



JUST THE FACTS

# WEST NILE VIRUS FOR VETERINARIANS

## What are the symptoms in animals?

In domestic birds WNV can be difficult to be distinguished from Newcastle Disease and Avian Influenza. Other birds do not usually show symptoms other than death.

The clinical signs of WNV in horses are similar to those caused by Western Equine Encephalitis, Eastern Equine Encephalitis and Rabies. This is because virus crosses the blood brain barrier and causes inflammation of the brain.

### *Clinical signs of encephalitis in horses include:*

stumbling	inability to stand	listlessness
weakness in hind limbs	paralysis of the limbs	head shaking

A horse infected with WNV has a good prognosis for recovery and there is no reason to euthanize an infected horse. The main treatment is supportive therapy to reduce the severity of symptoms and is consistent with standard veterinary practices for animals infected with a viral agent.

Clinical symptoms have not been positively associated with other animals.

Important: WNV is an immediately notifiable disease under the Health of Animals Act. This means that all laboratories are required to contact the Canadian Food Inspection Agency (CFIA) upon suspicion or diagnosis of this disease. CFIA can be contacted at [notification@inspection.gc.ca](mailto:notification@inspection.gc.ca) or by fax at 613-228-6675.

## What animals are at risk?

According to the Canadian Cooperative Wildlife Health Centre, WNV is known to affect over 250 species of birds, 35 species of mammals and two species of reptiles. However, horses are particularly susceptible to West Nile virus. In the United States, there have also been small numbers of confirmed cases in cats, dogs, and domestic rabbits.

## How can I minimize the risks to domestic animals?

### *Vaccinate*

Currently there are two West Nile Virus vaccines registered for use in horses in Canada. Both vaccines require two injections, several weeks apart for primary immunization, and a booster injection is required annually for continued protection. A booster vaccination every six months is recommended for horses at higher risk. For full protection, vaccinations should be initiated two months prior to the start of the mosquito season.

Please note that veterinarians must advise owners that vaccinated horses may develop antibodies (IgG and/or IgM) to WNV. This may affect their ability to export animals to countries that require negative blood test results for this disease.



Canada had its first confirmed case of mosquito transmitted West Nile virus in 2002. While the risk of West Nile virus infection is low and the risk of serious health effects from the virus is even lower, it is important for everyone to take steps to reduce their risk of getting bitten by mosquitoes.

## WHAT IS... West Nile Virus?

The West Nile virus (WNV) is a mosquito transmitted virus that can be transferred to humans from the bite of an infected mosquito. A mosquito becomes infected when it bites a bird with WNV.

There is also no evidence that the virus can pass from infected animals, such as horses or pets, to people or to other animals. For this reason, it is unlikely quarantining an infected animal would be necessary. However, it is still important to follow standard health and safety practices when handling dead birds or animals, such as wearing protective gloves.

## How can I minimize the risks to domestic animals? continued

### *Eliminate mosquito breeding sites around your home and other properties.*

Mosquitoes lay eggs in standing water, so any undisturbed or stagnant water becomes habitat for larvae. Even a small amount of water, such as in a saucer under a flower pot, is enough to act as a breeding ground. As a result, it is important to eliminate as much standing water as possible.

- Keep pool covers properly stored and free of water.
- Remove unused items from around your property (e.g., old tires) because they have a tendency to collect water.
- Change the water in wading pools, bird baths, pet bowls, and livestock watering tanks at least twice a week.
- Cover rain barrels with tightly fitting screens or lids.
- Cover or drilling holes in recycling bins and other containers kept outside. This avoids water collecting in the bottom.
- Clean out eavestroughs regularly to prevent clogs that can trap water.
- Run an aerator in ornamental ponds or stock them with fish or frogs. This will keep the surface water moving and therefore inhospitable to mosquito larvae.
- Keep wheelbarrows and plastic wading pools turned over when they are not being used.

For more information visit Ontario Association of Equine Practitioners, [www.oeap.on.ca](http://www.oeap.on.ca).

### For more information.

Other "Just the Facts" information sheets on West Nile virus:

- West Nile Virus
- Pregnancy and Breastfeeding
- Protecting Young Children
- Blood Products, Organ and Tissue Donation
- Protecting the Elderly
- Protecting Campers
- Protecting Outdoor Workers

Windsor-Essex County Health Unit

[www.wehealthunit.org/diseases-conditions](http://www.wehealthunit.org/diseases-conditions) • 519-258-2146

#### References:

Health Canada. (2006). *West Nile virus – protect yourself!* Retrieved May 22, 2007, from [http://www.phac-aspc.gc.ca/wn-no/index\\_e.html](http://www.phac-aspc.gc.ca/wn-no/index_e.html)



## What is the Windsor-Essex County Health Unit doing?

In 2010 the Health Unit, along with each municipality, will continue to conduct human surveillance to monitor for West Nile virus. The larviciding program will continue throughout the 2010 summer season, along with investigating standing water complaints and distributing educational materials, such as this "Just the Facts" sheet.

For more information about larvicides, visit the Ministry of Environment at [www.ene.gov.on.ca/envision/land/westnile](http://www.ene.gov.on.ca/envision/land/westnile).

## What if I find a dead bird?

If you find a dead bird report it to Canadian Cooperative Wildlife Health Centre by calling 1-866-673-4781.

If you need to dispose of a dead bird:

- Use rubber gloves and a shovel to handle the carcass.
- Bury the carcass at least 1 m (3 ft) deep (it is not recommended that you use a vegetable garden), or double bag the bird in sealed plastic bags and place in the garbage for pickup.
- Throw away the rubber gloves and wash your hands thoroughly with soap and water.