

# INTERNATIONAL HEALTH NEWS

*Your Gateway to Better Health!*

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## **Editorial**

*A number of readers have asked me to comment on the recent media hoopla concerning the “cancer causing” properties of vitamin C reported in the June 15<sup>th</sup> issue of Science[1]. I have read the article and fail to see what all the commotion is about. The researchers reacted a fairly obscure chemical compound, 13(S)-hydroperoxy-(Z,E)-9,11-octadecadienoic acid (13-HPODE), with vitamin C in a test tube and observed the formation of some equally exotic compounds that may or may not, depending on conditions, be cancerous in mammalian cells. 13-HPODE is formed by oxidation of linoleic acid, however, vitamin C and glutathione would normally prevent this reaction. In order to get around this little stumbling block, the researchers synthesized the 13-HPODE first and then exposed it to vitamin C. To give them some credit, the researchers do not claim that their test tube findings are applicable to actual human beings or warn that people should stop taking supplements. They merely suggest that cancer researchers should consider their findings in future studies to evaluate the cancer-preventive properties of vitamin C.*

*To the best of my knowledge there has never been a single epidemiological study or verified clinical trial in animals or humans, which has concluded that vitamin C is in any way harmful. Quite the contrary, I am aware of dozens and dozens of studies and trials that have found vitamin C beneficial. Daily supplementation with 500 mg for 10 years or more has been found to cut the risk of developing bladder cancer by 60%. The spread of breast cancer (metastasis) is now believed to be predominantly due to free radical damage, which can be controlled through intake of increased amounts of vitamin C. Supplementation with 3 grams/day has been found to effectively prevent further polyp growth in colon cancer and an intake of more than 157 mg/day has been found to reduce the risk of developing colon cancer by 50%.*

*Researchers at the US National Institute of Aging report that elderly people who take vitamins C and E supplements have a 50% lower risk of dying prematurely from disease than do people who do not supplement. Other researchers have reported a protective effect against heart disease, stroke, heart attack, cataracts, glaucoma, diabetes, etc., etc. The list goes on and on. Less than a year ago researchers at the US National Heart, Lung and Blood Institute reported that men with high vitamin C levels (corresponding to an intake of 200 mg/day) had a 62% lower risk of dying from cancer than did men with low levels[2]. Why was this study not given extensive press coverage? One can only wonder!*

*In any case, I am not losing any sleep over the Science study and will continue to take my 500 mg of vitamin C with meals 3 times a day as I have done for the past 30 years.*

*Yours in health,  
Hans Larsen*

[1] Lee, Seon Hwa, et al. Vitamin C-induced decomposition of lipid hydroperoxides to endogenous genotoxins. *Science*, Vol. 292, June 15, 2001, pp. 2083-86

[2] Loria, Catherine M., et al. Vitamin C status and mortality in US adults. *American Journal of Clinical Nutrition*, Vol. 72, July 2000, pp. 139-45

## July Highlights

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## LETTERS TO THE EDITOR

I have a son with autism. He also has tested positive to a metabolic disorder called 5 nucleotidase superactivity. It is an error of purine metabolism. Have you any ideas on research that might help me find out what this is all about?

CJ, Australia

**Editor:** *I would suggest you go to MEDLINE and type in nucleotidase in the search box. This will give you all the latest research on the condition. I am afraid I don't know anything about it. You can access MEDLINE from our website (yourhealthbase.com) by clicking on "Resources".*

\*\*\*\*

I would like some advice on how to minimize the indigestion that occurs sometimes when I take so many vitamins at a time. I do not think I can drink an adequate amount of liquid with a meal to take them.

JC, USA

## ABSTRACTS

### Claudication patients benefit from propionyl-L-carnitine

DENVER, COLORADO. A team of American and Russian researchers reports that supplementation with propionyl-L-carnitine can markedly improve the symptoms of intermittent claudication (leg

**Editor:** *It is very hard for me to comment on your vitamin/indigestion problem as I don't know which vitamins you are taking. Have you tried to incorporate a pill with a chewed piece of food (just before swallowing)? This works for many people and avoids the problem of using large amounts of liquid to wash them down.*

\*\*\*\*

Are you able to provide me with any illumination on a burning question with which I am struggling – homeopathic medicine versus allopathic medicine (specifically radiation) in the treatment of advanced prostate cancer?

SW, USA

**Editor:** *I'm not ware of any homeopathic medicines for prostate cancer. However, there is a Chinese herbal remedy that has been found quite effective. It is called PC-SPES and you can find more information about it at our website (yourhealthbase.com/prostate\_cancer\_treatment.html). I believe the Whitaker Clinic in California uses it extensively. It is currently under evaluation by the National Institutes of Health.*

\*\*\*\*

Please tell me where I can find a directory of alternative medicine practitioners. I desperately need to find one for my mother-in-law.

BH, USA

**Editor:** *You can find a listing of holistic physicians at <http://www.acam.org/doctorsearch.php> and a listing of naturopaths at <http://www.naturopathicassoc.ca/dr.html> for Canada and [http://www.naturopathic.org/find\\_nd.htm](http://www.naturopathic.org/find_nd.htm) for the USA.*

cramps when walking). Their study involved 155 patients with disabling claudication (72 from the USA and 83 for Russia). The patients were randomized to receive two 500 mg propionyl-L-

carnitine pills twice a day or identical placebo pills. They were given a treadmill test at the beginning of the experiment and after six months of supplementation. The test measured the time to the onset of unbearable pain and the maximal distance walked before pain forced a cessation of the exercise.

After six months the patients in the carnitine group had improved their peak walking time by 54 per cent as compared to the placebo group's average improvement of 25 per cent. The carnitine group also reported a significant

reduction in bodily pain and in general, a transition to a better state of health.

The researchers conclude that, "propionyl-L-carnitine is effective in improving treadmill exercise performance and functional status in patients with peripheral arterial disease and claudication". NOTE: This study was supported by a grant from Sigma Tau Pharmaceuticals, Inc.

*Hiatt, William R., et al. Propionyl-L-carnitine improves exercise performance and functional status in patients with claudication. American Journal of Medicine, Vol. 110, June 1, 2001, pp. 616-22*

## Helicobacter pylori infection implicated in RA

GENOVA, ITALY. It is well established that an infection with *Helicobacter pylori* bacteria is a major cause of peptic (stomach) ulcers. Most stomach ulcers can now be completely cured by a one- to two-week course of antibiotics and auxiliary medications. More recent research has found an association between the presence of *H. pylori* and autoimmune diseases such as Raynaud's and Sjogren's syndromes.

Researchers at the University of Genova now report that a *H. pylori* infection may also be involved in rheumatoid arthritis (RA). Their clinical trial involved 52 patients (42 women, 10 men) who had been diagnosed with RA. All patients underwent biopsies to check for the presence of *H. pylori* in their stomachs. Thirty of the 52 patients tested positive for *H. pylori*. The positive patients were given eradication therapy, which was successful in 20 patients and unsuccessful in 10 patients. All patients were evaluated for pain, morning stiffness, number of swollen and tender joints, and overall functional ability at the start of the study and four months

later. Erythrocyte sedimentation rate (ESR) and other blood parameters were also measured. At the end of the four-month study period it was very clear that the patients who had undergone successful *H. pylori* eradication had improved significantly both compared to their own baseline status and compared to the 10 patients where *H. pylori* eradication was unsuccessful and the 20 patients who had tested negative.

The ESR was down by 40 per cent and very close to normal values. The duration of morning stiffness was cut in half to little over an hour and the swollen joint count was down by an impressive 23 per cent.

The researchers speculate that *H. pylori* may be a potent trigger of inflammation and recommend that eradication of these bacteria be strongly considered in rheumatoid arthritis patients who are infected with them.

*Seriolo, Bruno, et al. Helicobacter pylori infection in rheumatoid arthritis. Journal of Rheumatology, Vol. 28, May 2001, pp. 1195-96 (letter to the editor)*

## Mortality and impaired glucose tolerance

BALTIMORE, MARYLAND. Type 2 diabetes is a well-established cause of increased mortality and, more specifically, death from heart disease. Researchers at the Johns Hopkins University now report that even sub-clinical states of glucose intolerance confer an increased risk of premature death. Their study involved 3174 adults aged 30 to 75 years who underwent an oral glucose tolerance test between 1976 and 1980 and then were followed until they died or until 1992, whichever came first. Most (2263) participants had normal glucose tolerance, 480 had impaired

glucose tolerance (a fasting glucose level less than 140 mg/dL and a plasma glucose level between 140 and 199 mg/dL two hours after ingesting 75 grams of glucose), 183 had undiagnosed diabetes (a fasting level greater than 140 mg/dL or a two-hour level greater than 200 mg/dL), and 248 had physician-diagnosed type 2 diabetes.

There were 737 deaths during the follow-up period. The all-cause mortality was highest in the diabetes group (40.9 per cent per 1000 person-years). This was followed by the undiagnosed

diabetes group at 33.2 per cent, the impaired glucose tolerance group at 20.8 per cent, and the normal glucose tolerance group at 10.6 per cent. A similar risk pattern was observed for cardiovascular disease mortality by itself. The researchers conclude that people with impaired glucose tolerance have a 40 per cent greater risk of premature death than do people

with normal glucose tolerance. **Editor's Note:** There is emerging evidence that lifestyle changes and supplementation with vitamins and minerals can delay the conversion of impaired glucose tolerance into full-blown diabetes.

*Saydah, Sharon H., et al. Subclinical states of glucose intolerance and risk of death in the U.S. Diabetes Care, Vol. 24, March 2001, pp. 447-53*

## Antioxidants reduce radiation injuries

CHICAGO, ILLINOIS. Chronic radiation proctitis (inflammation of the rectum) is a common side effect of radiation therapy in prostate cancer, cervical cancer, and other gynecological malignancies. The main symptoms are rectal bleeding and pain, diarrhea, and fecal urgency. Researchers at the St. Luke's Medical Center now report that supplementation with vitamins C and E can markedly reduce the symptoms of radiation proctitis. Their study involved 20 patients half of whom had been treated for prostate cancer and half of whom had been treated for gynecological malignancies. None of the patients had responded to standard drug therapy. All patients were given 400 IU of vitamin E and 500 mg of vitamin C three times daily. Their symptoms were evaluated before the start of supplementation and after four weeks. The researchers noted remarkable improvements. Rectal bleeding had stopped in 36 per cent of all

patients having this symptom. Diarrhea diminished in all patients and completely disappeared in 50 per cent of them. Only six patients had reported rectal pain and in two of these it completely disappeared after antioxidant supplementation. The mean symptom score for fecal urgency also decreased very significantly (from 6 to 3). The overall lifestyle of the patients also improved markedly with 35 per cent being able to return to their normal lifestyle.

The researchers conclude that supplementation with vitamins C and E is an effective therapy for chronic radiation proctitis and may be a first line of treatment. They urge that their pilot study be confirmed through a major double-blind, placebo-controlled clinical trial.

*Kennedy, Marc, et al. Successful and sustained treatment of chronic radiation proctitis with antioxidant vitamins E and C. American Journal of Gastroenterology, Vol. 96, April 2001, pp. 1080-84*

## Prevention of prednisone-induced osteoporosis

WORCESTER, MASSACHUSETTS. Glucocorticoids such as prednisone are the mainstay in the treatment of many diseases including asthma, rheumatoid arthritis, and polymyalgia rheumatica. In recent years it has become clear that even low-dose glucocorticoid therapy carries with it a very significant risk of bone loss and subsequent osteoporosis. Supplementing with calcium and vitamin D, increased exercise, treatment with pharmaceutical drugs (etidronate, alendronate, and risedronate) or hormone replacement therapy (estrogen for women and testosterone for men) have all been found to counteract this serious side effect of prednisone therapy.

Thus the problem has been defined and solutions found. The question is are these solutions actually being applied in daily practice? A recent survey carried out by the University of

Massachusetts concludes that they are not. The survey included 224 patients receiving glucocorticoid therapy. Only 44 per cent of the men and 76 per cent of the women had been told by their doctors to take precautions against bone loss (calcium supplementation, exercise, etc.). Rheumatologists were most likely to have told their patients to take precautions – 90 per cent of them had. However, only 48 per cent of internists and 46 per cent of other physicians had warned their patients of the side effects (bone loss) of glucocorticoid therapy and advised them on what they should do about it.

The authors of the study conclude that, "Efforts should be made to reduce barriers to such [preventive] treatment and increase the proportion of patients given preventive therapy."

## Walking helps prevent heart disease

BOSTON, MASSACHUSETTS. Many studies have shown that regular, vigorous exercise reduces the risk of coronary heart disease in both men and women. What is less clear is just how vigorous the exercise has to be in order to confer significant benefits.

Researchers at the Brigham and Women's Hospital and the Harvard Medical School have just published the results of a study designed to clarify this question. Their study involved 39,372 healthy female health professionals aged 45 years or older who were enrolled between September 1992 and May 1995 and followed up to March 1999. At the end of the study period 244 cases of coronary heart disease had been diagnosed. The researchers found a clear protective effect of even walking at a moderate pace for at least one hour per week. Women who

did this had a 50 per cent lower risk of developing coronary heart disease than did women who did not walk regularly. The pace of walking was less important than the time spent in walking and increasing pace or walking time (beyond 1.5 hour/week) did not provide added protection. The benefits of regular walking were particularly pronounced among present and past smokers. The researchers conclude that their work supports current guidelines for heart disease prevention, which calls for moderate-intensity physical activity for 30 minutes per day most days of the week.

*Lee, I-Min, et al. Physical activity and coronary heart disease in women: is "no pain, no gain" passé? Journal of the American Medical Association, Vol. 285, March 21, 2001, pp. 1447-54*

## Oral contraceptives and smoking

BROOKLINE, MASSACHUSETTS. The first generation of oral contraceptives (containing more than 50 micrograms of estrogen) has been associated with an increased risk of myocardial infarction (heart attack). Newer versions of oral contraceptives (birth control pills) contain much less estrogen and also contain progestin. Researchers at the Boston and Columbia Universities Schools of Public Health have just concluded an investigation to determine if the new generation of contraceptive pills is safer than the earlier ones. Their results are comforting. After studying 627 women who had suffered a heart attack and 2947 controls they conclude that the risk of heart attack is no greater among birth control pill users than among non-users except if the users smoke heavily. Women who smoke

more than 25 cigarettes a day and use oral contraceptives are 30 times more likely to have a heart attack than are non-smoking women who do not use the pill. That much of the extra risk is due to the pill, and not to the smoking, is clear from the fact that heavy smokers not using the pill had an excess risk of only 12 times that of non-smoking, non-pill-using women. The researchers conclude that the current warning on oral contraceptive inserts that users should not smoke is still appropriate. NOTE: This study was partially funded by numerous pharmaceutical companies.

*Rosenberg, Lynn, et al. Low-dose oral contraceptive use and the risk of myocardial infarction. Archives of Internal Medicine, Vol. 161, April 23, 2001, pp. 1065-70*

## Diabetes is preventable

HELSINKI, FINLAND. Impaired glucose tolerance (IGT) is a precursor of type 2 diabetes. It is estimated that 35 per cent of all cases of IGT eventually progress to full-blown diabetes. Researchers at the Finnish National Public Health Institute now report that this progression can be

halted by fairly simple lifestyle modifications. Their study involved 522 middle-aged, overweight men and women with a mean age of 55 years. All participants had IGT, that is a fasting glucose level of less than 140 mg/dL (7.8 mmol/L) and a plasma glucose concentration between 140

mg/dL and 200 mg/dL (11.0 mmol/L) two hours after the oral administration of 75 grams of glucose.

Study participants were randomly assigned to an intervention group or the control group. The members of the intervention group were given individualized goals on how to reduce weight (by 5 per cent or more), how to decrease total fat intake and saturated fat intake (to 30 per cent and 10 per cent of energy consumed respectively), how to increase fiber intake, and how to exercise effectively for at least 30 minutes a day. The control group was given some general advice, but no personalized attention. After four years 11 per cent of the members of the intervention group had developed diabetes as compared to 23 per cent in the control group. None of the 49 members in the intervention group or the 15 members of the

control group who reached four out of the five goals developed diabetes. On the other hand, diabetes did develop in the 48 subjects in the control group and the 13 subjects in the intervention group who did not achieve any of the five goals.

The researchers conclude that type 2 diabetes can be prevented by changes in lifestyle among people with IGT. NOTE: This study was partially funded by the Novo Nordisk Foundation (established by Novo Nordisk, a manufacturer of pharmaceuticals).

*Tuomilehto, Jaakko, et al. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. New England Journal of Medicine, Vol. 344, May 3, 2001, pp. 1343-50*

## Time-release vitamin C is better

BIRMINGHAM, ALABAMA. Vitamin C is a water-soluble vitamin and as such is eliminated fairly quickly from the body. Thus the benefits of taking vitamin C just once a day are not nearly as pronounced as if taking smaller amounts three or four times a day. Vitamin C is also available in time-release (sustained-release) formulations. These come in capsules that contain numerous tiny pellets of vitamin C coated with various waxes and starches. The thickness of the coatings varies so that each pellet "bursts" at different times when exposed to the moisture in the stomach and intestine. Are time-release formulations superior to regular vitamin C? Dr. E. Cheraskin, MD of the Clayton College of Natural Health strongly believes so.

Dr. Cheraskin recently conducted a double-blind, crossover study designed to determine tissue levels of vitamin C (ascorbic acid) in 50 healthy volunteers who were given one capsule a day of either standard vitamin C or one capsule of time-release vitamin C. Each capsule contained 84.5 mg of vitamin C and was taken at 8:00 a.m. The tissue levels (on the tongue) were measured at 8:00 a.m. (after a 12-hour fast [before taking the supplement]), at 11:00 a.m. (after a 15-hour fast, and at 2:00 p.m. (after an 18-hour fast). The results clearly showed that the time-release formulation was far better absorbed than regular vitamin C and thus enabled greater amounts of vitamin C to reach the tissues.

*Cheraskin, E. Are there merits in sustained-release preparations? Journal of Orthomolecular Medicine, Vol. 16, No. 1, First Quarter 2001, pp. 49-51*

## PSA screening revisited

BOSTON, MASSACHUSETTS. Dr. Michael Barry of the Harvard Medical School and the Massachusetts General Hospital provides an excellent review of the current status of PSA screening for prostate cancer. Dr. Barry starts out by posing the question "Should a 65-year-old man with no risk factors for prostate cancer except his age and with a normal digital rectal examination undergo a PSA (prostate-specific-antigen) test?" Dr. Barry points out that whether or not to have a PSA test is controversial because of the following:

- No randomized clinical trials have ever demonstrated that early detection and aggressive treatment of prostate cancer reduce mortality;
- The treatments usually mobilized after a positive PSA test and biopsy (radical prostatectomy, radiation therapy or castration) are associated with severe side effects including impotence and incontinence.

He also emphasizes that the PSA test is not that accurate. A recent large-scale trial showed that using a cut-off point of 4.0 ng/mL would pick up 46 per cent of cancers that would occur within the next ten years with an accuracy of 91 per cent. The average age of the test group was 63 years. Among older men with benign prostatic hyperplasia (enlarged prostate) the accuracy may be as low as 54 per cent leading to many unneeded biopsies and much unwarranted anxiety. It is estimated that 75 per cent of men undergoing a prostate biopsy because they have PSA levels between 4 and 10 ng/mL do not have cancer. On the other hand, there is also a 10 per cent chance of harbouring cancer even though the biopsy shows nothing.

There are currently at least two large-scale trials underway to determine whether PSA screening is beneficial or harmful overall. However, the results of these trials are not expected until the year 2009. In the meantime Dr. Barry recommends that men aged 50 to 75 years of age (with no

established risk factors) should be made aware of the availability of the PSA test and its potential harms and benefits so that they can make an informed choice about having the test. They should receive information on the following points:

- the likelihood that prostate cancer will be diagnosed;
- the possibilities of false negative and false positive results;
- the anxiety associated with a positive test;
- the uncertainty regarding whether screening reduces the risk of death from prostate cancer.

Several studies have shown that providing this information significantly reduces the proportion of men who decide to be tested.

*Barry, Michael J. Prostate-specific-antigen testing for early diagnosis of prostate cancer. **New England Journal of Medicine**, Vol. 344, May 3, 2001, pp. 1373-77*

## Fish consumption reduces suicide risk

KUOPIO, FINLAND. Researchers at the University of Kuopio report that regular fish consumption reduces the risk of depression and suicide. Their study involved 1767 Finnish men and women who were evaluated for depression and suicidal tendencies using the 21-item Beck Depression Inventory. They were also asked about their fish consumption. The researchers conclude that people who consume fish twice a week or more have a 37 per cent lower risk of being depressed and a 43 per cent lower risk of having thoughts of harming themselves (suicidal tendencies).

The results are consistent with those of a large Japanese study involving 265,000 subjects who were followed up for 17 years. This study found a

decreased risk of suicide among people who consumed fish daily. Dr. Andrew Stoll, MD of the Harvard Medical School points out that Icelanders who consume a lot of seafood have far lower rates of seasonal affective disorder (SAD) than do inhabitants of other countries situated at similar latitudes. Both Dr. Stoll and the Finnish researchers urge large-scale trials to conclusively determine whether it is appropriate to recommend increased fish intake or fish oil supplementation to depressed people or indeed to the population as a whole.

*Tanskanen, Antti, et al. Fish consumption, depression, and suicidality in a general population. **Archives of General Psychiatry**, Vol. 58, May 2001, pp. 512-13*

## All you need to know about antidepressants

JACKSONVILLE, FLORIDA. Dr. Elliott Richelson, MD of the Mayo Clinic has published an excellent review of the pharmacology of antidepressants. The review should be essential reading for anyone prescribing antidepressants and will help patients to participate in the decision as to which one will suit them best.

It is absolutely clear from Dr. Richelson's paper that antidepressants, even within a particular group such as the SSRIs (selective serotonin reuptake inhibitors), vary widely in their effects. Some like fluoxetine (Prozac) take weeks to become effective and weeks to eliminate from the body. Others like nefazodone (Serzone) may show their effect in a single day. Dosage

recommendations also vary; Serzone must be taken twice a day, paroxetine (Paxil) once a day, and Prozac could presumably be taken just once a week.

Adverse effects, interactions with other drugs, and the detailed mechanisms by which antidepressants act are covered in detail. Dr. Richleson also goes into considerable detail regarding the secondary effects of antidepressants on the adrenergic (norepinephrine) and vagal (acetylcholine)

neurotransmitters and their receptors. For example, reboxetine is the most effective inhibitor of norepinephrine transport, paroxetine is the most potent inhibitor of serotonin transport, and citalopram (Celexa) is the most selective antidepressant for blocking uptake of serotonin over norepinephrine.

*Richelson, Elliott. Pharmacology of antidepressants. Mayo Clinic Proceedings, Vol. 76, May 2001, pp. 511-27 [170 references]*

## NEWSBRIEFS

**Warfarin/doxycycline interaction.** A 69-year-old woman developed serious abdominal bleeding after taking the antibiotic doxycycline (100 mg twice daily) for six days. Her medical history revealed that she was also taking warfarin (Coumadin). Her INR (international normalized ratio) when hospitalized was 7.2 as compared to her normal level of 2.6. The medical doctor covering the case concludes that the warfarin and doxycycline interacted and caused the dangerous bleeding incident.

*Archives of Internal Medicine, Vol. 161, May 14, 2001, p. 1231*

**Fibrinogen level predicts mortality.** Japanese researchers report that the blood level of fibrinogen (blood coagulation factor) in elderly men predicts their risk of dying prematurely from cardiovascular disease, cancer, and other diseases. They found that men (between the ages of 71 and 93 years) in the upper 20 per cent of fibrinogen levels had more than four times the risk of dying in the first year of the study than did men in the lower 20 per cent category. For each 0.64 g/L increase in fibrinogen their risk of premature death from cardiovascular disease increased by 20 per cent and the risk of dying from cancer by 30 per cent. **Editor's Note:** Regular fish oil supplementation is quite effective in lowering fibrinogen levels.

*Arteriosclerosis, Thrombosis, and Vascular Biology, Vol. 21, June 2001, pp. 1065-70*

**Who does the FDA protect?** Much of the funding required to run the FDA (U.S. Food and Drug Administration) now comes from the pharmaceutical industry. This has led to FDA scientists coming under increased pressure to approve new drugs. Many of the scientists receive inappropriate calls from the sponsor of

drugs under review and believe that FDA management too often interferes on the drug company's behalf in the approval process. A case in point is the FDA's speedy approval of the new irritable bowel syndrome drug alosetron (Lotronex) in February 2000. The drug was hastily withdrawn by its manufacturer in November 2000 after having killed five people and hospitalized another 34.

*The Lancet, Vol. 357, May 19, 2001, pp. 1544-45*

**Obesity associated with serious health problems.** A recent survey in the USA found that 36 per cent of respondents were overweight, 23 per cent were obese, 14 per cent were poor, 19 per cent smoked daily, and 6 per cent were heavy drinkers. The study, which involved more than 9500 Americans, also found that obese people had more chronic illnesses and a poorer quality of life than poor people, smokers, and heavy drinkers. These findings reinforce the need to give higher national priority to the problem of overweight people, which is on a dramatic rise.

*Public Health, Vol. 115, 2001, pp. 229-35*

**Folic acid may help prevent muscle wasting.** Spinal muscular atrophy (SMA) affects about one in 6000 babies worldwide. The disease causes muscle weakness and wasting and kills most of its victims within two years of birth. Many people with SMA survive though and biochemists at the University of Pennsylvania believe this could be because the survivors consume more folic acid and vitamin B12 in their diet or through supplementation. They suggest that SMA patients have a genetic defect, which increases their need for folic acid and vitamin B12.

*New Scientist, June 2, 2001, p. 5*



**Depression linked to inflammation.** Several studies have noted that many people on immune-boosting drugs (interferon and interleukin-2) tend to become severely depressed and even suicidal. Some researchers now believe that depression may be a chronic inflammatory disease like rheumatoid arthritis. They believe some depressed people have an overheated immune system and that damping down the resulting inflammation could be a new way of treating

depression. Could the inflammation be brought on by a mysterious virus? Perhaps, but not likely – in other words, you probably don't "catch" depression. Pharmaceutical companies are hard at work to see if they can come up with a drug that can reduce the number of cytokines (compounds released by immune system cells) produced during inflammation and thereby reduce the accompanying depression.  
*New Scientist, June 16, 2001, pp. 34-37*

## THE AFIB REPORT

*In this issue we continue the reporting of the results of the LAF survey. We also delve into the details of a possible connection between amalgam dental fillings and LAF and, as usual, report the latest news regarding atrial fibrillation in our AFIB News section. We have received quite a bit of additional input regarding the question on whether or not antiarrhythmic drugs are beneficial. I am in the process of analyzing this new data and will present a full report in the August issue. Until then, have a pleasant summer and may your episodes be few and short-lived!*

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### **SURVEY RESULTS – PART IV**

Six out of 53 respondents (11%) had had either RF ablation or maze surgery to eliminate LAF. One maze procedure was deemed entirely successful with no further episodes for two years. Two RF ablations were deemed successful with no episodes for 2 and 16 months respectively after surgery. One RF ablation prevented episodes for 8-10 months and was then followed by maze surgery, but it is too early to say if this was successful. One RF procedure was definitely not successful and one was done very recently so it is too early to tell. So at this point it really is not clear whether surgery is worthwhile. The success rate is probably highly dependent on the skill of the surgeon and the location of the misfiring cells. However, surgical techniques, especially for ablation, are constantly developing so hopefully the picture will become clearer within the next year or so.

Thirty per cent of the remaining respondents had considered surgery, but not proceeded with this option. Four had had an electrophysiology study (EPS) with the results that there was nothing to ablate. Only three of all respondents had considered implantation of a defibrillator and none had proceeded with this option.

Seventy-four per cent of all respondents had amalgam fillings in their teeth – an average of 10 fillings each. A preliminary look at the data shows that afibbers without amalgam fillings tended to have significantly fewer episodes than afibbers with amalgams (2 episodes versus 18 episodes over the past 6 months). This is indeed an intriguing clue that we will attempt to verify in phase 4 of the study.

Most respondents (70%) had not had their amalgams replaced; 10% had done so and 6% were in the process of doing so. The remaining 14% did not have any to replace. Of the 5 who had had their amalgams replaced 3 followed up with a proper detoxification program. Here are their comments:

#### **Question: Have you noticed any difference in the frequency of episodes?**

1. Yes, four to one improvement.
2. I would guess the frequency was reduced by about a third. So even though I know I am sensitive to mercury it was not the whole answer for me.
3. No, my real relief came with the removal of large varicose veins from my left leg that were affecting my circulation because of blood pooling in the leg.

Forty-six per cent of respondents had dissimilar metals in their mouth and 46% did not. The remaining 4% did not know. It is interesting that 4 out of the 5 respondents with chronic afib did have dissimilar metals in their mouth. There was no significant difference in episode frequency between respondents with dissimilar metals and those without.

Only 10% of respondents had had their intracellular magnesium level measured. All (100%) were found to have levels below the normal range. Seven respondents (14%) had had magnesium infusions. Three had felt a definite benefit, 3 some improvement, and only 1 reported no improvement; however, this person did not know if his magnesium level was low to begin with.

Twelve out of 50 respondents (24%) reported that they were doing yoga or other relaxation exercises. Ten (83%) felt a definite benefit while 2 were not sure if they benefited. Thirteen reported praying or meditating on a regular basis and 77% found it helpful while 15% found it somewhat helpful. Seven (14%) of respondents had tried Traditional Chinese Medicine and 5 had found it helpful or somewhat promising.

Thirty-six per cent of respondents jogged or ran daily, 31% walked daily, and 14% had a daily workout or engaged in swimming or golf on a regular basis. Only 7% did not exercise at all and 12% did very strenuous exercise on a regular basis. There was not a great deal of difference in the exercise pattern before and after the first LAF episode except that the proportion of strenuous exercisers dropped from 31% to 12%. Most (45%) considered themselves strongly athletic, 19% thought they were athletic, and 31% somewhat athletic. Only 5% considered themselves to be sedentary.

The average pulse rate among respondents was 61 bpm (range 45-92), the resting systolic pressure 132 mm Hg (range 98-146), and the resting diastolic pressure 76 mm Hg (range 62-89). Only 7% of all respondents were taking medications for hypertension.

Following are some selected comments on other questions asked:

**“What have you found is the best approach to limiting the frequency of LAF episodes?”:**

#### Adrenergic afibbers

- Haven't really found a way, except avoid known triggers.
- Avoiding emotional stress, late nights and strenuous physical activity, and of course, alcohol, coffee, chocolate, and sweets.

#### Vagal afibbers

- Maintain a background of flecainide - it has completely eliminated my attacks.
- Try to keep in touch with my emotions. Understand the flow of “energy” (overwork, getting too intense, diet, not eating when nervous, limiting my exposure to crowds, etc.) that I know occurs in my external and internal worlds that causes this thing.
- I mostly live my life as usual, merely avoiding hard alcohol and keeping up my supplements.
- Eat carefully, avoid constipation and practice relaxation.
- Meditation/diet/exercise/positive outlook.
- Removing amalgams under strictest protocol.
- Eat smaller meals, calm down and avoid caffeine and aspartame.
- Learn your triggers and avoid them.
- Not to drink alcohol and get overtired. Don't eat big meals and nothing after 5 pm.
- I take a beta-blocker (metoprolol) before a known stressful event. I believe magnesium helps.
- Taking digestive enzymes.
- Taking verapamil and generally relaxing more.
- Stay calm, eat every 2-3 hours, don't get overtired.
- Deep breathing exercises and getting off digoxin.
- Trying to eliminate the production of gas in my chest.

## Mixed afibbers

- Reducing stressful situations.
- I mainly rely on the medications (flecainide and atenolol) to limit the frequency of attacks as well as controlling the stress levels as much as possible. Food intake is another factor.
- If I work out only 3 out of every four weeks of the month it seemed to go away for 6 months. Prior to that it went away for a year.
- For me the key thing was having surgical removal of large varicose veins in my left leg. Only one episode since last July when I had the surgery, and it came when I over-exercised, stood too long, and ate too much - all in the same afternoon.

### **“What have you found is the best approach to regaining normal sinus rhythm?”:**

- Lie down and try and relax.
- 200 mg of flecainide
- The most successful has been indulging in sex. This has worked almost every time except if I have just gone into an episode. Then, it seems nothing will work, but on the average sex will work 7 times out of 10. (Editor's note: Indulging in sex has also been found effective in terminating chronic hiccups).
- I only have one – wait it out!
- Prior to maze, taking atenolol every few hours until I converted.
- Most recently – shock!! I would prefer to find a different approach that would work. The shock returns normal rhythm, but since I have a very sensitive nervous system I am concerned about the overall effect.
- Exercising to my tolerance seems to help. Otherwise waiting it out.
- Taking things easy (exercise hasn't helped me), taking an extra verapamil (doctor said OK), taking epsom salt in water.
- I converted when I totally relaxed, gave up worrying about it - plus I think my body took over.
- I rely on the medications (flecainide and atenolol) to regain normal sinus rhythm.
- Atenolol
- Gentle exercise
- Staying on low-carbohydrate diet to minimize insulin resistance and adrenaline surge.
- Cardioversion is certainly the quickest, I prefer spontaneous but apparently can't always count on it.
- Go about with mundane tasks and put it out of your mind as much as you can.
- Trying to relax - stay in bed - the less active I am when in AF in general the shorter the episode will be.
- Exercise or Rythmol
- Shower, bowel movement, or just time. I have a good friend who is an E&P tech for a major medical institution and he is convinced that these are chaotic events. He believes in the "chaos" theory.
- I take a Xanax (anti-anxiety medication) and go to sleep.
- Possibly the deep breathing exercises.

*This completes phase 3 of the survey (compiling and distributing the raw data) except for the question “Do you have any advice to give to fellow afibbers?”. We will cover this in the August issue and will also begin phase 4 that aims at finding correlations between the different variables. For instance, does episode frequency increase with age or duration of LAF (how many years you have had it)? Is there really a correlation between amalgam fillings and episode frequency when age and other variables are factored in? This phase is, by far, the most complicated, but also the one that holds the most promise for a solution. So stay tuned!*

## **The Mercury Connection**

### **The Menace of Amalgam (Silver) Dental Fillings**

Mercury is the second most toxic material known to mankind exceeded only by plutonium. Mercury is also the only poison permanently implanted in the human body as the major component of amalgam (silver) fillings in teeth.

Mercury is a powerful neurotoxin and has been implicated in Alzheimer's disease, Parkinson's disease, multiple sclerosis, amyotrophic lateral sclerosis (ALS), heart attacks, manic depression (bipolar disorder), hearing loss, and depression and anxiety[1-9].

There is ample evidence that toxic mercury is released from amalgam fillings and readily enters the blood stream. It tends to accumulate in the brain and kidneys. A team of researchers at the University of Calgary did the original work in this area. They placed amalgam fillings in sheep and then measured how mercury levels built up in the various organs of the body. They found extremely high concentrations in the jawbones, gums, kidneys, stomach and liver[10]. More recently Saudi Arabian researchers reported that women with amalgam fillings had significantly higher mercury concentrations in their urine than did women with no amalgam fillings[11]. There is evidence that chewing and, to some extent, exposure to computer terminals and digital (cell) phones accelerate the release of mercury from amalgam fillings[1].

The World Health Organization (WHO) concluded in 1991 "The general population is primarily exposed to mercury through the diet and dental amalgams." [12] Their estimates of the intake of mercury from various sources are:

- Dental amalgam – 3.0 to 17.0 mcg/day (mercury vapour)
- Fish and seafood – 2.3 mcg/day (methyl mercury)
- Other food – 0.3 mcg/day (inorganic mercury)
- Air and water – negligible traces.

These and other research findings have finally set off the alarm bells. Sweden and Austria have now completely banned amalgam fillings[1]. The New Zealand Ministry of Health is reviewing its policy on the use of mercury-containing amalgams for tooth fillings. This review comes hard on the heels of precautionary advice from the UK Department of Health, which warns pregnant women not to have amalgam fillings installed. Dr. Mike Godfrey, a leading environmental physician, points out that several major amalgam manufacturers have issued Material Safety Data Sheets and Directions for Use that clearly warn of the many dangers of amalgam fillings. Among the restrictions – amalgam fillings should not be used next to fillings or crowns containing other metals, they should not be used under crowns, they should not be used in patients with kidney disease, in pregnant women or in children aged 6 years or younger. The manufacturers also warn that mercury vapours from amalgam fillings can induce psychiatric symptoms in extremely low concentrations. Depression, mental deterioration, and irritability are among the symptoms listed[13].

The governments of the United States, Canada and the United Kingdom are dragging their feet on the issue. To admit that amalgam fillings are poisoning hundreds of millions of people every day would launch the biggest class action suit the world has ever seen – making the suits against the tobacco industry pale in comparison.

### **Amalgams and Lone Atrial Fibrillation**

So mercury is bad and amalgam fillings are a potent source of this toxin. But, do amalgam fillings actually cause lone atrial fibrillation? I have not come across any scientific papers that come right out and say this is indeed the case. However, there is ample evidence in the literature that amalgam fillings are associated with heart palpitations, irregular pulse, and rapid heart beat[1,14,15]. It is conceivable that the researchers who made these observations did not take the next step and actually identified the irregular pulse and rapid heart beat as atrial fibrillation.

My own feeling is that amalgam fillings can indeed be a major trigger to LAF in people who are sensitive to mercury toxicity. I recently made the observation that I had had a LAF episode within 2 days after each of

my last 5 dental appointments to have amalgam fillings replaced. The LAF survey also pointed to a possible causative role of amalgams when it revealed that afibbers with amalgams in their mouth had nine times more episodes than afibbers with no amalgams (subject to verification in phase 4 of the survey). So if you are sensitive to mercury and have a high body burden of this toxic material, as revealed by hair analysis or urine test, what can you do?

### **Amalgam Removal**

It is very unlikely that you can get rid of a toxic build-up of mercury in your body without having your amalgam fillings replaced. Unfortunately, unless the removal is done under the strictest protocol and followed by effective detoxification it can actually make things worse. Holistic dentists have now pretty well agreed that the patient, as a minimum, should receive the following protective measures:

- a rubber dam (a rubber sheet placed over the relevant teeth isolating them from the throat and rest of the mouth);
- a nosepiece so that air is breathed in from a distant source;
- eye protection such as damp gauze or wrap-around goggles;
- suction to remove and filter air from around the mouth.

Some dentists also recommend an intravenous vitamin C drip during or immediately after the procedure and all stress the importance of ensuring an adequate intake of vitamins and minerals (particularly vitamins C, B-2 and selenium) prior to and after amalgam removal. Contrary to popular belief, amalgam fillings covered with a gold or porcelain crown are not any safer than an exposed filling – they may actually be worse. Dr. Jack Levenson, a holistic dentist in London, UK recommends that amalgams be removed from the teeth in the following order[1]:

- Root canal treated teeth with pins of non-precious metals;
- Teeth with metal crowns and amalgam cores;
- Amalgams in direct contact with gold (either in the same or an opposing tooth);
- Amalgam-filled teeth in direct contact with partial chromium-cobalt dentures or base metal crowns;
- Amalgam fillings in contact with gum tissue;
- All other amalgam fillings.

Having dissimilar metals (e.g. gold crowns and amalgam fillings) in the mouth can set up very powerful electrical currents that can directly affect the nervous system. A recent report from the Mayo Clinic relates the case of a woman with painful trigeminal neuralgia who was cured after removal of an amalgam filling situated next to a gold crown[16]. Closer to home, a LAF Forum contributor, Frank in Ireland, reported a complete elimination of ectopic (premature) heart beats within a couple of hours after removal of amalgam fillings in close proximity to a gold crown and bridge.

### **Detoxification**

Amalgam removal without subsequent thorough detoxification is a very bad idea. Even if your dentist takes all the recommended precautions, and most don't, release of a large quantity of mercury vapours is hard to avoid. These vapours head straight for the brain and also get into the blood stream creating all kinds of havoc.

Detoxification comes in 2 different flavours – drug-aided or natural:

DMPS (sodium dimercaptopropane sulfonate) and DMSA (dimercapto-succinic acid) are the two drugs of choice for mercury detoxification. They are not officially approved for this purpose, but are approved for the removal of lead, another heavy toxic metal. DMPS is usually administered via a slow intravenous injection while DMSA is taken orally. There is an on-going controversy as to which one is most effective. DMSA is claimed to be able to cross the blood brain barrier so theoretically should remove mercury from the brain. DMPS though may be quicker acting, but tougher on the system overall. Neither DMPS nor DMSA should be administered until **ALL** amalgams have been removed from the mouth. DMPS definitely and DMSA possibly get into the saliva and actually start dissolving the mercury from any remaining amalgams – not a

good idea! Both DMPS and DMSA need to be administered by a physician or naturopath trained in their use. Close monitoring of mercury levels in the urine is a must.

Natural detoxification is based on the use of intravenous vitamin C infusions and various sulfur-containing compounds. Sulfhydryl groups (sulfur) bind very strongly to mercury and the resulting compounds are eliminated in the urine or feces. MSM (methyl sulfonyl methane) and alpha-lipoic acid (thioctic acid) are both good mercury binders. NAC (n-acetylcysteine) also works, but may tend to spread the mercury around before eliminating it[1]. Most natural detoxification programs also include chlorella or seaweed that also tend to mop up mercury.

Because the detoxification protocols all remove other metals it is essential that any regimens include supplementation with vitamins (especially B, C and E) and minerals (especially selenium, zinc and magnesium).

Effective detoxification is absolutely essential if an amalgam removal program is to be successful, but it is a bit complicated. So for this reason it is best carried out with the guidance of an experienced naturopath or holistic physician.

Should you have your amalgam fillings and dissimilar metals removed? If you can find a competent dentist and physician to work with you and you can afford the expense I would say "Go ahead". If you are not sure, start out by having your mercury level determined through a hair analysis or urine test. If it is high or you have other symptoms of mercury sensitivity I would seriously consider removal even if you have to stretch the process out over a couple of years.

## **AFIB News**

**Genetic component discovered in Wolff-Parkinson-White syndrome.** Researchers at the Baylor College of Medicine in Houston have discovered a genetic defect that may be responsible for Wolff-Parkinson-White (WPW) syndrome, a disorder somewhat similar to LAF. People with WPW are born with an extra pathway between the atrium and the ventricles, which sometimes carries electrical impulses that can cause atrial fibrillation. The abnormal pathway can be activated by stress, infection, caffeine, and alcohol. The researchers hope that the identification of the faulty gene will lead to new arrhythmia therapies. *New England Journal of Medicine, Vol. 344, June 14, 2001, pp. 1823-31*

**Sex-related differences in atrial fibrillation.** A team of Canadian researchers has released the results of a study aimed at discovering whether atrial fibrillation (not necessarily lone) affects men and women differently. They found that women tend to get their first episode later (age-wise) and have more subsequent episodes and higher heart rates during the episode than men. They also tend to be prescribed aspirin more often than warfarin for stroke prevention. This is probably a good thing as women were found to be 3 to 5 times more likely to experience major internal bleeding when on warfarin than were men. Digoxin was still the most prescribed drug for preventing future episodes (a no-no for lone afibbers), followed by antiarrhythmic drugs and beta-blockers. *Circulation, Vol. 103, May 15, 2001, pp. 2365-70*

**Echocardiography permits quicker cardioversion.** Researchers at the Cleveland Clinic Foundation report that the use of transesophageal echocardiography (TE) makes it possible to perform electrical cardioversion of atrial fibrillation patients much earlier than allowed by the current standard practice. Patients with AF of more than 2 days duration are now treated with warfarin (Coumadin) for 3 to 4 weeks before cardioversion is attempted. The researchers found that by checking the left atrium (appendage) for blood clots using TE they could safely convert AF patients (with no blood clots) in 3 days. The incidence of internal bleeding in the TE group was half of that in the warfarin group and the rate of successful conversion was 71.1% in the TE group versus 65.2% in the warfarin group. The mortality and proportion of patients who were still in sinus rhythm (55%) after 8 weeks were similar for the two groups. Patients with atrial flutter

had a significantly higher conversion success rate than did people with AF and were also much more likely (77% versus 55%) to still be in sinus rhythm after 8 weeks.

*New England Journal of Medicine, Vol. 344, May 10, 2001, pp. 1411-20, 1468-70*

**Risk factors for atrial fibrillation.** Researchers at the Mayo Clinic in Rochester have just released a study concerning the risk factors for atrial fibrillation (AF). They followed 1655 AF-free men and women aged 65 years or older for 4 years. At the end of the follow-up period 189 (11.4%) had developed AF. The main risk factors were age, hypertension, valvular heart disease, prior heart attack, congestive heart failure, and an enlarged left atrium. Smoking (current, past or never) and elevated cholesterol levels did not increase the risk of developing AF.

*Mayo Clinic Proceedings, Vol. 76, May 2001, pp. 467-75*

## References

- 1) Levenson, Jack. *Menace in the Mouth? What Doctors Don't Tell You Ltd.*, London, UK, 2000
- 2) Terry, Robert D., et al., editors. *Alzheimer Disease*. Raven Press, NY, 1994
- 3) Reinhardt, J.W. Side-effects: mercury contribution to body burden from dental amalgam. *Advances in Dental Research*, Vol. 6, September 1992, pp. 110-13
- 4) Ngim, C.H. and Devathasan, G. Epidemiologic study on the association between body burden mercury level and idiopathic Parkinson's disease. *Neuroepidemiology*, Vol. 8, No. 3, 1989, pp. 128-41
- 5) Bjorklund, Geir. Parkinson's disease and mercury. *Journal of Orthomolecular Medicine*, Vol. 10, No. 3&4, 1995, pp. 147-48
- 6) Siblingud, Robert L., et al. Psychometric evidence that dental amalgam mercury may be an etiological factor in manic depression. *Journal of Orthomolecular Medicine*, Vol. 13, No. 1, First Quarter 1998, pp. 31-40
- 7) Siblingud, Robert L. and Kienholz, Eldon. Evidence that mercury from dental amalgam may cause hearing loss in multiple sclerosis patients. *Journal of Orthomolecular Medicine*, Vol. 12, No. 4, Fourth Quarter 1997, pp. 240-44
- 8) Salonen, Jukka T., et al. Intake of mercury from fish, lipid peroxidation, and the risk of myocardial infarction and coronary, cardiovascular, and any death in Eastern Finnish men. *Circulation*, Vol. 91, February 1, 1995, pp. 645-55
- 9) Siblingud, Robert L., et al. Evidence that mercury from silver dental fillings may be an etiological factor in depression, excessive anger, and anxiety. *Psychol Rep*, Vol. 74, No. 1, 1994, pp. 67-80
- 10) Hahn, L.J., et al. Dental "silver" tooth fillings: a source of mercury revealed by whole body image scan and tissue analysis. *FASEB Journal*, Vol. 3, 1989, pp. 2641-46
- 11) al-Saleh, I. And Shinwari, N. Urinary mercury levels in females: influence of skin-lightening creams and dental amalgam fillings. *Biometals*, Vol. 10, No. 4, October 1997, pp. 315-23
- 12) World Health Organisation. *Environmental Health Criteria 118 – Inorganic Mercury*. Geneva, WHO, 1991
- 13) Godfrey, M.E. and Feek, Colin. Dental amalgam. *New Zealand Medical Journal*, Vol. 111, August 28, 1998, p. 326
- 14) Trakhtenberg, I.M. *Chronic Effects of Mercury on Organisms*. Chapter VI, pp. 109-34 The micromercurialism phenomenon in mercury handlers. Chapter XI, pp. 199-210 *Cardiotoxic effects of mercury*, Dhew Publi. No. (NIH) 74-473, 1974
- 15) Zamm, Alfred V. Removal of dental mercury: often an effective treatment for the very sensitive patient. *Journal of Orthomolecular Medicine*, Vol. 5, No. 3, 1990, pp. 138-42
- 16) Cheshire, William P., Jr. The shocking tooth about trigeminal neuralgia. *New England Journal of Medicine*, Vol. 342, June 29, 2000, p. 2003

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Hans R. Larsen MSc ChE, 1320 Point Street, Victoria, BC, Canada, V8S 1A5  
E-mail: [health@pinc.com](mailto:health@pinc.com) World Wide Web: <http://www.yourhealthbase.com>  
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