

## West Nile Virus

**Date** May 2017 revised

### Definition

West Nile Virus (WNV) is a disease most commonly spread by infected mosquitoes.

### Signs and Symptoms

Four out of five people who are infected do not show any WNV symptoms. Those people who do get sick, usually develop mild symptoms 2 to 14 days after being bitten by an infected mosquito. Symptoms may include:

- Fever
- Headache
- Body aches
- Fatigue
- Skin rash
- Occasionally, vomiting and nausea



Approximately one in 150 people will have serious symptoms including:

- High fever
- Severe headache
- Muscle weakness
- Stiff neck
- Confusion
- Tremors
- Numbness
- Sudden sensitivity to light

### Causes

- Most people get infected with West Nile virus from the bite of an infected mosquito, mosquitoes become infected when they feed on infected birds
- In a very small number of cases, West Nile Virus has spread through blood transfusions, and organ transplants, as well as from mother to baby during pregnancy, delivery, or breastfeeding

### Diagnosis

Health care providers diagnose West Nile virus infection based on:

- Your symptoms
- Where (geographic location) and when (time of year) you were likely bitten
- The results of laboratory tests

**Tests**

Your doctor or other health care provider can test your blood or spinal fluid for WNV

**Complications (that may arise)**

Most people, even those with serious symptoms and health effects, recover completely. Others may experience ongoing health problems.

Recovery from severe disease may take several weeks or months. Some of the nervous system effects may be permanent, such as problems with concentration and memory, confusion, muscle weakness, tiredness. About 10 percent of people who develop neurologic infection due to West Nile Virus will die.

**Risk Factors**

Any person who is bitten by an infected mosquito can get West Nile Virus infection.

Some people are at greater risk for serious health effects from West Nile virus. These include people:

- Over the age of 50
- With chronic diseases, such as: cancer, hypertension, diabetes, and kidney disease
- Who require medical treatment that may weaken their immune system, such as chemotherapy or medications used after organ transplantation

**Treatment**

There is no specific treatment for, or vaccine to prevent, West Nile Virus infection in humans. Patients are treated for their symptoms.

**Prevention**

- Wear light-coloured, long-sleeved shirts and pants when outdoors
- Apply insect repellent containing DEET or icaridin and follow the manufacturer's instructions
- Take extra care during peak mosquito biting time (dusk and dawn) by using mosquito repellent and wearing protective clothing
- Remove standing water from your property, where mosquitoes can breed
- Ensure your home has tight-fitting screens on windows and doors

For more information about things you can do to prevent WNV, please visit Toronto Public Health's Environment Health WNV website:

<http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=9b25a66bffa51410VgnVCM10000071d60f89RCRD>.

**Self-care**

If you think you have contracted the West Nile Virus, contact your doctor or other health care provider

**Public Health Role**

Toronto Public Health monitors and reports weekly mosquito surveillance data on positive mosquito pools and human cases of WNV.

To reduce the species of mosquito that can transmit WNV, the City of Toronto applies larvicide to catch basins and monitors surface water locations to determine if treatment is necessary. These mosquito reduction activities take place in the summer.

**Transmission/Spread**

If an infected mosquito bites you, it may pass the disease onto you.

**Information for Sexual Partners (for STIs)**

N/A

**More information**

For more information, please visit [toronto.ca/health](https://toronto.ca/health)