

## DC Online

Brian Sutton, DC

### Side-Effects in Prescription Drug Patients

A study published in *The New England Journal of Medicine*<sup>1</sup> finds a much higher than previously acknowledged rate of prescription drug side-effects. In this study of 1,202 Boston patients, about one-quarter of the patients studied had experienced side-effects. When side-effects arose, 13 percent were serious and 39 percent were preventable, such as when a drug was given to a patient known to be allergic to it. Of the preventable cases, the wrong drug was given nearly half the time. Other mistakes included improper dosages, or the patient was told to take it too often. In two-thirds of the cases, the problems persisted because the doctors failed to heed warning signs.

1. *NEJM*, April 17, 2003.
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### Paxil and Suicide

The FDA has issued a warning that the drug Paxil should not be prescribed to children because of an increased risk of suicide. Paxil is prescribed to adults as a treatment for depression, but has never been approved for use in children. Many doctors, however, have been using it to treat their pediatric patients, even though it has not been proven effective in children. In fact, research by the pharmaceutical industry suggests that the only real effect it has in children is to triple the tendency toward suicide, particularly in teenagers.<sup>2</sup>

1. Associated Press, June 19, 2003.
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### Diet and Genetic Expression

Researchers from Duke University report that they have been able to influence an offspring's hair coloring by modifying the mother's diet.<sup>3</sup> The researchers used two groups of mice for this study. Both were fed similar diets, except that one was fortified with folic acid, vitamin B<sub>12</sub>, choline and betaine. The mice used in this study typically have yellow fur and are rather plump, but the pups in the vitamin group were slim and had dark brown coats.<sup>4</sup> The authors of this study say the gene responsible for the fur coloring had not mutated; its expression was simply modified.

1. *Molecular and Cellular Biology*, Aug. 1, 2003.
  2. You can see a picture that illustrates the rather dramatic contrast between the two at: [www.nature.com/nsu/030728/030728-12.html](http://www.nature.com/nsu/030728/030728-12.html).
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### Feeding Frenzy

A study from Harvard Medical School reports that, despite evidence that feeding tubes do not help

Alzheimer's patients survive longer, and may in fact be harmful, the practice is still prevalent. One-third of such patients in the final stages of the disease are given feeding tubes, researchers found in this study of more than 15,000 licensed nursing homes.<sup>5</sup> The tubes can be irritating to patients and are associated with an increased risk of infection. Many specialists recommend spoon-feeding and comforting measures, although they can be quite time-consuming. The practice was seen most often in for-profit nursing homes; however, researchers note that relatives who are unfamiliar with the pros and cons of the practice often make the decision. A representative of the American Health Care Association, a nursing home professional/trade organization, suggests that the situation would improve if more patients had living wills or documented advanced directives for their health care before their health and competency deteriorated.<sup>6</sup>

1. *Journal of the American Medical Association*, July 2, 2003.
  2. Associated Press, July 1, 2003.
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### Fasting for Health

Researchers from the National Institute on Aging report that restriction of food intake appears to promote longer and healthier lives, even if done in short bursts. Earlier studies have found increases in longevity and overall health status if total caloric intake is restricted over a long time. However, the mice in this research consumed a near-average amount of food during the study and achieved similar results. The difference is that they fasted every other day, but ate two days' worth of food on their nonfasting days. The researchers think the physiology of fasting produces the health benefits, not necessarily a total decrease in caloric intake, as has been previously thought.<sup>7</sup> Observed benefits of the fasting included lower blood sugar and insulin levels, and resistance to certain neurotoxins. The researchers are organizing a human trial that will attempt to evaluate the benefits of skipping one or two meals a day.

1. *Proceedings of the National Academy of Sciences*, May 13, 2003.
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### Tea for Germs

According to new research, a few cups of tea each day can give a big boost to your immune system. Researchers say the L-theanine found in most teas becomes ethylamine after metabolism, which enhances the action of gamma-delta T-cells. These T-cells are some of the first active fighters of many types of infections, and are involved in the release of interferon. This study was small, involving 11 people who consumed five cups of tea each day, and another 10 who drank coffee instead, but the results were dramatic. The tea drinkers' blood produced five times the amount of interferon when exposed to *E. coli* than before the four-week trial started, and also compared to the coffee drinkers.<sup>8</sup>

1. *Proceedings of the National Academy of Sciences*, May 13, 2003.
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### Bacterial Wagon-Circling

Researchers studying bladder infections involving *E. coli* bacteria have discovered some interesting behavior. The bacteria appear to burrow into the layers of the bladder and form clumps or slime-covered "pods" that protect the germs from antibiotics.<sup>9</sup> The authors of this study suggest that the

Pods are analogous to multicellular organisms, working together for protection and the common good. The findings may explain why some patients suffer repeated bouts of infections; the bacteria organize and hide out until the danger is past, then the pods break open and bacteria again proliferate. The researchers feel this is probably going on in many areas of the body and intend to study other types of illnesses, such as childhood ear infections.

1. *Science*, July 4, 2003.
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### Cold Hearts

The American Heart Association is recommending that heart attack patients who have gone into a coma should be cooled to prevent brain damage.<sup>10</sup> Research has shown that lowering the body temperature just a few degrees helps reduce the brain's need for oxygen and may also suppress some toxic chemical reactions. The recommendation is that patients be cooled to a body temperature of between 89.6-93.2 degrees. This can be achieved through ice packs or cold air. From previously published research, survival and rehabilitation rates increase 20 percent to 40 percent. Years ago, doctors tried cooling patients to much lower temperatures in an effort to achieve similar results, but the lower temperatures created too many side-effects. Even the temperatures recommended by the AHA now can lead to more infections and other effects, but apparently, they feel the dramatic recovery rates are worth the risks. The recommendation is that cooling starts after resuscitation and continues for 12-24 hours.

1. *Circulation*, July 2003.
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### Extra Ovulation

Canadian researchers report that many women ovulate two or more times each month.<sup>11</sup> The researchers say they were surprised by their findings, which contradict standard medical teachings. They used high-resolution ultrasound scans daily to visualize the status of 63 women's ovaries, and observed that 13 of these women ovulated multiple times during the month of the study; approximately 20 more showed up to three waves of activity that came close to releasing an egg. The women's hormonal levels were also measured, but showed surprisingly little correlation to the ovulatory activity. The researchers' work might explain why the rhythm method of birth control is not as reliable as expected. More research is planned.

1. *Fertility and Sterility*, July 2003; Dr. Roger Pierson and associates.
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### Babies of Overweight Moms

The Centers for Disease Control and Prevention reports that obese women who become pregnant are twice as likely to have children with heart problems and/or multiple birth defects. They are not sure why the defects, which include spina bifida and other neural tube problems, occur. Another type of birth defect, omphalocele (the protrusion of internal organs or intestines through the navel), is three times higher than normal when the mother is overweight. The researchers gathered data from more than 900 births in the Atlanta area for this work.<sup>12</sup>

1. *Pediatrics*, May 2003.

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## Zinc and Prostate Cancer

The National Cancer Institute reports that a study of nearly 47,000 health professionals has found a link between zinc supplementation and prostate cancer. The study found that men who took 100 mg of zinc a day for 10 years were twice as likely to be diagnosed with advanced prostatic carcinoma than those who took no such supplements. Zinc appears to accumulate in the prostate, and apparently, large amounts make the tissue less resistant to cancer.<sup>13</sup>

1. *Journal of the National Cancer Institute*, July 2, 2003.

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## Prostate Health Tip

New research from Australia's Cancer Council Victoria suggests a way for men to diminish their risk of prostate cancer: have sex often.<sup>14</sup> The study found the risk of cancer decreased among men who ejaculated more often, with the risk being cut by a third if the act occurred on a daily basis. The study involved about 2,300 men 20-50 years of age, and differed from a previous study that contradicted these results because it focused on men who didn't have a lot of different sexual partners and thus were less exposed to infective organisms. The researchers speculate that the increased activity flushes out potential carcinogens that may otherwise accumulate. There is no word yet on how difficult it will be to encourage men to follow this advice.

1. *British Journal of Urology International*, August 2003.

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