

INTERNATIONAL HEALTH NEWS

Your Gateway to Better Health!

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8th YEAR



Editorial

Welcome to the Spring - or Fall issue if you are downunder! It seems that our immune system is particularly vulnerable at this time of the year so it is a good idea to make an extra effort to keep it in top form. Exercise, a good multivitamin, extra antioxidants, and plenty of rest can go a long way towards achieving this goal. However, there is now increasing evidence that your intake of essential fatty acids notably linoleic acid and alpha-linolenic acid also can have a marked effect. In this issue we report that people who rely on maize (corn) as a main source of their diet tend to have impaired immune function. Dr. Alastair Sammon of the University of Bristol believes this is because corn contains a high level of linoleic acid and very little alpha-linolenic acid. Alpha-linolenic acid has been found to prevent heart attacks and to markedly reduce the risk of breast cancer spreading to other organs. It also counteracts the bad effects of linoleic acid. Dr. Alexander Leaf, MD of the Harvard Medical School advocates less linoleic and more linolenic acid in the diet. Therefore, a tablespoon daily of fresh, organic, cold-pressed flax seed oil is a good idea.

*In addition, there is now further evidence that **natural** vitamin E is far more effective than the synthetic version, that calcium helps protect against heart disease, that the use of sunscreens may promote melanoma, and that cancer may be linked to chronic depression. Read all about it in this issue!*

*Yours in health,
Hans R. Larsen, Editor*

April Highlights

Folic acid supplementation	p. 2
Vitamin E protects against cataracts	p. 3
Lower your cholesterol naturally	p. 4
Natural vitamin E is best	p. 4
Do sunscreens promote melanoma?	p. 5
Linoleic acid and the immune system	p. 6
Arsenic cures leukemia	p. 7
Cancer linked to chronic depression	p. 8
Newsbriefs	p. 9
Book Review	p. 9

LETTERS TO THE EDITOR

I read your article about herb/drug interactions which indicated that borage oil is contraindicated in people taking anticonvulsants. I am taking Dilantin, Lamictal, and Frisium and have been

taking two tablespoons of Essential Balance Oil from Omega Nutrition daily which contains borage oil. Could you please be more specific about the adverse effects of borage oil and anticonvulsants?

Mark S., USA

Editor: *My abstract was based on a paper by Dr. Lucinda G. Miller of the Texas Tech University Health Sciences Center (1300 Coulter, Amarillo, TX 79121). Dr. Miller quotes evidence that borage oil and evening primrose oil lower the threshold for epileptic seizures. She recommends that neither supplement be taken with anticonvulsant drugs such as phenobarbital and phenytoin (Dilantin). She does not give any specific information concerning a possible interaction between*

borage and evening primrose oils and Lamictal (phenyltriazine) or Frisium (1,5 benzodiazepine). You may want to contact Dr. Miller directly about this.

Enjoyed your article on CoQ10/ubiquinone supplementation. One part of the article talks about how topical CoQ10 application (with soya oil) can decrease the size of periodontal pockets. It cites 8 or so studies. Would you happen to know which of those studies specifically talks about the benefits of topical CoQ10 application on gum tissues?

Tara S., USA

Editor: *I am glad you found my article on coenzyme Q10 to be of interest. Topical application of CoQ10 to periodontal pockets is described in some detail in reference 2 (Littarru et al.), but the main paper on the subject is reference 34 (Hanioka et al.). The use of CoQ10 topically is relatively new. Most of the research (since 1971) has been done on oral supplementation. Several studies have shown that as little as 30 mg CoQ10 taken twice daily*

after meals will effectively cure adult periodontitis in most cases.

I am looking for research on cellular phone use and loss of memory.

Cathy C., Israel

Editor: *I have not seen any specific research on cellular phone use and loss of memory. However, researchers at the Heart Disease Research Foundation in New York have found that exposure to electromagnetic fields from computers and cellular phones decreases the body's level of acetylcholine significantly. A low level of this important neurotransmitter has been linked to Alzheimer's disease so it is not inconceivable that prolonged use of a cellular phone may induce memory loss. The electromagnetic radiation from cellular phones could also increase the level of free radicals in the brain which again may accelerate neuron death. German researchers recently found that the fields from a cellular phone significantly affects the performance of certain brain regions.*

ABSTRACTS

Low-dose folic acid supplementation is effective

NIJMEGEN, NETHERLANDS. An elevated level of homocysteine is a risk factor for cardiovascular disease, stroke, and Alzheimer's disease and also increases the risk of a pregnant woman giving birth to a baby with neural tube defects. Supplementation with folic acid is known to lower homocysteine levels, but it is not known exactly how much is required and how long it takes to become effective. Researchers at the Nijmegen University Hospital have just completed a study aimed at answering these questions. The trial involved 144 healthy women (with normal homocysteine levels) between the ages of 18 and 40 years. The women were randomly allocated to one of three groups. Group 1 received 500 micrograms of folic acid daily for a four-week period, group 2 received 500 micrograms every second day

(250 micrograms/day), and group 3 received a placebo. Blood samples were taken at the start of the trial and after one, two and four weeks when the supplementation phase ended. Samples were also taken four and eight weeks after the end of the supplementation to see how long its effect would last. Supplementation with both 500 micrograms/day and 500 micrograms every second day was found to be effective. Homocysteine levels decreased by an average 22 per cent in the women taking 500 micrograms/day and by 11 per cent in the ones taking 500 micrograms every second day. The level of folate in plasma and red blood cells also increased significantly. The homocysteine levels increased again when supplementation was stopped, but were still well below original levels eight weeks later. The major part of the

drop in homocysteine level in the 500 micrograms/day group took place within the first two weeks. In view of the fact that neural tube defects develop in the third or fourth week of pregnancy it may be worthwhile to start taking folic acid immediately after missing the first period; although, of course, it would be better to start four weeks before a planned pregnancy. The magnitude of the observed drop in homocysteine concentration upon supplementation was found to be highly

dependent on the initial level. Women with high levels (14.3 micromol/L) experienced a drop of around 4 micromol/L while women with lower initial levels only experienced drops of about 1 micromol/L.

Brouwer, Ingeborg A., et al. Low-dose folic acid supplementation decreases plasma homocysteine concentrations: a randomized trial. American Journal of Clinical Nutrition, Vol. 69, January 1999, pp. 99-104

Lettuce helps prevent hip fractures

BOSTON, MASSACHUSETTS. Vitamin K is involved in the synthesis of several blood coagulation factors and also plays a role in bone formation. There is some evidence that low blood levels of vitamin K are associated with low bone mineral density and an increased risk of hip fractures. Now researchers at the Harvard Medical School report that women whose diet is rich in vitamin K containing foods (lettuce, broccoli, spinach, brussel spouts, and kale) have a much lower incidence of osteoporotic hip fractures. Their study involved 72,327 female nurses who completed food-frequency questionnaires in 1984, 1986, and 1990. During the period 1984-1994 a total of 270 low-impact hip fractures occurred among the nurses. Data analysis showed that women who had a daily vitamin K intake of more than 109 micrograms had a 24-36 per cent reduction in hip fracture risk compared to women with an intake of less than 109 micrograms/day. The benefits of lettuce were particularly noteworthy; women who consumed lettuce once or more each day had a

45 per cent lower risk of hip fracture than did women who only ate lettuce once a week or less. Surprisingly, nurses with a low vitamin K intake and a high vitamin D intake were more prone to hip fractures than were women with low intakes of both vitamins D and K. This indicates an interaction between vitamins D and K and points to the importance of an adequate vitamin K intake if supplementing with vitamin D. The researchers point out that the current RDA (Recommended Dietary Allowance) for vitamin K is 65 micrograms/day for adult women. While this may be sufficient for vitamin K's role in blood coagulation it may not be adequate to support the vitamin's role in bone health. NOTE: This study was funded in part by Hoffmann-La Roche Inc., a major manufacturer of pharmaceuticals and vitamins.

Feskanich, Diane, et al. Vitamin K intake and hip fractures in women: a prospective study. American Journal of Clinical Nutrition, Vol. 69, January 1999, pp. 74-9

Vitamin E protects against cataracts

MADISON, WISCONSIN. Several studies have linked a high intake of vitamin E and carotenoids to a decreased risk of cataract development. Self-reported dietary intakes, however, are sometimes imprecise and can lead to conflicting conclusions. Now researchers at the Universities of Wisconsin and Illinois report that a high blood serum level of vitamin E, a more accurate marker of vitamin E status, is indeed associated with a significantly reduced risk of cataracts. Their study involved 400 men and

women between the ages of 50 and 86 years. The study participants had blood samples drawn and photographs taken of their eye lenses at the start of the study in 1988-1990. Lens photographs were taken again five years later and compared to the baseline photographs. At the start of the study 252 of the participants were deemed at risk of developing nuclear cataracts and at the end of the study 57 of these participants had actually developed nuclear cataracts in at least one eye. The researchers

found that participants with a relatively high serum level of vitamin E (alpha-tocopherol median level of 5.6 micromol/mmol cholesterol and gamma-tocopherol median level of 1.6 micromol/mmol cholesterol) had half the risk of developing nuclear cataracts as did people with lower levels. This risk reduction held true after adjusting for other risk factors such as age, sex, smoking, alcohol consumption, hypertension, and intake of dietary linoleic acid. The

researchers found no statistically significant overall correlation between the blood level of carotenoids and cataract risk. They did note that high levels of lutein and cryptoxanthin were associated with a reduced risk in participants over 65 years of age.

Lyle, Barbara J., et al. Serum carotenoids and tocopherols and incidence of age-related nuclear cataract. American Journal of Clinical Nutrition, Vol. 69, February 1999, pp. 272-77

Lower your cholesterol naturally

LOS ANGELES, CALIFORNIA. A high cholesterol level is generally believed to be associated with an increased risk of atherosclerosis and heart disease. Cholesterol levels can be lowered through dietary changes or by prescription drugs. Now researchers at the UCLA School of Medicine report that a natural supplement based on Chinese red-yeast-rice is highly effective in lowering cholesterol levels. Red yeast rice is a fermented rice product on which a red yeast (*Monascus purpureus*) has been grown. It was first described in 800 AD and has been widely used in China for many years. The UCLA double-blind, placebo-controlled study involved 83 healthy men and women with elevated cholesterol levels. The participants were randomly assigned to receive either four red-yeast-rice capsules daily (containing a total of 2.4 grams of the yeast-rice) or four placebo capsules. All participants were following a diet similar to the American Heart Association Step I diet (less than 30 per cent of energy from fat, less than 10 per cent of energy from saturated fat, and less than 300 mg cholesterol daily). Blood samples for cholesterol analysis were drawn at the start of the study and after 8, 9, 11 and 12 weeks when the study ended. After eight weeks the average total cholesterol level in

the red-yeast-rice group was almost 50 mg/dL (1.19 mmol/L) lower than in the placebo group and after 12 weeks the cholesterol level in the rice-yeast group had dropped by 40 mg/dL (1.03 mmol/L) as compared to a 5 mg/dL (0.13 mmol/L) drop in the placebo group. Average low density cholesterol (LDL) concentrations dropped by over 20 per cent after eight weeks (1.0 mmol/L or 39 mg/dL) in the rice-yeast group while no change was observed in the placebo group. The level of high density cholesterol (HDL) did not change in either group. No adverse effects of the red-yeast-rice were observed. The researchers conclude that red-yeast-rice is a safe and effective supplement for lowering cholesterol levels and point out that it is almost 10 times cheaper than conventional cholesterol-lowering drugs. NOTE: This study was supported in part by Pharmanex Inc., the manufacturer of the red-yeast-rice supplement Cholestin.

Heber, David, et al. Cholesterol-lowering effects of a proprietary Chinese red-yeast-rice dietary supplement. American Journal of Clinical Nutrition, Vol. 69, February 1999, pp. 231-36

Havel, Richard J. Dietary supplement or drug? The case of Cholestin. American Journal of Clinical Nutrition, Vol. 69, February 1999, pp. 175-76

Natural vitamin E is best

OTTAWA, CANADA. A team of American and Canadian researchers has released a major report which conclusively proves that natural vitamin E is absorbed at about twice the rate of synthetic vitamin E. The researchers tested the biological activity (bioavailability) of a labelled

(deuterated) mixture of natural and synthetic vitamin E in a variety of subjects. They noted that a 30 mg daily dose (as found in most multivitamin tablets) caused only a very slight increase in the vitamin E concentration in blood plasma whereas a daily dose of 300 mg of

tocopheryl acetate (about 400 IU) increased plasma content by 50 per cent after one day and 100 per cent after eight consecutive days of supplementation. Biopsy results showed that vitamin E (alpha-tocopherol) concentrations in the body are highest in blood plasma and the liver followed by the gallbladder, the veins, skin, muscle, and adipose (fat) tissue; the lowest vitamin E concentrations were found in the nerves. The researchers also found that gamma-tocopherol is quite abundant in fat tissue (31 per cent of all vitamin E), muscle tissue (38 per cent), and skin (53 per cent). They conclude that the current "official" assumption that it takes 136 mg of synthetic vitamin E to equal 100 mg (100 IU) of natural vitamin E is in error and should be replaced by the assumption that 100 mg of natural vitamin E is equivalent to 200 mg of the synthetic version. Dr. Max Horwitt of the St. Louis University School of Medicine sums up the team's findings in the following terms: 100

mg of natural alpha-tocopherol (d-alpha-tocopherol) is equivalent to 100 IU of vitamin E; 100 mg of natural d-alpha-tocopheryl acetate is equivalent to 91 IU of vitamin E; 100 mg of synthetic alpha-tocopherol (dl-alpha-tocopherol) is equivalent to 50 IU; and 100 mg of synthetic dl-alpha-tocopheryl acetate is equivalent to 45.5 IU of vitamin E. NOTE: This work was supported in part by grants from the Natural Source Vitamin E Association and the National Foundation for Cancer Research.

Burton, Graham E., et al. Human plasma and tissue alpha-tocopherol concentrations in response to supplementation with deuterated natural and synthetic vitamin E. American Journal of Clinical Nutrition, Vol. 67, April 1998, pp. 669-84

Horwitt, Max K. My valedictory on the differences in biological potency between RRR-alpha-tocopheryl and all-rac-alpha-tocopheryl acetate. American Journal of Clinical Nutrition, Vol. 69, February 1999, pp. 341-42

Do sunscreens promote melanoma?

MILAN, ITALY. Conventional medical wisdom has it that the liberal use of sunscreens helps prevent skin cancer and melanoma. Several researchers have challenged this assumption. Scientists from three European cancer research institutes now report a clear association between sunscreen use and the risk of developing melanoma. Their study involved 631 children in their first year of primary school in four European cities (Brussels, Bochum, Lyon and Rome). The parents of the children were interviewed to determine their child's use of sunscreens and protective clothing and the amount of sun exposure they were exposed to - particularly during annual holidays. The children were examined to determine the number of moles (nevi) that they had on their body. Other research has established a strong correlation between a high nevus count and melanoma risk. The researchers found that the children who habitually used sunscreens had a 68 per cent higher nevus count than did the children who never used sunscreens. This increased risk remained after adjusting for such other variables as skin type, eye colour, and extent of sun exposure. Wearing protective clothing when in the sun was associated with a 41 per cent lower nevus count. The strength (SPF factor) of the

sunscreen used was not related to nevus count and neither was the number of sunburns experienced by the children. As a matter of fact, the highest risk associated with sunscreen use was found among children who had never experienced a sunburn. The researchers conclude that the use of sunscreens encourages longer sun exposures which in turn increases the risk of mole development and subsequent melanoma. They also suggest that sunscreen use could be responsible for part of the increase in non-melanoma skin cancers observed among white populations.

In an accompanying editorial Dr. Maria Turner of the National Cancer Institute concludes that the evidence is still insufficient to discard the use of sunscreens. NOTE: See also *Sunscreens: Do they cause skin cancer?* by Hans R. Larsen (<http://vfv.com/healthnews/sunscreens.html>).

Autier, Philippe, et al. Sunscreen use, wearing clothes, and number of nevi in 6- to 7-year-old European children. Journal of the National Cancer Institute, Vol. 90, December 16, 1998, pp. 1873-80

Turner, Maria. Sun safety: Avoiding noontime sun, wearing protective clothing, and the use of sunscreen. Journal of the National Cancer Institute, Vol. 90, December 16, 1998, pp. 1854-55

Linoleic acid and the immune system

BRISTOL, ENGLAND. The prevalence and severity of tuberculosis, measles, hepatoma (liver cancer), and AIDS are more pronounced in Africa than in Western Europe. It is often assumed that poverty, malnutrition, and lack of education are the primary reasons for this. Now Dr. Alistair Sammon of the University of Bristol suggests that the high consumption of maize (corn) in sub-Saharan Africa is largely to blame. Dr. Sammon points out that maize has a relatively high content of linoleic acid (an omega-6 polyunsaturated fatty acid) and contains very little omega-3 fatty acids such as alpha-linolenic acid, eicosapentaenoic acid, and docosahexaenoic acid. Linoleic acid is a

precursor of prostaglandin E2 (PGE2) and high levels of PGE2 have indeed been found in people whose main diet is maize. PGE2 is a powerful inhibitor of the immune system and Dr. Sammon believes that this explains why tuberculosis, HIV infection, measles, and hepatoma are so much more severe in populations that rely on a maize diet for sustenance. He points out that the negative effects of linoleic acid can be counteracted by ensuring an adequate intake of omega-3 fatty acids (available from fish oils and flax seed).

Sammon, Alastair M. Dietary linoleic acid, immune inhibition and disease. Postgraduate Medicine Journal, Vol. 75, March 1999, pp. 129-32

Cigarette smoking and breast cancer

BOSTON, MASSACHUSETTS. The association between cigarette smoking and breast cancer is not clear. Researchers at the Boston University Medical Center now report that cigarette smoking is indeed a risk factor but the magnitude of the risk depends on several factors. From a study of 265 women with breast cancer and 765 controls they conclude that ever-active smokers have twice the risk of developing breast cancer when compared to women who have never smoked or been exposed to passive smoke. The risk from cigarette smoking was found to be particularly high in women who had been exposed to second-hand smoke or who had actually been smokers before the age of 12 years. Women who had smoked before the age of 12 years had a 7.5 times higher risk of developing breast

cancer than did never-smokers and even exposure to second-hand smoke at an early age increased the risk by a factor of 4.5. Curiously enough, women who began smoking before their first pregnancy and continued after did not have a significantly elevated risk of breast cancer. The researchers conclude that a first exposure to cigarette smoke prior to the development of breast tissue poses the greatest risk for the development of breast cancer. They also speculate that continued smoking after a first pregnancy may actually help prevent breast cancer due to the antiestrogenic effect of tobacco smoke.

Lash, Timothy L. and Aschengrau, Ann. Active and passive cigarette smoking and the occurrence of breast cancer. American Journal of Epidemiology, Vol. 149, January 1, 1999, pp. 5-12

Potent risk factor for stroke and heart attack

ROTTERDAM, NETHERLANDS. A high blood level of the amino acid homocysteine is a potent risk factor for cardiovascular disease. Now researchers at the Erasmus University Medical School report that high homocysteine levels are intimately associated with a significantly higher risk of stroke and heart attack among the

elderly. The study participants had their homocysteine levels measured at the start of the study in 1990-1993. By the end of 1994 104 of the participants had suffered a heart attack and 120 had experienced a stroke. Comparing the initial homocysteine levels of the patients with that of 533 controls and adjusting for age and

sex the researchers concluded that subjects with a homocysteine level above 18.6 micromol/liter had a 2.43 times higher risk of suffering a heart attack and a 2.53 higher risk of having a stroke than did subjects with a homocysteine level less than 12 micromol/liter. Adjusting for age, sex, smoking, hypertension, cholesterol level, and diabetes lowered the odds ratio to about 2.0 for both stroke and heart attack. It is interesting that the increased stroke risk applied both to strokes caused by blood clots (cerebral infarction) and to those caused by rupture of an artery in the brain (hemorrhagic

stroke). The researchers also noted that people with hypertension were at even higher risk of having a heart attack if they had high homocysteine levels. They point out that homocysteine levels can be normalized and maintained at low levels by ensuring an adequate intake of folic acid, vitamin B12 and vitamin B6.

Bots, Michiel L., et al. Homocysteine and short-term risk of myocardial infarction and stroke in the elderly. Archives of Internal Medicine, Vol. 159, January 11, 1999, pp. 38-44

Arsenic cures leukemia

NEW YORK, NY. Acute promyelocytic leukemia (APL) is a malignant disease involving the bone marrow. Research in China has shown that treatment with arsenic trioxide can induce remission of this cancer. At a recent meeting of the Chemotherapy Foundation Dr. Raymond Warrell, Jr., MD of the Memorial Sloan-Kettering Cancer Center reported that he had tried arsenic trioxide therapy on 12 patients who had had relapses with other therapies. Eleven of these patients experienced a complete remission. Dr.

Samuel Waxman, MD of the Mount Sinai Medical Center reported that he had treated 34 APL patients with arsenic trioxide and that 33 of them had shown complete remission. Arsenic trioxide is, of course, highly toxic and close monitoring of liver function is essential when receiving this therapy.

Miller, Mike. Scientists explore use of arsenic in therapy. Journal of the National Cancer Institute, Vol. 90, December 16, 1998, pp. 1866-67

Diet and cancer

RESTON, VIRGINIA. At a recent meeting of the Society of Toxicology scientists discussed the role of diet and calorie intake in aging and cancer. Studies with rats have shown that reducing calorie intake by 40 per cent eliminates practically all cancerous tumors. Bruce Ames, PhD of the University of California in Berkeley contends that all mammals get cancer at a rate which increases with age. He believes that cancer is triggered by free radical reactions and that the number of free radicals in the body decreases as calorie intake is reduced. He believes that 35 per cent of all cancers are

caused by a faulty diet and 30 per cent by smoking. His studies have also shown that low levels of vitamins B6 and B12 are closely related to DNA damage. Dr. Ames is particularly concerned about the effects of poor nutrition among parents and the cancer risk passed on to their children. He says "...male smokers with micronutrient-deficient diets pass large chromosomal damage to their offspring and may be responsible for a lot of childhood cancers."

Miller, Mike. Can reducing caloric intake also help reduce cancer? Journal of the National Cancer Institute, Vol. 90, December 2, 1998, pp. 1766-67

Rickets cured with calcium supplementation

ILE-IFE, NIGERIA. The incidence of rickets has grown significantly in Nigeria in recent years and now affects as many as 12 in every 1000

children. A deficiency of vitamin D is generally believed to be the underlying cause of the disease. Now researchers at the Obafemi

Awolowo University Teaching Hospital report that a calcium deficiency is the more likely cause - at least in Nigeria. They report that four girls and four boys (mean age of three years) who suffered from rickets were found to have normal vitamin D levels, but low plasma levels of calcium and low urinary calcium excretion. The children received a 1000 mg calcium supplement (2.7 grams of calcium lactate daily) for six months. After one month of treatment their leg pain had lessened, after three months wrist enlargement was noticeably reduced and

essentially normal after six months. The blood levels of parathyroid hormone and 1,25 dihydroxyvitamin D fell by 74 and 40 per cent respectively after four months of treatment. The researchers conclude that the rickets were healed by calcium supplementation and that fortification of food with calcium may reduce the incidence of rickets in Nigeria.

Oginni, L.M., et al. Healing of rickets after calcium supplementation. The Lancet, Vol. 353, January 23, 1999 (research letter)

Cancer linked to chronic depression

BETHESDA, MARYLAND. Researchers at the National Institute on Aging report that chronic depression among elderly people is a significant risk factor for cancer. Their study involved 1708 men and 3117 women aged 71 years and older. The participants were interviewed in 1982, 1985 and 1988 and 146 (3 per cent) of them were found to suffer from chronic depression. During a mean follow-up period of 3.8 years 402 of the participants developed cancer corresponding to an incidence rate of 22.1 per 1000 person-years. After adjusting for age, sex, race, disability, hospital admissions, alcohol consumption, and smoking the researchers conclude that chronic depression is associated with an 88 per cent increased risk of cancer. This association was not specific to any particular site or type of cancer. There was no indication that the use of

antidepressants changed the cancer risk associated with depression. Dr. Robert Croyle of the National Cancer Institute calls the findings intriguing, but cautions that it is premature to conclude that adults might reduce their risk of cancer through the treatment of chronic depression. He points out that there is also considerable evidence that depressed people have a greater risk of heart disease.

Penninx, Brenda W.J.H., et al. Chronically depressed mood and cancer risk in older persons. Journal of the National Cancer Institute, Vol. 90, December 16, 1998, pp. 1888-93

Croyle, Robert T. Depression as a risk factor for cancer: renewing a debate on the psychobiology of disease. Journal of the National Cancer Institute, Vol. 90, December 16, 1998, pp. 1856-57 (editorial)

Calcium helps prevent heart disease

COLUMBIA, SOUTH CAROLINA. Calcium is found in atherosclerotic deposits raising the possibility that high intakes may contribute to heart disease. On the other hand, calcium has also been found to bind bile acids in the gut and thereby helping to lower cholesterol levels. With many women now taking calcium supplements to reduce their risk of osteoporosis it is becoming increasingly important to determine the association, if any, between calcium and heart disease. A combined team of medical researchers from three American universities has just released the results of a major study which clearly shows that calcium is beneficial. The study involved 34,486 postmenopausal

women between the ages of 55 and 69 years. The women completed a food frequency questionnaire in 1986 and also provided other information relevant to heart disease risk. Over an eight-year follow-up period 387 of the women died from heart disease (57 per cent from an acute heart attack). The researchers found that women with a high intake (greater than 1425 mg/day) of calcium from food, supplements or both had a 30-35 per cent reduction in heart disease mortality. Somewhat surprisingly a high intake of milk products was not protective. The researchers speculate that this is because the detrimental effects of milk fat negate the beneficial effects of calcium. (Editor's note:

Other research has shown that calcium is poorly absorbed from milk products). The protective effect of calcium remained after adjusting for age, total energy intake, body mass index, diabetes, estrogen use, alcohol consumption, smoking status, education, physical activity, saturated fat intake, waist:hip ratio, and dietary vitamin E intake. It is interesting to note that almost half the women took calcium supplements and more than 63 per cent took vitamin/mineral supplements. The researchers

note that calcium lowers blood pressure in hypertensive individuals and that it also has a cholesterol-lowering effect. They conclude that calcium, but not milk products may reduce the risk of dying from heart disease.

Bostick, Roberd M., et al. Relation of calcium, vitamin D, and dairy food intake to ischemic heart disease mortality among postmenopausal women. American Journal of Epidemiology, Vol. 149, January 15, 1999, pp. 151-61

NEWSBRIEFS

Safety of cesarean section questioned.

French researchers report that babies born by cesarean section have a greater risk of developing schizophrenia at a young age. This finding ties in with a recent report from Montreal which concludes that laboratory rats born by cesarean section are much more likely to be hyperactive and irritable than are naturally born rats. Cesarean-born rats were also found to have the overactive dopamine system characteristic of schizophrenics. Could the epidemic of Attention Deficit Disorder be tied in with the rise in cesarean sections?

Paraplegics learn to type. A team of American and German researchers have come up with a device which reads brain waves and allows paralyzed people to write sentences on a computer screen. The device makes use of two small electrodes which are placed on the head (without surgical intervention) over the motor cortex. The electrodes record the voltages (slow cortical potentials) generated by the patients' thoughts. Once the patients are trained they are able to move a cursor on a computer screen by deliberately changing their cortical potential. By guiding the cursor to point at the various letters of the alphabet the patients

can construct short sentences within a reasonable time frame.

Medical simulation takes off. Doctors and engineers at the Ottawa Heart Institute have developed a "simulated patient". Sam, the \$250,000 plastic, life-sized mannequin can be used to train doctors and nurses in how to deal with a wide variety of medical emergencies and conditions. Says Dr. Earl Wynands of the OHI "Doctors have always had to learn how to handle heart attacks using real patients; now they can learn on Sam and student errors can be corrected with a flick of his reset button."

British environmentalist warns of ecological disaster. Jeremy Rifkin, an outspoken critic of the biotechnology industry, has just published a new book "The Biotech Century" dealing with the risks of genetic engineering. He warns that the current trend in genetic manipulation of crops may lead to the emergence of herbicide-resistant "super-weeds" and may have catastrophic effects on insect and bird life. He also points out that the life sciences industry has been unable to obtain insurance to cover long term damage to the ecology caused by experiments gone awry.

BOOK REVIEW

Red World - Green World: The Hidden Polarities of Nature

Margaret K. Chaney
Veritas Publishing, 1996
145 pages

Margaret Chaney's book is one of those little pearls that come along once in awhile to challenge your imagination and open up wider horizons. The premise developed by Ms. Chaney's 15 years of research is that everything on earth has one of two opposing "polarities" - "red" or "green". If you are a "green" person foodstuffs such as apricots and green olives are good for you, but asparagus and black olives are not. Conversely, if you are a "red" person you can easily handle beef and butter - foods that "green" people should avoid. You can find out which category you belong to by muscle testing - a simple non-invasive technique that anyone can learn in a few minutes. Ms. Chaney

contends that sticking to food, clothes, wines, and even trees that belong to your polarity or color will result in more energy and better health. Does it work? We have not explored the field in any depth yet, but the muscle testing certainly seems to work for us. My wife and I were actually able to measure the difference between an organic apple and an ordinary supermarket apple. Read the book and have fun finding out whether you belong to the "red world" or the "green world".

You can order *Red World - Green World: The Hidden Polarities of Nature* at our website <http://vvv.com/healthnews/books.html>.

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