

DOE – Medical and Infectious Disease Update – Wednesday, June 02, 2004

DOE weekly updates on Bird Flu, Human Influenza, West Nile Virus, or other illnesses and medical issues will continue as appropriate or as requested. The following information is current as of Thursday, June 3, 2004, 0700 hours, EST. Information presented is routinely taken from the Centers for Disease Control and Prevention (**CDC**), <http://www.cdc.gov/>, The World Health Organization (**WHO**), <http://www.who.int/en/>, the Department of Defense Global Emerging Infections Surveillance and Response System site, (**DoD-GEIS**) - <http://www.geis.ha.osd.mil/>, and other creditable sources.

Recent News

ALLERGY-The Accuweather page provides current air quality information with specific charts for **Grass Pollen**, **Overall Pollen**, **Ragweed Pollen**, and **Tree Pollen** ...
http://www.accuweather.com/adcbn/public/maps_index.asp?type=airq.

Chocolate Hearts – 2June2004, by *Ed Edelson*, **HealthDayNews** --For those who think the world is a bitter place, medical science offers this sweet health tidbit: Chocolate might be good for you. Not just any chocolate, and always in moderation, said Mary Engler, a professor of physiological nursing at the University of California, San Francisco, School of Nursing. But her new study does find that biting into the right stuff can make arteries expand, increasing blood flow and thus reducing cardiovascular risk. Milk chocolate won't do, Engler stressed, because it's, well, too milky. Look for darker chocolates, because darkness is an indicator of high levels of flavonoids, the chemicals that loosen up the arteries. And this is one instance where good taste and good health go hand in hand, Engler said. You can tell that a chocolate has a high flavonoid content because "the flavor is so intense and rich," she said ... http://www.abcnews.go.com/sections/living/Healthology/Chocolate_heart_healthday_040602.html.

US Experts to Review New Ultrasound Fibroid Therapy - 2June2004, by *Susan Heavey*, WASHINGTON (**Reuters**) - A new treatment using ultrasound to break up fibrous clumps in the uterus could soon become the first U.S.-approved alternative to hysterectomies and other surgical treatments. InSightec, a subsidiary of Tel-Aviv, Israel-based Elbit Medical Imaging, is seeking U.S. Food and Drug Administration's approval for the new treatment, called ExAblate 2000. On Thursday, an advisory panel to the FDA is due to discuss whether to recommend approval of the procedure. The agency usually follows its panels' advice. The procedure, already approved in Europe and Israel, uses magnetic resonance imaging (MRI) to pinpoint the non-cancerous tumors. Heat from conventional ultrasound waves is then used to kill the fibroid tissue, which is flushed from the body naturally ... http://story.news.yahoo.com/news?tmpl=story&cid=571&ncid=751&e=1&u=/nm/20040602/hl_nm/health_insightec_dc.

Drawing Without a License: Phlebotomists Get Little Training, Regulation - 1June2004, by *Ranit Mishori*, **The Washington Post** --When you get your blood drawn, the person who tells you to roll up your sleeve and make a fist may have a professional manner and be dressed in medical scrubs. That doesn't mean he's been to medical school or nursing school ... or any school at all. In most parts of the country, including the Washington area, phlebotomists -- workers who take blood in a medical setting -- are governed by few rules or none at all. Unlike your hairdresser, your cosmetologist and even the aromatherapist down the street -- most of whom are licensed by some authority -- the person probing for a vein may have only a few days of on-the-job training ... <http://www.washingtonpost.com/wp-dyn/articles/A4924-2004May31.html>.

Genetically-modified virus explodes cancer cells - 1June2004, **NewScientist** --A genetically-modified virus that exploits the selfish behaviour of cancer cells may offer a powerful and selective way of killing tumours. Deleting a key gene from the virus enabled it to infect and burst cancer cells while leaving normal tissues unharmed, reveals a study by researchers at **Cancer Research UK** and Queen Mary's School of Medicine and Dentistry, University of London.

Viruses spread by infiltrating the cells of their host. Normally, the detection of an intruder by a cell triggers a process called apoptosis, which causes the cell to commit suicide and prevents the virus spreading further. However, viruses can carry genes that allow them to slip past this cell death process in normal cells, causing infection. The UK researchers deleted one such gene in an adenovirus. This meant that the virus was immediately detected by normal cells and was unable to spread. But in cancer cells, which grow uncontrollably and ignore the cell death process, the virus was able to thrive and spread rapidly. It then multiplied so vigorously that it killed the cancer cells by making them explode ... <http://www.newscientist.com/news/news.jsp?id=ns99995056>.

U.S. Braces for Another West Nile Season: Simple precautions can offer protection from mosquito-borne virus - 28May2004, by *Amanda Gardner*, **HealthDayNews**

--Although West Nile virus season has barely begun in the United States, experts are already urging people to take precautionary measures. "Transmission is starting to occur in bird populations, and that means we know that people are going to be at risk and it's time for people to start preparing for that," said Dr. Jennifer Brown, an epidemiologist with the division of vector borne infectious disease at the U.S. Centers for Disease Control and Prevention in Fort Collins, Colo. "It's time for people to start thinking about taking personal protective measures against mosquito bites." So far this year, West Nile has been detected in birds and mosquitoes in 17 states, mostly in the eastern part of the country. The first human cases surfaced this week, one in New Mexico on Wednesday, and one that Arizona announced on Thursday ... <http://www.healthscout.com/news/68/519229/main.html>.

Widely Used Test Often Misses Prostate Cancer, Researchers Report - 27May2004, by *Rob Stein*, **Washington Post** Staff Writer

--Many men who are told they do not have prostate cancer based on the results of a widely used blood test probably do have tumors, researchers reported yesterday. The conclusion is based on a new study of nearly 3,000 men who were told by their doctors that they had nothing to worry about because their scores on the popular prostate-specific antigen (PSA) test fell within the "normal" range. The study found that 15 percent of them actually had tumors. Although most of the cancers appeared to be so slow-growing that they were unlikely to ever require treatment, a small but significant portion of the malignancies were likely to become life-threatening, the study found ... <http://www.washingtonpost.com/wp-dyn/articles/A58339-2004May26.html>.

Researchers To Study Fate Of Prions In Wastewater - 19May2004, by *Emily Carlson*

--With funding from the [U.S. Environmental Protection Agency](http://www.epa.gov), a group of **UW-Madison** researchers will investigate what happens if infectious prion proteins - considered the cause of chronic wasting disease and mad cow disease - enter wastewater treatment plants. Joining UW-Madison scientists Judd Aiken and Joel Pedersen currently investigating the fate of prion proteins in soil and landfills, Katherine (Trina) McMahon and Craig Benson, both faculty members in civil and environmental engineering, will examine the ability of these infectious proteins to withstand the processes used to treat wastewater. At most treatment plants, microorganisms decompose biodegradable material in the sewage and, in theory, should also disintegrate infectious proteins, says McMahon. But as she points out, prion proteins generally are very resistant to degradation ...

<http://www.news.wisc.edu/9840.html>.

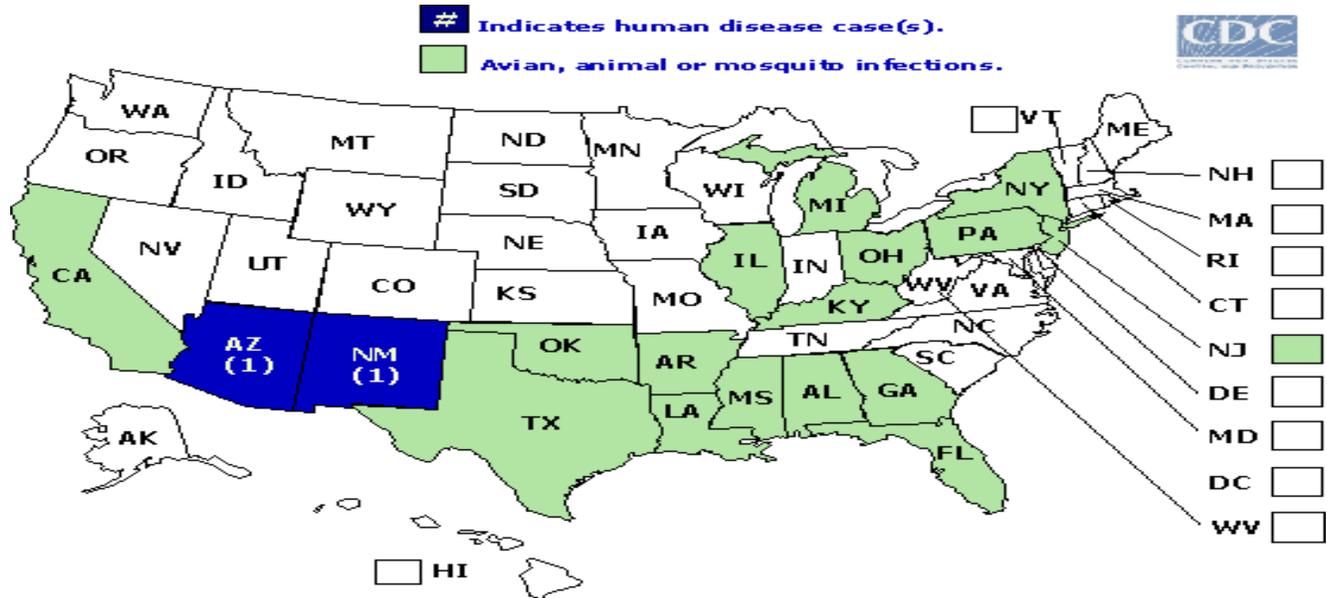
Bird Flu 2003-2004: Doe Special Medical Update

-- With information from WHO and the CDC, this update also explains the concepts of viral infection, viral replication, antigenic "drift", and antigenic "shift" ... http://www.eh.doe.gov/health/news/BIRDFLU2003-2004_DOESPECIALUPDATE_B200402091.pdf (PDF) or for a choice of PDF or Word format, <http://www.eh.doe.gov/health/index.html>, and scroll down under "News and Features".

WHO: Avian influenza-fact sheet – 5January2004-Avian influenza ("bird flu") and the significance of its transmission to humans ... http://www.who.int/csr/don/2004_01_15/en/.

2004 West Nile Virus Activity in the United States, reported to CDC. [Maps](#) reporting WNV avian and veterinary activity occurring during 2004 are updated regularly.

**2004 West Nile Virus Activity in the United States
(reported to CDC as of June 1, 2004*)**



*Currently, WNV maps are updated regularly to reflect surveillance reports released by state and local health departments to the CDC Arbonet system for public distribution. Map shows the distribution of avian, animal, or mosquito infection occurring during 2004 with number of human cases if any, by state. If West Nile virus infection is reported to CDC Arbonet in any area of a state, that entire state is shaded accordingly. **Human cases have been reported in New Mexico and Arizona.**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/Unspecified</u>	<u>Total Human Cases Reported to CDC</u>	<u>Deaths</u>
Arizona	1			1	
New Mexico		1		1	
Total	1	1		2	

http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount04_detailed.htm

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