

## DC On-Line

Brian Sutton, DC

### Anti-Aging Diet

Researchers from the University of California report that they have observed a number of anti-aging effects in mice when a special diet is used. The diet does not emphasize a particular type of food, rather it merely restricts the amount of calories consumed. The study's author says that the beneficial effects appeared very rapidly, shifting the animal's physiology toward a healthier state. Even elderly mice, once put on the restricted diet, showed quick health improvements and a longer life span, though starting at a younger age worked even better. Apparently (and perhaps ridiculously) the work is encouraging research into the development of drugs to mimic the effects of a low-calorie diet.<sup>1</sup>

1. *Proceedings of the National Academy of Sciences*, September 2001.

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### Automotive Solvents and Nerve Damage

The Centers for Disease Control and Prevention reports that there is some evidence that n-hexane, a chemical found in many automotive cleaning products, can cause nerve-related problems. Symptoms reported include extremity numbness and tingling, and loss of motor skills. The warning comes in the wake of a California study that found such symptoms among auto mechanics. The compound is also found in some glues and paint products, and has been blamed for similar symptoms among workers in furniture factories and printing plants.<sup>2</sup>

2. Associated Press, November 15, 2001.

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### Positive Attitude for the Heart

A study conducted by the Johns Hopkins University Center for Health Promotion concludes that a positive mental attitude could have a major impact on your heart's health. Researchers tracked 586 middle-aged adults who initially had no cardiac symptoms, but a familial history of heart disease, for up to 12 years. The volunteers were categorized as either optimists or pessimists by a standard personality test. During the study, about 70 persons suffered an adverse cardiac event of some kind, but it happened to the optimists only half as often.<sup>3</sup>

3. Reuters, November 12, 2001, reporting on the work of Diane Becker at JHU.

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### Wrongful Prescriptions among Elderly

According to research published in the *Journal of the American Medical Association*,<sup>4</sup> one in five senior citizens each year is probably receiving drugs that experts deem inappropriate for use in the elderly. The study examined prescriptions given to patients over the age of 65 during 1996. About seven million received one of the 33 drugs that are thought too dangerous to give such patients because of the serious side-effects. Some concerns have been expressed that the drugs are leading to a wide variety of seemingly unrelated effects, such as hip fractures. Many of the side-effects are often dismissed as new conditions developing, or the patient just "getting old."

4. *JAMA*, December 12, 2001.

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### Mosquitoes Avoid It

Research at Iowa State University suggests that there is an herb alternative that is about 10 times more effective than Deet (N, N diethyl-*m*-toluamide, an insect repellent developed by the U. S. Army in 1946): catnip. The oil from the catnip plant appears to be as repulsive to mosquitoes as it is attractive to kittens. This research did not test the effectiveness of the oil when applied to the human skin, but did work very well when applied to a glass mosquito enclosure. The compound also appears to repel cockroaches.<sup>5,6</sup>

5. Associated Press, August 27, 2001.

6. <http://www.ent.iastate.edu/dept/research/tox/catnip.html>.

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### Alcoholic Drug Treatment

A study sponsored by the Veterans Administration concludes that the drug used to treat the majority of alcohol addiction in the United States, compared to placebos, had no therapeutic effect on the study participants. About 600 subjects participated in the study, most of whom had been drinking heavily three out of every four days for about 20 years or more. There were three treatment groups: one took the drug naltrexone for three months, another for a year, and another group was given placebos. At the end of the study, all were drinking less, and many had gone months without a drink. However, there was no significant difference between the three groups.<sup>7</sup>

7. *NEJM*, December 13, 2001.

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### Morning Dialysis

Research from Emory University has yielded some interesting statistics relating to kidney dialysis. A report in the *Journal of the American Medical Association*<sup>8</sup> concludes that elderly patients live longer if they do their dialysis in the morning instead of the afternoon. In this study of 242 patients, those taking morning treatments lived an average of 471 days longer. Why this is so is not clear, but researchers offer suggestions ranging from some kind of cyclical biochemical clearance factor to observations that patients tend to sleep more during morning sessions.

8. *JAMA*, December 5, 2001.

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## Family Meals

A report in the *Journal of Epidemiology and Community Health*<sup>9</sup> links the need for mental health services in adolescents to a lower frequency of meals with the family. The study finds that the incidence of anxiety and depression are higher when such quality time is less. The study involved 259 youngsters who lived with their parents. The families were fairly similarly matched in terms of parent's education, job status, family size, and time spent watching television.

9. *Journal of Epidemiology and Community Health*, January 2002.

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## Pill Statistics

A new survey of over 2,500 people taken by the Boston University School of Public Health yields some insight into the medicinal habits of American citizens. The results, for persons 18 years and older, include:

- 81 percent used at least one medication in the preceding week
- 50 percent took at least one prescription drug.
- seven percent took five or more medications.
- The highest rate was among elderly women: 94 percent had taken one medication in the past week, and 12 percent had taken at least 10.

For the purposes of this survey, "medications" included herbs and vitamin supplements, which were used by 14 percent of the respondents.<sup>10</sup>

10. *JAMA*, January 16, 2002.

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## Bacteria in Stomach Cancer

Recent research<sup>11,12</sup> suggests that there may be a number of bacteria involved in stomach inflammation that may in turn lead to stomach cancer, not just *helicobacter pylori*, as is commonly believed. The cancer seems to be a result of long-term inflammation due to any bacterial infection. If this is the case, the researchers say, then people who are on medication to lower their stomach acidity will tend to develop overgrowths of bacteria that thrive in a less-acidic environment, again making them more susceptible to stomach cancer. The author of the studies is concerned about the possibility of stronger acid blockers becoming available over-the-counter, with subsequent increases in stomach cancer rates.<sup>13</sup>

11. *Gastroenterology*, January 2002.

12. *American Journal of Physiology*, January 2002.

13. Reuters, January 16, 2002, in an interview with Dr. Juanita Merchant of the University of Michigan.

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## Trauma and Alzheimer's

A study from the University of Pennsylvania<sup>14</sup> reports that repeated head trauma appears to accelerate formations of amyloid beta plaques in the brain, a substance linked to Alzheimer's disease. This study, done in mice, involved repeated blows to the head, analogous to what a professional boxer or football player might receive. The injured mice developed the plaques at a much greater rate than normal mice, suggesting a greater potential of Alzheimer's disease. An earlier study by the National Institute on Aging of World War II soldiers found that those with severe head injuries were four times as likely to develop the disability.

14. *The Journal of Neuroscience*, January 2002, <http://www.jneurosci.org>.

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## Depressing Injuries

A new study reports that head trauma during adolescence or early adulthood can impact a person's mental state decades later. This review of about 1,700 veterans found that those who had suffered concussions or other similar injuries during their service were about 30 percent more likely to suffer from depression as long as 50 years later. The likelihood of depression correlated to the severity of the injury.<sup>15</sup>

15. *Archives of General Psychiatry*, January 2002.

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