

INTERNATIONAL HEALTH NEWS

Your Gateway to Better Health!

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Editorial

Most people would agree that becoming and staying wealthy takes a fair amount of effort, study and good, sound advice. Very few realize that the same amount of effort, study and good, sound advice is also required to become and remain healthy. We often take our health for granted and somehow expect that we'll learn by osmosis how to take care of it. Unfortunately, this is not a viable approach. It is now clear that at least 85% of our ailments are caused by our diet, lifestyle or environment; less than 15% is genetically ordained.

Researchers at the U.S. Centers for Disease Control report that both men and women can reduce their risk of dying from heart disease or stroke by 15% simply by supplementing with antioxidants and multivitamins daily. Harvard Medical School researchers estimate that 82% of all deaths from heart disease among women can be avoided by regular exercise, a healthy diet, and avoidance of smoking. It really is up to you!

Also in this issue some fascinating new findings about calcium and bone loss. It seems that the low fat, high fiber diet often recommended by health professionals actually hinders calcium absorption. It is also clear that decreasing one's intake of protein, salt, and cola drinks may be as effective as an increase in calcium intake through diet or supplements in ensuring adequate bone mass.

Finally, some sobering findings on the effectiveness of surgery in Parkinson's disease and a warning to women to think twice about a hysterectomy - it could cause urinary incontinence later in life.

Enjoy this issue and please tell your friends about our newsletter. You will be doing them a favour!

*Yours in health,
Hans Larsen*

October Highlights

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LETTERS TO THE EDITOR

Thank you so much for your article on "Coenzyme Q10: The Wonder Nutrient". It motivated me to go and buy the product 10 days ago. I have been using it ever since and my heart condition has improved so much that I can now walk at a normal speed without becoming out-of-breath and having to sit constantly on the stool I carried on my shoulder.

As a complication of influenza 16 years ago, I developed an acute viral myocarditis and

pericarditis with extensive damage to the heart nodes. I have been completely dependent on a pacemaker for the last 14 years. As my heart function has been deteriorating considerably during the past 6 months, I procured a computer to surf the Internet. I have found some wonderful nutritional information and have been following it. Since I started taking CoQ10 the unbelievable improvement in my energy level and heart function is such that I will be able to pursue my university studies in September.

Thank you so much for your precious contribution. You have helped me to improve my quality of life more than you will ever know!

CB, USA

In a recent article you described the treatment of muscle myopathies with large doses of vitamin D2 (ergocalciferol). What is vitamin D2 and would 50,000 units all at once not be toxic?

AMC, Canada

Editor: Ergocalciferol also known as vitamin D2 is produced by ultraviolet radiation of the yeast sterol ergosterol. Cholecalciferol also known as vitamin D3 is produced in the skin of mammals (including humans) by sun exposure of the precursor 7-dehydrocholesterol. Vitamin D3 is also found in fish liver oils. Both vitamins D2 and D3 are converted in the body to 1,25-

dihydroxyvitamin D which is the biologically active form of vitamin D. Vitamin D in doses of 10,000 IU or more can be toxic if ingested daily for prolonged periods of time. However, the patients in question were treated with 50,000 IU once a week for 6 weeks which would not be in the toxic range. High-dose supplementation (50,000 IU/week) should be done under the supervision of a health care provider as there could be side effects.

I read an article in a health magazine about electroacupuncture. Is there any research concerning its use in coronary artery disease? Also are you aware of any supplements which may help with my unstable angina?

BV, Canada

Editor: I have not heard of electroacupuncture being used to treat coronary artery disease. Vitamin E is very important in preventing attacks in patients suffering from unstable angina - 400-800 IU/day is usually recommended. Vitamin E should always be taken together with vitamin C. Fish oils and L-carnitine have also been found useful in reducing angina attacks. Of course, you should not make any changes to your medications or start taking any of the above supplements without first checking with your physician.

ABSTRACTS

Clinical trial of homeopathy yields favourable results

GLASGOW, UNITED KINGDOM. Homeopathy, developed by Dr. Samuel Hahnemann in 1810, is based on the principle that "like cures like". In other words, if a disease symptom can be induced by a substance then that same disease can be cured by providing the patient with an extremely diluted solution of the substance. The intellectual stumbling block to this approach, at least among practitioners of conventional Western medicine, is that homeopathic solutions are generally so dilute that not a single molecule

of the original substance remains. Homeopaths believe that an imprint of the substance's energy pattern is still present and accounts for the effects while opponents maintain that any benefits of homeopathic remedies are strictly due to a placebo effect. Many clinical trials have been carried out to prove that homeopathy is bogus, but none have convincingly done so. Researchers at the University of Glasgow and the Glasgow Homeopathic Hospital have just released the

results of a major study designed to prove once and for all that homeopathy is no more effective than placebo. Their double-blind, randomized, placebo-controlled study involved 50 patients with perennial allergic rhinitis (chronic inflammation of the mucous membrane of the nose caused by an allergic reaction). All patients were tested to determine the cause of their allergic reaction. Most were found to be allergic to house dust mites (70 per cent) or house dust (20 per cent). A 30c homeopathic dilution of the offending agent was prepared and administered once (in the form of lactose-sucrose globules) to half the patients while the other half were given an identical-looking product prepared exactly in the same way, but without the original addition of the offending allergen (placebo). All patients measured their nasal inspiratory peak flow in the mornings and evenings for a four-week period following the administration of the homeopathic remedy or placebo. At the end of the four weeks the

patients in the homeopathy group reported a 21 per cent improvement in nasal inspiratory peak flow (liters/minute) as compared to a 2 per cent improvement in the placebo group. The researchers conclude that the homeopathic remedy "provoked a clear, significant, and clinically relevant improvement in nasal inspiratory peak flow, similar to that found with topical steroids." So, in other words, the researchers set out with a strong bias towards proving that homeopathy does not work. After their closely controlled clinical trial they had to admit that indeed homeopathy does work and is as effective for treating allergic rhinitis as topical steroids. NOTE: This study was funded in part by the British Homeopathic Association.

Taylor, Morag A., et al. Randomised controlled trial of homeopathy versus placebo in perennial allergic rhinitis with overview of four trial series. British Medical Journal, Vol. 321, August 19-26, 2000, pp. 471-76

Spotlight on thiols

COLUMBUS, OHIO. Two of the world's foremost antioxidant researchers, Dr. Lester Packer of the University of Kuopio in Finland and Dr. Chandan K. Sen of the Ohio State University Medical Center, have just released a major, ground-breaking study concerning the importance of thiols (organic sulfur derivatives also known as mercaptans) in human health. Thiols have numerous roles in biological systems including a central role in coordinating antioxidant defenses. The most important antioxidant in the human body is glutathione. The requirement for glutathione increases markedly during physical exercise which in itself produces significant oxidative stress. Drs. Packer and Sen point out that oral supplementation with glutathione as such is inefficient and that the best way of ensuring an adequate store is by supplying the body with sufficient amounts of selenium, riboflavin, and

amino acids. Two thiols, n-acetyl-l-cysteine (NAC) and alpha-lipoic acid, have both been found highly effective in enhancing the regeneration and activity of glutathione especially during oxidative stress induced by exercise.

Research has also shown that HIV patients generally have abnormally low levels of thiols indicating that HIV infection and oxidative stress are related. Intravenous infusions of NAC have been found to decrease muscle fatigue during strenuous, repetitive exercise. The researchers conclude that NAC and especially alpha-lipoic acid hold great promise as supplements for supporting and enhancing the activity of glutathione. [156 references]

Sen, Chandan K. and Packer, Lester. Thiol homeostasis and supplements in physical exercise. American Journal of Clinical Nutrition, Vol. 72 (suppl), August 2000, pp. 653S-69S

Spontaneous conversion of lone atrial fibrillation

MODENA, ITALY. Lone atrial fibrillation, that is atrial fibrillation (heart palpitations) without underlying heart disease, is becoming an

increasingly common disorder. It manifests itself by irregular, rapid heartbeat and is often accompanied by dizziness or breathlessness. It

is most often intermittent (paroxysmal) lasting anywhere from a few minutes to several days. Patients with lone atrial fibrillation (LAF) who are hospitalized are often exposed to drug infusions or direct current shock (cardioversion) in order to stop the fibrillation and bring the heart rhythm back to normal.

Researchers at the University of Modena now report that the use of potentially dangerous, time-consuming, and expensive treatments to normalize heart rhythm in LAF patients may not be necessary in most cases. Their study involved 140 patients who were admitted to the University Hospital with LAF of recent onset. The researchers found that 108 (77 per cent) of the patients reverted to normal heart rhythm within 48 hours without any treatment at all. The average duration of the LAF episodes was four

hours. Extensive clinical examination of all patients revealed that people whose LAF attack occurred during sleep had a seven-fold higher probability of spontaneous conversion during the first 24 hours than did those whose attacks occurred during the day. Patients with a high blood level of ANP (atrial natriuretic peptide) were 3.2 times more likely to experience a spontaneous conversion than were patients with lower levels. The researchers found no correlation between age, gender, duration of LAF or left atrial dimension and the propensity for spontaneous conversion.

Mattioli, Anna Vittoria, et al. Clinical, echocardiographic, and hormonal factors influencing spontaneous conversion of recent-onset atrial fibrillation to sinus rhythm. American Journal of Cardiology, Vol. 86, August 1, 2000, pp. 351-52

Take vitamins and live longer

ATLANTA, GEORGIA. Researchers at the Centers for Disease Control and Prevention have just released a major study aimed at determining the benefits of vitamin supplementation. The study involved over one million adult Americans (450,000 men and 610,000 women) over the age of 30 years in 1982 when the study commenced. The participants completed questionnaires regarding their diet, lifestyle, educational background, smoking status, etc. and were also specifically asked about their use of multivitamins alone, vitamins A, C or E on their own or a combination of multivitamins and vitamins A, C or E (antioxidants). By 1989 85,000 of the study participants had died; 22,800 (27 per cent) from ischemic heart disease, 5460 (6 per cent) from stroke, 29,800 (35 per cent) from cancer, and 27,000 (32 per cent) from other causes.

Thirty per cent of the men and 37 per cent of the women participating in the study reported the use of multivitamins alone or in combination with vitamins A, C or E in the month preceding the questionnaire. Twelve per cent of men and 13 per cent of women had used vitamins A, C or E without a multivitamin and 58 per cent of men and 50 per cent of women had used no vitamins

at all. Vitamin users tended to be more educated, less overweight, and more likely to eat vegetables and drink wine or liquor.

A detailed examination of the data collected in the study revealed that men and women who took both multivitamins and extra vitamins A, C or E (no distinction was made between these antioxidant vitamins) had a 15 per cent lower risk of dying from heart disease or stroke than did people who took only multivitamins or no vitamins at all. Non-smoking men who took both multivitamins and antioxidants reduced their risk of dying from cancer by 10 to 14 per cent while male smokers who used vitamins with or without vitamins A, C or E increased their cancer risk by about 15 per cent. No similar relationship was observed for women. The researchers conclude that the use of multivitamins and antioxidants (vitamins C, E or A) in combination may reduce mortality from heart disease and stroke, but caution that some vitamin supplements may adversely affect male smokers.

Watkins, Margaret, L., et al. Multivitamin use and mortality in a large prospective study. American Journal of Epidemiology, Vol. 152, July 15, 2000, pp. 149-62

Urinary incontinence linked to hysterectomy

SAN FRANCISCO, CALIFORNIA. Each year more than 600,000 women in the United States have a hysterectomy (surgical removal of the womb). By the age of 60 years about 40 per cent of all American women have undergone a hysterectomy. Almost 90 per cent of these surgical procedures are done for benign disorders and most come under the label "elective surgery". Serious complications arise in about 10 per cent of all operations and the mortality rate is about six women per 10,000 hysterectomies.

Researchers at the University of California and Stanford University recently set out to investigate if there is any association between the development of urinary incontinence and having undergone a hysterectomy. They reviewed the medical literature on the subject published between 1966 and 1997 and found 12 major studies which reported an association

between urinary incontinence and hysterectomy. The researchers conclude that the prevalence of urinary incontinence among women 60 years and older is 40 to 80 per cent higher among women who have undergone a hysterectomy than among women who have not. They also point out that other studies have shown that women who undergo any kind of genital surgery increase their risk of later developing urinary incontinence by about 60 per cent. The researchers believe that hysterectomy may damage pelvic nerves or supportive structures and ultimately lead to incontinence. They recommend that women considering a hysterectomy should be told that incontinence may be a possible long-term adverse effect.

Brown, Jeanette S., et al. Hysterectomy and urinary incontinence: a systematic review. The Lancet, Vol. 356, August 12, 2000, pp. 535-39

Acupuncture treatment for cocaine dependency

NEW HAVEN, CONNECTICUT. Almost two million Americans now use cocaine and usage continues to grow especially among the 18- to 25-year age group. Conventional treatments for cocaine dependency are not very effective. This prompted researchers at the Yale University School of Medicine to evaluate acupuncture as a means of reducing the craving for cocaine. Their study involved 82 cocaine addicts who were on a stable dose of methadone. The participants were randomly assigned to one of three treatment groups. The first group received an auricular acupuncture treatment five times weekly for eight weeks. Four acupuncture needles were inserted in each ear at the *sympathetic*, *lung*, *liver*, and *sen men* points. The second group received "sham" acupuncture treatments where needles were inserted in "inactive" points on the ears. The third group was seated comfortably for 40 minutes each week day (5 days a week) and watched videos

depicting relaxation strategies and relaxing nature scenes or listened to relaxing music. All participants provided urine samples three times a week; these were checked for cocaine metabolites.

In the final week of the study 54 per cent of the participants in group 1 (the real acupuncture group) provided three consecutive urine samples free of cocaine. Twenty-four per cent of the participants in the sham acupuncture group also provided three consecutive cocaine-free samples in the last week while only 9 per cent in the relaxation group did so. The researchers conclude that ear (auricular) acupuncture is effective in the treatment of cocaine addiction.

Avants, S. Kelly, et al. A randomized controlled trial of auricular acupuncture for cocaine dependence. Archives of Internal Medicine, Vol. 160, August 14/28, 2000, pp. 2305-12

Calcium: how much is enough?

ADELAIDE, AUSTRALIA. It is generally accepted that a negative calcium balance leads to osteoporosis and bone fractures. It is also known that bone fractures are relatively uncommon in developing countries where calcium intakes are low and relatively common in developed countries where calcium intakes are high and many people supplement with calcium in order to ensure an adequate intake. Does this make sense? Dr. Christopher Nordin at the Institute of Medical and Veterinary Science believes it does. Dr. Nordin points out that it is not the total calcium intake which determines bone strength (density), but rather the difference between what is taken in and what is excreted. Research has shown that for each gram of animal protein consumed one milligram of calcium is lost in the urine. This means that a 40-gram reduction in animal protein intake reduces the urinary calcium loss by 40 mg which in turn corresponds to a

reduction in calcium requirements of 200 mg (assuming an absorption of 20 per cent). A reduction in sodium (salt) intake of 2.3 grams also reduces urinary calcium loss by 40 mg lowering requirements by another 200 mg. So a person with a low intake of protein and salt might have half the calcium requirements of a person eating a typical North American diet. This and the fact that developing countries generally get more sunshine (vitamin D) than developed countries go a long way towards explaining the difference in the incidence of osteoporosis and bone fractures between different cultures and individuals. Dr. Nordin concludes that there is no single, universal calcium requirement, only a requirement linked to the intake of other nutrients especially animal protein and sodium.

Nordin, B.E. Christopher. Calcium requirement is a sliding scale. American Journal of Clinical Nutrition, Vol. 71, June 2000, pp. 1381-83

Sales of herbal medicines soar

EXETER, UNITED KINGDOM. Professor Ernst at the University of Exeter presents a short update on the current state of herbal medicines. He points out that sales of herbal supplements in the United States is now approaching \$4 billion/year. Several randomized clinical trials involving thousands of patients have confirmed that St. John's wort is an effective antidepressant (sales increased in one year by 2800 per cent), ginkgo biloba delays the progression of dementia, saw palmetto is an effective treatment for benign prostatic hyperplasia (enlarged prostate), and horse chestnut seed extracts are fully comparable to conventional medicines in the treatment of chronic venous insufficiency (dull ache in legs, edema, and superficial varicose veins). Dr. Ernst specifically notes that saw palmetto was found to be as effective as the leading prostate drug finasteride (Proscar). He also

acknowledges that there is still much to be learned about how herbal medicines work and which parts of a herb are the active ones. For instance, up until quite recently it was believed that hypericin was the active ingredient in St. John's wort; evidence is now accumulating that hyperforin may be equally important.

Dr. Ernst cautions that some commercial herb preparations may be adulterated or not contain what the label specifies. He also warns of possible drug/herb interactions (e.g. ginseng and warfarin). Nevertheless, he concludes that medical doctors need to become more knowledgeable about herbal medicines and should also consider changing their often negative attitude towards them.

Ernst, E. Herbal medicines: where is the evidence? British Medical Journal, Vol. 321, August 12, 2000, pp. 395-96 (editorial)

Prostate cancer: to treat or not to treat?

BALTIMORE, MARYLAND. The number of men diagnosed with prostate cancer has increased dramatically since the introduction of the PSA (prostate specific antigen) test. Widespread use of the PSA test has led to more men undergoing biopsies, prostate surgery, radiation therapy, and castration (orchidectomy) - this despite the fact that no randomized clinical trial has ever demonstrated that screening and treatment will increase the life expectancy of men diagnosed with prostate cancer.

Researchers at the Johns Hopkins School of Hygiene and Public Health now report that aggressive treatment of prostate cancer is associated with an increased risk of dying from other cancers. Their study involved 1996 prostate cancer patients (diagnosed from 1987 through 1989) and 6586 men with benign prostatic hyperplasia (enlarged prostate) who did not have prostate cancer. The men were all 67 years of age or older at the time of diagnosis. By the end of 1995 1207 of the patients in the prostate cancer group had died (60 per cent) as compared to 2906 patients in the non-prostate cancer group (44 per cent). Prostate cancer as such was the cause of death in 39 per cent of the prostate cancer group with the remaining 61 per cent dying from other causes such as heart disease, stroke, and other cancers. The percentage of prostate cancer patients who died from prostate cancer rather than from other causes was significantly higher among men with advanced prostate cancer than among men with localized tumors only.

Combining all deaths from prostate cancer (no distinction was made by severity) it was found that patients who underwent radiation therapy

had an 81 per cent higher risk of dying from prostate cancer than did men who received no treatment (watchful waiting). Patients who received hormones or were castrated increased their risk of dying by 85 per cent (compared with no treatment) while men who just underwent surgery with no additional treatment had a 23 per cent lower death rate (from prostate cancer) than did men who had not received any treatment.

Of particular interest is the finding that the adjusted odds of dying from other cancers was 29.9 per cent among aggressively-treated prostate cancer patients as compared to only 13.7 per cent among non-treated (watchful waiting) patients and 18.9 per cent among non-prostate cancer patients. It was also clear that the risk of dying from prostate cancer decreases with age. Men whose prostate cancer was diagnosed at age 85 or older had a 44 per cent lower risk of dying of prostate cancer than did men whose cancer was diagnosed between the ages of 67 and 74 years. The researchers caution that bias in reporting cause of death may have influenced the study results and recommend additional studies to support or discard the hypothesis that early detection and treatment lead to decreased prostate cancer mortality.

Newschaffer, Craig J., et al. Causes of death in elderly prostate cancer patients and in a comparison nonprostate cancer cohort. Journal of the National Cancer Institute, Vol. 92, April 19, 2000, pp. 613-21
Albertsen, Peter. When is a death from prostate cancer not a death from prostate cancer? Journal of the National Cancer Institute, Vol. 92, April 19, 2000, pp. 590-91 (editorial)

Variables in calcium absorption

PITTSBURGH, PENNSYLVANIA. An adequate calcium intake is important in reducing the risk of osteoporosis, hypertension, and colon cancer. It is, however, becoming increasingly clear that a supposedly adequate intake does not guarantee the absence of osteoporosis. The calcium must not only be ingested, it must also be absorbed and its excretion minimized. In other words, it is not the calcium intake *per se*

that is important, but rather how much of it is actually retained in the body.

Researchers at the University of Pittsburgh now report that the intake of fat and fiber significantly influences calcium absorption. Their study involved 142 healthy pre-menopausal white women who had enrolled in the Women's Healthy Lifestyle Project in 1995-96. The women had blood samples drawn three hours after consuming apple juice containing labeled

(isotope) calcium. The blood samples were analyzed for calcium, 1,25 dihydroxyvitamin D (the active form of vitamin D), and parathyroid hormone. The women also completed food-frequency questionnaires and answered questions about their lifestyle and the use of vitamin and mineral supplements.

The researchers found that about 35 per cent (17 to 58 per cent) of the labeled calcium had been absorbed. It was clear that women with a higher fat intake and a lower intake of fiber absorbed significantly more calcium than did women with less fat and more fiber in their diet. Women with high blood levels of vitamin D also showed increased absorption while women who consumed alcohol had decreased absorption. There is also some indication that a higher total

calcium intake is associated with a lower rate of absorption. The researchers caution that it may only be certain types of fiber (e.g. wheat bran) that inhibit calcium absorption. Fiber found in green leafy vegetables such as kale, broccoli, and bok choy may not be detrimental to absorption. They found no indication that genetic differences among the women were in any way related to calcium absorption. The researchers express the hope that their findings will encourage a second look at the current standard recommendation to emphasize a low-fat, high-fiber diet.

Wolf, Randi L., et al. Factors associated with calcium absorption efficiency in pre- and perimenopausal women. American Journal of Clinical Nutrition, Vol. 72, August 2000, pp. 466-71

Dental alloys affect cellular energy production

NOTE: We usually do not report test tube or animal experiments, but thought we would make an exception in this case. The findings that commonly used dental alloys may interrupt the normal function of human cells is a first and could have wide-ranging effects.

BIRMINGHAM, ALABAMA. Although nickel is known to be carcinogenic in humans it is still widely used in certain dental alloys. Researchers at the University of Alabama now report that other components of dental alloys (beryllium, chromium, and molybdenum) as well as nickel affect the very basic function of human cells - the production of energy (ATP). ATP is produced in the mitochondria of cells and involves highly oxidative processes. It is becoming increasingly clear that abnormalities in the mitochondrial processes are important causes of human disease. Some researchers believe that a slowing down of these processes actually heralds the very first stage in the proliferation of abnormal cells and cancer.

The Alabama researchers exposed cultures of human gingival (gum) cells to solutions of nickel, beryllium, chromium (tri- and hexavalent) and molybdenum (hexavalent) for periods of 24 and 72 hours. They then measured the energy production and oxygen consumption of the cells' mitochondria in the various solutions. Cells in contact with nickel or hexavalent chromium were most affected and showed decreased ATP (energy) production as well as a decrease in oxygen consumption. The effects of beryllium, molybdenum, and trivalent chromium were similar, but less pronounced. The researchers conclude that their findings may be the first indication that some components of common dental alloys may be detrimental to human health. They urge further research to establish possible synergisms between mixtures of these different metals on mitochondrial energy production. [54 references]

Messer, R.L.W., et al. An investigation of fibroblast mitochondria enzyme activity and respiration in response to metallic ions released from dental alloys. J Biomed Mater Res, Vol. 50, 2000, pp. 598-604

Heart disease in women is preventable

BOSTON, MASSACHUSETTS. Coronary heart disease is still the leading cause of death among both men and women in the United States. This despite the widespread use of medications to

control hypertension and cholesterol levels and improved procedures for dealing with heart attacks and congestive heart failure. Researchers at the Harvard Medical School

have just released the results of a major study which provides conclusive proof that death from heart disease is almost entirely preventable - at least in the case of women.

The study involved 84,129 female nurses who were free of cardiovascular disease, cancer, and diabetes when the study began in 1980. By 1994 296 of the nurses had died from heart disease and 832 had suffered a non-fatal heart attack. The researchers collected detailed information about the nurses' diet and lifestyle throughout the 14-year follow-up period. At the end of the study they concluded that women who had a healthy lifestyle, ate a healthy diet, and did not smoke had a six times lower risk of coronary heart disease than did other women. This means that 82 per cent of all heart disease among women in the USA could be eliminated if all women were to adhere to a healthy lifestyle and avoid smoking.

The researchers singled out five factors which accounted for the 82 per cent decrease in the risk of dying from heart disease.

- Avoidance of smoking
- One half hour per day of vigorous physical activity (strenuous enough to build up a sweat)
- A body mass index (BMI) of less than 25

- Moderate daily alcohol consumption (corresponding to about one glass of wine per day)
- A healthy diet

A healthy diet was defined as a diet low in *trans*-fatty acids, low in high glycemic index foods, high in cereal fiber, folate and marine n-3 fatty acids (fish oils), and with a high ratio of polyunsaturated to saturated fat. Unfortunately, only about three per cent of the more than 84,000 study participants fell into the category which followed these lifestyle guidelines and thereby reduced their risk of dying from heart disease by over 80 per cent. Following just three of the guidelines (vigorous exercise, no smoking, and a reasonably healthy diet) also provided significant benefit (a risk factor of 57 per cent). The researchers did not include the potential benefit of consuming nuts, linolenic acid (flax oil), vitamin B6 or vitamin E. They point out that these "supplements" may be worth considering for women who prefer not to consume alcohol.

Stampfer, Meir J., et al. Primary prevention of coronary heart disease in women through diet and lifestyle. New England Journal of Medicine, Vol. 343, July 6, 2000, pp. 16-22

Surgery for Parkinson's disease?

TORONTO, CANADA. It is estimated that more than one per cent of all Americans over 60 years of age suffer from Parkinson's disease (PD). There is no medical cure for the disease and some of the drugs used to treat its symptoms (levo-dopa) may ultimately speed its progression. This fact has rekindled the interest in using brain surgery to stop the disease or at least ameliorate its effects. Dr. Anthony Lang MD, a specialist in Parkinson's disease at the University of Toronto, has just published an excellent review of the current state-of-the-art surgery for PD. Dr. Lang warns that none of the surgical procedures used for PD today have been exposed to rigorous, double-blind, randomized clinical trials. Says Dr. Lang "As long as there are willing neurologists and surgeons and desperate patients, this problem will persist until the professional community decides to regulate the practice of its members or until external regulations are imposed." He

lists the example of adrenal medullary transplantation which was quite popular for awhile, but which has now been abandoned as useless and dangerous.

Surgery for PD can involve incisions (lesions) made in various parts of the brain in an attempt to reduce tremors and other symptoms of the disease. Thalamotomy has now been used for 40 years. It is somewhat effective in reducing tremors, but can have serious side effects. Pallidotomy (surgery involving the globus pallidus region of the basal ganglia) was reintroduced in 1992, but is still the subject of great controversy; as a matter of fact, there is still no consensus as to where the incision should actually be made. Pallidotomy may help with dyskinesias (involuntary muscle movements) caused by levo-dopa, but its effects are short-lived (less than two years). Deep brain stimulation (DBS) involves the implantation of electrodes in the thalamus or globus pallidus

areas of the brain. The electrodes are activated by an electronic device (similar to a pacemaker) installed in the chest cavity. Some preliminary results are promising, but again, there is no actual agreement as to where the electrodes should be placed and the only reasonably valid trial of this technique involved only 13 patients. Transplantation of human fetal tissue into the brains of PD patients is an emerging approach. This procedure requires the use of six to eight or more fetuses for each patient and, not surprisingly, is fraught with controversy. It may

provide some benefits in patients younger than 60 years (none in patients older than 60 years) and can have serious side effects. Dr. Lang concludes his review with the observation that "Despite numerous claims, the evidence for benefit from surgical therapies in patients with PD is relatively weak." NOTE: This study was partly funded by Medtronic, Inc., a manufacturer of DBS equipment. [75 references]

Lang, Anthony E. Surgery for Parkinson disease: a critical evaluation of the state of the art. Archives of Neurology, Vol. 57, August 2000, pp. 1118-25

NEWSBRIEFS

Pycnogenol kills cancer cells. Researchers at the Loma Linda University School of Medicine report that the proanthocyanidin antioxidant pycnogenol (an extract of pine tree bark) kills human breast cancer cells. Their culture dish experiment evaluated the effect of it on the growth of normal breast cells and cancerous breast cells. While normal breast cells were unaffected there was clear evidence of increased cell death among the cancerous cells. *Anticancer Research, Vol. 20, July-August 2000, pp. 2417-20*

Amalgam fillings may damage kidneys. Amalgam fillings and skin-lightening creams both contain significant amounts of mercury. Researchers at the King Faisal Hospital in Riyadh, Saudi Arabia have just completed a study aimed at determining whether the mercury actually gets into the blood stream. The study involved 225 women (aged 17 to 58 years) who had their urine measured for mercury, creatinine, urea, uric acid, phosphorus, magnesium, calcium, and glucose. The urinary mercury level varied between 0 and 204.8 micrograms per liter and was directly related to the number of dental amalgam fillings present in the women's mouths. The researchers conclude that chronic exposure to mercury may be associated with deterioration of renal (kidney) function. *Biometals, Vol. 10, October 1997, pp. 315-23*

Medicines and dementia. American and British researchers warn that many medicines including some over-the-counter drugs have side effects that can mimic age-related diseases

such as dementia and glaucoma. Among the worst offenders are drugs for Parkinson's disease, nausea and gastrointestinal problems, but drugs commonly used to treat heart problems, depression and diarrhea may also be blamed. Says Jacobo Mintzer of the Medical University of South Carolina "Patients must be made more aware of these potential side effects."

New Scientist, September 2, 2000, p. 23

Vitamin K prevents bone loss in astronauts. It has been known for some time that astronauts lose bone mass when in space - the reason, so far, has not been clear. French researchers now provide convincing evidence that a vitamin K deficiency may be the culprit. They found that astronauts who had been in space for as little as four days lost the ability to maintain their bone density. One Russian cosmonaut who spent 180 days in space was given a vitamin K supplement which promptly solved the problem. Says Benny Elmann-Larsen of the European Space Agency "If it can be demonstrated that vitamin K plays a role in the maintenance of bone mineral density, then it's a very important finding."

New Scientist, September 9, 2000, p. 6

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