



## Eastern Equine Encephalitis Virus (EEEV)

### Eastern equine encephalitis virus, or EEEV:

- is a virus normally found in wild birds that can occasionally spread to horses and humans through mosquitoes
- is severe mosquito-borne disease acquired in North America, however is a rare illness in humans
- can affect the central nervous system and cause severe complications and death
- has been identified in Ontario in horses and mosquitoes, but to date *no human cases have been reported*

EEEV is a *vector-borne disease*. A vector-borne disease spreads to humans or animals through infected insects that are called *vectors*.

### Signs and symptoms

Symptoms of EEEV in people usually appear four to ten days after an infected mosquito bites a person.

Most people bitten by an infected mosquito won't have any symptoms. Others will only get a mild flu-like illness with fever, headache and fatigue.

Severe cases of EEEV involve encephalitis (an inflammation of the brain), which starts with a sudden headache, high fever, chills and vomiting. Of those cases, many will suffer permanent brain damage. Approximately 33 per cent of people who develop EEEV encephalitis die of the disease.

If you're experiencing any of these symptoms and think you might have Eastern equine encephalitis, please seek medical attention.

### Cause

*Eastern Equine Encephalitis virus (EEEV) is the cause of Eastern equine encephalitis.*

Of all types of mosquitoes in Ontario, only a few spread Eastern equine encephalitis. Mosquitoes become infected by feeding on infected birds. Infected mosquitoes will then occasionally bite and infect horses, people or other mammals.

People and horses infected with Eastern equine encephalitis do not spread the disease.

### **Who is at risk?**

In Ontario, your risk of being infected with Eastern equine encephalitis is very low.

Infections in people have been reported in several U.S. states bordering Ontario; however, no human cases in Ontario have been confirmed to date. In Ontario, occasional outbreaks of EEEV have taken place among horses.

The Eastern equine encephalitis virus was found in mosquitoes in Ontario for the first time in 2009. Since the virus is now in Ontario, you should protect yourself against infection.

### **Personal Protection**

To help protect yourself and your family, please take the following steps:

- Apply insect repellent containing DEET to clothing and on all exposed skin. (Don't apply it on the palms of your hands and your fingers, and keep it away from your eyes and mouth. Wash your hands after application).
- Wear light-coloured clothing, long sleeves, pants and socks when outside.
- Avoid being outside at dusk and dawn, as mosquitoes are the most active at that time.
- Ensure that all containers in or around the yard such as tires, pool covers, saucers for flowerpots, wading pools and children's toys are regularly emptied of standing water.
- Ensure that screens, windows and doors are fully sealed to prevent mosquitoes from entering the house.

### **Eastern equine encephalitis in horses**

Visit the Ontario Ministry of Agriculture and Food's Equine Neurological Disease web page for the most up-to-date data on EEEV in horses.

[www.omafra.gov.on.ca/english/livestock/horses/westnile.htm](http://www.omafra.gov.on.ca/english/livestock/horses/westnile.htm)

### **Travellers to the Eastern US and Gulf Coast**

Eastern equine encephalitis happens mainly in swampy areas along the eastern and Gulf coasts of the U.S. from June through October.

### **If you're planning a trip to the Eastern United States or Gulf Coast:**

- Be aware of the risk of EEEV and take precautionary measures to prevent mosquito bites.
- Visit the Center for Disease Control (CDC) website for information on reported human cases in the United States.

### **For more information:**

- Centers for Disease Control (CDC) online at <http://www.cdc.gov/EasternEquineEncephalitis/gen/qa.html>

Source: Simcoe Muskoka District Health Unit