



# Natural Insights for Well Being®

August 2020

## Circulation

Nutrients improved blood pressure, arteries, and gut balance

### Garlic, vitamin B12, improved blood pressure and circulation

Aged garlic extract (AGE) is as beneficial as blood pressure medication, and improves heart and circulatory health, according to this review of 12 clinical trials covering 553 participants with high blood pressure. AGE lowered systolic and diastolic blood pressure by an average of 8.13 and 5.5 mmHg, respectively, a finding similar to standard medications.

Doctors also found new evidence that adequate levels of vitamin B12 improved blood pressure response to garlic extract. AGE also lowered blood pressure in the aorta, the large heart artery that pumps blood to the body; reduced artery stiffness; and increased levels of the probiotics lactobacillus and clostridia in the gut after three months on AGE.

In a separate study of 104 men and women who took a placebo or 2,400 mg of AGE per day, after 12 months, calcification in the coronary artery was 8 percent lower in those taking AGE compared to placebo. AGE also significantly lowered systolic and diastolic blood pressure.

### Cinnamon improved systolic & diastolic blood pressure

In earlier studies, cinnamon reduced



blood pressure, but results have been inconsistent. Here, doctors reviewed nine random controlled clinical blood pressure trials covering 641 participants. Overall, there was a general trend for cinnamon to lower blood pressure, with the most significant benefits in obese participants with body mass index scores of at least 30, who took a cinnamon supplement of up to 2,000 mg per day, for longer than eight weeks.

In this group, those taking cinnamon saw an average decline in systolic and diastolic blood pressure of 5.17 and 3.36 mmHg, respectively. Doctors said cinnamon appears beneficial to blood pressure and suggest larger studies in those with high blood pressure.

REFERENCE: EXPERIMENTAL AND THERAPEUTIC MEDICINE; 2020, Vol. 19, No. 2, 1472-8

AUGUST'S

## Healthy Insight Pycnogenol for Dry Mouth

There are several causes of dry mouth, including impaired salivary glands, taking medications, and diabetes. This study covered 24 people with diabetes, and 24 without, all on standard dry-mouth treatments. Half of each group took 150 mg of Pycnogenol® per day. After two weeks, salivary flow and oxidative stress improved significantly in both diabetics and non-diabetics taking Pycnogenol compared to minimal improvement in those on standard treatment alone. Also, the number of mucosal breaks and ulcerations of less than one millimeter in length or diameter were significantly decreased with Pycnogenol. Doctors said Pycnogenol was safe, and may be a valid option for treating dry mouth.

REFERENCE: MINERVA STOMATOLOGY, DECEMBER, 2019, 32052619, PUBLISHED ONLINE

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# Cognition

## Folic acid, lutein, and astaxanthin boost cognition

### Mothers' folic acid improved cognition in children

Doctors in this study followed 70 mother-child pairs from the second trimester through seven years. The U.S. CDC recommends, and the women had been taking, 400 mcg of folic acid per day during the first trimester. At week 14, half continued, and half began taking a placebo through the end of pregnancy. At three years, doctors had access to 39 of the children and found those from mothers who had taken folic acid scored above average on cognitive development tests while kids in the placebo group scored below average.

At seven years, compared to the placebo group and to a nationally representative sample of British children at age seven, evaluating all 70 kids,

those whose moms had taken folic acid scored higher in IQ tests of verbal, general language, performance, and full-scale IQ.

### Lutein, astaxanthin improved cognition in adults

Lutein and astaxanthin are the colorful carotenoids that protect vision in the macula of the eye, but recent research reveals cognitive benefits as well. In a review of three clinical trials, those taking lutein could better recall details of event times, places, and verbal language, and could more easily maintain attention to tasks compared to placebo. The study results suggest consuming 10 mg of lutein per day for 12 months was a significant threshold for improvements in cognitive function.

In a review of two astaxanthin studies, those taking astaxanthin had better verbal language memory compared to the placebo groups. Discussing the findings, doctors said that the carotenoids lutein and astaxanthin have several cognitive benefits in young and middle-aged adults.

REFERENCE: BMC MEDICINE; OCTOBER, 2019, VOL. 17, No. 1, ARTICLE No. 196



# Muscle

## Nutrients reduce muscle damage, increase protein absorption

### Ubiquinol reduces muscle damage and fatigue in runners

The body makes ubiquinol, a natural chemical compound that stimulates cells to produce energy.



Recent studies have found doses of 200 to 300 mg of ubiquinol prevent oxidative muscle damage in athletes. In this study, 16 male distance runners took a placebo or 300 mg of ubiquinol-10 per day for 12 days during a summer training program. On days seven and nine, runners completed a 15.5-mile and 24.8-mile run, respectively.

On day six, one day before the series of runs began, those taking ubiquinol had elevated circulating levels of CoQ10 and lower activity levels of inflammatory enzymes that indicate muscle damage. On day 10, after the two runs, men in the placebo group reported significantly more fatigue than the ubiquinol group.

Reviewing the results, doctors said ubiquinol at doses of 300 mg per day can reduce muscle damage and fatigue in long-distance runners.

### Probiotics improve plant protein absorption

How well the body absorbs proteins depends on microbes in the gut. Generally, the body absorbs complete proteins from animal sources more efficiently than most plant proteins, which are incomplete because they are missing methionine and other essential amino acids the body needs from food.

In this study, 15 physically active men took 20 grams of pea protein per day plus a placebo or lactobacillus paracasei. After two weeks, compared to placebo, those taking probiotics had significant increases in the branched-chain and essential amino acids histidine, isoleucine, leucine, methionine, tyrosine, and valine.

REFERENCE: INTERNATIONAL JOURNAL FOR VITAMIN AND NUTRITION RESEARCH; JANUARY, 2020, A000627, PUBLISHED ONLINE

# Kids

## Vitamin D boosted bone density, reduced ADHD in kids

### Mothers' vitamin D boosted kids' bone density

In this study, doctors gave a 2,800 IU high dose or 400 IU low dose of vitamin D per day to 517 expectant mothers from 24 weeks pregnant through one week after birth.



At age six, children whose mothers had taken high-dose vitamin D had greater whole-body bone mineral content, and head-bone (skull) mineral density compared to kids whose moms had the low dose. Children with rickets, a result of vitamin D deficiency, may have thinning or soft skull bones.

Kids whose moms had vitamin D levels below 30 nanograms per milliliter of blood, or 75 nanomoles per liter, and children born in winter, saw the greatest benefit from high-dose vitamin D. Also, there was a tendency for fewer bone fractures in children from high-dose vitamin D mothers.

### Mom's low vitamin D linked to kid's ADHD

This is the first population-level

study demonstrating a link between low maternal vitamin D levels and increased chances for attention-deficit hyperactivity disorder (ADHD) in their children. Doctors measured vitamin D levels in 1,067 mothers whose kids were born between 1998 and 1999, and compared to 1,067 children whose mothers did not participate.

Overall, children from mothers deficient in vitamin D during pregnancy were 34 percent more likely to develop ADHD compared to children whose mothers had sufficient vitamin D levels. In the U.S., 42 percent of the population is deficient in vitamin D, with higher percentages in premenopausal women, those with poor nutrition, and those over age 65.

REFERENCE: JAMA PEDIATRICS; 2020, VOL. 174, NO. 5, 1-9

AUGUST'S

## Ahead of the Curve

### Early-Stage Discoveries: Curcumin, Prebiotics, and L-Serine

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

#### Curcumin cut inflammation linked to memory loss

Curcumin is a well-known anti-inflammatory. Specialized immune nerve cells in the brain and spinal cord, called microglia, clean up the amyloid plaques that accumulate in Alzheimer's disease (AD). But inflammatory proteins can damage microglia. In the lab, microglia cells treated with curcumin released far lower levels of this inflammatory protein, HMGB1, compared to untreated cells.

Doctors said the results suggest that curcumin can effectively inhibit nerve cell inflammation, and that this study reveals curcumin's anti-inflammatory method of action.

#### Prebiotics improve sleep, stress resilience

Prebiotics can influence bodily functions including sleep and recovering from stress. In the lab, doctors added prebiotics to the diets of rats and found, compared to those that didn't get prebiotics, they spent more time in restorative, non-rapid-eye-movement (NREM) sleep, and after stress, spent more time in REM sleep, which is crucial for recovering from stress. Also, the prebiotics group retained daily, healthy, natural body temperature fluctuations, and greater diversity of healthy gut bacteria. Doctors concluded prebiotics can buffer against stress.

#### L-serine restored memory

Doctors have discovered a metabolic pathway that converts glucose to energy may play a role in Alzheimer's disease (AD). Special cells called astrocytes use glucose to produce an amino acid, L-serine, which feeds nearby nerve-cell receptors essential for brain function and memory. But when astrocytes use less glucose, L-serine levels decline, damaging nerves and memory capacity.

In the lab, doctors restored the capacity for memorization functions in mice fed L-serine, which suggests L-serine may complement treatments for early symptoms of AD, Parkinson's, and Huntington's diseases.

REFERENCE: ANNALS OF TRANSLATIONAL MEDICINE; FEBRUARY, 2020, VOL. 8, NO. 4



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# Sleep

## Ashwagandha improved sleep quality in adults

### Mental alertness improved

Ashwagandha is an ancient Ayurvedic and Chinese remedy which medicine today considers an adaptogen. An adaptogen is a natural substance with anti-fatigue, nerve, and immune-supporting properties, which helps the body adapt to many types of stress.

In this study, 50 men and women, aged 65 to 80, who entered the study reporting low sleep quality and poor mental alertness on waking, took a placebo or 600 mg of ashwagandha per day, and periodically answered a variety of sleep and quality-of-life questionnaires.

Compared to placebo, participants taking ashwagandha began reporting improvements in sleep quality and better

mental alertness on waking, beginning at four weeks and continuing through eight and 12 weeks.

Discussing the findings, doctors said, at the study dose of 600 mg per day, participants taking ashwagandha consistently reported improved quality of life, quality of sleep, and waking mental alertness, and that ashwagandha was well-tolerated and safe.

**REFERENCE:** CUREUS; 2020, Vol. 12, No. 2, e7083, 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.

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