WEST NILE VIRUS

What is West Nile virus and how is it transmitted?

West Nile Virus is a virus that infects humans, birds, mosquitoes, horses, and some other mammals. The principal transmission cycle of West Nile virus involves several species of mosquitoes and various species of birds. Mosquitoes become infected with West Nile virus when they feed on a bird carrying the virus in its blood. After 10 to 14 days, the virus can be transmitted to another bird, person, or other animal that the mosquito bites. During the blood feeding the mosquito injects the virus, contained in the saliva, into the bird, animal, or person where the virus may cause illness. West Nile virus is not spread from person to person. It may be passed through blood and transplant tissue, but those processes are strictly screened.

What animals can be infected with West Nile virus?

Although West Nile Virus has been diagnosed in over 275 species of birds, the Corvid family (Crows, ravens, magpies and jays) appear to show signs of illness in a community days to weeks before any human cases have occurred. For that reason reports of their death may be a good indicator that the virus has moved into a community. Raptors, such as great horned owls and red-tailed hawks also appear to be easily infected by the disease. As of 2007 all 8 SCDH counties have had evidence of animals infected with WNV.

Horses can become seriously ill or die if infected. There is a vaccine for horses and horse owners should check with their veterinarian for proper vaccination practices. In addition, WNV has been documented in over 20 species of mammals ranging from mice and squirrels, dogs and cats, to larger ruminants, both captive and free-ranging.

For hunters, proper cooking kills West Nile virus, so there is no danger in eating wild game.

What are the symptoms of West Nile virus?

Most human infections of West Nile virus are mild or have no symptoms which can begin 3 to 15 days after the bite of an infected mosquito. Approximately 20 percent of those infected develop West Nile fever, a generally mild fever that lasts from 3 to 6 days. Symptoms often include fever and headache, muscle aches, tiredness, nausea and vomiting, eye pain, skin rash, and enlarged lymph nodes. Some people have recurring problems of tiredness, muscle aches and dizziness for up to a year later.

Less than one percent of people infected develop the serious neurological disease called West Nile encephalitis. Encephalitis is an inflammation of the brain that may be marked by headache, high fever, stiff neck, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis. A small number of cases have been fatal. If you experience any of these symptoms you need to contact your physician immediately.
Who is at risk for West Nile virus?

People are at risk for becoming infected with West Nile virus when they are in areas where it is circulating in nature. Although any person bitten by mosquitoes is at risk for acquiring WNV, persons over 50 years of age have the highest risk of severe disease. At this time it is unknown if immunocompromised persons are at increased risk for WNV disease.

How is West Nile infection treated?

Supportive therapy is the only available treatment for infection with West Nile virus. In the case of West Nile encephalitis, hospitalization and intensive supportive therapy may be required.

What can you do to prevent West Nile infection?

Avoid mosquito bites.

- Apply insect repellent to exposed skin when you go outdoors. The most effective repellents contain DEET (N, N-diethyl-m-toluamide), Picaridin, or oil of lemon eucalyptus.
- Use care in applying repellent to children: don’t put repellent on their hands, and be careful to avoid the mouth and eye areas. Products containing 10% or less DEET are the most appropriate for children aged 2-12 years.
- Whenever possible, wear protective clothing such as long sleeves, long pants, and socks while outdoors.
- Spray clothing with repellents containing DEET or permethrin, because mosquitoes may bite thru thin clothing.
- Consider staying indoors between dusk and dawn, which is peak mosquito biting time.
- Fix or install window and door screens to keep mosquitoes out of buildings.

Reduce the mosquito population around your home. Most mosquitoes will breed in containers that hold water.

- Dispose of tin cans, plastic containers, ceramic pots, or similar things that hold water.
- Remove all discarded tires on your property.
- Drill holes in the bottoms of recycling containers that are kept outdoors.
- Make sure roof gutters drain properly, and clean clogged gutters in the spring and fall.
- Remove leaf debris.
- Change water in birdbaths and ponds regularly.
- Keep vegetation and debris away from the edge of ponds.
- Clean and chlorinate swimming pools, outdoor saunas and hot tubs, and make sure pool covers have no standing water on them.