

NEWS COLUMN

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West Nile Virus Disease in Horses

It is important for horse owners to keep some facts about West Nile Virus in mind as the mosquito season approaches.

West Nile Virus affects horses and in humans can present itself as a mild disease with flu-like symptoms to a severe disease affecting the brain and central nervous system.

Horses seem particularly susceptible to the severe form of the virus, resulting in the death of approximately one-third of horses that show signs of disease.

West Nile Virus is harbored principally in birds, and is transmitted from bird-to-bird, bird-to-human, and bird-to-horse through the bite of an infected mosquito. Many species of mosquitoes appear to be capable of transmitting West Nile Virus from birds, including the two most numerous mosquitoes in South Dakota—*Aedes vexans* and *Culex tarsalis*.

In horses, signs of severe West Nile disease include incoordination, weakness, paralysis, and altered behavior. Horses infected with the virus do not transmit the infection, so they do not pose a risk to other horses or humans. The blood of infected horses does not have enough West Nile Virus in it to allow horse-to-horse or horse-to-human transmission to occur.

Areas that have high populations of birds, including waterfowl, may be associated with greater risk of West Nile Virus in horses. Within an area, West Nile Virus infection of a given horse is a random event. That is, a number of horses may be present in a given area or on a given farm, yet only one or a very few horses may acquire West Nile infection.

Housing horses indoors at night has been associated with decreased risk of West Nile Virus. Mosquito activity is generally higher at dusk and dawn, so housing indoors at those hours may decrease exposure to the mosquito vector. Application of insect repellents may decrease mosquito bites. In horses, the West Nile Virus vaccine appears to be very effective in decreasing the risk of disease. Initially horses need two doses 21 days apart with an annual booster. Dosage cost is in the \$15 range. Contact your local veterinarian for more details. Act now as horses need approximately 2 weeks after their vaccinations to build up immunity to the West Nile Virus. Waiting until June or July could put your horse at higher risk for the virus.