

PVDR says “No” to West Nile Virus and “Yes” to West Nile Vaccine **By Devin Kerley, Medical Technician PVDR**

Spring is in the air! Babies are frolicking, birds are chirping, flowers are blooming and mosquitoes are biting?

Typically, mosquitoes aren't the first thing we think of when we see the changing season, but with record reports of West Nile, maybe we should. With mosquitoes comes that nasty infection we all know as the West Nile virus. Experts believe WNV is a seasonal epidemic in North America that rears its ugly head in the summer and continues into the fall. But according to the CDC, there have already been reports of human, bird and equine WNV infections this year. As the weather warms, WNV activity will become more widespread. It can cause serious, life-altering health problems and in some cases, can be fatal. It is very important that we educate ourselves in order to protect each other, our families and our pets from mosquito bites. In order to fully understand something, we should start at the beginning.

Where did WNV come from?

In 1937, West Nile virus was first isolated from a woman in the West Nile district of Uganda in Central Africa. Eastern Equine Encephalitis was first noted in Egypt and France in the early 1960's. To date, the West Nile virus is commonly found in humans, birds, and other vertebrate animals in Africa, Eastern Europe, West Asia, and the Middle East. Prior to 1999, West Nile had not been found in the Western Hemisphere. The first recorded case came from the New York City area. With thousands of people traveling between New York and the Middle East each year its probable the virus came to be via a bird or human. In early spring 2000, it appeared again in birds and mosquitoes and then spread to other parts of the eastern United States. By 2004, the virus had been found in birds and mosquitoes in every state except Alaska and Hawaii.

How is WNV spread?

The first step in the transmission cycle of WNV occurs when a mosquito bites an infected bird or animal and acquires the virus while feeding on the animal's blood. The infected mosquito can then transmit the virus to another bird or animal when it feeds again. Crows are highly susceptible, as are robins, blue jays, and other birds. Scientists have identified more than 138 bird species that can be infected, and more than 43 mosquito species that can transmit WNV. Although the virus usually cycles between mosquitoes and birds, infected female mosquitoes also can transmit WNV through their bites to humans and other "incidental hosts" such as horses. With so many susceptible hosts to amplify the virus and so many types of mosquitoes to transmit it, WNV has spread rapidly across the United States.

What are the affects of WNV?

Humans: Most people who are infected with the West Nile virus had no symptoms or experienced mild illness with fever, headache and body aches before fully recovering. In outbreaks in other parts of the world, some persons also developed a mild rash or swollen lymph glands. In some individuals, particularly the elderly, West Nile virus can cause serious disease that affects brain tissue. At its most serious, it can cause permanent neurological damage and can be fatal.

Equine: In equines, West Nile multiplies in the bloodstream, affects the central nervous system, and inflames the brain. Symptoms can include fatigue and an unusual, widened stance. Infected equines should receive immediate veterinary treatment. Infection can cause death, but most equine recover. There is no evidence that equine can transmit the virus to humans. Equine should be vaccinated against West Nile virus.

Dogs: The CDC continues to receive reports of West Nile virus infection in dogs each year in the United States. Dogs show no symptoms from infection in experiments. There is no evidence that

dogs can transmit the virus to humans. No treatment for infection exists except supportive care upon infection. Most dogs recover fully.

Cats: The CDC receives very few reports of West Nile virus infection in cats each year in the United States. Infected cats usually display mild symptoms, which owners may not easily recognize. Some cats experience a slight fever or lethargy during the first week of infection. There is no evidence that cats can transmit the virus to humans. No treatment for infection exists except supportive care upon infection. Most cats recover fully.

Birds: Since 1999, the West Nile virus has infected more than 100 species of birds in the United States. The CDC advises using gloves or a plastic bag to avoid touching a dead bird directly and suggests contacting local and state health departments for more information on reporting and disposing of dead birds.

It is evident that West Nile virus is not going anywhere; in fact the fear of it becoming an epidemic is getting stronger with every passing year. Being the largest donkey rescue in the US, we feel it is important to lead by example and vaccinate our beloved donkeys against the virus. The West Nile vaccine can be quite expensive, and a large number of equine rescues choose not to vaccinate. This is not an option at Peaceful Valley. We feel it is important to protect our donkeys as well as do our part in helping to control, if not one day, stop the growing problem of West Nile virus.

There are many things we can do to protect ourselves and our pets from WNV. Here are a couple things we can all do to help:

- Make sure doors and windows have tight fitting screens. Repair or replace screens that have tears or holes.
- Use mosquito repellants on exposed skin whenever you are in an area where mosquitoes may be present. Repellants provide extra protection individuals need when exposed to mosquitoes and other disease-carrying insects.
- Eliminate standing water, including clogged gutters, pool covers, empty wheelbarrows, and pools of water anywhere in the yard. Dispose of tin cans, plastic containers, ceramic pots or similar water-holding containers that have accumulated. Be sure to remove used tires, which are a common haven for mosquito breeding. Remind or help neighbors to eliminate breeding sites on their properties as well.
- Encourage local officials to treat small ponds with larvacide and consider stocking larger ponds with larva eating fish as additional control.
- Beware of the times mosquitoes are most active; typically at dusk and dawn, April through October, and avoid prime mosquito locations including marshes and wetlands.
- Clean and chlorinate swimming pools, outdoor saunas and hot tubs. If not in use keep covered.