

INTERNATIONAL HEALTH NEWS

Your Gateway to Better Health!

NUMBER 107

NOVEMBER 2000

9th YEAR



Editorial

The medical profession's attitude towards the use of vitamins and supplements is indeed a curious one. Just last week the American Heart Association issued its dietary guidelines for reducing the risk of cardiovascular disease. They did not recommend supplementing with vitamin E despite numerous studies having shown a clear protective effect. The landmark 1993 Harvard Medical School study involving over 100,000 health professionals found that supplementing with 100 IU/day or more of vitamin E reduced the risk of developing heart disease by 40 per cent. The AHA glossed over this study and focused on more recent studies that concluded that vitamin E did not reverse existing heart disease. However, treatment (reversal) and prevention are two very different things. The fact that vitamin E may not be effective in treating heart disease does in no way detract from its proven efficacy in preventing the disease. Anyone at all familiar with antioxidants knows that their primary effect is a lengthening of the lag time before disease develops not a reversal once the disease has taken hold.

So once again the medical profession, at least the AHA, could not overcome their bias against supplements. This will no doubt affect many lives, but maybe not the lives of physicians themselves. A recent survey showed that about two-thirds of American female physicians regularly take supplements. Seventy-four per cent of those with high blood pressure and cholesterol levels take vitamin E. Even cardiologists do it. A 1997 survey of 181 American cardiologists found that 39 per cent of them took vitamin E supplements for the purpose of preventing heart disease. Is this a clear case of "Do as I say; not as I do"?

*Yours in health,
Hans Larsen*

November Highlights

Vitamin C fights lung cancer	p. 2
Low-dose aspirin and bleeding	p. 3
DHEA supplementation is safe	p. 3
Niacin reduces risk of blood clots	p. 4
Breast cancer surgery revisited	p. 5
Homocysteine: cause or effect?	p. 6
Lycopene and cancer	p. 6
Tamoxifen and endometrial cancer	p. 7
Heart disease prevention	p. 8
St. John's wort found effective	p. 8
Newsbriefs	p. 9

LETTERS TO THE EDITOR

What dosage of niacin, folic acid and magnesium is recommended in the treatment of lone atrial fibrillation?

Paul, Canada

Editor: *Dr. Abram Hoffer, MD who first developed the adrenochrome theory of atrial fibrillation recommends 1000 mg of niacin 3 times daily with 5 mg of folic acid 3 times daily. Also 250 mg of vitamin B6 daily. These large quantities of supplements should only be taken*

under medical supervision. He has no recommendations for magnesium, but other sources recommend 100 mg of citrate/maleate 3 times daily.

I was recently diagnosed with a skin condition called "poikiloderma of Civatte". Can you tell me more about this? I have had no luck searching the Internet.

Thomas, USA

Editor: You can find quite a few articles on poikiloderma of Civatte (a benign skin condition of unknown origin, but cumulative sun exposure may be a factor) on MEDLINE. Go to our website www.yourhealthbase.com and click on "Resources". Then click on "Index Sites/Search Engines" and finally on MEDLINE. Then type in Poikiloderma of Civatte in the search box and click on "GO". You will find 14 articles about this condition. It appears that it can be effectively treated by the application of a broad spectrum, noncoherent, intensified pulse light (IPL) or by using a pulsed dye laser.

I have been diagnosed as having calcific tendinitis in both my shoulders. I would

appreciate any information you have on this condition and anything relevant to its management and cure.

Tina, Australia

Editor: Calcific tendinitis is an inflammation of the tendons accompanied by deposits of calciumhydroxyapatite crystals in the affected areas. It is usually caused by overuse of the affected joint, but can be associated with arthritis or gout. The inflammation may be helped by ensuring an adequate intake of antioxidants specifically vitamins C and E and selenium. Vitamin B complex may also be helpful as may wearing a copper bracelet. Some natural medicine practitioners feel that avoiding potatoes, tomatoes, peppers, eggplant, and tobacco is very important. Acupuncture may help relieve the pain and a recent study found that ultrasound treatments can be quite effective in the short term.

You did not mention whether you are taking calcium supplements. If you are you should make sure you also take magnesium. Calcium and magnesium should always be taken together; the citrates are best and a 1:1 ratio may be advisable for you. An increased intake of magnesium is often effective in removing calcium deposits. Some people have had good results with the Auxima liquid magnesium taken over a period of several weeks.

ABSTRACTS

Vitamin C fights lung cancer

BIRMINGHAM, ALABAMA. It is now almost 30 years since Drs. Pauling and Cameron published their ground-breaking studies concerning the benefits of vitamin C supplementation in advanced cancer. Their findings were originally dismissed by the medical community, but new evidence supporting their conclusion continues to surface. For example, lung cancer patients have been found to have lower blood plasma concentrations of vitamin C (ascorbic acid) and also consume less vitamin C in their diet than do healthy individuals.

Researchers at the University of Alabama now report that the vitamin C concentration in

cancerous lung tissue is much higher than in adjacent healthy tissue. They believe the body tries to concentrate vitamin C in the diseased tissue because it helps to fight the cancer. The study involved 22 patients who had developed cancer (squamous cell carcinoma) of the lung or larynx. Most of the patients had been heavy smokers prior to surgery. The researchers measured the concentration of ascorbic acid in the cancerous and healthy tissue and found a marked difference. The median concentration in cancerous tissue was 483 nanograms/mg of protein versus only 72 nanograms/mg of protein in healthy tissue. The researchers also

measured the degree of methylation of DNA in diseased and healthy tissues. Again, they found a very significant difference. The radiolabeled methyl incorporation in cancerous tissue was 31,416 counts per minute per microgram DNA versus only 11,444 counts per minute per microgram DNA in healthy tissue. A high degree of DNA methylation is believed to be important in fighting cancer. The researchers conclude that the body's natural defense

mechanism concentrates vitamin C in cancerous lung tissue in order to increase DNA methylation and thereby fight the cancer. They point out that other research has shown that breast cancer tumors also tend to have higher vitamin C levels than adjacent healthy tissue.

Piyathilake, Chandrika J., et al. The accumulation of ascorbic acid by squamous cell carcinomas of the lung and larynx is associated with global methylation of DNA. Cancer, Vol. 89, July 1, 2000, pp. 171-76

Even low-dose aspirin may cause bleeding

AARHUS, DENMARK. The use of low-dose aspirin (75 to 150 mg) on a daily basis to prevent heart attacks and strokes is becoming increasingly popular. It is well established that standard doses (325 to 500 mg) of aspirin are associated with a substantially increased risk of upper gastrointestinal bleeding (stomach ulcers), but little research has been done on the effect of low-dose regimens.

Researchers at Aarhus University now report that regular use of low-dose aspirin (100 to 150 mg) is also associated with a significant increase in upper GI bleeding. Their study involved 27,694 users of low-dose aspirin who were followed from January 1, 1991 to December 31, 1995. A total of 207 study participants (0.7 per cent) were admitted to hospital with upper GI bleeding during the study. This corresponds to an incidence rate 2.6 times higher than that found in the general population. Participants

who also took other non-steroidal anti-inflammatory drugs had a 5.6 times higher incidence of upper GI bleeding than that found in the general population. The researchers found no difference in the incidence of bleeding episodes among users of coated aspirin versus users of non-coated (standard) aspirin. They did note that participants who stopped using aspirin still had an increased risk within the first year of discontinuation. The researchers recommend further research to identify potential interactions between aspirin and alcohol and other substances and to evaluate the risk versus benefit of regular aspirin use.

Sorensen, Henrik Toft, et al. Risk of upper gastrointestinal bleeding associated with use of low-dose aspirin. American Journal of Gastroenterology, Vol. 95, September 2000, pp. 2218-24

DHEA replacement therapy is safe

LE KREMLIN-BICETRE, FRANCE. DHEA (dehydroepiandrosterone) and its sulfate ester DHEAS are the most abundant steroid hormones in the human blood plasma. DHEA and DHEAS are secreted by the adrenal cortex and levels peak between the ages of 20 to 30 years. Levels decline steadily thereafter and at 70 years of age are less than 20 per cent of the peak. Several studies have shown that supplementation with DHEA strengthens the immune system, heightens brain activity, and improves overall well-being.

French researchers now report that daily oral supplementation with 25 or 50 mg of DHEA is safe for elderly men and women. Their study

involved 12 healthy men and 12 healthy women with an average age of 68 years. The participants were given either 25 mg DHEA, 50 mg DHEA or a placebo for two eight-day periods separated by a two-week wash-out period. In the men the daily administration of 25 mg or 50 mg DHEA rapidly restored DHEAS levels to those found in young men. In the women it took 50 mg to reach the levels found in young women. However, as the metabolic conversion of DHEAS back to DHEA is more effective in women it may well be that 25 mg or even less would be sufficient for women given long-term supplementation. No accumulation of either DHEA or DHEAS was observed after eight days.

Testosterone levels in the men did not increase significantly with supplementation, but did reach the levels observed in young women among the women participants. Estradiol levels increased significantly in women after supplementation which may indicate a role for DHEA in preventing bone loss in postmenopausal women. The researchers conclude that in

healthy 60 to 79 year old subjects 50 mg of DHEA is a safe and potentially effective dose.

Legrain, Sylvie, et al. Dehydroepiandrosterone replacement administration: pharmacokinetic and pharmacodynamic studies in healthy elderly subjects. Journal of Clinical Endocrinology and Metabolism, Vol. 85, September 2000, pp. 3208-17

Niacin reduces risk of blood clots

MEMPHIS, TENNESSEE. Peripheral arterial disease (blocking of the peripheral arteries) mostly affects elderly people and commonly involves the arteries in the thigh and the back of the knee joint (femoral and popliteal arteries). Hypertension, high cholesterol levels, diabetes, and smoking are important risk factors for peripheral arterial disease (PAD). Patients with PAD exhibit variations in blood coagulation factors that increase their risk of blood clots (thrombosis) and stroke. Research has shown that PAD patients have higher levels of von Willebrand factor (vWf), plasminogen activator inhibitor-1 (PAI-1), and fibrinogen and that high levels of these factors are associated with an increased risk of thrombosis. Prothrombin fragment 1.2 (F1.2) level is also an indicator of increased thrombosis risk.

Researchers at the University of Tennessee have just released the results of a study aimed at determining the effects of treatment with warfarin, niacin, and antioxidants on the blood coagulation parameters in PAD patients. The 80 study participants were randomly assigned to receive low-dose warfarin (INR: 1.5 to 2.0), 1500 mg of niacin twice daily, antioxidants (800 IU vitamin E, 1000 mg vitamin C and 25 mg beta-carotene daily) or a placebo for a 12-month period. Blood samples were taken and analyzed

at the beginning and end of the study. A significant decrease (-50 per cent) in F1.2 factor was noticed in the warfarin group. The warfarin group also showed a 67 per cent decrease in the level of blood coagulation factor VIIIc. The researchers point out that this does not necessarily mean that low-dose warfarin therapy is effective in preventing thrombosis in PAD patients.

Niacin treatment resulted in a significant reduction in the levels of fibrinogen (-16 per cent) and F1.2 factor (-65 per cent). There were no cases of niacin-induced hepatitis among the patients in the niacin group.

The antioxidant supplementation did not have a significant effect on coagulation parameters other than vWf which was slightly elevated after one year of supplementation. The researchers conclude that niacin, in addition to its proven cholesterol-lowering effects, has "additional potentially beneficial effects on coagulation in patients with established peripheral vascular disease."

Chesney, Carolyn M., et al. Effect of niacin, warfarin, and antioxidant therapy on coagulation parameters in patients with peripheral arterial disease in the Arterial Disease Multiple Intervention Trial (ADMIT). American Heart Journal, Vol. 140, October 2000, pp. 631-36

Carrots and tomatoes protect against lung cancer

BOSTON, MASSACHUSETTS. Lung cancer is the most deadly of all cancers in the United States and kills more men and women every year than any other cancer. Smoking is the major risk factor with more than 90 per cent of all lung cancer victims being current or former smokers. Numerous epidemiological studies have found a highly significant protective effect

associated with an increased intake of fruits and vegetables. It was originally thought that the protective component was beta-carotene, but several trials involving supplementation with synthetic beta-carotene did not confirm that it would help lower the incidence of lung cancer. It now turns out that the main reason why beta-carotene was selected as being the likely

protective component was that it was the only carotenoid for which the concentration in various foodstuffs was actually known!

The official US nutrient databases have now been updated to include food concentrations of other carotenoids including alpha-carotene, lycopene, lutein and beta-cryptoxanthin. This development prompted researchers at the Harvard Medical School to re-examine the role of carotenoids in lung cancer prevention. Their study involved 46,924 male health professionals and 77,283 female nurses. The study participants completed comprehensive food questionnaires in 1984, 1986 and 1990 and were followed-up for 10 years from entry into the study. During the follow-up period 275 new cases of lung cancer were diagnosed among the men and 519 new cases among the women. Evaluation of the collected data showed that non-smokers with a high intake of alpha-carotene had a 63 per cent lower incidence of lung cancer than did non-smokers with a low intake. Alpha-carotene, however, had no protective effect among the smokers. Among smokers, those with a high intake of lycopene were found to have a 37 per cent lower incidence of lung cancer than did smokers with a

low intake. Beta-carotene and multivitamin supplements did not affect the risk of lung cancer.

The researchers conclude that alpha-carotene is protective against lung cancer in non-smokers. They point out that carrots are the most abundant source of alpha-carotene and provide (in raw or cooked form) about 51 per cent of the daily intake of alpha-carotene. Tomatoes and tomato products are the best sources of lycopene and provide more than 85 per cent of dietary lycopene. Tomato sauce and paste are particularly good sources due to the greater bioavailability of their lycopene content. The researchers conclude that a high intake of mixed carotenoids is protective against lung cancer, but strongly emphasize that smoking is still by far the greatest risk factor. [45 references]

Heber, David. Colorful cancer prevention: alpha-carotene, lycopene, and lung cancer. American Journal of Clinical Nutrition, Vol. 72, October 2000, pp. 901-02 (editorial)

Michaud, Dominique S., et al. Intake of specific carotenoids and risk of lung cancer in 2 prospective US cohorts. American Journal of Clinical Nutrition, Vol. 72, October 2000, pp. 990-97

Breast cancer surgery revisited

AMSTERDAM, THE NETHERLANDS. Breast conserving therapy (lumpectomy followed by radiation) has been shown to be as effective as mastectomy (removal of entire breast) in the treatment of breast tumors with a diameter of 2 cm or less. A team of medical researchers from Belgium, the Netherlands, South Africa, and the UK now report that breast conserving therapy (BCT) results in similar survival rates as mastectomy when dealing with larger tumors (2.1-5 cm) as well. Their study involved 868 women with stage II breast cancer who were randomly assigned to receive either BCT or radical mastectomy. After 10 years of follow-up there was no significant difference in the rate of survival among the BCT patients (65 per cent) and the mastectomy patients (66 per cent). The incidence of distant metastasis was also similar in the two groups over the 10-year follow-up

period; 39 per cent for the BCT patients and 34 per cent of the mastectomy patients. There was, however, a significant difference in the recurrence of local tumors among the two groups. Among the BCT patients six per cent had a recurrence as compared to only 3.3 per cent in the mastectomy group. The 13-year survival rates were 60 per cent in the mastectomy group and 55 per cent in the BCT group. The researchers conclude that BCT and radical mastectomy result in similar survival rates among patients with stage II breast cancer.

van Dongen, Joop A., et al. Long-term results of a randomized trial comparing breast-conserving therapy with mastectomy: European Organization for Research and Treatment of Cancer 10801 trial. Journal of the National Cancer Institute, Vol. 92, July 19, 2000, pp. 1143-50

Homocysteine: cause or effect?

BERGEN, NORWAY. Numerous studies have found a clear correlation between high blood levels of homocysteine and an increased risk of cardiovascular disease. High homocysteine levels are particularly strong predictors of cardiovascular events or death in patients who also suffer from renal failure, coronary heart disease, peripheral artery disease, diabetes, systemic lupus erythematosus or venous thromboembolism. Case-control studies have found that homocysteine levels as little as five micromol/L above normal can increase cardiovascular disease risk by 20 to 30 per cent. Researchers at the University of Bergen strongly support the conclusion that a high homocysteine level is a potent risk factor for cardiovascular disease, notably atherosclerosis. They point to the fact that folic acid and vitamin B6 lower homocysteine levels and that several recent trials have shown that supplementation with folic acid and B6 can halt the progression of atherosclerosis and reduce the incidence of heart attacks.

A team of researchers from the University of New South Wales in Australia and the Kalmar County Hospital in Sweden questions whether moderately elevated homocysteine levels really are a risk factor for cardiovascular disease or merely a marker for the disease. They suggest that atherosclerosis can impair kidney function and this impairment can lead to higher homocysteine levels.

Dr. John Scott of Trinity College in Dublin provides an interesting commentary on the two opposing views, but leans towards the conclusion that high homocysteine levels are indeed a causal factor in cardiovascular disease. *Ueland, Per M., et al. The controversy over homocysteine and cardiovascular risk. American Journal of Clinical Nutrition, Vol. 72, August 2000, pp. 324-32 [121 references]*
Brattstrom, Lars and Wilcken, David EL. Homocysteine and cardiovascular disease: cause or effect? American Journal of Clinical Nutrition, Vol. 72, August 2000, pp. 315-23 [139 references]
Scott, John M. Homocysteine and cardiovascular risk. American Journal of Clinical Nutrition, Vol. 72, August 2000, 333-34 (editorial)

Lycopene and cancer

TORONTO, CANADA. Lycopene is a carotenoid found in tomatoes, tomato products, and in other fruits. It is a powerful antioxidant with a singlet-oxygen quenching capacity 10 times greater than that of vitamin E. It is the most abundant carotenoid in human plasma and is highly concentrated in the adrenal glands, testes, prostate, and breast tissue. Several studies have found an inverse correlation between serum and tissue levels of lycopene and the risk of breast and prostate cancers. Other studies have linked a high intake of tomatoes to a 50 per cent reduction in cancer mortality among elderly Americans. One study found that men who consumed 10 or more servings of tomato products per week reduced their risk of prostate cancer by 35 per cent. A more recent study found that supplementation

with a tomato extract significantly lowered the level of prostate-specific antigen (PSA) in patients with prostate cancer. High tissue (adipose) levels of lycopene have also been found to be protective against heart attacks. No published studies have shown any adverse effects of high lycopene levels or a high intake of tomato products. It has been hypothesized that lycopene prevents cancer and heart disease by protecting lipids, lipoproteins (especially low-density lipoprotein), proteins, and DNA. There is also evidence that lycopene counteracts the proliferation of cancer cells induced by insulin-like growth factors.

Agarwal, Sanjiv and Rao, AV. Tomato lycopene and its role in human health and chronic diseases. Canadian Medical Association Journal, Vol. 163, September 19, 2000, pp. 739-44 [70 references]

Tamoxifen and endometrial cancer

AMSTERDAM, THE NETHERLANDS. Tamoxifen therapy has long been used in the treatment of metastatic breast cancer and in the prevention of recurrence of breast cancer. It is known that tamoxifen increases the risk of developing endometrial cancer, but so far it has been assumed that this "side effect" was of relatively little importance. Now researchers at the Netherlands Cancer Institute question this assumption. Their study involved 299 women who had developed endometrial cancer subsequent to being diagnosed with breast cancer and 860 matched controls who had been diagnosed with breast cancer, but had not developed endometrial cancer.

The researchers found that 36.1 per cent of the women with endometrial cancer had used tamoxifen as compared to 28.5 per cent in the control group. This translates into a 50 per cent greater risk among tamoxifen users. The risk increased with duration of use and was almost seven times higher for women who had taken tamoxifen for at least five years when compared

to the controls. The severity of the cancer and the presence of sarcomas were also much higher among long-term users. The three-year endometrial-cancer-specific survival was 76 per cent for long-term tamoxifen users versus 94 per cent for non-users. The researchers calculate that 20 excess cases of endometrial cancer would develop in 1000 tamoxifen users followed up for 10 years.

They conclude that the benefits of tamoxifen therapy still outweigh the risks in the treatment of metastatic breast cancer and in prevention of contralateral cancer. However, they seriously question widespread use of tamoxifen as a preventive agent against breast cancer in healthy women.

Bergman, Liesbeth, et al. Risk and prognosis of endometrial cancer after tamoxifen for breast cancer. The Lancet, Vol. 356, September 9, 2000, pp. 881-87

Gelmon, Karen. One step forward or one step back with tamoxifen? The Lancet, Vol. 356, September 9, 2000, pp. 868-69 (commentary)

New recommended intakes for antioxidants

WASHINGTON, DC. An expert panel of the US National Academy of Sciences' Institute of Medicine has advised modest increases to the recommended daily intakes of vitamin C, vitamin E, and selenium. The new levels for vitamin C are 90 mg/day for men and 75 mg/day for women. Smokers are advised to get an additional 35 mg/day. The level for vitamin E is now set at 15 mg/day and for selenium at 55 micrograms/day. The panel also, for the first time, set "tolerable upper intake levels" for the three antioxidants. These levels represent the maximum intake that is likely to pose no health risks for most people. The upper limits are 2000 mg/day of vitamin C for both men and women, 1000 mg/day of vitamin E, and 400

micrograms/day of selenium. The panel did not recommend limits for beta-carotene and other carotenoids and cautioned that beta-carotene supplementation should only be used to prevent or correct a vitamin A deficiency. They also cautioned against extrapolating beneficial effects observed with certain foods (eg. tomatoes) to a specific component in the food (eg. lycopene) and certainly stopped a long way short of recommending megadoses of vitamins or antioxidants for the prevention or treatment of diseases like cancer and heart disease.

Reynolds, Tom. Antioxidants and cancer: what is the evidence? Journal of the National Cancer Institute, Vol. 92, July 5, 2000, pp. 1033-34

Vitamin C a must for smokers

LONDON, UNITED KINGDOM. It is well established that smoking is an important risk factor for heart disease and, of course, lung

cancer. There is evidence that smoking interferes with blood circulation in both coronary and peripheral arteries. A team of British and

Swiss researchers now report that smoking also affects blood circulation (microcirculation) within the heart itself. Their study involved eight healthy male non-smokers (controls) and eleven long-term smokers with no signs of heart disease. The researchers used positron emission tomography (PET scanning) to measure the coronary flow reserve of the smokers and non-smokers before and after the infusion of three grams of vitamin C (ascorbic acid). Coronary flow reserve (CFR) is the ratio between maximal blood flow within the heart and blood flow at rest. A high coronary flow reserve is beneficial. The researchers found that the smokers had an average 21 per cent lower CFR than the controls, but that the vitamin C infusion

corrected the deficiency and brought the CFR in the smokers back to the level of the non-smokers. The vitamin C infusion had no effect on the CFR of the non-smokers. The researchers conclude that their results support the hypothesis that the damaging effects of smoking is at least partially caused by excessive oxidative stress. They suggest that it may be worthwhile to undertake a large-scale trial to see if daily oral supplementation with vitamin C can prevent the development of coronary artery disease in smokers.

Kaufmann, Philipp A., et al. Coronary heart disease in smokers: vitamin C restores coronary microcirculatory function. Circulation, Vol. 102, September 12, 2000, pp. 1233-38 [59 references]

Recommendations for prevention of heart disease

DALLAS, TEXAS. The American Heart Association has just released its most recent guidelines for reducing the risk of cardiovascular disease by dietary and other lifestyle practices. The major guidelines are:

- Eliminate smoking.
- Include a variety of fruits and vegetables (five servings/day), grains (six servings/day), low-fat or nonfat dairy products, fish, legumes, poultry, and lean meats in the diet. Limit the intake of sugar and refined carbohydrates.
- Match energy (food) intake to energy needs so as to maintain a healthy body weight.
- Exercise (30-60 minutes on most days of the week) and reduce sedentary activities such as watching television.
- Limit foods high in saturated fat and cholesterol; use unsaturated fat from vegetables, fish, legumes and nuts instead. Saturated fat intake should not exceed 10 per cent of energy on a daily basis and cholesterol intake should be less than 300 mg/day on average. *Trans*-fatty acids found

in partially hydrogenated vegetable oils should be avoided.

- Limit the intake of salt to less than six grams/day and limit alcohol consumption to no more than one drink per day for women and two drinks per day for men. The guidelines do not support the use of alcohol as a means of protecting against heart disease.

The guidelines point out the protective effects of folic acid, vitamin B6, soy protein (25 grams/day) and isoflavones, but cite insufficient evidence in the case of vitamin E and other antioxidants. Supplementation with beta-carotene is discouraged. Consumption of at least two fish servings a week is recommended. For people already suffering from coronary heart disease the guidelines suggest that consumption of one fatty fish meal per day (or alternatively a fish oil supplement) would be highly beneficial.

Krauss, Ronald M., et al. AHA dietary guidelines: revision 2000: a statement for healthcare professionals from the Nutrition Committee of the American Heart Association. Circulation, Vol. 102, October 31, 2000, pp. 2284-99 [205 references]

St. John's wort found effective

GIESSEN, GERMANY. Extracts of St. John's wort (*Hypericum perforatum*) was first used in ancient Greece to treat "demonic possession".

It is now a prescription drug in most of continental Europe and is the most popular antidepressant in Germany. Perhaps as many

as 23 trials of St. John's wort have been published, but many of them have been criticized for poor design and execution. German medical doctors now weigh in with a major, double-blind, randomized, controlled trial that compares St. John's wort to the commonly used tricyclic antidepressant imipramine (Tofranil). The study took place in 40 psychiatric, internal medicine, and general medicine practices in Germany between June 1997 and April 1998 and involved 324 outpatients with mild to moderate depression. One hundred and fifty-seven of the patients were given hypericum extract (standardized to 0.2 per cent hypericin) in the form of 250 mg film-coated tablets taken twice daily. The remaining 167 patients received two 75 mg imipramine tablets daily. The participants were evaluated weekly for six weeks using the Hamilton depression scale. In the St. John's

wort group the depression score decreased from 22.4 at baseline to 12.0 after six weeks. In the imipramine group the score went from 22.1 to 12.75. St. John's wort was found to be significantly better than imipramine in the treatment of anxiety-related parameters and was much better tolerated than imipramine (39 per cent adverse events in the St. John's wort group compared to 63 per cent in the imipramine group). The researchers conclude that *Hypericum perforatum* extract is therapeutically equivalent to imipramine in treating mild to moderate depression, is better than imipramine in relieving anxiety associated with depression, and is significantly better tolerated by patients. *Woelk, Helmut. Comparison of St. John's wort and imipramine for treating depression: randomised controlled trial. British Medical Journal, Vol. 321, September 2, 2000, pp. 536-39*

NEWSBRIEFS

Don't have that first cigarette. Traditional scientific wisdom has it that addiction begins when repeated exposure to a chemical weakens its effect so that a person needs more and more to get "high". Neurobiologists at the University of Chicago now question this assumption. Experiments using rat brains have shown that the very first whiff of nicotine activates the release of dopamine which in turn causes a pleasurable feeling. This feeling is amplified on subsequent exposures and eventually the craving for it becomes hard-wired into the hippocampus part of the brain. The researchers have calculated that the nicotine from just one cigarette is enough for the brain to remember the "high" that results.

New Scientist, August 26, 2000, p. 11

Doctors do take vitamins. A survey carried out in 1993-94 shows that about two-thirds of American female physicians regularly take supplements. Half of the group of 4500 physicians took a multivitamin/mineral supplement and 35.5 per cent did so on a regular basis (5 days or more per week). Twenty-six per cent of the physicians regularly

took calcium supplements (as compared to only 2 per cent among the general population). The use of calcium supplements was particularly high (76 per cent) among the female physicians with osteoporosis. Seventy-four per cent of those with high blood pressure and cholesterol levels took vitamin E. Some physicians routinely disparage the use of vitamins, but this survey concludes that more than half of all the female physicians surveyed and 66 per cent of those aged 55 years or over use vitamin supplements themselves.

American Journal of Clinical Nutrition, October 2000, pp. 969-75

Joggers live longer. Danish researchers have just completed a study aimed at determining the benefits of regular jogging. The study involved 4658 men aged 20 to 79 years who were asked in 1976-78 and again five years later whether they were regular joggers. At the end of the study in November 1998 the researchers concluded that the mortality among the men who reported on both questionnaires that they jogged regularly was only about one third of the mortality among the men who were not regular

joggers. The correlation held true even after adjusting for other variables such as smoking, alcohol consumption, blood pressure, cholesterol levels, income, education, and diabetes. The researchers conclude that jogging is associated with a beneficial effect on mortality.

British Medical Journal, September 9, 2000, pp. 602-03

"Terminator" seed approved. The U.S. Department of Agriculture (USDA) together with Delta & Pine Land Co. have developed and patented the technology for producing seeds whose "offspring" will not germinate. Farmers using the new seeds would no longer be able to save seeds for use the following year, but would have to buy new seeds every year. The technology involves the use of antibiotics to make the seeds sterile. Critics argue that pollen from the sterile plants might sterilize neighboring fields as well and vociferous opposition to this latest genetic engineering "marvel" has been voiced by many farming groups. Nevertheless, the USDA has now gone ahead and approved the use of the technology. Considering that the USDA owns part of the patent and will benefit financially from its use it would seem to be involved in a massive conflict of interest.

Science, August 4, 2000, pp. 709-10

Safety of sunscreens questioned. There is growing evidence that the widespread use of sunscreens may actually increase the risk of skin cancer because it encourages people to stay out in the sun longer. Now Norwegian researchers report that 90 per cent of all sunscreens on the market contain an ingredient, octylmethoxycinnamate (OMC), which has been found to be highly toxic. The researchers exposed mouse cells to OMC and found that they died; the die-off increased dramatically when the cells were also exposed to simulated sunlight. Terje Christensen of the Norwegian Radiation Protection Authority says that sunscreens should be treated "with caution" and should only be used as a last resort.

New Scientist, October 7, 2000, p. 13

Honey outperforms antibiotics. Researchers attending the First World Wound Healing Congress in Melbourne learned that honey has outperformed conventional antibiotics in treating

burns and infected caesarean sections. Honey can eradicate *E. coli*, *Salmonella*, and *Helicobacter pylori* and even kill antibiotic-resistant bacteria including the hospital superbug MRSA. Not all types of honey work though. The most effective ones are manuka honey from New Zealand and jelly bush honey from Australia. It is believed that these varieties release hydrogen peroxide which is deadly to microbes. Dr. Peter Molan of the University of Waikato in NZ has found that swallowing half a teaspoon of manuka honey on an empty stomach will eradicate the bacteria *Helicobacter pylori* that cause most stomach ulcers.

New Scientist, October 7, 2000, pp. 32-35

Unsafe injections kill millions. The increased, worldwide emphasis on vaccination has focused the spotlight on the safety of injections. Injections carried out for medical purposes cause an estimated 10 to 20 million cases of hepatitis infections every year in the Far East, South Asia, Africa, and part of Eastern Europe. Children are at greatest risk; around 80 per cent of those infected with hepatitis B never shake off the virus and 20 per cent eventually die from liver disease brought on by the infection. Hospitals all over the world are seeing a dramatic increase in end-stage liver disease and this trend is expected to continue. The time-lag between receiving an injection with a dirty needle and the development of liver disease is usually around 20 years.

New Scientist, October 21, 2000, p. 11

"Mouse arm" common in Europe. Repetitive stress injuries or "mouse arm" now affect about 40 per cent of the more than 2.5 million people in Holland who work at computers. Symptoms of the disorder are neck pains, stiff arms or shoulders or tingling in the hands and fingers. A study has shown that the risk of "mouse arm" can be reduced and productivity increased by allowing staff a five-minute break every hour from their desks in order to adopt a different posture and position.

European Agency for Safety and Health at Work News, No. 6, 2000. p. 14

Mobile phones affect sleep patterns. Swiss researchers report that using a mobile phone before going to bed can detrimentally affect the quality of sleep. The researchers exposed 16

volunteers to electromagnetic radiation on one side of their head for 30 minutes before going to bed. The radiation was designed to simulate that emitted from a mobile phone. The researchers found that the volunteers had a disturbed sleep pattern (non-REM sleep) for as

much as 50 minutes after being exposed to the radiation. They conclude that "a short exposure to electromagnetic fields emitted by mobile phones has an effect on brain physiology".
New Scientist, October 14, 2000, p. 10

INTERNATIONAL HEALTH NEWS is published monthly by:
Hans R. Larsen MSc ChE, 1320 Point Street, Victoria, BC, Canada, V8S 1A5
E-mail: health@pinc.com World Wide Web: <http://www.yourhealthbase.com>
ISSN 1203-1933 Copyright 2000 by Hans R. Larsen

INTERNATIONAL HEALTH NEWS does not provide medical advice. Do not attempt self-diagnosis or self-medication based on our reports. Please consult your healthcare provider if you are interested in following up on the information presented.