Healthy Living

Heart Health

HAPPENING NOW

Tuesday is deadline to save CBD from DEA clutches
OCT 16, 2020

Healthy aging, cognitive function and sage
OCT 16, 2020

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OCT 16, 2020

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OCT 15, 2020

RECENT

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OCT 14, 2020

Formulating for the COVID-conscious consumer – podcast
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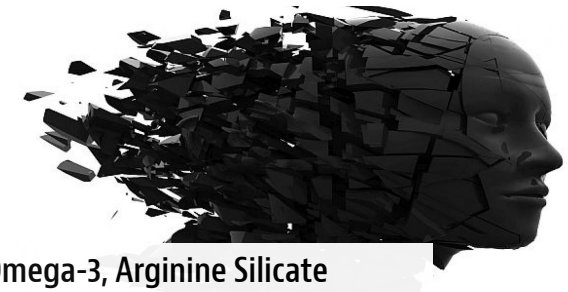
Cognitive performance category retains strength
OCT 14, 2020

AHPA to hold virtual event for sports nutrition industry that has 'come a long way'
OCT 13, 2020

TOP INDUSTRY HAPPENINGS



Omega-3, Arginine Silicate Connected to Cognitive Health; Vitamin K, Hearth Health

A new trial indicated omega-3 supplementation may help slow cognitive decline in older adults, and inositol-stabilized arginine silicate showed improvement on focus and mental clarity.

Nov 19, 2015

A new trial indicated omega-3 supplementation may help slow cognitive decline in older adults, and inositol-stabilized arginine silicate showed improvement on focus and mental clarity. These and other study results were recently released.

Omega-3 and Cognitive Health

DSM welcomed the results of a new trial indicating omega-3 supplementation may help slow cognitive decline in older adults, especially those exhibiting mild cognitive impairment (MCI). The results of the study were presented at the 8th International Conference on Clinical Trials for Alzheimer's disease (CTAD) in Barcelona, Spain.

The Multidomain Alzheimer's Preventive Trial (MAPT)—is a comprehensive program that consists of nutritional counseling, exercise, and cognitive and social stimulation, along with omega-3 fatty acid supplementation—was designed to assess the efficacy of supplementation with omega-3 fatty acid, multidomain intervention or a combination of the two interventions on the change of cognitive functions in subjects 70 years and older with subjective memory complaints for a period of three years. A group of nearly 1,700 older adults with memory complaints, slow walking speed and limitation of at least one instrumental activity of daily living were enrolled in the study. Participants were randomized to one of four groups: placebo, 800 mg/d of docosahexaenoic acid (DHA), placebo + multidomain intervention, and omega-3 + multidomain intervention.

Six months after starting the program, and then again at 12, 24 and 36 months, the participants were tested using a composite battery that evaluated cognitive domains. These included episodic memory, orientation, executive function and verbal fluency. Pre-specified statistical analyses assessed the effect of several baseline variables on outcome, including cognitive scores, blood levels of DHA and the presence of genetic marker ApoE4 linked with increased risk of developing Alzheimer's disease. A secondary analysis indicated participants with low baseline DHA also showed significant benefits from the multidomain intervention plus DHA supplementation.

amyloid deposition in the brain. By measuring red blood cell concentrations of DHA, people who could potentially benefit from omega-3 supplementation might be identified. This research adds support to previous studies indicating omega-3 supplementation supports brain function.

"Despite medical advancements, Alzheimer's disease death rates increased by nearly 68 percent between 2003 and 2008," stated Manfred Eggersdorfer, Ph.D., senior vice president, nutrition science & advocacy, DSM, and professor for healthy ageing at Groningen University. "This underlines the importance of understanding the disease further. The results of the study could be used to help revise and establish more accurate clinical guidelines regarding micronutrient supplementation including omega-3 fatty acids to help support cognitive health in older adults."

Bonded Arginine Silicate and Cognitive Function

The results of a new clinical study, "The Effects of Inositol-stabilized Arginine Silicate (Nitrosigine®) on Cognitive Function," were presented to nutrition science researchers, clinical nutritionists and other professionals at the premier American College of Nutrition's (ACN) 56th annual conference, "Translational Nutrition: Optimizing Brain Health."

Nutrition 21 LLC noted the results supported the efficacy of Nitrosigine bonded arginine silicate in showing improvement on focus and mental clarity. The novel complex was previously shown to significantly enhance blood levels of arginine and silicon, and increase nitric oxide levels.

To confirm reports of enhanced focus and mental clarity, 1,500 mg/d of Nitrosigine was tested in two double blind, placebo-controlled crossover-design (DBPC-X) studies using the clinically validated Trail Making Test (TMT) as the cognitive outcomes measure.

The findings showed 1,500 mg/d of Nitrosigine significantly improved TMT B times versus placebo, with effects seen in as little as 10 minutes after dosing and continued improvement over 14 days. Reductions in completion times seen with Nitrosigine supplementation were greater than would be expected from simple practice effects alone. Improvement in TMT B test times preliminarily suggests enhanced complex processing speed associated with cognitive processes, including working memory, reasoning, task flexibility, and problem solving as well as planning and execution.

In one of the studies, approximately 10 minutes after taking the first dose, TMT B time decreased by 17.6 seconds in the Nitrosigine group (P=0.001) from a baseline time of 52.7 seconds (a 33-percent improvement), compared to a decrease of 4.9 seconds in the placebo group (P=0.384). The changes in TMT B times after 10 minutes were statistically significant between groups (P=0.024).

In that same study after three days of Nitrosigine dosing, TMT B time decreased 18.5 seconds compared to baseline , a 35-percent improvement, whereas the placebo group decreased 5.1 seconds.

In the second study, TMT B time significantly decreased after 14 days of treatment by 13.4 seconds in the Nitrosigine group (from a baseline time of 47.3 seconds, a 28-percent improvement), compared to a non-significant decrease of 5.5 seconds in the placebo group.

Vitamin K and Cardiovascular Health

A review from Maastricht University (the Netherlands) updated on oral anticoagulant (OAC) treatment with a special focus on calcification of the vasculature and the role of vitamin K (*Nutrients*. 2015;7(11):9538-57). Most importantly, the review includes a recently developed alternative anticoagulant drugs—direct oral anticoagulants (DOACs)—which researchers deem a safer alternative, as they do not pose the negative side effects that typically accompany OACs.

Vitamin K-antagonists (VKA) are one of the most widely used anticoagulant drugs to treat patients at risk of arterial and venous thrombosis for the past 50 years. Due to unfavorable pharmacokinetics, VKAs have a small therapeutic window, require frequent monitoring, and are susceptible to drug and nutritional interactions. According to researchers, an important interaction is reducing vitamin K status of the vasculature, which may lead to increased arterial calcification.

The limitations of VKAs stimulated the development of alternative anticoagulant drugs, resulting in DOACs, which specifically target either coagulation factor Xa or thrombin more consistently. Further, DOACs do not present nutrient interaction, such as vitamin K, and therefore may actually have benefits for coronary artery disease (CAD).

"Oral anticoagulants block the activity of vitamin K-dependent proteins, which has been shown to increase calcification, thereby negatively impacting cardiovascular health. Clearly anticoagulant alternatives that do not interfere with vitamin K would be a better option," said Hogne Vik, CEO of NattoPharma, exclusive global supplier of MenaQ7® Vitamin K2 as the company and

The researchers wrote, “Presently, ongoing clinical trials are addressing whether vitamin K supplementation can halt or regress vascular calcification. The outcome of these trials will pave the way to test whether co-supplementation of Vitamin K2 with DOACs can benefit both coagulation and calcification."

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