



Natural Insights for Well Being®

July 2021

Healthy Knees

Turmeric and curcumin reduce OA knee pain

Osteoarthritis

In osteoarthritis (OA) joint cartilage, ligaments, linings, and nearby bone break down. The most common affected areas include hips, knees, hands, and spine, which become stiff and painful. Over-the-counter (OTC) medicines reduce symptoms, but do not have a clear clinical effect on the condition, and do have serious long-term side effects. Doctors are searching for safer, clinically effective treatments, with turmeric and curcumin offering hope.

Turmeric as effective as OTC for OA knee pain

In this study, 144 adults, aged 40 to 80, with knee OA took 1,000 mg of turmeric extract, or 1,950 mg of acetaminophen, in divided doses, per day.

After six weeks, pain scores in both groups declined at least 20 percent, but 21 percent of those taking turmeric saw a 50 percent or greater decline while none taking acetaminophen got that much relief. The turmeric group also had lower levels of chronic inflammatory factors, including C-reactive protein and tumor necrosis factor (TNF-alpha).

Discussing the findings, doctors said, "We are learning more about the mechanisms behind curcumin's anti-inflammatory effect, which we believe is the result of its ability to



inhibit pro-inflammatory signals such as prostaglandins, leukotrienes, and cyclooxygenase-2."

Curcumin curbed OA knee pain

In this study, 70 men and women with OA knee pain and swelling inside the knee joint took a placebo or bio-available curcumin capsules daily.

After 12 weeks, those taking curcumin reported less knee pain than placebo, with no adverse events or side effects. The curcumin group also needed to take fewer standard pain medications compared to placebo.

Reviewing the results, doctors said current pharmacologic therapies for those with osteoarthritis do not provide long-term clinical improvement, and that curcumin may be an effective and safe alternative without the adverse side effects of standard OTC medications.

REFERENCE: BIOMED CENTRAL TRIALS; 2021, VOL. 22, ARTICLE No. 105

JULY'S

Healthy Insight Ladies' Knees

L-glutamine supplements strengthened knees and improved metabolics in older women. In this study, 21 women, aged 60 to 80, took a placebo or 10 grams of L-glutamine per day. After 30 days, those taking L-glutamine had greater strength and peak power in knee muscles; lower levels of oxidation, greater antioxidant capacity, and lower long-term average blood sugar and insulin levels compared to the placebo group, and to the start of the study.

Women who were physically active before the study benefited more from taking L-glutamine than those who were sedentary and taking L-glutamine. Doctors said L-glutamine may improve muscle power, and that regular exercise can magnify L-glutamine benefits.

REFERENCE: NUTRIENTS; 2021, VOL. 13, No. 3, 1025

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Healthy Kids

Nutrients improve children's mood, skin, and allergy

Pine bark extract improved ADHD

In what may be the first study of its kind to use pine bark extract, doctors tested boys and girls, average age 10, for signs of inattention and impulsivity. In this study, 17 boys and three girls took a placebo or pine bark extract for four weeks, paused for two weeks, then switched placebo and pine bark groups. The daily pine bark dose was 25 mg for kids under 110 pounds, and 50 mg for those 110 pounds or more.

Parents and teachers evaluated symptoms of attention deficit hyperactivity disorder (ADHD) before and after each phase. While the placebo phase did not improve, signs of inattention and hyperactivity decreased significantly during the pine bark phases. On pine bark, in a target-

response test, children were less likely to overreact by pressing a button when no visual target was present; meaning they were less impulsive.

Probiotics reduce dermatitis and allergy

Babies with eczema and food allergy can progress to asthma later in life. In this study, 101 infants, average age nine months, with atopic dermatitis (AD) and allergy to cow's milk took a placebo or a daily probiotic combination with one-billion colony-forming units.

After three months, both groups showed improvement in AD symptoms, with children taking probiotics 2.56 times more likely to have improved by the end of the study.

Discussing the findings, doctors said they chose children aged nine

months because probiotics are likely to be most effective during the time when the gut microbiome is developing and the immune system is programmed for the future, a process typically complete by age three.

REFERENCE: PHYTOTHERAPY RESEARCH; 2021, 1002/PTR.7036



Cancer Update

Melatonin and vitamin D improve cancer outcomes

Melatonin increased survival after radiation

Melatonin promotes sleep and plays a role in immunity. In this study, doctors compared outcomes over 10 years in 955 men with various stages of prostate cancer who had combined hormone and radiation treatment, and who did or did not take melatonin.



While there was little difference in outcomes for men with a favorable or intermediate prognosis, men with a poor prognosis who took melatonin survived an average of 154 months compared to 64 months for men who had not taken melatonin.

Discussing the findings, doctors said melatonin was an independent factor that reduced chances of death from prostate cancer by more than two times compared to men who did not take melatonin.

Vitamin D reduces hospitalization, boosts survival

People with cancer are likely to be deficient in vitamin D. Long hospital stays, avoiding sun after radiation or other treatments, and poor nutrition all

contribute.

In this study, doctors measured vitamin D levels in 178 critically ill people with either of the two main types: solid tumor, or blood cancer. Those with vitamin D lower than 20 nanograms per milliliter of blood (ng/mL) were deficient; those with no more than 12 ng/mL were severely deficient.

Three in four—74 percent—were deficient and 54 percent were severely deficient. Those who were severely deficient were more likely to be hospitalized and to die within a year. For those who survived intensive care and died within one year, severe vitamin D deficiency was the only cause other than a return of the disease, or resistance to treatment.

REFERENCE: ONCOTARGET; 2020, VOL. 11, 3723-9

Healthy Women

Nutrients reduce chances for breast cancer, boost bone density

Carotenoids reduce chances for breast cancer

One of the controllable factors that can reduce chances for cancer is carotenoid levels. In this study, Harvard doctors measured carotenoids in 1,919 women from the Nurses' Health Study who later developed breast cancer, and



1,695 women who did not. Doctors also measured breast tissue density, a separate factor that doubles chances.

Overall, when carotenoid levels reached 142 micrograms per deciliter of blood (mcg/dL), chances were 20 percent lower in women with estrogen receptor (ER) positive, but not ER negative, breast cancer. ER positive cells bind to estrogen, and cancer in these cells tends to grow more slowly than in ER negative cells.

In women with the most dense breast tissue, chances were 37 percent lower for those with the highest carotenoid levels.

Antioxidant capacity boosts bone density

In this study, doctors measured total antioxidants in the diet, and bone

mineral density, in 8,230 pre- and postmenopausal women. Those with osteoporosis (OP) had significantly lower waist circumference, bone mineral content, and bone mineral density, than women without OP.

Postmenopausal women were older, exercised less, and consumed less alcohol, protein, calcium, phosphorus, potassium, and sodium than premenopausal women. Premenopausal women with higher total antioxidant (TA) levels had greater bone mineral content than those with lower TA levels. Postmenopausal women who got at least 456.89 mg of antioxidants per day had greater bone mineral content at the lumbar spine, total femur, and femoral neck, and had greater bone mineral density in the lumbar spine.

REFERENCE: AMERICAN JOURNAL OF CLINICAL NUTRITION; 2021, VOL. 113, NO. 3, 525-33

Diabetes Update

Fish oil and zinc lower chances, improve diabetes factors

Fish oil lowers chances for type 2 diabetes

In this large, long-term study, doctors measured oily and non-oily fish in the diets of 163,706 men and women, aged 50 and older, who submitted one to five 24-hour diet diaries between 2009 and 2012.

Over an average of 10 years of follow-up, compared to those who ate no fish, those who ate fish less than once per week were 18 percent less likely to have developed type 2 diabetes. Those who got at least one serving of fish per week were 22 percent less likely.

Those who reported regularly taking fish oil supplements at the beginning of the study were 9 percent less likely to have developed type 2 diabetes compared to those who didn't take fish

oil supplements. Those who continued taking fish oil supplements throughout the study were 18 percent less likely compared to those who hadn't taken fish oil supplements.

Zinc improves glycemic control, insulin, and lipids

In this review of 27 studies covering 2,016 participants, daily 25 mg doses of zinc in studies of at least 12 weeks had greater benefit than shorter studies with higher doses.

In the low-dose studies, fasting blood sugar, insulin resistance, triglycerides, and total and LDL cholesterol levels all improved. In studies where daily zinc doses exceeded 25 mg, long-term average blood sugar levels (A1C), insulin resistance, and

triglycerides all improved.

Shorter studies improved fasting blood sugar, insulin resistance, and triglycerides, while longer studies improved fasting and A1C levels, triglycerides, and total and LDL cholesterol.

REFERENCE: DIABETES CARE; 2021, VOL. 44, NO. 3, 672-80





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Less Stress

Grape seed extract improves blood pressure

Polyphenols may help lower perceived stress levels

This study followed 80 healthy men and women, aged 40 to 70, with mildly elevated systolic blood pressure between 125 and 140 mmHg. Body mass index scores ranged from 19 to 32, and all the women were postmenopausal. Participants measured blood pressure for seven days before taking a placebo or 300 mg of grape seed extract per day.

Until the fourth week, women in the placebo group saw a greater reduction in systolic blood pressure than men in the placebo group. After 16 weeks, systolic and diastolic blood pressure had declined in both groups, but declined more for those taking grape seed extract. Men saw the most

significant benefit, with systolic blood pressure declining 4.6 mmHg, and diastolic pressure declining 3.2 mmHg by the end of the study.

Those taking grape seed extract perceived less worry, tension, and demands and reported greater joy compared to placebo, with women experiencing greater benefits than men.

REFERENCE: NUTRIENTS; 2021, Vol. 13, No. 2, 654



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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