

## DC On-Line (Wellness Research)

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### Dental Pneumonia

A study published in the journal *Chest*<sup>1</sup> concludes that better oral hygiene might go a long way in preventing pneumonia in the elderly. This study tracked 49 nursing-home patients who were admitted to hospitals for problems other than pneumonia for the duration of their stay. On admittance, samples were taken of bacteria from their oral plaque. Subsequently, 28 percent of these patients came down with pneumonia during their hospitalization, and lung fluid analysis revealed a match to the bacteria originally found in their mouth. This study is only one in a long line of works that suggest a relationship between dental flora and systemic or physically remote infections.

1. *Chest*, November 2007, <http://www.chestjournal.org>.
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### Impaired Doctors

An investigation into medical training practices condemns the practice of interns working long hours without sleep as dangerous to the public's health. Medical hospital interns typically work 30-hour shifts and more than 80 hours per week. Finally, about a year ago, the Accreditation Council for Graduate Medical Education mandated that interns should work no more than 80 hours per week. However, the medical profession has done little to enforce this rule. The study, results of which were published in *The New England Journal of Medicine*,<sup>2</sup> concludes that sleep-impaired physicians make more than five times as many serious misdiagnoses than they would if properly rested, and in general committed 36 percent more serious medical mistakes. The numbers extrapolate into thousands of innocent deaths each year attributable merely to doctor fatigue. The practice has been defended as a way for doctors to learn through some sort of patient care continuity perspective, but this study disputes the value of that. Of course, other studies have suggested learning itself is thwarted when the subject is sleep-deprived.

1. *NEJM*, Oct. 28, 2006.
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### Naps for the Heart

A six-year study of more than 23,000 adults concluded that individuals who take a short afternoon nap are less likely to die from a heart problem. The study was more statistically significant for men than women because of the study design, but the authors believe both sexes eventually will be shown to benefit similarly. The study found that those who napped about a half an hour, three times a week, were 37 percent less likely to die from a heart-related problem.<sup>3</sup> There are a number of possible explanations, ranging from stress relief to the idea that people who nap just tend to take better care of themselves.

### Copper and Postpartum Depression

*The Journal of Trace Elements in Medicine and Biology*<sup>4</sup> reports that women with postpartum depression tend to have high levels of copper in their blood. Copper elevates during pregnancy, according to the researchers, but usually normalizes soon after delivery. However, this study found a 30 percent elevation in women suffering from postpartum depression. The next step in this research is to test if normalizing the copper levels helps the depression, which the lead author says has been his experience on a limited clinical basis.

1. <http://dx.doi.org/10.1016/j.jtemb.2006.10.001>.
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### Prescription Drug Poisonings Up

The CDC reports that unintentional deaths due to drug poisoning (mostly prescribed medications) increased by 68 percent between 1994 and 2004. This places drug deaths second only to motor vehicle accidents as the major cause of accidental deaths. The rate in 2004 was 7.1 deaths per 100,000. Rate increases varied wildly, with West Virginia experiencing the highest at 550 percent. Psychotherapeutic drugs were the largest contributors to the problem in this study.<sup>5</sup>

1. *Morbidity and Mortality Weekly Report*, Feb. 9, 2007.
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### Michigan Hospitals Cut Infection Rate

A project implemented in 108 intensive care units in Michigan over the past couple of years stressed better hygiene and other preventive steps in cleaning and handling catheters.<sup>6</sup> Improvements included better hand washing, special cleaning and insertion procedures, and removal of unneeded catheters. At the beginning of the study, there were 27 infections for every 10,000 days a catheter was in place. After three months of the new procedures, the rate dropped to zero and stayed there for the remaining 15 months of the study. Program promoters are hoping other hospitals around the country will someday implement the procedures. Up to 28,000 deaths are attributed to such infections each year.<sup>7</sup>

1. *NEJM*, Dec. 28, 2006.
  2. *Reuters*, Dec. 28, 2006.
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### Hip Fracture Heartburn

A study performed by the University of Pennsylvania, School of Medicine concluded that individuals using common heartburn medications over a long period of time increase their risk of hip fractures.<sup>8</sup> The problem appears to be the result of decreased calcium absorption, but more research is needed to confirm this. The study involved almost 150,000 persons over the age of 50, and involved over 13,000 hip fractures. The researchers found that the higher the antacid dose and the longer the drugs were taken, the more likely a fracture would occur, but the average risk increased by about 44 percent for patients taking heartburn medication.

1. *JAMA*, Dec. 27, 2007.
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### Allergy Retraining

Doctors from Duke University Medical Center are being encouraged by an experiment in patients with severe food allergies. Researchers have been giving their subjects daily miniscule doses of the allergen (typically eggs or peanuts) and gradually increasing the dosage until they are able to tolerate an accidental exposure to a small amount of the substance. For a peanut allergy, the researchers start out with 1/3000 of a peanut and gradually increase the dosage until the child shows some kind of reaction, typically hives. Then the dosage is decreased slightly, and the patient is prescribed that amount every day. Every two weeks, the dosage is increased slightly until they reach a maintenance dose of about 1/10 of a peanut. After two years of this, many of those with peanut allergies could tolerate 15 peanuts.<sup>9</sup> Four of the seven children in the study allergic to eggs could eat two scrambled eggs with no problem.<sup>10</sup> The researchers warn that these patients are very closely monitored and this is not something you should try at home.

1. Associated Press, Dec. 25, 2007, reporting on the work of Dr. A. Wesley Burks and associates.
  2. *Journal of Allergy and Clinical Immunology*, January 2007. Mental Fitness
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### Mental Fitness

Researchers conducting a study<sup>11</sup> of the effects of formal mental training on elderly volunteers report that the brain appears, in a way similar to skeletal muscle systems, to benefit from regular exercise, even as we age. The subjects took the 10 to 18 hours of training at an average of 73 years old, and after five years, a positive effect could still be seen when evaluating their ability to do activities of daily living. The training involved using things like mnemonics, acronyms and rhymes to aid memory, but the author of the study believes other mental exercises, such as doing Sudoku puzzles, would be effective as well, especially if done regularly. The research is being hailed as showing promise as a non-drug treatment to combat mental decline associated with aging.<sup>12</sup>

1. *JAMA*, Dec. 20, 2006.
  2. Reuters, Dec. 20, 2006.
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### Vitamin D for MS

A study of more than 7 million military personnel published in the *Journal of the American Medical Association*<sup>13</sup> suggests vitamin D may offer a protective effect against multiple sclerosis. The study found that fair-skinned soldiers with the highest blood levels of vitamin D were 62 percent less likely to develop MS. The correlation was not so apparent in the dark-skinned individuals involved in this study, for reasons undetermined at this time. The data from this research also seems to suggest it is more helpful to have the vitamin D levels at a younger age.

1. *JAMA*, Dec. 20, 2006.
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### Smoking the Knees

The knees seem to bear a lot of the load of cigarette smoking, according to this study from the Mayo Clinic in Rochester, Minn.<sup>14</sup> Researchers found that smokers with knee arthritis tend to suffer twice the cartilage deterioration in their knee joints compared to nonsmokers, and suffer more pain accordingly. The findings may be especially pertinent in light of the fact that most of the smokers were younger and lighter than the other group. The study used MRI scans over a 2.5-year period to measure cartilage loss.

1. *Annals of the Rheumatic Diseases*, January 2007.
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## Car Seat Suffocation

The *British Medical Journal*<sup>15</sup> reports a number of cases of babies suffocating in infant car seats. The problem appears to be that when babies fall asleep in the semi-reclined position, their heads can fall forward; in some cases, this appears to cut off the oxygen intake. The babies typically turned blue and became limp and unresponsive until the infant was picked up and gently shaken or patted. In most of the cases reported in the study, the child was sleeping in a car seat that had been brought indoors.

1. *BMJ*, Dec. 9, 2006.

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