

# HOLLY HILL HEALTH FOODS

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## Natural Insights for Well Being®

March 2022

### Breathe!

Nutrients reduced colds and antibiotics, and increased school attendance

#### Probiotics and vitamin C

In a school-year test of 171 healthy school children, aged three to 10 years, participants took a placebo, or a probiotic combination including lactobacillus acidophilus, bifidobacterium bifidum and animalis lactis, at a concentration of 12.5 billion colony-forming units per day, plus 50 mg of vitamin C per day, for six months during the school year.

Overall, kids taking the probiotics plus vitamin C had 16 percent fewer coughing incidents compared to placebo. The probiotics group was also 69 percent less likely to experience any one of five different upper respiratory infection symptoms.

Looking at attendance, children taking the probiotics plus vitamin C were 16 percent less likely to miss school. Doctors also measured the need for antibiotics and found the probiotics group was 27 percent less likely to use antibiotics compared to placebo.

#### Lactoferrin

Lactoferrin, a protein in human and cow's milk, plays an important role in immune function, and is drawing attention as a preventive and treatment for respiratory tract infection.

This review of seven studies covered 1,015 participants, from preterm infants



to older adults in their 60s, who took lactoferrin orally. Overall, those taking lactoferrin were 43 percent less likely to have a respiratory tract infection compared to placebo.

Doctors described their recent interest, explaining that bacteria and viruses have evolved to depend on iron stores in the host to unlock and enter host cells, and that lactoferrin prevents these pathogens from using iron, effectively blocking their entry into host cells.

“Our findings suggest using lactoferrin in infant formula, and that it has a beneficial role in managing and recovering from respiratory tract infections,” doctors said, continuing, “Lactoferrin may have potential as an adjunct therapy in Covid-19, and we look forward to a large, well-designed random-controlled trial to test its efficacy.”

REFERENCE: BENEFICIAL MICROBES; 2021, VOL. 12, No. 5, 431-40

MARCH'S

### Healthy Insight Breathe with Zinc

This review of 28 zinc cold and flu studies covered 5,446 participants who took oral lozenges, or nasal sprays or gels, in oral doses of 15 to 45 mg per day, or topical doses of 0.9 to 2.6 mg per day, for seven to 12 months.

Overall, for those taking any zinc treatment, chances for developing mild to moderate respiratory symptoms declined 32 percent compared to placebo. Zinc in any form effectively reduced symptom severity by the third day. Zinc was most effective in reducing moderately severe flu-like symptoms, by 87 percent. Those who took zinc in the first week of symptoms recovered 1.8 times faster than placebo.

REFERENCE: BMJ JOURNALS; 2021, VOL. 11, No. 11, PUBLISHED ONLINE

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# Bone

## Nutrients help restore bone density in postmenopause

### Vitamin D with bisphosphonates

Women with osteoporosis may take bisphosphonates, like alendronate, to increase bone mineral density (BMD), but long-term side effects include jaw and other atypical fractures. One of the ways to reduce side effects is to periodically discontinue treatment, as the bone density benefits continue during the interim, known as the “tail effect.”

In this study, doctors reviewed data from postmenopausal women, average age 61, who took 70 mg alendronate per day, plus 25,000 IU of vitamin D every two weeks, between 2006 and 2016. Women took treatment for an average of 31.2 months, and discontinued treatment for an average of 33.3 months.

Women with the highest vitamin D

levels saw a 5.7 percent increase in BMD at the lumbar spine, which doctors said was the first evidence for vitamin D boosting the “tail effect” of alendronate.

### Omega-3s boost BMD

In this study, doctors measured levels of 17 different fatty acids in 301 healthy postmenopausal women, average age 59, and compared BMD levels. Doctors took into account differences in body mass index scores, as well as how much vitamin D and calcium the women took.

Overall, as levels of omega-3 fatty acids increased, bone mineral density at the lumbar spine and the hip-bone femoral neck also increased. The other fatty acids did not appear to have a significant effect on BMD.

Discussing the findings, doctors said

these results support previous research showing that higher levels of omega-3 fatty acids play a role in maintaining bone health by protecting bone mass and preventing fracture.

REFERENCE: NUTRIENTS; 2021, VOL. 13, No. 6, 34072655, 1878



# Eye

## Lutein, zeaxanthin, meso-zeaxanthin preserve vision

### Carotenoids improve glaucoma status

In glaucoma, nerves and other cells in the retina of the eye degenerate, and it is the leading form of blindness. In this study, 55 people with open-angle glaucoma, the most common type, took a placebo or a combination

of carotenoids: 10 mg lutein, 2 mg zeaxanthin, and 10 mg meso-zeaxanthin, per day.

At six months, macular pigment optical density (MPOD)—the level of carotenoids in the macula of the eye—was 25 percent greater in the lutein group compared to placebo, which had not changed significantly. At 18 months, the lutein group saw MPOD increase an average of 60 percent while the placebo group had not changed. The lutein group also had significantly improved sensitivity to contrast in glare conditions.

“This is the first study to demonstrate carotenoids can increase macular pigment, and improve the structure and function of the eye in glaucoma,” doctors said.

### Better macular pigment in healthy adults

This review of 46 studies covered 3,189 adults, average age 43, with healthy eyesight, who supplemented with lutein, zeaxanthin, and meso-zeaxanthin, in doses from less than 5 to more than 20 mg per day, for three to 12 months.

At the lower dosages, macular pigment optical density (MPOD)—the amount of carotenoids in the macula of the eye—did not significantly increase. But at dosages of 5 to 19 mg per day, MPOD increased an average of 0.04 units. In studies of 20 mg or more per day, MPOD increased 0.11 units.

REFERENCE: OPHTHALMOLOGY SCIENCE; 2021, VOL. 1, No. 3, 100039



# Metabolism

## Nutrients improved body health measures

### Turmeric reduced weight, improved mood

This study followed 90 healthy overweight adults, aged 50 to 69, who took a placebo or 979 mg of turmeric extract per day. At four, eight, and 12 weeks, those taking turmeric saw significant decreases in body weight, and improvements in body mass index



scores, compared to placebo. At each of these points in the study, signs of inflammation, including C-reactive protein, decreased significantly vs. placebo.

Addressing mental health, participants took the Medical Outcomes Study and the Profile of Mood States Scale, both of which showed improved scores for the turmeric group, while not changing for placebo.

“Turmeric improved mental health and negative mood state, suggesting improvements not only in systemic inflammation, but also in neuro-inflammation in the central nervous system,” doctors said.

### Magnesium improved insulin sensitivity, fasting glucose

Magnesium helps regulate blood

sugar, and low levels have a link to insulin resistance, common in type 2 diabetes. In this review of 25 random-controlled trials, participants had or were likely to have diabetes.

Participants took a placebo or an oral magnesium supplement, with doctors measuring fasting glucose levels, and again after a two-hour oral glucose tolerance test. In both tests, those taking magnesium had improved glucose levels and better insulin sensitivity, compared to placebo.

Discussing the findings, doctors said the results suggest taking oral magnesium may improve glucose metabolism in those with diabetes, and in those who are likely to develop type 2 diabetes.

REFERENCE: BMC NUTRITION JOURNAL; 2021, VOL. 20, ARTICLE No. 91, 1598

# Development

## Nutrients protect infant and child health

### Mom's choline improves child attention

Researchers at Cornell University were curious if doubling the recommended amount of choline in the third trimester of pregnancy would improve child attention. In this study, doctors followed up with 20 children at age seven, whose mothers had taken either 480 or 930 mg of choline during the third trimester.

Overall, kids whose moms took the higher dose of choline more accurately identified low-contrast, poor-quality visual signals of very short—17-millisecond—duration. Over the course of two days of testing in repeated 12-minute sessions, kids in the high-choline group were able to maintain correct signal detection vs. the low-choline group, indicating improved

attention.

“Maternal third-trimester choline at the U.S. adequate intake (AI) level of 480 mg per day raises our concern of producing offspring with a poorer ability to sustain attention,” doctors said.

### Vitamin D boosts bone density

In this study, 184 children, aged 6 to 8, took a placebo or 800 IU of vitamin D per day for 24 weeks during an extended winter. At the start of the study, average vitamin D levels were 80.8 nanomoles per liter of blood (nmol/L), which decreased by 32.3 for placebo, and increased by 7.2 for vitamin D.

Bone mineral density at the lumbar spine and overall body increased for those taking vitamin D, but not for placebo. Doctors said the findings

support children taking 800 IU of vitamin D during winter to maintain and increase bone mineral density.

REFERENCE: THE FASEB JOURNAL; 2021, 202101217R, PUBLISHED ONLINE



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## Cranberry for UTIs

### Cranberry reduced urinary tract infections post-surgery

This study followed 64 otherwise healthy people who needed urinary catheterization after a surgical procedure. Immediately following surgery, participants took a placebo, 120 or 240 mg of cranberry extract per day, or 50 mg of the antibiotic nitrofurantoin three times per day.

Four weeks after surgery, those taking cranberry had fewer UTIs than antibiotics or placebo, and none in the cranberry group had a UTI recur in the three months after the study ended.

Antibiotics during and after surgery, including the nitrofurantoin used in the study, may introduce bacterial strains that are resistant to antibiotic treatments, potentially causing UTIs to

persist for months after surgery.

Commenting on the findings, doctors said cranberry extract was safe and well-tolerated during the study, with no adverse effects among any of the participants, and that reducing and preventing recurrent UTIs is an important step in preserving good urinary tract health post-surgery, and in lowering health care costs.

**REFERENCE:** JOURNAL OF DIETARY SUPPLEMENTS; 2021, 1972074



## 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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