoids are important for visual and cognitive development in newborns. Measuring carotenoid levels in the macula of the eye is one way to gauge carotenoids in the diet. In this study, doctors measured carotenoid pigment levels in the macula of 80



mothers during the first three months postpartum, and obtained breastmilk samples to measure dietary nutrients.

Mothers with higher breastmilk levels of alpha-carotene, and two types of lutein, also had higher carotenoid levels in the macula, a measurement doctors refer to as macular pigment optical density (MPOD).

Doctors explained that alpha-carotene is not a macular pigment, but because it was linked to higher MPOD levels in this study, alpha-carotene may also signal healthy carotenoid levels in the diet.

Vitamin D reduces chances for AMD

Age-related macular degeneration (AMD) usually develops after age 50

and is the main cause of blindness later in life in developed countries. In this study, doctors compared vitamin D levels in 93 men and women with AMD to vitamin D levels in 93 AMD-free participants. Participants with AMD had early, intermediate, or advanced forms of the condition.

Overall, those with any form of AMD had average circulating vitamin D levels of 15 nanograms per milliliter of blood (ng/mL) compared to AMD-free participants, whose average levels were 21 ng/mL. Doctors said even though the study was relatively small, the results suggest a direct association between higher vitamin D levels and lower chances for developing AMD.

REFERENCE: NUTRIENTS; 2022, VOL. 14, NO. 1, NU14010182

Women

Nutrients support women's health throughout life

Choline boosts maternal DHA during gestation

Choline made mothers' DHA more available to nourish the baby. In this study, 30 gestating women in weeks 12 to 16 maintained their regular diets, took a prenatal vitamin-mineral, and took 200 mg of DHA; with 550 mg of choline, or with 25 mg of choline, per day. In the high-choline group, doctors labeled 50 mg of choline with deuterium in order to track the nutrient through the bloodstream; and did so with the 25 mg choline group, as well.

By tracking choline, doctors observed a chemical reaction which converted choline to phosphatidylcholine enriched with DHA. This new compound more easily transferred from the mothers' liver into the bloodstream, becoming available

to nourish tissues, including the child's placenta. Maternal DHA levels rose nearly 75 percent in the high-choline group compared to the control group that got the low dose of choline.

Flaxseed, soy, red clover, and lipids in postmenopause

After menopause, low levels of estrogen and lipid imbalances raise chances for heart and circulatory problems. This review covered 62 placebo-controlled studies for flaxseed, soy, or red clover.

Overall, flaxseed, in any form, reduced total cholesterol by an average of 55.389 mg per deciliter of blood (mg/dL); total triglycerides by 9.4 mg/dL, and LDL by 4.2 mg/dL. For soy protein and isoflavone studies, total cholesterol declined an average 3.2 mg/dL, triglycerides by 5.04 mg/dL, and LDL by 3.27 mg/dL. For red clover, total cholesterol declined significantly, and HDL, the beneficial cholesterol, increased. Triglycerides and LDL did not change significantly.

REFERENCE: AMERICAN JOURNAL OF CLINICAL NUTRITION; 2022, NQAC147



Muscle

Nutrients help post-Covid and in hemodialysis

Amino acids, vitamins B1, B6, improve post-Covid fatigue

Symptoms can persist long after recovering from Covid. In this study, 66 people who had recovered from Covid but who continued to have fatigue took a daily supplement containing 10 amino acids, vitamins B1 and B6, plus malic, succinic, and citric acids, or took no treatment.

The amino acids were cysteine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine.

After eight weeks, compared to the non-treatment group, those taking the nutrient supplement had significant improvement in skeletal muscle mass index scores, increased handgrip strength, better performance in a one-minute sit-stand chair test, and in a six-minute walking test.

Vitamin K2 reduced muscle cramps in hemodialysis

During hemodialysis, up to 78 percent experience muscle cramps due to rapid or excessive fluid removal, low blood pressure, or electrolyte imbalances. In this study, 41 people on hemodialysis with muscle cramps took a placebo or 369 mcg of vitamin K2 per day for eight weeks. The study paused for two weeks, then the two groups switched vitamin K2 and placebo.

During the vitamin K2 phases, muscle cramping was less frequent and less severe. During the placebo phases, including the group that had taken vitamin K2 first, cramping increased. Vitamin K2 was well tolerated, with no serious side effects.

There is no prior evidence-based prevention or treatment for muscle cramps, and this pilot study is the first

to demonstrate vitamin K2 can decrease the frequency, duration, and severity of cramps in hemodialysis.

REFERENCE: NUTRIENTS; 2022, VOL. 14, NO. 11, 2316



Resilience!

Vitamins B6 and D preserve vitality in aging

Vitamin B6 boosts omega-3s

Older adults with higher levels of vitamin B6 were more likely to have high levels of the omega-3s EPA and DHA. In this two-year study, doctors measured nutrients in the diets of 641 adults, aged at least 60, through food and supplement questionnaires, and compared to plasma levels of vitamin B6.



Those whose levels of vitamin B6 were adequate were more likely to have high plasma levels of EPA and DHA compared to those who were deficient in vitamin B6.

Doctors said the findings are important because those who are older and deficient in vitamin B6 may not metabolize omega-3 polyunsaturated fatty acids efficiently, leading to an increase in chances for poor age-related health outcomes.

Vitamin D for vigor in aging

This review of 240 studies conducted in 62 countries covered 2,997 men and women, average age 69. Doctors measured vitamin D levels and

found 32.1 percent were insufficient and 19.6 percent were deficient. Doctors then separated participants into three groups on a Frailty Index (FI): non-frail, pre-frail to frail, and frail to severely frail; including factors such as diseases, symptoms, laboratory abnormalities, cognitive impairments, and disabilities in activities of daily living.

Overall, those who were deficient in vitamin D were 79 percent more likely to be in the 'frail to severely frail' group compared to those whose vitamin D levels were sufficient. The results suggest maintaining adequate levels of vitamin D in aging help preserve good physical and cognitive health.

REFERENCE: NUTRIENTS; 2022, VOL. 14, NO. 11, 2336

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Black Seed Oil for Circulation

Nigella sativa relaxed vessels, increased flow

Reduced chances for heart and circulatory problems

In this study, doctors measured vessel function in 50 adults who had higher chances of developing heart and circulatory issues. Participants took a placebo or 500 mg of black seed (*nigella sativa*) oil per day.

After two months, for those taking black seed oil, blood vessels were better able to relax and dilate, increasing flow capacity by 2.97 percent compared to 0.71 percent for placebo. Doctors also measured blood levels of nitric oxide metabolites, a molecule the body produces naturally, and which regulates the ability of vessels to relax and dilate. Nitric oxide levels increased 4.73

micromoles per liter of blood (mmol/L) in those taking black seed oil, compared to 0.99 mmol/L for placebo.

Discussing the findings, doctors said heart and circulatory conditions are among the leading causes of mortality worldwide and that black seed oil may help maintain circulatory health.

REFERENCE: PHYTOTHERAPY RESEARCH; 2022, VOL. 36, NO. 5, 2236-45



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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