
Our December 2007 Newsletter for Healthy Living

Good mood

Omega-3 fatty acids and s-adenosyl-l-methionine (SAME) reduced symptoms in depressed people who were taking—but not fully responding to—standard antidepressants, according to several new studies.

In a review of 30 clinical trials on omega-3 fatty acids in those with depression, researchers concluded that docosahexaenoic acid (DHA) has a more complex role in nerve-cell health than doctors had known. Among the findings: In a four-month trial of 30 participants aged 18 to 65 with bipolar disorder who were taking standard antidepressants, **those who also took a 9,600 mg combination of DHA plus eicosapentaenoic acid (EPA) per day had significantly fewer episodes of severe mania and depression** compared to placebo. In a 12-week trial, 70 participants with persistent depression took a placebo, 1,000

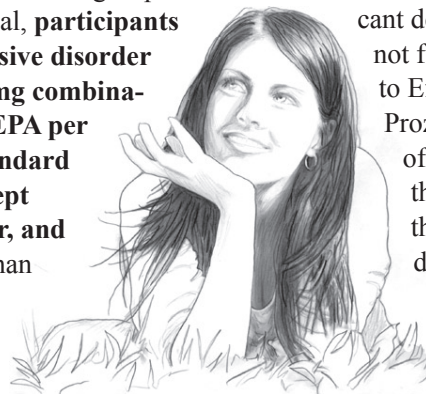
mg, 2,000 mg, or 4,000 mg of EPA per day while continuing antidepressants. In the 1,000 mg EPA group, 69% reported depression symptoms decreased by at least 50% compared to 25% of those who took placebo. There were no significant improvements in the other two EPA groups. In an eight-week trial, **participants with major depressive disorder who took a 3,300 mg combination of DHA plus EPA per day along with standard antidepressants slept better, were calmer, and had better mood** than placebo.

In another DHA study, researchers examined the part of the brain responsible for personality (orbitofrontal cortex) in 15 deceased people who had been clinically diagnosed with major depressive disorder, and found that,

after adjusting for lifestyle and other factors, DHA was the only fatty acid that was significantly lower—22% less on average—compared to 27 non-depressed deceased persons of matching ages.

In a six-week study on SAME, 30 participants with significant depression who had not fully responded to Effexor, Paxil, or Prozac®, added 800 mg of SAME per day for the first two weeks, then 1,600 mg per day for the next four weeks. **Half of all participants reported significantly fewer symptoms, including 43% whose depression symptoms subsided completely** (remission).

Reference: *Asia Pacific Journal of Clinical Nutrition*: 2007; Supplement 16, 391-7.



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News & Research This Issue

- **Omega-3** and **SAME** reduced symptoms of **depression**.
 - **DHA** lowered the risk for **Alzheimer's disease** and **dementia**.
 - **Calcium** cut the risk of **colon cancer** in **older adults**.
 - Prenatal **multivitamins** lowered risk for certain **cancers**.
 - **Omega-3** and **CoQ10** aided those on **statins**.
 - **Selenium** kept **HIV** from progressing.
 - **Zinc** reduced **deaths** in **young children**.
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Masterminds

Docosahexaenoic acid (DHA) reduced risk for Alzheimer's disease (AD) and mental decline (dementia), and older adults with adequate levels of vitamin D had better mental abilities than those with lower levels, in three new studies.

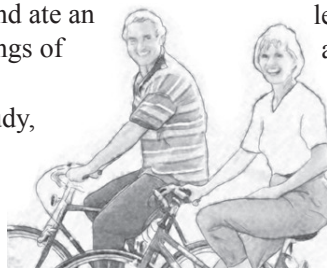
Researchers conducting the Framingham Heart Study followed 899 men and women, median age 76, for 9.1 years after first measuring blood plasma levels of DHA to determine risk for AD and dementia. At the end of the study, there were 99 new cases of dementia, including 71 cases of AD, which is the most common type. Scientists adjusted for other factors including age, sex, education, genetic defect (Apolipoprotein E *epsilon*-4 Allele), and inflammation (homocysteine),

and found that, compared to those with lower DHA levels, those with the highest DHA levels—the top 25% of the group—were 47% less likely to develop any type of dementia, and were 39% less likely to develop AD. Doctors noted that those with the highest DHA levels consumed an average of 180 mg of DHA per day and ate an average of three servings of fish per week.

In a vitamin D study, researchers reviewed the medical charts of 32 older adults who had reported memory problems and who had taken the Mini Mental State Examination (MMSE), which tests attention, recall, and the ability to follow verbal and written com-

mands. Those with higher blood serum vitamin D levels had better MMSE scores than did those with lower vitamin D levels.

In another vitamin D study, researchers recruited 80 older adults, 40 of whom had mild AD and 40 of whom were mentally healthy, and found that average vitamin D levels were low, and were abnormally low (below 20 ng/mL) in 58% of participants. Compared to those with adequate levels of vitamin D, those with low vitamin D levels were more likely to be depressed and to perform mental functions poorly, with or without AD.

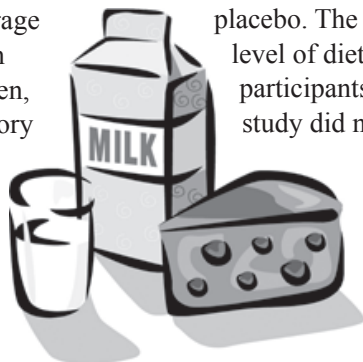


Reference: *Archives of Biochemistry & Biophysics*: April 15, 2007; Vol. 460, No. 2, 202-5.

Calcium and colon cancer

Older adults who took calcium were less likely to develop colon cancer than were those who did not take calcium, according to findings from two new studies.

Researchers from Dartmouth Hitchcock Medical Center, Lebanon, New Hampshire, recruited 930 older adults, average age 61, 72% of whom were men, 28% women, who had a recent history of pre-cancerous growths in the colon known as colorectal adenoma. Participants took 3,000 mg of calcium carbonate containing 1,200 mg of elemental calcium per day, or a placebo, for four years. Researchers gave each participant a colonoscopy exam to



qualify for the study, and repeated the exam after the first and fourth years. Doctors adjusted for risk factors including age, sex, and lifetime number of adenomas, and found that, in 832 participants who completed the study, those who took calcium were 24% less likely to redevelop adenomas compared to placebo. The scientists noted that the level of dietary fats and calcium participants consumed prior to the study did not affect results.

In a second phase of the study, researchers continued to follow 822 participants for an average of seven years after the treatment/placebo period had ended, recording the medications, vitamins, and supplements each participant took. Doctors reported that during the first five years

after the study, those who had been in the calcium group were 37% less likely to develop any kind of adenoma compared to placebo, and that the calcium group was also 15% less likely to develop advanced (more serious) adenomas than placebo—a positive finding but one the researchers said was, “not statistically significant.” The scientists noted that, in the five-year follow up period, the risk of developing adenomas in the calcium group was the same for those who continued to take calcium as for those who stopped taking calcium, and concluded that calcium protects against recurring colorectal adenomas up to five years after active treatment, even when participants stop taking calcium.

Reference: *Journal of the National Cancer Institute*: 2007; Vol. 99, No. 2, 129-36.

Moms and multivitamins

Children whose mothers took prenatal multivitamins had lower risk for several types of cancers, according to findings from a new study, the first of its kind.

Researchers from the Department of Pharmaceutical Sciences, University of Toronto, Ontario, Canada, searched for studies published in all languages between January, 1960 and July, 2005, on prenatal multivitamins and childhood (pediatric) cancers. Two independent medical reviewers separately evaluated whether or not to include each study according to certain criteria, such as prenatal multivitamins and



pediatric cancers, but did not know the outcomes of the studies, the names of the study authors, or institutions. The reviewers identified 61 studies worldwide, seven of which met the criteria.

The researchers first estimated the rates of cancers in women who took multivitamins compared to those who did not take supplements to adjust for family history of cancer and found that—compared to children whose mothers had not taken supplements—**children born to women who had taken multivitamins were 27% less likely to have pediatric brain tumors, 39% less likely to have leukemia, and 47%**

less likely to have nervous-system cancer (neuroblastoma).

In describing the reasons for the study, doctors noted there is abundant evidence that folic acid reduces risk for several birth defects, and recent evidence that folic acid may protect against certain pediatric cancers, but that scientists have not explored the role of prenatal vitamins in protecting against pediatric cancers. The researchers concluded that **prenatal multivitamins decrease risk for pediatric brain tumors, leukemia, and neuroblastoma**, although doctors have yet to identify the particular nutrients responsible for these beneficial effects.

Reference: *Clinical Pharmacology & Therapeutics*; May, 2007; Vol. 81, No. 5, 685-91.

Help for hearts

Omega-3 fatty acids cut fatal heart attacks, reduced pain, and improved heart and blood vessel function in those with very high cholesterol and heart failure, and coenzyme Q10 (CoQ10) reduced side-effect muscle pain from statin drugs in those with high cholesterol, according to results from three new studies.

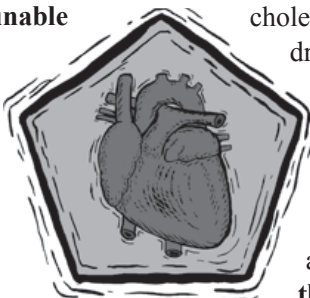
In an omega-3 study, researchers recruited 18,645 Japanese participants who ate a large amount of fish but who were at risk for heart disease because of very high cholesterol levels, over 252 mg/dL. Participants took 1,800 mg of eicosapentaenoic acid (EPA) per day plus statin drugs, or a placebo with statin drugs, for five years. After an average follow up period of 4.6 years, researchers found that, compared to placebo, **those who had**

taken EPA were 19% less likely to have had a major coronary event including sudden cardiac death, fatal and non-fatal heart attack, unstable chest pain (angina pectoris), and vascular surgery including angioplasty, bypass, or stent.

In another **omega-3** study, researchers recruited 24 men and one woman, average age 60, whose **hearts were unable to fill with or pump enough blood** (heart failure), and who had had a heart attack. Participants were keeping the heart failure stable with drugs including beta-blockers, angiotensin-converting enzyme inhibitors, and diuretics, and 23 of the 25 participants were also taking statin drugs. Researchers randomly assigned a 2,000 mg com-

bination of docosahexaenoic acid (DHA) plus EPA—minimum 85% DHA/EPA content—or a placebo, for four months, and found that those who had taken omega-3s had significantly improved heart function (heart rate variability) and blood pressure (baroreceptor regulation).

In a **CoQ10** study, researchers recruited 32 participants with high cholesterol who were taking statin drugs and who had reported a side effect of muscle pain (myopathy). Doctors assigned 100 mg of CoQ10 per day, or a placebo of 400 IU of vitamin E per day, and found that, after 30 days, **those who had taken CoQ10 reported 40% less severe pain and 38% better ability to perform daily activities.**



Reference: *The Lancet*; 2007; Vol. 369, No. 9567, 1090-8.

Stabilizing HIV

Selenium kept human immunodeficiency virus type 1 (HIV-1) from progressing, and increased the number of special immune-defense cells (CD4) in HIV-1-positive men and women in early results from an ongoing 18-month study. Researchers recruited 174 participants who took 200 mcg of high selenium yeast per day, or a placebo, for nine months. **In those who took selenium consistently, HIV-1 levels remained stable and CD4 levels increased.** In those who did not take selenium consistently, HIV-1 levels rose and CD4 levels decreased at the same rates as in the placebo group. There were no related adverse events. Researchers adjusted for risk factors including age, ethnicity, sex, income, education, drug use, hepatitis C, and other variables, and concluded that a daily selenium supplement can keep HIV-1 from progressing, can increase CD4 levels, and is a safe, simple, and inexpensive complementary therapy in HIV-1.



Reference: *Archives of Internal Medicine*: 2007; Vol. 167, No. 2, 148-54.

This Month's **HEALTHY Tip**

Zinc supplements reduced deaths in young children, according to a new study. Researchers from the Department of International Health, Johns Hopkins University, Baltimore, Maryland, enrolled 42,546 children living in Pemba, Zanzibar, Africa, aged one to 36 months. Doctors randomly gave a placebo or 10 mg of zinc per day to children at least 12 months old, and a placebo or 5 mg of zinc per day to children younger than 12 months, along with age-adjusted amounts of iron and folic acid for all participants, for an average of 485 days. Researchers found that **children at least 12 months old who had taken zinc were 18% less likely to have died from any cause compared to children who had not taken zinc.**



Reference: *The Lancet*: 2007; Vol. 369, No. 9565, 927-34.

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