

FAQs - Frequently Asked Questions



West Nile Virus
(West Nile Virus, WNV, West Nile)
ICD-9 066.4; ICD-10 G93.3

West Nile Virus Questions

Call our information line at
1-888-883-9997 or [click here](#) to find a contact in your area.

Below are answers to frequently asked questions about the West Nile virus received by the Texas Department of State Health Services (DSHS). Answers to more than 50 frequently asked questions received by the national Centers for Disease Control and Prevention can be found at <http://www.cdc.gov/ncidod/dvbid/westnile/q&a.htm>

Q. Can dogs, cats and other pets get the West Nile virus?

A. Yes. But they rarely, if ever, get sick. No cases of West Nile disease have been confirmed in dogs and cats. The virus can infect many species of animals, but few actually get the disease. Most infections have been identified in birds, but West Nile virus has been shown to infect dogs, cats, horses, and domestic rabbits, as well as bats, chipmunks, skunks, and squirrels.

Q. Is there a vaccine for dogs and cats?

A. No.

Q. How many human cases have there been in the United States? How many deaths?

A. In 1999, 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. No reliable estimates are available for the number of cases worldwide of West Nile encephalitis, the disease caused by the West Nile virus.

For the latest up-to-date information, go to <http://www.cdc.gov/ncidod/dvbid/westnile/surv&control04Maps.htm>.

Q. How many human cases have there been in Texas? How many deaths?

A. The first human death in Texas occurred on August 16th, 2002. For the latest up-to-date information on human cases in Texas, see the DSHS West Nile Virus home page at IDCU/disease/arboviral/westnile

More information about West Nile virus in Texas can be found at IDCU/disease/arboviral/westnile.

Q. What is the risk of someone becoming infected with West Nile?

A. The risk is very low. 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. The chances you will become severely ill from any one mosquito bite are extremely small.

Q. Where in Texas has the virus been found?

A. For the most up-to-date information, go to IDCU/disease/arboviral/westnile.

Q. Where does the virus live? Do birds or mosquitoes get it first?

A. Birds get it first. The virus is in their bloodstream. Mosquitoes become infected when they feed on infected birds. The infected mosquitoes can then transmit West Nile virus to humans and animals while biting to take blood. The virus is located in their salivary glands and, during blood feeding, the

virus can be injected into the animal or human, where it can multiply, possibly causing illness in the animal or human.

Q. Is TDH doing spraying around the state to kill mosquitoes?

A. No. Vector control is up to the Mosquito Control Districts and local health departments.

Q. In addition to being infected by the West Nile virus, what else can cause bird "die-offs"?

A. Chemical spills, pesticides, drought, severe weather, and other diseases.

Q. What's an arbovirus?

A. Any of various RNA viruses which are the causative agents of encephalitis, yellow fever, and dengue and which are transmitted chiefly by arthropods, such as insects.

Q. What kind of laboratory tests are done to identify the West Nile virus?

A. Various tests can be done. The type of test will vary among mosquitoes, chickens, humans, and horses. The type of test also depends on the kind of samples available (blood serum, cerebrospinal fluid, brain tissue, etc.). Samples may be tested to find antibodies to West Nile virus, or there may be an attempt to isolate virus particles from the sample. Tests that can be done include Hemagglutination-Inhibition, IgM-Capture, Plaque-Reduction Neutralization, virus isolation, and PCR. More details are available in the Response Guide at [IDCU/disease/arboviral/westnile](https://www.idcu.org/disease/arboviral/westnile).

Q. Is there a human vaccine?

A. No, but several companies are working towards developing a vaccine.

Q. Can a human get the virus twice?

A. We don't think so. It is assumed that a person would develop a natural immunity to future infection by the virus, and that this immunity would be lifelong. However, this immunity may wane in later years.

Q. I've heard of "suspect cases," "positive cases," "confirmed cases," and "probable cases." What does it all mean?

A. Infections with West Nile virus may, or may not, produce illness. A few people who get ill may seek medical care. Those with severe enough disease that has the appearance of West Nile and similar viruses may have blood or spinal fluid sampled for testing.

Testing of samples has two main components:

- Samples may be tested for antibodies to West Nile and other viruses. A positive result indicates that the patient may have been exposed to the virus, but does not prove that the virus is still in the patient.
- Samples may also be tested to find the actual virus. This type of test is more difficult, takes much longer, and may not be successful. A negative test does not prove that the virus did not cause the illness.

Here are definitions of the terms you asked about:

Suspect: A patient with symptoms similar to West Nile might be considered a suspect by their physician. Since they would also be suspect for a multitude of others diseases with similar signs, they are not counted or reported by Texas.

Positive case: Many laboratories can test for West Nile and may find positive results. These results are often cross-reactions with other conditions and may not represent a true West Nile positive. Only those results that meet the case definitions for "Confirmed" or "Probable" will be reported as "cases."

Confirmed: A febrile illness associated with neurologic manifestations ranging from headache to aseptic meningitis or encephalitis, plus at least one of the following:

- Isolation of WN virus from or demonstration of WN antigen or genomic sequences in tissue, blood, cerebrospinal fluid, or other body fluid;
- Demonstration of IgM antibody to WN virus in cerebrospinal fluid by IgM-capture enzyme-linked immunoassay (EIA);
- A ≥ 4 -fold serial change in plaque-reduction neutralizing test (PRNT) antibody titer to WN virus in paired, appropriately timed serum or cerebrospinal fluid samples;
- Demonstration of both WN virus-specific IgM (by EIA) and IgG (screened by EIA or HI and confirmed by PRNT) antibody in a single serum specimen.

Probable case: Symptoms identical to that for a confirmed case plus one or more of the following:

- Demonstration of serum IgM antibody against WN virus (by EIA);
- Demonstration of an elevated titer of WN virus-specific IgG antibody in convalescent-phase serum (screened by EIA or hemagglutination inhibition (HI) and confirmed by PRNT).

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