

## DC On-Line (Wellness Research)

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### Hypertension (Treatment) Kills

Doctors from the Boston Medical Center suggest in the *Journal of the American Geriatric Society*<sup>1</sup> that aged patients who are aggressively treated for high blood pressure probably will die sooner or have a lower quality of life than their untreated counterparts. This study of more than 4,000 hypertensive patients 80 years and older found that "uncontrolled hypertension" (140/90 and above) exerted no effect on the longevity of these patients. Consequently, they say that the net effect of attempting to artificially lower their pressure to the population norms can cause more injuries and disability from the resulting decrease in blood flow to vital areas (such as the brain). They also cite other studies that demonstrate an elevated blood pressure can exert a protective effect on people with less-than-optimal circulatory function.

1. *JAGS*, March 2007.
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### Fatty Acid Depression

A report from Ohio State University College of Medicine<sup>2</sup> concludes that a trend toward higher ratios of omega-6 fatty acids to the omega-3 may be responsible for increased incidences of inflammatory disorders (including heart disease) and depression in America, dating back to the beginning of the 20<sup>th</sup> century. Before industrialized food preparation, packaging and distribution, humans tended to consume two to three times as many omega-6 acids as omega-3s. Today, however, the ratio for the average Westerner is more than 15 to 1. This small study found the ratio in patients diagnosed with major depression at 18 to 1, compared to 13 to 1 in nondepressed individuals. The severity of depression, as well as blood levels of certain inflammatory compounds, tended to correlate to the higher ratio of omega-6 to omega-3 acids, according to this study.<sup>3</sup> Omega-6 fatty acids are prevalent in the refined vegetable oils used in margarine, bakery items and fast foods. Omega-3s are found in fish, flaxseed oils and walnuts.

1. *Psychosomatic Medicine* online, March 30, 2007.
  2. Reuters, April 17, 2007.
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### Omega 3s on the Brain

Another study from the University of Pittsburgh<sup>4</sup> has found a correlation between the consumption of omega-3 fatty acids and the volume of gray matter (as determined by MRI scans) in the mood and emotional regulation areas of the brain. This research follows observations that suggested individuals

with a lower intake of omega-3 fatty acids tend to be impulsive, have negative moods and sour dispositions.

1. Dr. Sarah M. Conklin and associates of the University of Pittsburgh; reported by Reuters, April 13, 2007.
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### Making Children Deaf

A Chinese doctor who oversees the care of deaf children is scolding doctors in that country for their indiscriminate use of antibiotics. According to his figures, 10,000 children lose their hearing each year because of overuse of the wonder drugs in prescriptions for colds and simple sore throats. In China, antibiotics account for about 30 percent of druggists' medication revenues. A large part of the blame is placed on greedy doctors who receive kickbacks from their drug reps for pushing the preparations. China is making it harder for people to buy antibiotics, but many hospitals rely heavily on the drugs for their profits.<sup>5</sup>

You may find it interesting that in the United States, in 2000, drug companies spent \$4.8 billion sending drug reps to detail their doctor clients.<sup>6</sup>

1. Reuters, April 13, 2007, citing statements from Chen Zhensheng, deputy director of the China Rehabilitation Research Centre for Deaf Children.
  2. "Following the Script: How Drug Reps Make Friends and Influence Doctors." Available online at: [dx.doi.org/10.1371/journal.pmed.0040150](http://dx.doi.org/10.1371/journal.pmed.0040150).
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### Vancomycin-Induced Hemorrhage

*The New England Journal of Medicine*<sup>7</sup> reports a link between the antibiotic vancomycin and thrombocytopenia. The drug, used to treat infections that have become resistant to other antibiotics, can reduce the patient's platelet count in some cases, leading to serious or fatal internal bleeding. This is in addition to its already-acknowledged effects on hearing and the kidney. Apparently, there is a blood test available that tests for antibodies specific to vancomycin. When this is positive, you can reasonably suspect that your bleeding problems are due to the drug.

1. *NEJM*, March 1, 2007.
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### An Apple a Day

A European study of almost 2,000 pregnant women and their offspring reports that asthma is less likely to develop in children whose mothers eat apples during the pregnancy. Four apples each week resulted in 53 percent fewer diagnoses of asthma, compared to those who ate one or less per week. The study looked at a wide variety of foods, with only apples showing the asthma benefit. The researchers also found a 43 percent lower incidence of eczema with a once-a-week fish meal.<sup>8</sup>

1. *Thorax* online, April 5, 2007.

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## Smokers' Attention Deficit

Researchers from the Yale University School of Medicine<sup>9</sup> report that teenagers who were exposed to cigarette toxins *in utero*, and subsequently take up smoking themselves, have a harder time concentrating than either nonsmokers or smokers who were not exposed to cigarettes before birth. The nonsmokers performed better in the tests than either of the smoking groups. The research suggests tobacco smoke exposure during crucial development times changes the neurological development of the child for the worse. In fact, there is some indication that the smokers' brains even had to work harder to perform as well as they did.<sup>10</sup> Males and females reacted somewhat differently, with the boys suffering mainly auditory effects, and the girls exhibiting both auditory and visual attention problems.

1. Led by Dr. Leslie K. Jacobsen.
  2. *Neuropsychopharmacology*, March 21, 2007.
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## Tai Chi for Shingles

A study appearing in the *Journal of the American Geriatrics Society*<sup>11</sup> suggests *tai chi* exercises in the elderly helps to protect them from outbreaks of shingles. This study divided 112 elderly subjects into two groups. One group attended *tai chi* classes three times a week for three months; the other attended health education classes that taught good diet habits and stress management. After six months, the researchers determined that the *tai chi* group exhibited nearly twice the immune response to shingles as the others.

1. *JAGS*, April 2007.
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## Think Rehabilitation

Researchers from the University of Cincinnati's Academic Medical Center report that they see better outcomes in stroke patients who mentally practice activities of daily living.<sup>12</sup> This small study had patients end each physical therapy session with 30 minutes of "motor imagery," wherein they visualized the motions normal activities would require. Compared to a control group that received a relaxation program, the imagery patients showed significant motor skill recovery.

1. *Stroke*, April 2007.
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## The Ultimate Smoke Break

A statistical analysis by a Dutch economist suggests cigarette smoking is responsible for a huge amount of missed work in Sweden.<sup>13</sup> Using data logged by more than 14,000 workers between 1988 and 1991, he estimates that more than one-third of all sick days taken were the result of smoking. While nonsmokers in this study averaged 20 sick days a year (a level deserving its own study, I'm

sure), smokers were absent a whopping 34 days annually. Ex-smokers fell in between, at 25 days. Males and females were similarly affected.

1. *Tobacco Control*, March 29, 2007.
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### Breastfeeding and HIV

A South African study<sup>14</sup> of HIV-infected mothers who breastfeed suggests that if you're HIV-positive and are going to breastfeed, don't do it halfheartedly. Researchers found that the children were much less likely to contract the AIDS virus from their mother if they were exclusively breastfed for the first six months. The rate of mother-to-child HIV infection for exclusively breastfed babies was 4 percent. Supplementation with formula or animal milk during this time frame paradoxically doubled the risk of infection, and giving solid foods raised it 11-fold. If you're thinking it's better to avoid the breast altogether, consider this: Fifteen percent of infants who were not breastfed died within three months, compared to 6 percent of the exclusively breastfed group. The researchers suspect breast milk somehow reinforces gut immunity, and that solid food or other foreign substances facilitate virus transport across the intestinal barriers.

1. *The Lancet*, March 31, 2007.
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### Anesthesia-Induced Numbskulls

Laboratory experiments on rats and primates are raising some concerns at the FDA about the effects of anesthesia in children. A number of studies are finding that brain cells are dying and that the animals suffer prolonged behavior and learning problems.<sup>15</sup> The effects are complex, and it appears that mixing different types of anesthesia multiplies the toxicity. The time of most susceptibility appears to be during rapid neural growth. For humans, this would span the time from the last trimester of pregnancy up to about age 3. The report is careful to state there is no solid evidence of harm in children (which basically means they have no evidence of any kind, pro or con), but some of the studies were done on rhesus monkeys, which to my way of thinking are close enough to children to make me concerned.

1. *Anesthesia & Analgesia*, March 2007;104:509-20.
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### A Breath of Fresh Air

Want to cut down on hospital-acquired infections? Try opening a window. According to a report in the *Public Library of Science Journal*,<sup>16</sup> insufficient air flow is largely responsible for the spread of airborne infections in hospitals. This study found that 50-year-old hospital wards had better air circulation, resulting in less contagion, than modern hospitals. Naturally ventilated hospitals, with the older-style high ceilings and large windows, had an air exchange rate of about 40 air changes per hour. Newer hospitals, with windows you could open, produced about 17 changes per hour. Mechanically ventilated rooms - the high-tech versions where the windows generally are not opened - are designed to produce about 12 changes per hour. However, according to this study, they generally did not live up to that expectation. The researchers calculate that if you were to spend 24 hours in one of these modern

rooms with an untreated TB patient, you would have a 39 percent chance of contracting TB yourself.

1. *PLoS Medicine*, February 2007;4(2):e68. doi: 10.1371/journal.pmed.0040068.

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