

DC Online (Wellness Research)

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DC Online is a periodic column featuring summaries of the latest wellness research relevant to chiropractic practice. Each summary includes references to assist readers interested in learning more about the topic discussed.

School Food Experiment

A study of five Philadelphia elementary schools has quantified the effect of healthier foods served during school hours. The program banned candy, scaled back on snacks, handed out raffle tickets when positive food choices were made, and spent time teaching good nutrition to teachers, kids and parents. As a result, the number of children becoming obese dropped to half that of comparable schools that did not implement this program. The project was developed by the Food Trust, a local nonprofit organization. The study went beyond merely switching out foods; nutritional labels were used to teach fractions, one fundraiser offered fruit salads instead of baked goods, and other creative ideas were adopted.¹

1. Associated Press, April 6, 2008. See also <http://thefoodtrust.org>.

Hurting Our Children

A study using a new method of detecting medical mistakes in hospitalized kids concludes such errors occur in children much more frequently than previously thought. The researchers say that about 11 out of every 100 hospitalized children suffer a drug-related harmful effect. The previous estimation was two per 100. If you rely on hospital staffers to report such incidents, you will miss 96 percent of them.² The study actively looked for harmful incidents by establishing a set of 15 suspicious items on the child's chart, such as a prescription for specific drug antidotes, certain nonstandard lab tests and unusual side effects. The study was published in the April issue of *Pediatrics*.

2. Associated Press, April 6, 2008, reporting on the work of Dr. Charles Homer of the National Initiative for Children's Healthcare Quality.

Incontinent Memories

A study from Chicago's Rush University Medical Center suggests people taking anticholinergic drugs face a risk of memory and cognitive problems. Such drugs are used to treat high blood pressure, asthma, Parkinson's disease and incontinence. Those taking the medications showed a 50-percent faster decline in cognitive skills and memory. The research was conceived after a doctor noticed a woman had started hallucinating and talking to dead relatives after starting one of these

drugs.³

3. Associated Press, April 17, 2008, reporting on the work of Dr. Jack Tsao, a U.S. Navy neurologist.

Flu Migration

An article in the journal *Science* traces the migration of seasonal influenza outbreaks as they begin, spread across the globe and finally die out.⁴ According to this work, the flu begins each year in Asia (especially in the east and southeast regions) and begins to thrive during certain favorable conditions. In tropical areas, the flu likes the rainy season. In temperate zones, it prefers the chillier months. Because Asia has overlapping zones and dense populations, the virus tends to circulate all year long and do its mutating there. After a new strain begins to spread through Asia, it moves to Australia, North America and Europe six to nine months later. The virus finally burns out in South America or maybe Africa. Trade and travel patterns appear to be reasons for the geographical migration.⁵

4. *Science*, April 18, 2008.

5. Reuters, Nov. 1, 2007.

Fruit Cocktails

The *Journal of the Science of Food and Agriculture* suggests something to help you break the ice at your next cocktail party. Apparently, researchers at Kasetsart University in Thailand have discovered that adding ethanol to berries such as strawberries and blackberries boosts their antioxidant capacity and enhances their free radical-neutralizing ability.⁶ The discovery was made somewhat accidentally while researchers were investigating ways to lengthen the shelf life of fruits.

6. *J Food Sci Agricul*, June 2007;87(8):1463-72.

Start Moving, Stop Smoking

A review of multiple studies from the University of Exeter reports smokers can probably cut down on their cravings and lesson withdrawal symptoms by getting a little exercise. They found that five minutes of walking or even moderate isometrics often was enough to overcome a nicotine craving. The researchers were surprised at the strength of the effect, reporting it as effective for acute cravings as a nicotine patch.⁷

7. Associated Press, March 13, 2007, reporting on the work of Dr. Adrian Taylor.

Growth Hormone Illusion

A review of 44 studies on the effects of human growth hormone (HGH) use in athletes reports several interesting findings: It does appear to increase muscle mass, but the more massive muscles do not appear to be any stronger than the original versions, had they been physically trained in the same manner.⁸

In fact, researchers suggest exercise capacity might suffer with HGH, as well as producing other side effects. However, the authors note that most of the dosages studied were at levels considered fairly safe, and these findings might not apply to people using dangerously high amounts of the hormone.

8. *Ann Intern Med* 2008 May 20;148(10).

Pot-Belly Dementia

The journal *Neurology* reports that carrying excessive abdominal weight at age 40-45 appears to be a risk factor for developing dementia later in life.⁹ The report says abdominal fat is more important than overall weight when it comes to dementia. More than 6,500 middle-aged subjects were measured with calipers, with 10 inches or more of a belly in the A-P aspect considered large. Approximately 36 years later, the researchers found the risk of dementia increased from 89 percent to a whopping 300 percent for those with proportionally protruding abdomens. The higher range applied to the more obese (overall) people. However, an obese person whose body fat was evenly distributed was only 81 percent more likely to become demented.

There are no solid explanations for the findings, other than a few hard-to-stomach theories, such as suggesting abdominal fat might "pump out substances that harm the brain" or maybe that "high insulin levels" are the culprit.¹⁰ From personal experience, I would suggest a simpler explanation involving mechanical pressure from the fat impeding venous return and thus chronically depriving the brain of oxygen.

9. *Neurology*, March 26, 2008.

10. Associated Press, March 26, 2008.

Two Sources of Cholesterol

Apparently, dealing with both of them doesn't help reduce your chances of having heart disease. A study of the much-hyped anti-cholesterol drug Vytorin concludes its effectiveness against limiting plaque build-up on arteries of people genetically predisposed to cholesterol deposits is "zilch."^{11,12} While cholesterol levels did decrease, that did not translate into reduced plaque or arterial obstruction. Health officials are now investigating why the results of the study took nearly two years to be released, during which time sales of the drug soared in response to a \$200 million marketing blitz.¹³

11. *N Engl J Med*, April 19, 2007;356:1620-30.

12. Dr. John Kastelein, who led the study, quoted by the Associated Press, March 30, 2008.

13. Associated Press, March 30, 2008.

Antibiotics: Food for Germs

A paper published in the journal *Science* explains how antibiotics (from drugs, cattle feed, etc.) are broken down in the environment.¹⁴ It turns out plenty of germs actually enjoy chowing down on them. In fact, many are able to thrive with antibiotics as their sole food source! These antibiotics include the most popular types used to treat infections in humans. The researchers used bacteria taken from random samples of dirt from the northeastern United States, and in some cases fed them concentrations 100 times what would be given to a patient.

14. *Science*, April 2, 2008.

Vaccine Judgment

A Georgia girl who became autistic after receiving vaccinations has been awarded compensation from the federal Vaccine Injury Compensation Trust Fund after government health officials conceded her condition was caused by the vaccinations. This case does not quite set a precedent, however, because the officials argue the girl had an underlying (previously undetected) mitochondrial condition that surfaced after the five vaccinations she received in one day.¹⁵ Some evidence suggests the same mitochondrial condition is much more prevalent in autistic children than in the general population.

15. Associated Press, March 5, 2008.

Mumps Outbreak

An outbreak of mumps among college students in the United States in 2006 has been blamed on visitors from other countries who perhaps hadn't been vaccinated well enough to make them immune to the virus.¹⁶ But the really interesting part of this outbreak, and a statistic you rarely see reported, was that most of the people who contracted the disease had been properly vaccinated with the prescribed two-shot anti-mumps immunization procedure.¹⁷ Health officials are now wondering if maybe additional shots might make the vaccine work.

16. Associated Press, April 9, 2008, quoting a researcher involved in the study.

17. *N Engl J Med*, April 8, 2008.

JULY 2008