

# Equine Newsletter

## VACCINATIONS

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# SPRING 2019

It is the time of year where a number of you will be getting your horse's annual vaccines. Every year we have a number of questions about what horses should be vaccinated against. In this newsletter we are going to go over the diseases that we routinely recommend vaccination for.

### RABIES

Rabies is a disease that gains considerable attention as a public health concern. Currently, raccoons and bats are the prominent species that carry rabies in Ontario. Horses can be exposed to infected raccoons and bats relatively easily in the field as well as the barn. That being said, rabies infection is relatively rare in horses. In the last 5 years there have been 2 cases of rabies in horses in Canada. The most recent equine case was in 2016 in Saskatchewan. Recently, an increased number of rabies cases have been seen in several species in the Hamilton area, reminding us that outbreaks can occur unexpectedly.

### TETANUS

The bacteria that causes tetanus, *Clostridium tetani*, is commonly found in the soil. *C. tetani* bacteria produce a toxin that causes severe muscle spasms, and horses are more sensitive to the effects of this toxin than any other species. Horses most often become infected when bacterial spores found in the soil make their way into deep cuts and set up an infection.

### WEST NILE VIRUS

The West Nile Virus naturally circulates among mosquitos and wild birds. Both horses and people can become infected if they are bitten by a mosquito that is carrying the virus. Infected horses develop muscle weakness and paralysis that can progress to coma and death. Every year a number of cases of West Nile occur in horses; the data for 2018 is not yet complete, but as of the beginning of December there had been 11 confirmed cases of West Nile Virus infection in horses in Ontario. In 2017, there were 31 cases confirmed in Ontario horses, and a third of these were in our practice area.



### EASTERN EQUINE ENCEPHALITIS VIRUS (EEE)

Similar to West Nile Virus, the EEE virus naturally circulates among mosquitos and wild bird populations. Again, both horses and humans are susceptible to infection if they are bitten by a mosquito carrying the virus. Clinical signs of infection in horses can include fever, facial nerve





deficits and symptoms can progress to blindness, seizures, and death. In 2018 there were 13 cases of EEE identified in Ontario. Simcoe County, Muskoka, and Haliburton County frequently see cases of EEE.

## EQUINE HERPES VIRUS (EHV)

This is a virus that is widespread throughout the equine population. The virus is usually transmitted from horse to horse through the inhalation of droplets containing the virus that are released as a result of snorting or coughing. Infection with this virus typically results in a respiratory disease. Clinical signs include fever, inappetence, and nasal discharge. Occasionally, however, EHV can result in more severe disease, including abortion in pregnant mares, and neurologic disease. The vaccine is licensed as an aid to prevent respiratory infection. There is no vaccine that prevents horses from becoming infected with the neurologic form of the disease. Immunity to EHV is relatively short lived (3-6 months), and horses will often develop a latent infection. This means that the virus hides out in the body away from the immune system and can reappear in times of stress.



## EQUINE INFLUENZA VIRUS (EIV)

EIV is another respiratory virus that is widespread throughout the equine population. It is also spread from horse to horse through the inhalation of droplets containing the virus that are aerosolized by coughing horses. Clinical signs include fever, cough and nasal discharge. The EIV mutates quickly, much like the influenza virus in people. For this reason, it is occasionally necessary to update the strains of virus present in our vaccines so that the vaccine remains protective against the virus found in natural infection. Immunity after vaccination with most EIV vaccines lasts 6 months. Revaccination is recommended at least annually and whenever there is risk of exposure, but to maintain the highest level of protection, horses should be vaccinated every 6 months.

## STRANGLES

Strangles is caused by a bacteria called *Streptococcus equi*. This bacteria is relatively common in the equine population and can persist in the environment under the right conditions. Nasal discharge from infected horses is the most common source of contamination. Horses infected with *Streptococcus equi* will often have a fever, nasal discharge, and swollen lymph nodes. Occasionally these swollen lymph nodes will develop into an abscess. There is a vaccine for strangles available, but unfortunately vaccination with this product cannot guarantee disease prevention; it only decreases clinical signs. Vaccination against Strangles is likely to be most effective when all horses within a stable are vaccinated.



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