

# FACTS

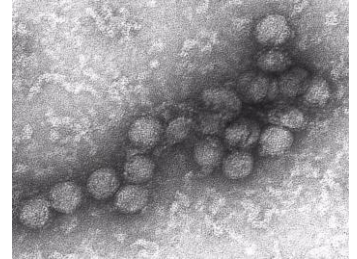
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## West Nile Virus

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### What is West Nile Virus?

West Nile Virus is a Flavivirus (virus transmitted by arthropods, such as mosquitoes and ticks). The virus can infect humans, birds, mosquitoes, horses, and some other mammals. WNV can develop into West Nile neurological or non-neurological syndrome.



### Where did West Nile Virus come from?

West Nile Virus was first isolated in 1937 from a patient in West Nile, Uganda. Since then it has spread across the globe. It was first detected in Canada during the summer of 2001.

### How is it spread?

Mosquitoes become infected with WNV when they feed on the blood of infected birds. An infected mosquito can then transmit WNV to humans and animals when it takes a blood meal. The virus is not known to spread from person-to-person, such as touching, kissing or caring for someone who is infected. WNV has been shown to spread from alternate modes, such as lab-acquired, in-utero, receipt of blood component, organ/tissue transplant, and possibly via breast milk. Since July 1, 2003, Canadian Blood Services has been screening all blood for WNV.

### What happens to West Nile Virus in the winter?

While WNV activity in humans and birds peaks during the summer months, the virus is still present in an area over the winter. There are several ways that WNV can return to an area the following year. Birds provide a reservoir for WNV and migration patterns can reintroduce the virus into an area when birds return from warmer climates (where WNV can be found year-round) in the spring. There is also evidence that infected female mosquitoes can pass WNV onto their eggs. In some species these eggs are dormant over the winter and when they hatch in the spring and summer the virus is reintroduced to humans. Finally, in some species, adult mosquitoes hibernate for the winter in warm sheltered areas, such as catch basins, caves and basements. In the spring, these mosquitoes awaken and can begin to spread the virus again.

# — Health & Environment Facts —

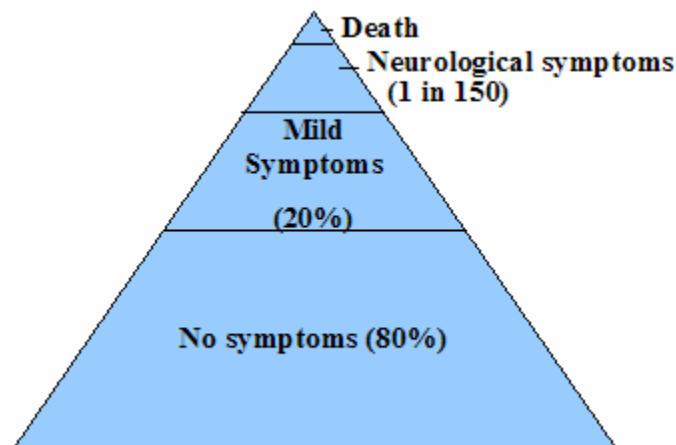
## Who is at risk?

There are several risk factors that determine the likelihood of coming into contact with a mosquito that is carrying WNV. Those who are frequently outdoors, such as hikers, hunters or outdoors workers, are more likely to be bitten by a mosquito, including those carrying the virus. All individuals can reduce the risk of contracting WNV by taking personal protective measures, such as using insect repellent, preferably containing DEET, and covering up with lightly coloured long-sleeve shirts and pants.

People over 50 years of age have the highest risk of developing severe illness because as we age our bodies have a harder time fighting off disease. People with weakened immune systems are also at increased risk; however, anyone can get the virus. There is also evidence that a pregnant woman who contracts the virus can pass it on to her unborn child. Pregnancy does not increase the risk of developing severe symptoms if infected with the virus. For more information on WNV and pregnancy please see the fact sheet on West Nile Virus and Pregnant and Breastfeeding Women.

## What are the symptoms?

Most people (80%) who contract WNV do not show any symptoms.



Symptoms do not become apparent until 3 to 12 days after initial exposure. For those who do become ill, symptoms include fever, headache, stiff neck, muscle weakness, skin rash, and swollen lymph glands. In rare cases, these symptoms may progress into a serious illness involving inflammation of the brain (encephalitis) and spinal cord (meningitis) and, infrequently, death (in less than 1% of cases).

## Are there any treatments or vaccines?

There is no specific treatment or vaccine. Most people who contract WNV recover completely.

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## **How can I protect myself and my family from mosquito bites?**

Wear light-coloured clothing including long-sleeved shirts, long pants, socks, and shoes when outdoors in the evening and early morning. Use an insect repellent, preferably containing DEET. Ensure you choose the correct DEET-containing product that is suitable for the age of the person and for the time spent outdoors. Please see the fact sheet on Mosquito Repellents for more information on this topic. Also, cleaning up standing water around your home will help to reduce mosquito populations by eliminating their potential breeding grounds. For more information on this topic please refer to the fact sheet entitled Reducing Mosquito Breeding Sites.

*Sources: Health Canada, Ontario Ministry of Health and Long Term Care,  
Centers for Disease Control*