West Nile Virus Infection

This sheet is about exposure to or having a West Nile Virus infection in pregnancy or while breastfeeding. This information is based on available published literature. It should not take the place of medical care and advice from your healthcare provider.

What is West Nile virus (WNV)?

WNV is a virus that can infect humans, birds, mosquitoes, horses, and some other mammals. It is commonly found in Africa, West Asia, and the Middle East. WNV has been reported in North America since 1999.

How do you get WNV?

West Nile virus is most commonly spread to people by the bite of an infected mosquito. In rare cases, WNV has been spread through blood transfusion, organ transplant, from a woman who is pregnant to the fetus during pregnancy, delivery, or through breastfeeding. The chance of passing an infection to a pregnancy or child through delivery or breastfeeding is unknown.

You cannot get WNV through coughing, sneezing, or touching. Also, handling or eating infected animals does not spread WNV. However, if handling dead or live animals use proper safety precautions such as wearing gloves to dispose of animal carcasses. Be sure to cook meat to its safe temperature before eating.

What are the symptoms of WNV?

The time from bite to the start of symptoms (incubation period) is usually 2 to 14 days. Most people (8 out of 10) infected with WNV will have no symptoms. About 20% (1 in 5) of people who are infected will develop fever with other symptoms such as headache, body aches, joint pain, vomiting, diarrhea, or rash.

Less than 1% (about 1 in 150 people) who are infected will develop severe infection that leads to inflammation of the brain (encephalitis) or inflammation of the area around the brain and in spinal cord (meningitis). Symptoms of severe illness include headache, high fever, neck stiffness, confusion, tremors, convulsions, muscle weakness, paralysis, and coma. Symptoms of severe WNV may last several weeks and some people may experience long-term illness.

How can I lower my chance of getting WNV?

The best way to prevent WNV is to protect yourself from mosquito bites. Use insect repellent and take other precautions recommended by the Center for Disease Control and Prevention (CDC) at https://www.cdc.gov/westnile/prevention/index.html. MotherToBaby has fact sheets for Insect Repellents at https://mothertobaby.org/fact-sheets/insect-repellents/ and DEET at https://mothertobaby.org/fact-sheets/deet-nn-ethyl-m-toluamide-pregnancy/.

How can I find out if I am infected with WNV?

WNV can be detected by a blood test. If you think you have been exposed to WNV, talk with your healthcare provider.

I have a WNV infection. Can it make it harder for me to get pregnant?

It is not known if WNV infection can make it harder to get pregnant.

Does having WNV increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. One study looking at 77 women infected with WNV during pregnancy reported no increase chance of miscarriage.

Does having/getting WNV in pregnancy increase the chance of birth defects?

Every pregnancy starts with a 3-5% chance of having a birth defect. This is called the background risk. Having WNV is not expected to greatly increase the chance of birth defects above the background risk. No consistent pattern of birth defects has been identified after exposure to WNV in pregnancy.

There is 1 case report of a pregnant woman who passed the virus to her pregnancy. The baby was born with serious medical problems, including changes in the brain and eyes. While WNV was passed from the woman who was pregnant to the fetus, it has not been proven that WNV caused these birth defects.

Does having/getting WNV in pregnancy increase the chance of other pregnancy-related problems?

There is limited information on WNV infection in pregnancy. One study looked at 28 pregnancies with known WNV infection. No differences in birth weight, length, or head circumference were found in this study.

Does having/getting WNV in pregnancy affect future behavior or learning for the child?

One study looking at 11 children who were 3 years old did not link prenatal exposure to WNV with developmental delay. A report on 17 children of women who had WNV while they were pregnant had testing. The results showed normal development at 2 years of age.

There is 1 case report of a WNV infection at 27 weeks of pregnancy where the baby had brain abnormalities at birth, However, a case report cannot establish a connection between WNV and abnormalities.

Breastfeeding and WNV:

Little is known about the passing of WNV into breast milk. There was a case of a woman who was infected with WNV through a blood transfusion after delivering a child. The virus was found in the breast milk. The breastfed child tested positive for WNV, but had no symptoms and stayed healthy.

There are no recommendations to stop breastfeeding because of WNV. There are important benefits to breastfeeding and the chance for passing WNV through breast milk is unknown. If you suspect that the baby has symptoms of WNV, contact the child's healthcare provider. Be sure to talk to your healthcare provider about all your breastfeeding questions.

If a man has/gets WNV, could it affect fertility (ability to get a woman pregnant) or increase the chance of birth defects?

Studies have not been done to see if WNV could affect a man's fertility or increase the chance of birth defects above the background risk. In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

Please click here for references.

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