

DOE – Medical and Infectious Disease Update – Wednesday, March 17, 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, March 18, 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

Spring weather will bring contact with ticks –Lyme disease in people is often manifested by a characteristic expanding 'bull's-eye' rash (below, left) at the site of tick attachment, fever, arthritis, and neurological manifestations, including facial palsy. While vaccines are not currently available for **humans** [<http://www.cdc.gov/travel/diseases/lyme.htm>](withdrawn by the manufacturer in February 2002), or our **feline** friends [<http://www.messybeast.com/lyme.htm>], **canine** vaccines *are* available

[<http://www.vetmed.wisc.edu/pbs/zoonoses/Lyme%20disease/lymeindex.html>]. Check with your vet for specific advice



for your area and situation. Dogs with Lyme disease will usually have lameness, swollen joints, fever, decreased appetite, and enlarged lymph nodes. A touching and informative article, **CANINE LYME**, is available online from the Press Herald (Maine). It also discusses the canine Lyme screening test ...

<http://www.portland.com/post/010812caninelyme.shtml>. Editor.

Pumping Iron Improves Insulin Effects in Diabetics - 15March2004, NEW YORK (Reuters Health) - Strength training improves the effects of insulin in the muscles of patients with type 2 diabetes, according to a report from Denmark. "**Physical inactivity** is becoming close to the number-one leading cause of death in the US," Dr. Flemming Dela from the University of Copenhagen told Reuters Health. "Our study is one which shows how to fight this trend." ... "Strength training is a realistic and effective alternative to endurance training and probably much more attractive to the 'average' type 2 diabetic patient," Dela concluded ... SOURCE: Diabetes, February 2004 ...

http://www.nlm.nih.gov/medlineplus/news/fullstory_16564.html.

Tissue Cells Can Revert To Stem Cells - 15March2004, ScienceDaily, Baltimore, MD -- Scientists at the [Carnegie Institution in Baltimore](#), MD, have found that certain cells involved in egg development in the fruitfly can be stimulated to revert to fully functioning stem cells. "This finding could lead to new sources of stem cells from other tissues and other animals," commented Dr. Allan Spradling, director of the Carnegie department and co-author of the study published in the March 14 online issue of Nature ... "Differentiated or partially differentiated cells are much more common in the body than stem cells," Spradling noted. "So harnessing them could be a valuable strategy in efforts to enhance tissue repair. Some animals that can regenerate lost parts seem to utilize differentiated cells as a source of progenitors, and not just pre-existing stem cells. We are very excited about what further studies in the fruitfly and other animals might show us," Spradling concluded ...

<http://www.sciencedaily.com/releases/2004/03/040315071240.htm>.

New gene-extracting lab fits on a chip - 15March2004, By CHARLES CHOI, United Press International (via COMTEX), NEW YORK, --U.S. scientists said they have reduced all the elements of a genetics lab capable of extracting DNA from cells automatically onto a microprocessor the size of a dime. Experts said the new invention could greatly advance the speed and efficiency of genetics work in academia, industry and government, in everything from medical analysis to scanning the genetic codes of whole ecosystems. The novel lab-on-a-chip already is finding use in probing stem cells, which contain the biological raw material of all other cells. "We think it's going to be a tremendous labor saver," said biophysicist Stephen Quake of the California Institute of Technology in Pasadena, Calif ... http://www.nlm.nih.gov/medlineplus/news/fullstory_16559.html.

Supplement May Be Linked to Prostate Growth – 11 March 2004, By Salyann Boyles, WebMD --People who take the over-the-counter supplement **DHEA** to increase testosterone may get less, and more, than they bargain for. New research suggests that instead of raising testosterone levels, the supplement raises levels of a hormone that promotes prostate problems ... <http://dailynews.att.net/cgi-bin/health?e=pub&dt=040311&cat=seniors&st=seniors97835&src=webmd>.

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.

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 – 5 January 2004-Avian influenza (“bird flu”) and the significance of its transmission to humans ... http://www.who.int/csr/don/2004_01_15/en/.

CDC West Nile Virus Home - <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

Links to State and Local Government West Nile Virus Web Sites

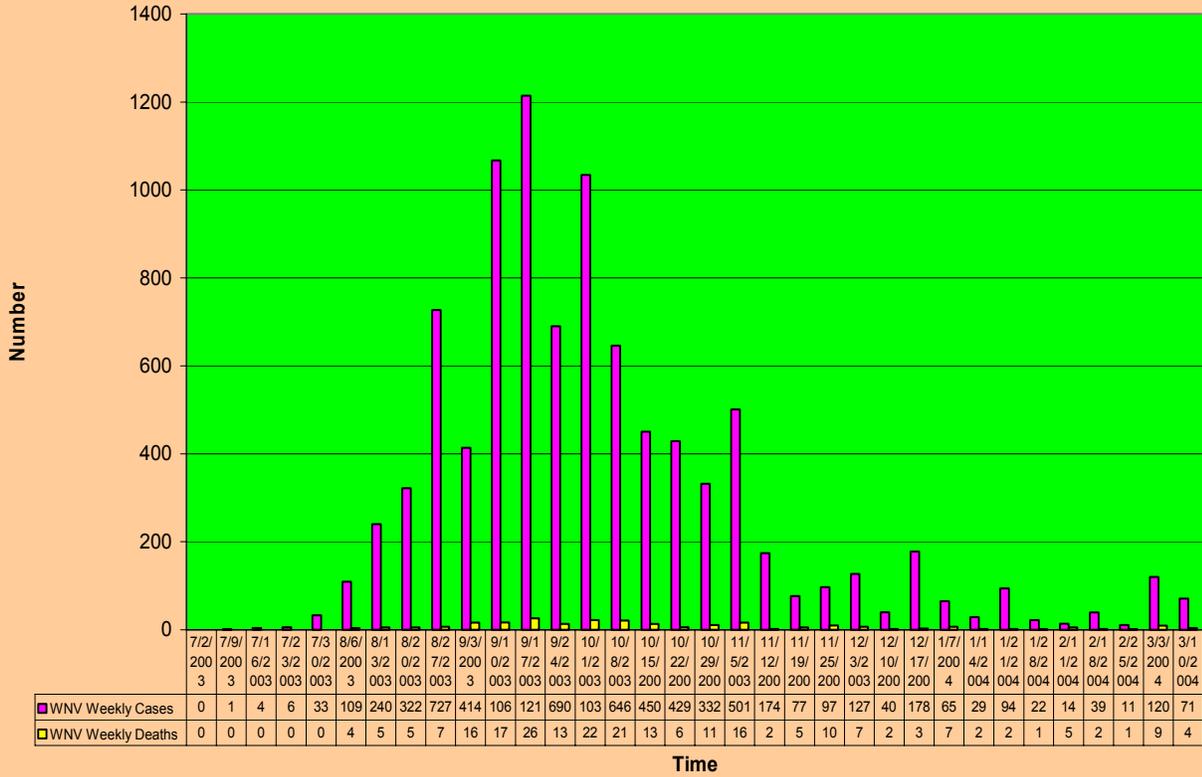
Click on a state to link directly to their West Nile virus Web page. See list below for additional city-level and main State Health Department Web sites ... http://www.cdc.gov/ncidod/dvbid/westnile/city_states.htm.



West Nile Virus Interactive Map – If you go to this map, each State will be ‘HOT’, and clicking your mouse on a State will link you to its Health Department’s West Nile web site and bring up other information. Whereas the CDC map and case summary is a lagging indicator, this map, linked to each State’s Health Department, provides real-time information for those states which update regularly, such as PA and CO ... http://www.mosquitoczar.com/west_nile_virus.

CDC West Nile Virus Case Count - [Maps](#) reporting WNV activity and [human disease cases](#) reported to CDC were updated on March 12, 2004 and provide weekly information thru March 10, 2004. See the chart below. Total cases and deaths from 46 states stand at 9377 and 244, respectively ... <http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount03.htm>.

West Nile Virus Weekly Cases & Deaths
 (Totals From This Week - Totals From Last Week = # Of Weekly Items)
 (Source - CDC-Weekly Updates)



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