

## "DC" On Line

Brian Sutton, DC

### Neck Bracing and Whiplash

Researchers at the McGill University in Montreal are suggesting that immobilization of the neck after a whiplash injury might slow healing. Use of a cervical collar, for example, has not been proven beneficial, according to this review of papers published over the last 15 years.<sup>1</sup> The study also evaluated the progress of over 4,700 whiplash victims. This follows studies of other types of injuries that have indicated that immobilization after an injury impedes healing.

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### Tai Chi Prevents Fractures

A study published in the Journal of the American Medical Association<sup>2</sup> concludes that exercises based on the Chinese martial art Tai Chi can help elderly people control their balance, and reduce the number of falls and consequential injuries. Over 2,000 older Americans participated in the study that compared a number of different exercise programs. Tai Chi was rated best, reducing injuries from falls by about 25 percent.

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### High Breast Cancer Rate Due to Excessive X-Rays

A professor of molecular and cell biology at the University of California, Berkeley<sup>3</sup> estimates that up to 75 percent of the 182,000 breast cancers found each year in the U.S. are related to past medical practices that employed frequent and high-dosage x-rays. Such procedures included routine x-rays during well-baby exams, diagnosis and treatment of enlarged thyroid glands, pelvic roentgenometric measurements to determine birth canal and infant head size, and to monitor tuberculosis therapy. X-rays were also used to treat asthma and ulcers.

While x-ray doses are far lower today, he feels that caution is still needed in some areas of clinical practice, such as frequent x-ray studies of accident victims for insurance purposes. He has written a book detailing his observations.<sup>4</sup>

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### More Support for Wine

A 10-year Danish study<sup>5</sup> has added support to the idea that wine prolongs life. This study of 13,000

participants concludes that people who drink three to five glasses of wine each day are half as likely as non-drinkers to die during any particular year. This work is somewhat different in that it evaluates deaths from all causes including cancer and accidents, not just heart disease. Unfortunately for hard liquor drinkers, their death rate was 30 percent higher than that of total abstainers.

Another study<sup>6</sup> concludes that the cardiovascular benefits for drinking wine are obtainable with smaller amounts. Researchers tracked over 120,000 female nurses for 12 years and concluded that the optimum quantity was one to three drinks per week. The death rate for this group was 17 percent less than for nondrinkers, but only in women who had at least one risk factor for heart disease. A companion study of male drinkers placed the optimum amount at two to four drinks per week.

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## Baby Walkers

The American Academy of Pediatrics is calling for a ban on baby walkers. In 1993, 25,000 children between five and 15 months were treated in emergency rooms for injuries relating to these products, with 11 deaths occurring between 1989 and 1993. Injuries range from pinched fingers to fractures and head trauma.<sup>7</sup> The AAP also cites studies that indicate walkers may delay the time a child first begins to walk.

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## Vaccines from Plants

Promising that "spoons could one day replace needles as a way to administer vaccines,"<sup>8</sup> researchers at Texas A&M and Tulane Universities have published two studies that suggest immunity to some organisms can be obtained by eating genetically engineered plants. Researchers alter the plants' genetic codes to allow synthesis of protein subunits that are similar to a particular bacteria or virus and count on the body to program antibodies when the plant is consumed.<sup>9</sup>

The Texas A&M group has used a potato plant to create E. coli antibodies in mice. Tulane is working on the idea that a chewing gum or mouthwash made from tobacco plants could stimulate production of secretory antibodies (from the mucous membranes) to lessen tooth decay.

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## Neurological Toxicity from Pesticides

British sheep farmers have claimed that the organophosphate pesticides used in government-mandated (until three years ago) sheep dips cause neurological symptoms ranging from dizziness to multiple sclerosis. Now a study in The Lancet appears to lend some credence to that contention. The farmers did worse on neurological tests for attention and information processing, compared to the control group, indicating some subtle impairments. Researchers say that the study should be extended to other groups that work with such compounds. Organophosphates are also used in fruit orchards and for household pesticides.

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## High Death Rate Causes Hospital to Switch Doctors

An Indiana hospital<sup>10</sup> has replaced a team of 11 heart surgeons with a group from Illinois in an attempt to correct its high death rate among coronary bypass patients. The national average is four deaths per 100; the death rate of patients overseen by the previous group was more than twice that.

Though they will no longer be doing the bypass operations, the Indiana doctors will stay on at the hospital to perform other surgeries. Hospital officials say that the problem was so bad that patients were going elsewhere for their surgery -- especially since insurers were refusing to pay for the procedures at that location.<sup>11</sup>

Critics of the switch say that death rates are not the best gauge of a doctor's qualifications. According to the Chicago Sun Times, the Health Care Financing Administration (HCFA) stopped providing hospital mortality rates for Medicare procedures in 1993 because they were "too technical for consumers."<sup>12</sup>

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## Hospital Obtains Grant for Garlic Study

A Pittsburgh hospital<sup>13</sup> has received a \$600,000 grant from the National Cancer Institute to study the cancer prevention qualities of garlic, onion, and some other vegetables. The goal of the studies is to "identify the chemical steps which occur to prevent cancer."<sup>14</sup> The group will be studying organosulfur compounds, thought to inhibit cancer of the lungs and stomach.

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## Birth Control Pill Not a Cure

When America became the first country to legalize the use of birth control pills in 1960, many people hailed the products as a cure for the nation's unwanted pregnancy problem. It didn't turn out that way. Thirty-five years later, the United States is first in teen pregnancies among industrialized nations and a close second to France in unwanted pregnancies.<sup>15</sup> Amazingly, experts blame the high rates on "lack of openness about sex" and "no public advertising for birth control."

Just over half of all pregnancies in the U.S. are unplanned, and most of those are to women who are using, albeit ineffectively, birth control.<sup>16</sup>

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## More Problems with Teen Pregnancies

Teenage pregnancies have been associated with low birth weight babies; now researchers are saying that severe birth defects are also more likely. A study by the California Birth Defects Monitoring Program<sup>17</sup> of more than a million births finds that children born to teenage moms are 11 percent more likely to have birth defects when compared to those born to mothers in their 20s. That translates to

about one out of every 32 births to adolescents. Problem areas include the brain, spinal cord, kidneys, limbs, and intestines.<sup>18</sup>

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### Estrogen Supplementation and Ovarian Cancer

A new study from the American Cancer Society<sup>19</sup> finds that women on estrogen replacement therapy for six years face a 40 percent increased rate of ovarian cancer. After 11 years of supplementation, the risk rises to 70 percent. This contradicts previous studies that suggested estrogen might decrease the ovarian cancer rate. Other studies have linked the hormone to endometrial, cervical, and breast cancers.<sup>20</sup>

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### Carpal Tunnel Syndrome Disability

According to an analysis by the Washington State Department of Labor, carpal tunnel syndrome (CTS) is more likely to keep a worker off the job than low back pain or a fracture. Twenty-seven percent of patients diagnosed with CTS were out of work for at least six months. Among workers 45 years and older, the figure was 37 percent.<sup>21</sup>

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### FDA Considering Folic Acid Fortification

In an attempt to help prevent birth defects such as spina bifida, the FDA is considering requiring cereal and other grain suppliers to add folic acid to their products. The amount under consideration at this point would provide about 10 percent of the RDA of folate per serving. However, there is some concern because this would increase the ingestion of the nutrient in about five percent of elderly Americans to the point of aggravating pernicious anemia or interfering with certain medications.<sup>22</sup>

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### HIV Survives in Anesthetic Vial

An inquiry into the HIV infection of four women who visited the same doctor on the same day has concluded that they were most likely infected through a multi-use anesthetic vial. Tests done at the Fairfield Hospital in Melbourne, Australia found that after injecting an anesthetic, relaxation of the syringe's plunger before withdrawal could allow fluid to be sucked back into the needle and syringe tip. If the tip was re-attached to the vial (to prepare a second injection) it could contaminate the contents of the entire vial. The hospital found that the HIV virus survived up to four hours in the anesthetic.<sup>23</sup>

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JULY 1995