Kids

Nutrients improved young children’s bodies and minds

Prebiotics, microbiome, and immunity

Baby-formula makers have begun adding inulin fiber to promote regularity in infants. In this study, 219 boys and girls, aged three to six, took 6 grams of inulin per day, or a placebo.

After 24 weeks, kids taking inulin had 19.9 percent higher levels of the probiotic bifidobacterium, and 7.8 percent more of the probiotic lactobacillus, in stool samples, compared to placebo. The inulin group also had softer, more normal stools beginning at 12 weeks. Also for inulin, there were fewer fevers requiring medical attention, and far fewer episodes of sinusitis.

Doctors believe inulin may work by decreasing the acidity of the gut, boosting the intestinal barrier function, and strengthening gut immune cells. “By making small adjustments to your daily choices, you can achieve significant improvements in your health status from very early on,” doctors said. “Using inulin, we can strengthen natural defense forces.”

Omega-3s and cognition

Because omega-3 fatty acids are so important to health, doctors have begun measuring total omega-3s circulating in whole blood, in an assessment called the Omega-3 Index. In this study, doctors measured omega-3s in 307 children from Ghana, aged two to six, where diets are high in carbohydrates and protein, but low in fat.

In a test of cognition, called executive function, doctors asked children to first sort a group of cards by color, then to resort them by the shapes of images on the cards. Older children performed better than younger, but children with the highest total omega-3 levels, and highest DHA levels, were three and four times, respectively, more likely to pass the test compared to kids with the lowest levels.

Discussing the findings, doctors said children with higher whole blood levels of omega-3s are more likely to have normal cognitive function and healthy brain development.

Reference: Journal of Nutrition; August 2018, Vol. 148, No. 8

Healthy Insight

Drink Coffee and Live!

Two new “umbrella” reviews of 218 coffee clinical trials, including all countries and settings, found that people who regularly drank coffee were less likely to die from all causes, including heart disease, at an average of three cups per day, compared to those who didn’t drink coffee. An umbrella review summarizes data from previous analyses.

Among the findings, those who drank coffee were also less likely to develop prostate, endometrial, skin and liver cancers, gallstones, gout, and type 2 diabetes. Discussing the results, doctors said, excluding pregnancy and women prone to bone fracture, “coffee drinking appears safe within the usual patterns of consumption.”

Reference: British Medical Journal; 2018, 360; k194, Published Online

This Issue

Nutrients protect against UV damage, improve skin elasticity
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Skin

Nutrients protect against UV light damage, improve elasticity

Astaxanthin and UV rays

Ultraviolet radiation (UVR) from the sun and other sources can damage the skin, reducing its biological barrier function. In this study, 23 healthy Japanese men and women, aged 30 to 59, took 4 mg of astaxanthin per day, or a placebo.

At the beginning of the study, doctors tested participants’ skin to determine the smallest amount of UVR that would induce reddening, yet still fully recover within 24 hours. After nine weeks, skin in the astaxanthin group could be exposed to UVR longer without reddening, compared to placebo. Those taking astaxanthin also retained more skin moisture in the area exposed to UVR. In areas not exposed to UVR, the astaxanthin group also saw improved skin texture compared to placebo.

Collagen, antioxidants, and elasticity

The skin loses collagen, elastin, and hyaluronic acid with age, creating wrinkles, sagging, discoloration, and dryness. In this study, 60 healthy men and women took a daily liquid collagen supplement, or a placebo.

After 90 days, while the placebo group had not changed, those taking the collagen supplement saw skin elasticity increase by 75 percent, and skin texture improve. Participants reported being able to see and feel improvements to the skin.

The collagen supplement also contained glucosamine, chondroitin, L-carnitine, hyaluronic acid, copper, zinc, B-complex vitamins, and vitamins C and D.

Discussing the findings, doctors said the bioactive peptides in collagen, plus other antioxidants, may help protect the skin from the effects of aging, and improve skin health.

Reference: Nutrients; 2018, Vol. 10, No. 7, 817

Circulation & Metabolics

Nutrients calm anxiety in angina, improve biometrics

Lemon balm, mood, and sleep in angina

When the heart muscle does not get enough blood—often due to narrow or blocked arteries—the chest pain that can occur is called angina. In this study, 80 men and women, aged 40 to 75, with chronic stable angina, took 3 grams of lemon balm per day, or a placebo.

After eight weeks, those taking lemon balm reported greater decreases in anxiety, stress, and symptoms of depression, compared to placebo. Sleep duration, quality, and time in bed sleeping rather than lying awake, all improved.

Doctors believe lemon balm works by reducing levels of cortisol, the “stress” hormone, and by increasing gamma-aminobutyric acid (GABA), the major nerve-signaling compound in the brain that helps prevent overstimulation and promotes calm.

Anthocyanin, insulin, lipids, and inflammation

In a review of 19 placebo-controlled clinical trials, doctors found those taking anthocyanins—the dark red, blue, purple, and black colored antioxidants in fruits and other plants—saw reduced insulin resistance and improved insulin production. When the dose of anthocyanins was greater than 300 mg per day, in trials lasting at least 12 weeks, total cholesterol levels, and levels of LDL, the “bad” cholesterol, also declined.

In a second review of 17 placebo-controlled clinical trials, those taking anthocyanin supplements saw significant reductions in triglycerides, and LDL cholesterol, as well as increases in HDL, the “good” cholesterol. Signs of inflammation, including tumor necrosis factor alpha (TNFα), interleukin-6 (IL-6), and high-sensitivity C-reactive protein (hs-CRP), also improved.

Reference: Clinical Nutrition; August 2018, Vol. 26, 47-52
**Cognition**

Polyphenols and spearmint improve memory

**Grape, blueberry polyphenols**

Doctors in this study included 215 healthy men and women, aged 60 to 70, with mild to advanced cognitive decline, excluding others with powerful recall abilities, those who consumed lots of polyphenols from fruits, tea, and dark chocolate, and those taking omega-3 supplements, all of which might improve memory. Participants took a placebo or 300 mg of polyphenol extract from grapes and blueberries, per day.

After six months, those taking polyphenols had improved their ability to recall random items from a list. Looking at participants with the most advanced cognitive decline, those in the polyphenol group were better able to recall the times, places, and emotions associated with events they had experienced.

**Spearmint**

Memory naturally declines with age. In this study, 90 men and women, aged 58 to 60, with age-related memory impairment took a placebo, or 600 mg or 900 mg of spearmint extract containing 24 percent total polyphenols.

After 90 days, compared to placebo, those taking the 900 mg dose of spearmint saw a 15 percent improvement in working memory—the ability to remember and evaluate information in order to make decisions or reach conclusions. Participants also saw a 9 percent improvement in spatial memory—the ability to remember one’s location or environment, a sort of cognitive map. The 900 mg group also reported better mood, ease of getting to sleep, and better alertness on waking.

Discussing the findings, doctors said they believe it is the antioxidant content of spearmint that may reduce cell damage in the hippocampus, the area of the brain responsible for memory.

**Reference:** *Journals of Gerontology: Biological and Medical Sciences; July 2018, Published Online*
Coffee Breakfast Smoothie

As you enjoy sipping this healthy, energizing smoothie, please see page 1 for a new review of over 200 coffee studies that found, worldwide, people who regularly drank coffee lived longer than those who didn’t drink coffee.

Prep time: 5 minutes  Total time: 5 minutes  Servings: 1

**Ingredients:**
- ½ c unsweetened almond milk or similar beverage
- ¼ c strong, chilled black coffee
- 1 ripe banana (preferably frozen)
- 4 tbsp rolled oats
- 1 tbsp chia seeds
- 1 tbsp cocoa or raw cacao powder
- 1 tbsp date syrup or 1 or 2 pitted Medjool dates
- 1 tsp vanilla extract

**Optional toppings:**
- Raw cocoa beans
- Full-fat whipped coconut milk
- Pinch of cinnamon

**Directions:** Place all ingredients except toppings in high-speed blender and blend to desired consistency. Add more almond milk if desired, and adjust for sweetness. Use any or all of the optional toppings. Enjoy!