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# Natural Insights for Well Being®

August 2018

## Eye

### Nutrients slow progression of eye disease in children and diabetics

#### Vitamin A preserved children's sight

Special cells in the retina of the eye, called cones, respond to colors in bright light. These cones can begin to fail—part of a group of eye diseases called retinitis pigmentosa (RP)—in adolescents and young adults, often leading to blindness by age 40. In this study, 80 children, average age nine, with different genetic types of RP, took age-adjusted doses of vitamin A less than or equal to 15,000 IU per day, or did not take vitamin A.

Doctors followed up four to five years later and found children taking vitamin A had nearly 50 percent slower annual loss of cone function compared to those not taking vitamin A: 6.9 percent vs. 13.2 percent. Doctors said treating RP in childhood appears to have greater benefit than in adulthood, where other studies have found only a 17 percent slower annual loss of cone function for those taking vitamin A.

#### DHA decreased macular thickness

The macula is an area in the center of the retina of the eye responsible for sharp, straight-ahead vision. Chronic high blood sugar levels in diabetes can damage blood vessels near the retina,



allowing fluid to build up in the macula (macular edema), distorting vision.

In this study, 55 people with diabetic macular edema took 0.5 mg of ranibizumab, a medication that stops fluid leakage in the eye, once per month for the first four months, then as needed. About half the group took 1,050 mg of the omega-3 DHA per day during this time.

After three years, those taking DHA had an average 11 percent greater decrease in macular thickness, to 275 micrometers compared to 310. The DHA group also had greater improvements in visual acuity, lower long-term average blood sugar levels, higher total antioxidant capacity, and fewer signs of chronic inflammation.

REFERENCE: JAMA OPHTHALMOLOGY; MARCH, 2018, PUBLISHED ONLINE

AUGUST'S

## Healthy Insight Plant Protein Protects Heart

New research suggests, in addition to the type and amount of fats we eat, the types of protein we consume most often can influence chances of dying from heart and circulatory factors. In this study, doctors measured the diets of 81,337 men and women and followed up for 9.4 years. Compared to those who consumed the least protein from meat, those who got the most meat protein were 61 percent more likely to die from heart and circulatory factors, while those who got the most nut and seed protein were 40 percent less likely to die compared to those who got the least nut and seed protein. Protein as well as fat plays a role in heart and circulatory health.

REFERENCE: INTERNATIONAL JOURNAL OF EPIDEMIOLOGY; APRIL, 2018, PUBLISHED ONLINE

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# Sports Advantage

## Nutrients may prevent injury, speed recovery

### Vitamin D in the NFL

Low levels of vitamin D cause muscles to atrophy and impair the ability to contract properly. In this study during the 2015 National Football League season, doctors studied 214 skilled position athletes, 78 percent of whom were African American. Vitamin D levels in the African American players averaged 29.5 nanograms per milliliter of blood (ng/mL) compared to white players at 34.0 ng/mL.

During the season, 11 of the 13 players that missed a game due to injury had low vitamin D levels. Players with vitamin D levels below 32 ng/mL were 86 percent more likely than players with at least 32 ng/mL to have a lower extremity strain or core muscle injury, and were also three times as likely to pull a hamstring muscle.

Doctors said regularly screening levels and supplementing with vitamin D could help prevent injury not only in professional athletes, but in the general population, 40 percent of which may be deficient in vitamin D.

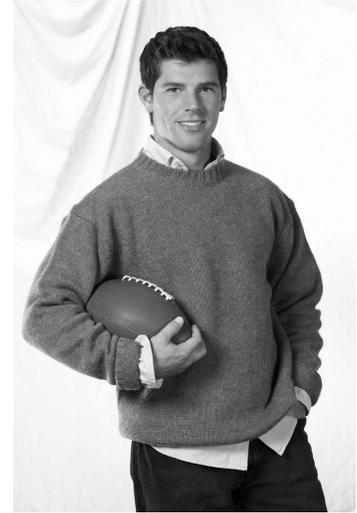
oxygenation and less demand for blood to the brain, and cycled 16 percent longer than those in the low-protein group.

**REFERENCE:** ARTHROSCOPY JOURNAL; APRIL, 2018, VOL. 34, 1280-5

### Whey protein speeds recovery

During high-intensity exercise, the brain competes with the body for oxygen, reducing performance. In this study, 15 Division I collegiate basketball players consumed whey protein as 36 percent of total calories or 12 percent of total calories, in a carbohydrate-based drink right after a one-hour intense cycling challenge.

After resting for two hours, they repeated the exercise at a slightly higher intensity until exhausted. Those in the high-protein group had better brain



# Moms and Babies

## Mothers' omega-3s boost babies' health

### Higher fat-free mass

Mothers of 154 children in this study took 600 mg of the omega-3 DHA per day while pregnant, or a placebo. At age five, children whose mothers had taken DHA had an average

of 1.3 pounds more fat-free body mass compared to children whose mothers were in the placebo group. The fat-free body mass benefit was the same regardless of the diets of the women or the children.

Discussing the findings, doctors said DHA levels can increase in the fetus when mothers supplement with DHA, and can increase in the infant from mothers' milk as she breast feeds. Doctors also said the finding that, nearly six years later, children's physical characteristics can benefit from mothers' supplementing with DHA is profound.

pregnant.

Overall, compared to children of mothers who had not taken omega-3s, pre-term and full-term children of mothers who supplemented with omega-3s had better visual acuity. Pre-term infants whose mothers had taken omega-3s also had better mental development than pre-term infants whose mothers had taken a placebo. The benefits were the same regardless of world region, race, mothers' education, the length of time taking omega-3 supplements, or the doses of DHA or EPA.

Discussing the results, doctors said the findings make up the most complete body of evidence of the potential benefits of mothers' omega-3 fatty acid supplementation on the mental development of their children.

**REFERENCE:** AMERICAN JOURNAL OF CLINICAL NUTRITION; 2018, VOL. 107, No. 1, 35-42



### Better mental and visual function

This large review of 38 clinical trials covered 5,541 mothers who took omega-3 supplements or a placebo while

# Circulation

## Nutrients may reverse heart and blood vessel aging, reduce damage

### Nicotinamide riboside B3

Restricting calories helps keep blood vessels flexible and lowers blood pressure in overweight and obese adults, but may not be safe for normal-weight older adults. Because stiffening arteries



and high blood pressure lead to the most common age-related causes of death, doctors wanted to find a safe alternative to restricting calories.

In this study, 24 lean, healthy men and women, aged 55 to 79, took 500 mg of nicotinamide riboside—a form of vitamin B3—twice per day, or a placebo. After six weeks, while the placebo group had not changed, those in the vitamin B3 group had higher levels of enzymes—called sirtuins—that mimic the effects of calorie restriction. Sirtuins decline with age.

Within the vitamin B3 group, those with stage-1 hypertension (120-139/80-89 mmHg) saw systolic blood pressure decline by nearly 10 points. Doctors said a drop of this size could lower chances of an adverse heart event by 25 percent.

### Red yeast rice, plant sterols, curcumin, and polyphenols

Few studies measure the effects of nutrients on lipids after a meal. In this trial, 80 adults who were overweight but not likely to have heart or circulatory problems cut 600 calories per day from their diets for one month, then took a daily placebo or 166 mg red yeast rice, 720 mg plant sterol esters, 45 mg curcuminoids, 25 mg olive polyphenols, and no other supplements.

While taking the nutrients, triglycerides, total and LDL cholesterol levels were lower than placebo, and lower than the start of the study. And after a high-fat meal, there were fewer signs of blood vessel damage.

REFERENCE: NATURE; MARCH, 2018, S41467, PUBLISHED ONLINE

AUGUST'S

## Ahead of the Curve

### Early-Stage Discoveries: Fish Protein, Broccoli, Beets

Good results in the lab can lead to larger human trials. Here are some of the most promising recent findings.

#### Fish protein reduces plaques

Certain plaques, called alpha-synuclein, that accumulate in the brain, have a direct link to Parkinson's disease. In the lab, doctors demonstrated that a protein in fish, called parvalbumin, collects these Parkinson's plaques and prevents them from accumulating in brain tissue.

Diets rich in omega-3s from fish oil provide a cognitive benefit, but the reasons why aren't clear. Doctors said those who follow a Mediterranean diet, with more fish, also tend to have lower rates of Parkinson's and Alzheimer's diseases, and that parvalbumin fish protein may be one of the main reasons for this cognitive benefit.

#### Broccoli and the gut barrier

A weak intestinal wall can trigger inflammation. In the lab, mice with intestinal inflammation (colitis) ate their regular diet with or without broccoli. After 24 days, the broccoli group had fewer inflammatory symptoms compared to the non-broccoli group.

Doctors said there is a key receptor in the gut called Aryl hydrocarbon receptor (AHR), that helps respond to environmental contaminants and toxins. Broccoli and other cruciferous vegetables contain a compound that activates AHR in the intestinal lining, boosting gut balance, immune response, and intestinal wall barrier function. Doctors said this broccoli compound may help prevent Crohn's disease.

#### Beets and Alzheimer's

Doctors don't know what causes Alzheimer's disease, but suspect a protein, beta-amyloid, binds with metals such as copper or iron, forming clumps that promote oxidation and inflammation.

In the lab, doctors added a beet extract compound, called betanin, to a copper-bound beta-amyloid clump, and found that oxidation dropped by as much as 90 percent.

Discussing the findings, doctors said that by reducing oxidation, betanin could prevent or slow the clumping of beta-amyloid peptides, which they believe could be the ultimate cause of Alzheimer's disease.

REFERENCE: SCIENTIFIC REPORTS 8; APRIL, 2018, ARTICLE No. 5465

# Shop Local

Shifting just 10% of your shopping to locally-owned businesses adds

**\$128 million a year**  
to our local Tri-Cities economy.

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For every \$100 you spend at a national chain, the total local economic impact is only \$13, yet the same amount spent with local merchants yields \$45.

That's more than **3 times** the impact.

When you shop online ALL the money you spend is taken from our LOCAL economy.

A marketplace of more locally-owned businesses ensures greater innovation, competition and diversity in products and services.

Natural Foods Market has been locally-owned for more than 30 years.

## Nutty Seed & Fruit Bars

These nut-and-fruit bars are so delicious, you may want to make a double batch! Please see page 1 for a new study that found those who got the most nut and seed proteins were much less likely to die from heart and circulatory problems.

### Ingredients:

1 c chopped raw nuts (almonds, hazelnuts, pecans, walnuts)	1½ c organic dried fruit (cherries, cranberries, figs, raisins)
1 c organic rolled oats	½ c shredded, unsweetened coconut
¼ tsp kosher or sea salt	½ c organic raw seeds (pumpkin, sesame, sunflower)
½ c honey or maple syrup	Non-stick coconut or avocado spray

**Directions:** Preheat oven to 425 degrees. Spread nuts and oats on a baking sheet and toast for about 7 minutes. Remove and reduce oven to 350 degrees. Transfer to food processor, adding sweetener and salt. Lightly pulse to chop and combine. Add fruit, coconut, and seeds. Pulse gently to combine. Line 9"x14" baking sheet with foil and coat with food spray. Firmly press mixture into pan until level. Bake 20 minutes. Allow to cool before cutting into squares. Store in airtight container with wax paper between layers.

## 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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