Diets of Hope
Antioxidants and anti-inflammatory diets reduce chances for prostate, breast, and other cancers

Antioxidant levels
“Men with prostate cancer often have low levels of dietary antioxidants and increased lipid peroxidation,” doctors said. In this study, researchers measured total antioxidant capacity (TAC)—including from diet and supplements—and how aggressive prostate cancer was in 855 Black Americans and 945 White Americans with low, intermediate, or highly aggressive prostate cancer.

Doctors found a direct link: the lower the TAC level, the more aggressive the prostate cancer, with no significant differences between Black and White men. On average overall, men with the highest TAC levels were 69 percent less likely to have developed highly aggressive prostate cancer compared to those with the lowest total antioxidant capacity from diet and supplements.

Anti-inflammatory diets
Chronic inflammation is a factor in developing cancer, and diets can promote or discourage inflammation. To measure the inflammatory tendencies of different diets, doctors have developed the Dietary Inflammatory Index (DII), using 36 food variables. Anti-inflammatory foods include fruits, vegetables, omega-3, and fiber, while pro-inflammatory foods include omega-6, refined sugars, and highly processed foods, among others.

In this study, 6,542 healthy-weight to overweight men and women, average age 49, completed at least six dietary surveys during the first two years, with doctors following up for an average of 10 more years. Overall, doctors found a link between pro-inflammatory diets and greater chances of developing prostate cancer, but no link to other cancers. When doctors viewed the DII by levels of alcohol in the diet, while there was no cancer link in higher consumers of alcohol with pro-inflammatory diets, those with pro-inflammatory diets who consumed low to moderate amounts of alcohol were more likely to develop any type of cancer or breast cancer.

Elderberry Reduces Colds from Flying Overseas
Flying long distances stresses the immune system, raising chances for respiratory infection. In this study, 312 overseas economy class flyers took a placebo or 600 mg of elderberry capsules per day beginning 10 days before the flight, and 900 mg of elderberry per day two days before the flight through four days afterward. On average, compared to placebo, the elderberry group had 29 percent fewer colds and 38 percent fewer symptoms, with colds lasting two fewer days.

Reference: Nutrients; March, 2016, Vol. 8, No. 4, Published Online
Better Brain

Nutrients improved cognition, memory, and attention

Vitamin K and cognition

A new discovery links vitamin K with the protective sheaths and membranes around neurons; the nerve cells that process and transmit signals in the brain and body. Earlier studies found vitamin K supports memory, and cognition can decline when drugs deplete vitamin K, leading doctors to test for a link between vitamin K and cognition in older adults.

In this study, doctors measured vitamin K in the diets of 192 people, aged at least 65, and compared cognitive performance between those who got the least vitamin K to those who got more. People with higher levels of vitamin K performed better on tests of memory, attention, math, and language, and scored higher on behavioral measures including self-control, mood, and desire to engage in everyday activities.

Discussing the findings, doctors said vitamin K may play a role in preventing dementia, and that ensuring adequate vitamin K in the diet may improve cognition and behavior in older adults.

Bacopa monnieri, memory, and attention

Ayurvedic doctors have long used bacopa monnieri for neurological and behavioral problems. In this analysis, doctors reviewed nine placebo-controlled studies covering 437 participants who took a standardized extract of bacopa monnieri for at least 12 weeks.

Overall, compared to placebo, those taking bacopa monnieri had better visual attention, were more mentally flexible, and were able to switch tasks, and scan, search, and process visual information more quickly. On a test of reaction times, the bacopa monnieri groups were able to choose more quickly between multiple options, indicating they were generally more alert and had better speed and control of body movements.

Reference: Nutrients; August, 2015, Vol. 7, No. 8, 6739-50

Hope for PCOS

Nutrients improve symptoms in polycystic ovary syndrome

What is PCOS?

Polycystic ovary syndrome (PCOS) is a common endocrine disorder in women of child-bearing age, with symptoms including irregular periods, elevated male hormone levels, and enlarged ovaries. Untreated, the syndrome can lead to type 2 diabetes and other health problems.

Folic acid reduced inflammation

In this study, 69 women with PCOS, age 18 to 40, took a placebo, 1 mg of folate (folic acid) per day, or 5 mg of folate per day, for eight weeks. The doses were several times the U.S. recommended dietary allowance (RDA) for folate.

Doctors measured inflammation levels and signs of oxidative stress before and after the study. Women taking the 5 mg dose of folate saw significant decreases in inflammation including lower levels of homocysteine and C-reactive protein. The women in the 5 mg folate group also had a better ability to regulate and use insulin, and a significant increase in total antioxidant capacity, suggesting less oxidative stress.

Reference: Clinical Endocrinology; December, 2015, Published Online

Carnitine, glucose control, and weight loss

In this study, 60 overweight women with PCOS took 250 mg of carnitine per day or a placebo. After 12 weeks, while the placebo group had not improved or had deteriorated, women taking carnitine saw a 7.3 percent decrease in fasting blood sugar levels, and a 21.9 percent decrease in insulin levels.

Women in the carnitine group also lost an average of six pounds, or about 4 percent of body weight, saw a similar decline in body mass index scores, had nearly a one-inch decrease in waist size, and a 2.5 percent decrease in measurement around the hips.

Reference: Clinical Endocrinology; December, 2015, Published Online
Diabetes Update
Nutrients improve circulation, blood sugar, and lipids in type 2 diabetes

Krill oil, circulation, and cholesterol
In this two-part study, doctors wanted to test the effects of krill oil omega-3 on circulation and cholesterol. In part one, 47 men and women with type 2 diabetes, average age 65, took a placebo or 1,000 mg of krill oil omega-3s per day for four weeks. About three in four participants also had high blood pressure or imbalanced lipids.

After four weeks, while the placebo group had not changed, circulation had improved in the krill oil group, which saw an increase in the ability of blood vessels to relax and dilate.

A smaller group of 34 continued in the second part of the study, taking krill oil for 17 more weeks. HDL, the good cholesterol, increased on average to 49.09 milligrams per deciliter (mg/dL) of blood from 43.48 mg/dL. HDL protects against circulatory diseases, particularly at levels above 60 mg/dL.

Probiotics, blood sugar, and lipids
Doctors know the body needs a balance of microbes for good health. Those with type 2 diabetes usually have a microbial imbalance, called “dysbiosis.” In this study, 43 men and women with type 2 diabetes for at least one year took 120 grams of fermented milk per day, alone as a placebo or with the probiotics lactobacillus acidophilus La-5 and bifidobacterium animalis.

After six weeks, long-term average blood sugar, and total and LDL cholesterols had declined for the probiotics group while increasing for placebo. Measures of inflammation and insulin sensitivity improved in both groups, which doctors attributed to beneficial sugars and proteins in fermented milk.

Reference: BMJ Open Diabetes Research and Care; 2015, Vol. 3, e000107, Published Online

Healthy Heart
Nutrients protect against heart and circulatory diseases

Magnesium and artery calcification
Calcium can build up on artery walls, raising chances for heart disease, high blood pressure, and type 2 diabetes. Earlier studies found a link between low levels of magnesium and calcium buildup in coronary arteries in those with chronic kidney disease, but doctors wanted to know more about magnesium and calcium buildup in healthy people.

In this study, doctors measured magnesium levels in 1,276 men and women who were free from symptoms of cardiovascular disease. Compared to those with the lowest levels, those with the highest circulating levels of magnesium were 48 percent less likely to have high blood pressure, 69 percent less likely to have type 2 diabetes, and 42 percent less likely to have calcium buildup in coronary arteries.

Vitamin B12, omega-3, and inflammation
Chronic inflammation is a factor in heart and circulatory diseases. In this study, 30 healthy men and women, aged 23 to 25, took 1,000 mg of vitamin B12 alone, 490 mg of DHA plus 98 mg of EPA alone, or the vitamin B12 and omega-3s together.

After eight weeks, all three groups saw a decrease in two important inflammatory factors—homocysteine and C-reactive protein—with those taking the combination of vitamin B12 and omega-3s seeing the most benefit.

Doctors said these two inflammatory factors are important; homocysteine because high levels can be an early signal of heart and circulatory disease, and C-reactive protein because elevated levels are a sign of systemic inflammation. Doctors concluded that vitamin B12 and omega-3s reduce inflammation in healthy young people.

Reference: Nutrition Journal; 2016, Vol. 15, No. 22, Published Online
Recover Faster After Exercise

Curcumin reduced inflammation after exercise

**Less muscle damage**

Serious and recreational athletes use resistance training to increase lean muscle mass in the hope of improving athletic performance over the long term. But the immediate effects one or two days after a weight-resistance workout can be muscle soreness that limits performance and further training. To counter these effects, athletes often use non-steroidal anti-inflammatory drugs, or NSAIDs, but these have serious side effects for some.

In this study, 28 people began taking a placebo or 400 mg of bioavailable curcumin per day, two days before through four days after an intense leg-press exercise designed to induce muscle damage. Both groups saw an increase in creatine kinase (CK), an enzyme that rises with muscle damage, but the curcumin group had 45 percent lower levels of CK compared to placebo.

Two signs of inflammation were also lower for curcumin compared to placebo, which doctors said may translate to faster muscle recovery and improved athletic performance sooner.

**Reference:** Biochimica et Biophysica Acta; June, 2016, Vol. 5, 72-8