

DC On-Line (Chiropractic Research)

Brian Sutton, DC

Resistant Microbes

An epidemiologist at the University of California, Berkeley is sounding an "endemic invasion" alarm for antibiotic-resistant bacteria. "This is a major disaster," he says about his findings that 20 percent of patients in a New York teaching hospital were infected with enterococci bacteria resistant to vancomycin, the "antibiotic of last resort."¹ If that isn't enough to dishearten medical providers heavily dependent on pharmaceuticals for their treatment methods, these new microbes appear to be even more virulent than their older cousins.

Another study published in *The Lancet*² found that 40 percent of patients on ventilators were colonized by the bacteria while in a Chicago hospital. And recently, one British doctor reported a new mutation of bacteria that seems to actually depend on Vancomycin to survive.³

1. United Press, reporting on the work of Lee Riley, et al.
2. *The Lancet*, December 14, 1996.
3. Reuter, December 12, 1996, "Resistant bacteria widespread in hospitals -- study."

Smoking Sharpens Mental Processing

Researchers from the University of California, San Diego, searching for ways to treat nicotine addiction have noted one significant benefit to cigarette smoking: improved mental agility. In tests of volunteers in their early twenties, they found more accurate short term memory and quicker association skills among smokers than nonsmokers. The effect was evident even after 12 hours of nicotine abstention. The lead author of the study, himself a nonsmoker,⁴ says that the "scratch pad" area of memory seems to become more efficient when exposed to nicotine, possibly because it mimics acetylcholine. He next plans to study the effects of long-term smoking to see if similar or perhaps opposite effects are seen in older persons.⁵

1. Jaime Pineda
2. Presented at a meeting of the Society for Neuroscience, November 19, 1996.

OTC Antibiotics Risky

A cost-effectiveness study by the University of Michigan warns that a proposal to permit over-the-counter sales of antibiotics to treat female urinary tract infections could backfire. Proponents say the move could reduce the costs of such treatments by \$32 million in the United States each year by reducing doctor visits. However, this group says that costs associated with microbial resistance and misdiagnoses would increase by \$79 million. Part of the university's reasoning rests on experience with OTC yeast infection remedies: sales of these 200+ preparations rose 800 percent

from 1990 to 1995, coinciding with an increased resistance of yeast varieties.⁶

1. *Journal of Clinical Epidemiology*, November 1996.
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Cancer Causes

The Harvard School of Public Health has come out with its conclusions about cancer etiologies in the United States. Their study blames 65 percent of cancer deaths on lifestyle choices, such as smoking, diet, and inactivity. Genetics causes maybe 10 percent, they say, and environmental pollution is responsible for two percent. Five percent of deaths are attributable to viruses and another five to carcinogens in the workplace. Essentially, the paper says that the population as a whole would be better off if people worried more about things they could directly control, such as lifestyle, instead of hard fought for and less promising benefits from lowered pollution.⁷

1. *Cancer Causes & Control*, November 1996.
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Oils for Dyslexia

Researchers at London's Hammersmith hospital using magnetic resonance spectroscopy are investigating a relationship between neurological disorders and dietary deficiencies of essential fatty acids. A definitive mechanism for the perceptual disturbances of dyslexia, clumsiness of dyspraxia, and hyperactivity syndrome is not yet evident, but the group has made some significant improvements with a nutritional supplement. They report that a concoction of tuna oil, evening primrose oil, vitamin E and thyme oil produced noticeable improvements in a three month period of time. One spokesman remarks that such disorders have increased in the last few years, noting a concurrent decrease in the use of cod liver oil by doting parents.⁸

1. *Reuter*, November 27, 1996 reporting on the work of Drs. Jackie Stordy and Basant Puri.
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Vitamin B and Dementia

Research in Boston is relating vitamin B deficiencies to certain type of dementias. Low levels of vitamin B12 was evident in a large percentage of impaired individuals in this study presented to the European Conference on Alzheimer's disease and related disorders.⁹ Studies have also shown that deficiencies of vitamin B6 and folic acid affect brain function.

1. Presented by Dr. Irwin Rosenberg, of Tufts University in Boston.
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Cancer Alley Surprise

An area of the Mississippi River lined with petrochemical refineries between New Orleans and Baton Rouge has become known as "cancer alley" because of the population's high death rate from cancer. It has been assumed that carcinogens from the refineries were the cause, but a new study puts the blame on another type of pollutant: cigarette smoke. When researchers from the Louisiana Tumor Registry and Louisiana State University Medical Center took a closer look, they discovered that the bulk of cancer deaths were lung and larynx cancers from the heavy smoking segment of

the population. When the effects of smoking were factored out, the cancer rates in the area were lower than average.¹⁰

1. Journal of the Louisiana State Medical Society, April, 1996.
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Father's Smoking Affects Children

A study of British parents who lost children to cancer suggests that a father's cigarette smoking may affect his unborn child. Researchers found a "highly significant" link to childhood cancers, and suggest that damage to the father's sperm may be a factor up to 15 percent of the time. Compared to nonsmokers, a child of a heavy smoking dad faces a 42 percent increased risk.¹¹

1. *British Journal of Cancer*, December 1996.
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Magnesium for Better Babies

A study published in the *Journal of the American Medical Association*¹² finds that magnesium supplementation during pregnancy can lower the risk of cerebral palsy and mental retardation. The benefits were seen in very low birth weight babies according to records from the Centres for Disease Control and Prevention. The rate of cerebral palsy was decreased by 90 percent when the mothers took prenatal magnesium sulfate supplements.

1. *JAMA*, December 12, 1996.
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Ritalin on the Rise

A study in the journal *Pediatrics*¹³ finds that methylphenidate (Ritalin) usage increased two and one half times from 1990 to 1995. This study measured actual usage of the drug; previous reports suggest that production of the chemical appears to have increased even higher for some reason. One and a half million children (nearly three percent in the U.S.) are now taking the drug, often well into their teenage years. After that, I guess, they're old enough for Prozac.

1. *Pediatrics*, December 1996.
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Work for Pain

If you want to increase your pain tolerance try exercise, that, according to recent studies, including one published in the journal *Medicine and Science in Sports and Exercise*.¹⁴ As little as one exercise session caused pain to be less noticeable in volunteers at the University of Florida. The effect is known as "exercise induced anesthesia," and is thought to be caused by a release of endorphins. But another theory proposes that strengthening tissues around joints increase stability and help decrease pain by reducing chronic irritation.

1. *MSSE*, December 1996.

Sunbather's Diet

Researchers from Baylor College of Medicine in Houston¹⁵ say that pre-cancerous skin growths can be cut by one third by reducing fat intake to only 20 percent of total calories. These dermatologists¹⁶ still recommend avoiding prolonged exposure to the sun, but think that lowering overall fat intake is a smart move. The average American gets about 38 percent of his energy from fat.

1. United Press, "Health Notes", June 12, 1996.
2. John Wolf, et al.

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