

## DC Online (Chiropractic Research)

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### Knee Surgery Fails Controlled Study

A study published in the *New England Journal of Medicine*<sup>1</sup> concludes that two popular arthroscopic knee surgeries, debridement and lavage, are basically worthless for the effects of arthritis. The researchers gave 180 knee arthritis patients either one of the surgeries or a superficial incision as a placebo. Over the next two years, the placebo group reported less pain, although the authors of the study say the difference between all three groups was not enough to be significant. There was never a point in the study when the surgical groups fared better than the placebo patients.

1. *NEJM*, July 11, 2002.

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### Aging Juice

The Journal of the American Dietetic Association<sup>2</sup> reports that the vitamin C content of popular ready-to-drink orange juices may not be as high as expected. Tests show that virtually all the vitamin C potency may be gone within four weeks of opening the container. Even worse, these ready-to-drink juices start out with about half the vitamin C content of frozen juices because of losses during the pasteurization process required for this type of packaging. Frozen juice typically contains about 86 mg of the vitamin when reconstituted, compared to an average of near 45 mg when a carton of pasteurized juice is first opened. In this study, both lost about 45 mg after four weeks, leaving the frozen potency at about the point at which the ready-to-drink variety started.

2. *JADA*, April 2002.

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### Eat Less to Live More

New research is finding that earlier studies relating reduced food intake to longer lives in insects, mice and other animals may also apply to humans. Certain biological characteristics of restricted food intake, such as lower temperature, lower levels of insulin, and the level of DHEAS (a steroid) are showing up in another study involving long-lived men. The ongoing Baltimore Longitudinal Study of Aging is seeing these characteristics more and more reliably among survivors as their study population ages. The conclusions are preliminary at this point, and no one is certain how the results will eventually play out for humans. The researchers note, however, that animals appear to live longest with a 30-40 percent reduction of intake, an amount they consider "not practical" for most people.<sup>3</sup>

3. *Science*, August 2, 2002.

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#### Organic Soup Nutrition

A report in *New Scientist Magazine*<sup>4</sup> finds that organic soups typically contain higher levels of certain beneficial compounds than traditional varieties. Specifically, researchers tested the level of salicylic acid, in the assumption that this might be related to improved cardiovascular function. They found that the 11 brands of organic soup they tested contained nearly six times as much salicylic acid as the nonorganic soups. The highest levels were in the organic carrot and coriander soups, with some of the traditional soups showing nearly undetectable amounts. Britain's Soil Association, an organic farming proponent, reports that previous independent studies have shown higher levels of vitamin C, calcium, magnesium and iron in organically grown foods.<sup>5</sup>

4. *New Scientist Magazine*, March 11, 2002.

5. Reuters, March 13, 2002.

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#### Death by Inhalation

A study by a pharmaceutical company suggests that short-term "relief-type" inhalers may be doing some damage to patients. The work is published in the journal *Thorax*<sup>6</sup> and describes a comparison of long-term inhaled steroids versus short-term beta agonists. The researchers note that excessive use of beta agonists is associated with "a markedly increased risk of asthma death." The steroid varieties, according to this study, are a useful medical treatment.

6. *Thorax*, August 2002.

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#### Night Lights for Retinopathy

A researcher<sup>7</sup> from Cardiff University in Wales reports that he has found evidence that diabetics may be able to decrease the risk of diabetic retinopathy by leaving on a night light while they sleep. This very small study (seven diabetic patients and eight controls) suggests that a small amount of continuous light stimulation may keep more blood flowing through the retina, thus preventing deterioration due to lack of oxygen or other nutrition. The author reports his findings in a letter to the *Lancet*<sup>8</sup>.

7. Professor Neville Drasdo, as reported by Reuters, June 27, 2002.

8. *The Lancet*, June 29, 2002.

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#### Bactericidal Broccoli

Research published in the *Proceedings of the National Academy of Science*<sup>9</sup> suggests that a compound present in broccoli and broccoli sprouts is highly toxic to *helicobacter pylori*, a bacterium implicated in stomach ulcers and cancers. The compound, sulforaphane, killed the bacteria at levels the researchers say can be achieved by eating reasonable amounts of the vegetable, though precise amounts have not yet been determined. The study, done in laboratory mice, will be repeated soon using human volunteers.

9. *PNAS*, May 28, 2002.

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#### Arthritis Drugs and the Heart

Research in laboratory mice is giving strong indications that certain newer drugs, widely marketed to people with arthritis, may be dangerous in those with heart disease. This study is in response to an earlier one that found a two fold increase in heart attacks among certain Vioxx users, compared to patients treated with Naproxen. The new study explains how Cox-2 inhibitors (which also include the brand Celebrex) might promote excessive clot formation. It appears that Cox-2 enzymes counteract some of the effects of the Cox-1 enzyme, which narrows blood vessels and makes blood more likely to clot. These drugs inhibit only the Cox-2 version, not Cox-1, so this leads to facilitated clot formation.<sup>10,11</sup>

10. *Science*, April 19, 2002.

11. [www.sciencemag.org](http://www.sciencemag.org).

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#### Too Much Zinc, Too Early?

A study<sup>12</sup> of 168 Bangladesh children has reached a troubling conclusion: zinc supplements that pregnant mothers took to improve their offspring's growth and immunity appear to have suppressed their mental development. Compared to children whose mothers took placebos during pregnancy, these children performed poorer on mental and psychomotor tests. The researchers do not have a strong opinion on how zinc could produce such effects, but speculate that the supplementation may have displaced other micronutrients required for an infant's development.

12. *The Lancet*, July 27, 2002.

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#### Heart Nuts

A study of over 21,000 men since 1982 reports that fatal heart attacks can be decreased significantly by the addition of nuts to the diet. Deaths from sudden heart attacks were nearly halved in the group that consumed at least one ounce twice a week, compared to those who rarely, if ever, ate nuts. Deaths due to complications of general coronary heart disease were 30 percent fewer. The research drew on data from the U.S. Physician's Health Study.<sup>13</sup>

13. Reuters, June 23, 2002, reporting on work by Dr. Christine Albert of Brigham and Women's

Hospital in Boston.

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### Move Over, Cholesterol

Doctors have missed great opportunities to prevent and treat heart disease "because of our focus solely on cholesterol," says a prominent physician from Brigham and Women's Hospital.<sup>14</sup>

Evidence had been building that low-grade inflammation was probably the single most likely contributor to heart disease in America. There is still a lot of investigation to be done. Federal recommendations are being formulated to direct doctors to change their thinking from the "clogged-pipe" concept to effects stemming from inflammatory processes in previously unconsidered places, such as fatty deposits in the arteries. It is thought that the inflammation weakens the fat structures, which can lead to a rupture and subsequent chain reaction that produces a blood clot. One recent study finds that C-reactive protein levels are twice as reliable in predicting heart attacks as cholesterol levels.<sup>15</sup>

14. Dr. Paul Ridker, as quoted by the Associated Press, August 3, 2002.

15. [www.news.harvard.edu/gazette/2000/03.23/heart.html](http://www.news.harvard.edu/gazette/2000/03.23/heart.html).

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### The Early Bird Catches the Infection

British researchers are suggesting that athletes who train in the morning might be more susceptible to infection or prolonged recovery times than those who work out in the evening. They measured the cortisol and salivary IgA levels of 14 competitive swimmers who trained either in the early morning or evening. The results, they say, suggest that the morning workouts, combined with circadian rhythms, depress immunological activity. They suggest late-day workouts, especially after an injury or illness, or before a strenuous competition.<sup>16</sup>

16. *British Journal of Sports Medicine*, August 2002.

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