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October 2019

Better Circulation

Nutrients boost arterial health

Omega-3s reduced artery calcification

The inside of an artery can narrow, without symptoms, due to plaque building up with age. Few studies have tested the effect of omega-3s on arterial calcification in the general population. In this study, doctors measured calcification of the aorta—the largest artery in the body that extends from the heart to the abdomen—in 998 asymptomatic multiethnic men, ages 40 to 49.

Using a low-dose, multi-angle X-ray CT scan, doctors found 57 percent of the men had some level of aortic calcification. Doctors also found as circulating levels of omega-3s increased, aortic calcification decreased. The omega-3 DHA was particularly beneficial, with each two-percent increase in DHA levels reducing aortic calcification scores by 35 percent.

Discussing the findings, doctors said omega-3s reduced aortic calcification independent of any other factors that increase chances for heart or circulatory events, and that these findings are significant for public health policy.

Vitamin K reduced artery stiffness

A type of protein in the body, matrix GLA, binds to calcium, preventing it from building up on



arterial walls. But matrix GLA requires vitamin K to become active. In this study, doctors measured levels of inactive matrix GLA—a sign of low vitamin K levels—in 835 Flemish men and women, average age 50.

Those with higher levels of inactive matrix GLA had greater signs of calcification of the aorta, which doctors determined by how much or how little the aorta dilated as blood pumped from the heart. Stiffer vessels dilated less, sending faster pulse waves along vessel walls. Faster pulse wave velocity is a sign of greater arterial calcification.

Doctors also measured blood pressure between systolic and diastolic phases, called central pulse pressure. Typically about 40 mmHg in healthy people, central pulse pressure over 60 mmHg can signal heart and circulatory problems. Those with lower levels of inactive matrix GLA also had lower central pulse pressure readings.

REFERENCE: NUTRITION, METABOLISM & CARDIOVASCULAR DISEASES; APRIL, 2019, PUBLISHED ONLINE

OCTOBER'S

Healthy Insight

Probiotics for Marathons

Long distance runners can suffer gastrointestinal (GI) symptoms that may weaken the immune system. In this study, 24 runners took a placebo or a probiotic of 25 billion colony-forming-units per day for 28 days before running a marathon. During the second half of the treatment period before the race, GI symptoms were lower in the probiotics group compared to placebo, and were also lower during the final third of the race. Between the first and last third of the race, although both groups slowed down, the placebo group lost twice as much speed compared to those in the probiotics group.

REFERENCE: EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY; 2019, Vol. 119, No. 7, 1491-1501

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Keep Moving!

Vitamin K and cocoa flavonoids boost movement

Vitamin K preserves mobility

Low levels of vitamin K have a link to physical disability in older adults. This is the first study to compare



vitamin K levels to mobility. In this study, doctors gave 1,323 men and women, aged 70 to 79, mobility tests every six months for up to 10 years. The tests measured ability to walk a quarter mile or climb 10 steps without resting.

Men or women with vitamin K (as phylloquinone) levels lower than 0.5 nanomoles per liter of blood (nmol/L) were 1.5 times more likely to develop mobility limitations, and nearly two times as likely to develop disability, as those whose vitamin K levels were at least 1.0 nmol/L.

Cocoa flavonoids boost performance

Muscle mass declines with age and can lead to dependent living. In this study, 60 people age 55 to 70 took a daily beverage placebo, a highly

alkalinized non-flavonoid cocoa, or a beverage with 179 mg of natural flavonoid-rich cocoa. After 12 weeks, those taking cocoa flavonoids saw reductions in oxidation, glucose, and triglyceride levels, and increases in HDL, the “good” cholesterol, and decreases in LDL, the “bad” cholesterol.

In a related study, 74 older people, aged 65 to 90, who took 179 mg of flavonoid-rich cocoa daily for 12 weeks, compared to placebo or non-flavonoid cocoa, had less oxidative stress and inflammation, increased by 115 feet the distance they could cover in a six-minute walking test, and added an average of 13 steps in a climbing test.

Doctors said cocoa flavonoids appear to reproduce benefits similar to long-term physical conditioning.

REFERENCE: THE JOURNALS OF GERONTOLOGY; 2019, SERIES A, GLZ108

Muscle

Collagen and creatine increase power and strength

Collagen peptides plus training

Muscle contains hundreds of proteins, and doctors wanted to see if collagen—the main structural protein in the body—along with resistance training, would influence the protein makeup of muscle. In this study, 25 men, average age 24, with a healthy weight and a good ratio of fat-free mass to fat mass, took a placebo or 15 grams of collagen hydrolysate per day within one hour of completing resistance training designed to build muscle. There were three training sessions per week over the 12-week study period.

Both groups saw increases in strength, with strength in the collagen group increasing slightly more than placebo. Analyzing protein levels, doctors found higher levels of 221

proteins in the collagen group compared to 44 for placebo. Most of the increased proteins in the collagen group were responsible for controlling muscle contraction.

Creatine with electrolytes

Most people that take creatine for building muscle take it alone. Doctors thought combining creatine with electrolytes could increase creatine absorption and transport into muscle. In this study, 22 recreationally trained men and women, average age 21, took a placebo or 4 grams of creatine, 857 mg of phosphorus, 286 mg of magnesium, 171 mg of calcium, 171 mg of potassium, and 111 mg of sodium per day.

After six weeks, those taking the

creatine combination saw improved bench press maximal strength of 5.9 percent compared to 0.7 percent for placebo. In a one-repetition maximum back squat, the creatine group saw a 13.4 percent increase in maximal strength compared to 0.2 percent for placebo.

REFERENCE: NUTRIENTS; 2019, VOL. 11, No. 5, 1072



Able Body

Curcumin and vitamin D ease pain, restore physical function

Curcumin relieved knee OA pain

People with osteoarthritis (OA) often take non-steroidal anti-inflammatory prescription drugs (NSAIDs) for pain, which have harsh side effects. In this study, 139 people with OA of the knee took 500 mg of curcumin three times per day, or a 50 mg dose of the NSAID diclofenac twice per day.

After 14 and 28 days, both groups reported similar reductions in joint pain and stiffness, and improvements in daily living functions. The curcumin group reported much less flatulence, and none in the curcumin group needed drugs to combat heartburn compared to 28 percent for NSAIDs. Overall, 13 percent in the curcumin group reported

unwanted side effects compared to 38 percent for NSAIDs. Also, after 28 days, the curcumin group reported a slight weight loss.

Vitamin D reduced back pain disability

Worldwide, back pain is the greatest cause of disability, with few treatment options. In this study, 54 overweight or obese adult men and women who were deficient in vitamin D—with levels no higher than 50 nanomoles per liter (nmol/L) of blood—took a placebo or a single 100,000 IU dose of vitamin D followed by 4,000 IU of vitamin D per day.

After 16 weeks, vitamin D levels had increased 15 times in the vitamin D group compared to placebo. In

those with the lowest vitamin D levels, below 30 nmol/L or 12 nanograms per milliliter of blood, those taking vitamin D reported significantly less back pain disability compared to placebo. Doctors said vitamin D may be a safe, effective, affordable treatment for back pain worldwide.

REFERENCE: TRIALS; APRIL, 2019, VOL. 20, 214



Sugar Control

Propolis and saffron help control glucose and lipid levels in type 2 diabetes

Propolis and blood sugar

Many cultures including the Greeks and Egyptians have used propolis—the resin-like combination of tree sap and beeswax made by bees—as medicine for thousands of years. There are over 300 compounds in propolis, most containing polyphenols, including antioxidant-rich flavonoids.



In this review of six placebo-controlled trials covering 373 people with type 2 diabetes, doctors found those taking propolis saw average declines in overnight fasting blood sugar levels of 13.51 mg per deciliter of blood (mg/dL), and declines in long-term average, three-month A1C levels of 0.52 percent.

Discussing the findings, doctors said this analysis of multiple placebo controlled trials suggests that bee propolis may be a novel, safe and effective way for those with type 2 diabetes to control glycemic levels.

Saffron, glucose, and lipids

Earlier experimental studies found saffron and its derivative compounds significantly reduced glucose levels. In this study, 64 people with type 2

diabetes who were taking oral anti-diabetic drugs added a placebo or 15 mg of saffron extract per day.

After three months, compared to placebo, those taking saffron saw significant improvements in fasting glucose levels, lower total and LDL cholesterol levels, and a significant decrease in the ratio of LDL to HDL cholesterol. Compared to the start of the study, those taking saffron saw improvements in all of these areas, plus a significant decrease in long-term average blood sugar levels, known as A1C.

Doctors said this is one of the first human studies to show saffron may be a beneficial additional therapy in type 2 diabetes.

REFERENCE: PHYTOTHERAPY RESEARCH; APRIL, 2019, 6356, PUBLISHED ONLINE

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Performance

Pomegranate and olive oil improve conditioning

Pomegranate boosts cyclists exercise capacity

In this study, 26 male amateur cyclists who trained two to four times per week took a placebo or 112 mg of punicalagins—the polyphenol antioxidant in pomegranate—per day for 15 days. After a 14-day pause, the two groups switched pomegranate and placebo.

After each phase, the cyclists performed an endurance trial to test maximum oxygen capacity and time to exhaustion. Compared to placebo, those taking pomegranate had a significantly higher oxygen threshold and longer time to exhaustion.

Olive oil and pomegranate improve circulation

In this study, 67 healthy middle-aged adults took a placebo or 9.9 mg of olive oil hydroxytyrosol plus 195 mg of punicalagins from pomegranate per day for eight weeks. After a four-week pause, the two groups switched treatment and placebo for another eight weeks.



Compared to placebo, during the olive oil and pomegranate phases, blood flow and blood pressure improved, and levels of oxidized LDL cholesterol decreased.

REFERENCE: NUTRIENTS; 2019, VOL. 11, No. 4, E721

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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