



Natural Insights for Well Being®

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Mood

New field of nutritional psychiatry examines microbiome influence on cognition

Pre- and probiotics help regulate mood

A new health field of “nutritional psychiatry” is emerging as evidence that a beneficial bacterial balance in the gut “microbiome” can positively influence the brain and mood through the central nervous system. This review of seven clinical anxiety and/or depression studies included people over 18 who got one or more strains of probiotic, and/or prebiotics.

While the studies varied in length and design, all of them concluded probiotics alone or combined with prebiotics appear to measurably reduce depression, regardless of severity, and do not increase anxiety. The most common probiotics were from the lactobacillus and bifidobacterium strains.

Discussing the findings, doctors said those with anxiety or depression often have underlying metabolic conditions such as irritable bowel syndrome (IBS), and that probiotics may have a twofold benefit: directly improving anxiety/depression, and also improving such underlying conditions as IBS.

Curcumin supports memory and mood

An earlier study by these doctors found positive results for curcumin in cognition and mood. In this follow-



up study, the doctors gave 80 healthy people, average age 68, a placebo or 80 mg of curcumin per day for 12 weeks.

Beginning at four weeks, those taking curcumin had lower fatigue scores, reported less tension, anger, confusion, and total mood disturbance. At 12 weeks, the fatigue benefit continued for curcumin and, compared to placebo, curcumin users had better working memory—the ability to temporarily hold information in mind to help with reasoning and decision-making. Also at 12 weeks, those taking curcumin had significantly higher blood glucose levels, which doctors were careful to emphasize, did not approach levels that would indicate diabetes or pre-diabetes.

Discussing the findings, doctors said, “As with our previous study, bioavailable curcumin resulted in significant improvements in working memory and reductions in fatigue, and can improve mood and cognition in older, cognitively healthy people.”

REFERENCE: BMJ NUTRITION, PREVENTION & HEALTH; FEBRUARY, 2020, PUBLISHED ONLINE

OCTOBER'S

Healthy Insight Curcumin Improved Brain Injury

Healing from traumatic brain injury (TBI) takes time, with low-level, chronic inflammation in brain fatty tissue a secondary injury. In this study, doctors measured levels of leptin, a hormone secreted by fatty tissue, elevated levels of which indicate systemic inflammation. The 62 men and women with TBI, aged 18 to 65, took a placebo or 500 mg of curcuminoids plus 5 mg of piperine, per day.

After seven days, leptin levels had declined by 47.1 percent for curcuminoids compared to 22.8 percent for placebo. Doctors said TBI is not just an acute event, but a chronic disease, and that curcuminoids may reduce secondary injury from chronic brain inflammation.

REFERENCE: PHYTOTHERAPY RESEARCH; JUNE, 2020, PTR.6749, PUBLISHED ONLINE

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Performance

Blackcurrant and beetroot boost exercise results

Blackcurrant burns fat during exercise

A new pilot study demonstrates the benefits of using blackcurrant extract, over time, to burn fat while exercising. In the trial, 16 healthy, physically active men, average age 24, average body-mass index score 24.7, participated in a seven-day test followed by a 14-day test, taking no supplements, or 600 mg of blackcurrant extract containing 210 mg of anthocyanins, per day, during each test period.

The men took half the blackcurrant dose at breakfast, and the other half two hours before a mild 30-minute treadmill walking test each morning at a controlled heart rate of 102 beats per minute.

In the seven-day phase, the

blackcurrant group saw increased fat oxidation of 11 percent during the walking test. In the 14-day phase, fat oxidation increased to 17 percent during the exercise. Doctors said blackcurrant fat-burning effects increase over time.

Beetroot juice improved endurance

Increasing oxygen efficiency during exercise delays fatigue. In this study, 12 healthy men performed three sets of back squats and bench presses, at 60, 70 and 80 percent of their repetition maximum. On average compared to placebo, the men that took beetroot juice supplements two hours before the exercise completed 13.4 more back squats.

Doctors said beetroot contains

nitrate, which converts to nitric oxide in the body, a compound that helps regulate blood flow and pressure, relaxing and dilating blood vessels. Nitric oxide also improves the efficiency of muscle, enabling them to use less oxygen. Beetroot increased blood flow to the muscles, and removed more lactate (lactic acid), reducing fatigue.

REFERENCE: JOURNAL OF DIETARY SUPPLEMENTS; JUNE, 2020, 1783421, PUBLISHED ONLINE



Weight & Appetite

Astaxanthin and spirulina improve metabolism

Astaxanthin burned fat, improved performance

In this study, 12 recreationally trained male cyclists took a placebo or 12 mg of astaxanthin per day, in two alternating seven-day phases, with a 14-day break between the two. On day seven in each phase, the men completed a 25-mile endurance cycling time-trial, with researchers measuring metabolism



continuously throughout the exercise.

Compared to the placebo phases, during the astaxanthin phases, time improved by 1.2 percent, taking nearly a full minute off the results. Whole-body fat oxidation rates also increased during the exercise, peaking towards the final stages. Cyclists taking astaxanthin also produced less carbon dioxide (CO₂) per volume of oxygen they consumed, meaning they used oxygen more efficiently than those taking placebo.

Spirulina controlled appetite, weight

Obesity increases oxidative stress, which doctors tie to a higher level of immune cell-signaling proteins called macrophage inhibitory cytokine-1 (MIC-1). In this study, 56 obese participants, aged 20 to 50, took a daily

placebo or spirulina.

After 12 weeks, concentrations of MIC-1 were significantly lower in those taking spirulina, while the placebo group had not changed. Also, participants reported appetite levels, with the spirulina group consistently registering lower appetite scores than the placebo group.

Doctors also measured an important antioxidant in the body: superoxide dismutase, which increased significantly in the spirulina group compared to placebo and compared to the start of the study. Also, those taking spirulina saw significantly lower body-mass index scores, and lower body weight, both compared to the placebo group, and to these measurements at the beginning of the study.

REFERENCE: JOURNAL OF SCIENCE AND MEDICINE IN SPORT; JULY, 2020, PUBLISHED ONLINE

Coronavirus Update

Vitamin D, selenium linked to better Covid-19 outcomes

Vitamin D calms immune overreaction

When vitamin D is low, immune systems are hyperactive, according to findings from data doctors analyzed in 10 countries, after noticing differing death rates between them. Before the study, theories included variability in healthcare quality, differences in



population age distribution, lower or higher Covid-19 testing rates, or different strains of the virus.

None of these turned out to play a significant role. Instead, doctors found a strong correlation between vitamin D levels and the “cytokine storm,” a hyper-inflammatory condition caused by an overactive acquired immune system, which can severely damage lungs.

“This is what seems to kill a majority of Covid-19 patients, not the destruction of the lungs by the virus itself, but complications from a misfiring immune system.” The reason children are less likely to die, doctors said, may be a less fully developed acquired immune system, which is more likely to overreact, as the second line of defense, after the innate immune system.

Regional selenium soil levels are key

Because viral infections historically have a link to selenium deficiency, doctors wondered if Covid-19 infections might correlate with the belt of selenium-deficient soils that runs northeast to southwest in China.

In preliminary findings using data collected in February, 2020, doctors saw areas with high levels of selenium were more likely to recover from the virus. For example, Enshi, in Hubei province, has the highest selenium intake in China, and had a Covid-19 cure rate three times higher than the average city in the province.

REFERENCE: BMJ YALE; MAY, 2020, VOL. 4, 20058578, PUBLISHED ONLINE

Healthy Women

Resveratrol and fenugreek improve postmenopausal health

Resveratrol improved bone mineral density

Earlier studies found resveratrol has beneficial whole-body and cerebral circulatory effects. Doctors wondered if resveratrol could benefit bone density, as well. In this study, 125 postmenopausal women took a placebo or 75 mg of resveratrol, twice per day, in two alternating 12-month phases.

Compared to the placebo phases, resveratrol had a positive effect on density in the lumbar spine, and the femoral neck, where the femur meets the pelvis; the two most common fracture sites in postmenopausal women. At the femoral neck, the annual percentage loss of bone mineral density slowed to 0.34 from 0.96. Also, a sign of bone resorption—a factor in bone loss—declined by 7.25 percent. Overall,

resveratrol reduced chances for major and hip fracture over the next 10 years.

Fenugreek has hormone balancing effect

Fenugreek has often been used in traditional medicine. In this study, 48 menopausal women took a placebo or 250 mg of fenugreek extract, twice per day.

After two weeks, those taking fenugreek reported feeling better on questionnaires measuring mood, and on physical symptoms including leg and body pain, hot flashes, night sweats, and vaginal dryness. After 42 days, doctors saw increases in the hormones estradiol, progesterone, and free testosterone, which they believe fenugreek promoted by stimulating dehydroepiandrosterone (DHEA), an important precursor in the

body of both androgen and estrogen hormones.

Discussing the findings, doctors said during aging, DHEA declines, potentially reducing testosterone levels and impairing female sexual function. By promoting DHEA, fenugreek may lead to more balanced production of hormones in postmenopause.

REFERENCE: JOURNAL OF BONE AND MINERAL RESEARCH; JUNE, 2020, No. 4115





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Youthful Skin

Lycopene reduced skin wrinkles

Visible biologic improvements

People are beginning to realize that beauty really does come from within. In this study, 60 healthy, non-smoking white and non-white Hispanic women, aged 35 to 55, all with relatively fairer skin, took a placebo or 15 mg of lycopene per day. The women had no history of allergic reactions, did not regularly take supplements, including carotenoids; were not pregnant, lactating, on oral contraceptives, or hormone replacement therapy. Doctors supplied all the women with topical moisturizer and SPF lotion.

After 16 weeks, while there were no changes for placebo, before-and-after photo images of skin revealed a 5.6 percent reduction in wrinkle depth and

6.2 percent reduction in fine-wrinkle severity for those taking lycopene.

More of the women taking lycopene self-reported brighter looking skin compared to placebo, and eight in 10 lycopene users reported improved skin smoothness. Women taking lycopene also reported consistent improvement in skin hydration, rising from 58.1 percent at four weeks to 90.3 percent at 16 weeks.

REFERENCE: CLINICAL PHARMACOLOGY & BIOPHARMACEUTICS; 2020, Vol. 9, No. 2, 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.

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