



West Nile Virus

West Nile Virus Fact Sheet



What is West Nile Virus? West Nile Virus is really West Nile Encephalitis. Encephalitis means an inflammation of the brain and can be caused by bacteria, including viruses transmitted by mosquitoes.

Where did it come from? West Nile Virus has been commonly found in Africa, Eastern Europe, West Asia, and in the Middle East, but until 1999 it had not been found in the US. It is not known from where the US virus originated, but genetically it is most closely related to the strains found in the Middle East.

How many cases have there been in the US? In 1999 when West Nile was first diagnosed in the U.S., 62 cases of severe disease, including 7 deaths, occurred in the New York area. In 2000, 21 cases were reported, including 2 deaths in the New York City area. In 2001, there were 66 human cases of severe disease and 9 deaths.

As of November 26, 2002 there have been a reported 3737 serious cases and 214 deaths. An estimated 200,000+ people now have the West Nile Virus in some form in the United States based on current estimates.

How do people get West Nile Encephalitis? People become infected with the virus when they are bitten by an infected mosquito. The virus is located in the mosquitoes salivary glands and is injected when the mosquito feeds and may lead to serious illness.

If I live in an area where birds or mosquitoes with West Nile virus have been reported and a mosquito bites me, am I likely to get sick? No. Even in areas where the virus is circulating, very few mosquitoes are infected with the virus. Even if the mosquito is infected, less than 1% of people who get bitten and become infected will get severely ill.

Can you get West Nile encephalitis from another person? No. West Nile encephalitis is NOT transmitted from person-to-person. For example, you cannot get West Nile virus from touching or kissing a person who has the disease, or from a health care worker who has treated someone with the disease.

Can you get West Nile virus directly from birds? There is no evidence that a person can get the virus from handling live or dead infected birds. However, persons should avoid bare-handed contact when handling *any* dead animals and use gloves or double plastic bags to place the carcass in a garbage can.

How does West Nile virus actually cause severe illness and death in humans?

Following transmission by an infected mosquito, West Nile virus multiplies in the person's blood system and crosses the blood-brain barrier to reach the brain. The virus interferes with normal central nervous system functioning and causes inflammation of brain tissue.

What proportion of people with severe illness due to West Nile virus die?

Among those with severe illness due to West Nile virus, case-fatality rates range from 3% to 15% and are highest among the elderly. Less than 1% of persons infected with West Nile virus will develop severe illness. If infected, it is assumed that immunity will be lifelong; however, it may wane in later years.

Is there a vaccine against West Nile encephalitis? No, but several companies are working towards developing a vaccine.

Who is at risk for getting West Nile encephalitis? All residents of areas where virus activity has been identified are at risk of getting West Nile encephalitis; persons over 50 years of age have the highest risk of severe disease.

What are the symptoms of West Nile encephalitis? Most infections are mild, and symptoms include fever, headache, and body aches, occasionally with skin rash and swollen lymph glands. More severe infection may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis, and, rarely, death.

What can you do to not get West Nile Virus? Keep your immune system in peak condition to fight against the virus and avoid contact with mosquitoes by wearing long sleeved shirts, long pants, and using insect repellent on exposed areas.

Which States Have The Most Cases Of West Nile Virus?

	Human Cases	Deaths
1. Illinois	776	48
2. Michigan	523	41
3. Ohio	419	22

Connecticut has had 17 reported human cases of West Nile Virus and no reported deaths.

West Nile Virus

The West Nile Virus has gone from nonexistent in the U.S. to something that is causing many people to become seriously ill and cause others to even die. The virus, which is passed on by infected birds to mosquitoes, first showed up in 1999 in New York City. West Nile Virus has been commonly found in Africa, Eastern Europe, West Asia, and in the Middle East, but until 1999 it had not been found in the U.S.. It is not known from where the U.S. virus originated, but genetically it is most closely related to the strains found in the Middle East.

People become infected with the virus when they are bitten by an infected mosquito. The virus is located in the mosquitoes salivary glands and is injected when the mosquito feeds and may lead to serious illness. People with good immune systems rarely get seriously ill. The people that are at the highest risk of contracting the virus are the elderly because their immune systems are weaker. Less than 1% of people who get bitten and become infected will get severely ill. Unlike some viruses, West Nile Virus is not passed on person-to-person. There is also no evidence that the virus is passed on from infected birds to humans.

People can increase their chances of not getting the virus by keeping their immune system in peak shape and wearing clothes that cover their body's. People can maintain a healthy immune system by eating right, getting plenty of sleep, exercising, and getting enough vitamins and minerals. Long sleeve shirts, long pants, and other clothes that cover your body will help reduce the number of mosquito bites you get. Insect repellent containing DEET is also a good way to keep the mosquitoes away. Other things people can do are; drain areas where there is standing water where they can reproduce, make sure your house is sealed off from the outside so there are no places for them to get

in, and stay indoors at dawn, dusk and the early evening when the mosquitoes are out. Many areas that have and even areas that haven't been affected by the virus are taking steps to reduce the number of mosquitoes in their areas by spraying to kill the mosquitoes and reducing the places where they can reproduce.

If a person thinks they infected with the virus they should go to their doctor and the doctor will decide if the person is at risk of getting the virus. If the person is at risk then the doctor will take a blood sample and send it to a lab to get analyzed to determine if they have the virus. If they do have the virus then usually they will be given medicine to help boost their immune system to fight the virus. If they are very ill then they may receive more serious treatment in the hospital. There isn't a vaccine for the virus yet, but several companies are working towards developing one.

The Center for Disease Control (CDC) is very concerned about the West Nile Virus and they have been spending millions of dollars to help prevent the disease from becoming more serious than it already is. It is believed that more than 200,000 people are infected with the West Nile Virus, but very few show symptoms or ever become ill. If this virus becomes a bigger problem then more people are going to be getting sick and more people are going to die.

Consumer Health Education Web Sites

Center for Disease Control Website (CDC)
West Nile Virus CDC Brochure

<http://www.cdc.gov/ncidod/dvbid/westnile/brochure.htm>

Gives general information about the virus

NSC Website

Your Immune System is a Primary Defense Against the West Nile Killer Virus

http://www.nsc24.aschweb.net/West_Nile.htm

Gives good information about the virus.

Wildlife Disease Information Node

West Nile Virus

<http://westnilevirus.nbii.gov/>

Gives a quick description of the virus

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Medical Information Web Sites

Center for Disease Control Website (CDC)

Press Release

Update: Investigation of West Nile Virus Infections In Recipients of Organ

Transplantation and Blood Transfusion – Michigan 2002

<http://www.cdc.gov/od/oc/media/pressrel/r020927d.htm>

Gives medical information about the virus being passed on by organ transplantation and blood transfusion.

Center for Disease Control Web Site (CDC)

West Nile Virus Activity --- United States, November 14—20, 2002, and Missouri,
January 1—November 9, 2002

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5146a4.htm>

Gives medical statistics on the virus and where it is the most prevalent in humans and animals.

Baltimore Sun Website

West Nile organism mutates, strengthening as it spreads

<http://www.baltimoresun.com/news/health/bal-te.westnile17nov17,0,6512372.story?coll=bal-health-headlines>

Talks about how the virus has mutated from it's original form and may be more powerful.

Statistics Web Sites

Center for Disease Control Web Site (CDC)

Statistics, Surveillance, and Control

<http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm>

Gives maps that show how the virus is spreading across the U.S.

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Critique of Web Sites

I didn't find any web sites that contained bad information. I think the reason for that is I only went to big name web sites not small independent ones. All of the web sites were up to date, accurate, and informative. I would recommend all of the sites that I visited.

Back to Betty C. Jung's Web site	http://www.bettyjung.net/
Back to Fact Sheet Directory	http://www.bettyjung.net/Pch202fs.htm