

Core Vaccines (all horses should receive vaccination for the following diseases):

Tetanus: Tetanus toxoid is administered in the muscle. All horses should have this vaccination. It causes an immune response to the toxin produced by *Clostridium tetani*, a bacteria that lives in the soil. Horses are more susceptible to this disease than other mammalian species. Symptoms include overall muscle rigidity, “saw-horse” stance, third eyelid prolapse, and death. It is NOT against the bacteria, it is against the toxin produced. **Tetanus anti-toxin** is administered to horses that have never had a tetanus vaccination (foals), it neutralizes the toxin in the blood. It can cause “serum sickness” a liver disease in some horses that have previously been vaccinated.

Eastern & Western Encephalomyelitis (Sleeping Sickness): Generally given in a combination – EE, & WE in one shot. Causes neurologic disease that makes horses seem dull and “sleepy.” Carried by mosquitos. EE is the most deadly – only 20% of all horses infected survive.

West Nile Virus: Can also be administered in combination with the other encephalomyelitis or alone. Newest of the encephalomyelitis, causes more incoordination than strange behavior – mild cases may be mistaken for lameness. Carried by mosquitos – birds are a host as well. Horses are a dead-end host – they cannot support replication of the virus for spread to other horses. Birds allow for replication of the virus to go to mosquitos to bite other animals (including people!). Horses may be hypersensitive to noise and be unable to get up in serious cases. In 2007 there was 1 confirmed case in Butte County.

Rabies: Virus that is passed through saliva from bite wounds. **Can be passed to people through handling bits and anything else the horse may slobber on.** Horse should have strange behavior – fear of water, standing away from the group, may have excessive salivation or not. All horses that show signs of rabies will die from the disease within 10 days. Progression of the disease depends on where the horse was bitten in relation to the brain and spinal cord (bites on the head will progress faster than bites on the legs).

Vaccines administered based on your horses risk of contact with multiple horses (travel/boardings)

Rhinopneumonitis/Herpes: Three things to remember – this term may refer to abortion, respiratory disease and neurologic disease. The virus is the Equine Herpes Virus (EHV). There are two important forms of the virus 1 & 4. Not all vaccines prevent both types of virus. The neurologic form is EHV-1; the respiratory form is EHV-4, either can cause abortion. Intranasal vaccine allows for local immune stimulation helping to prevent the respiratory and (depending on the vaccine) the neural form-also prevents shedding which protects pregnant mares in the vicinity. Injectable forms provide a more systemic response, helping to prevent abortion. It is estimated that 70% of horses have been exposed and may be carriers of the disease. Shedding of the virus may occur without obvious symptoms in the horse.

Influenza: Not to be confused with EHV, respiratory disease only. Vaccines are often intranasal (up the nose) to provide better immunity in the area needed (nasal passages and back of the throat). High fever and coughing are common signs along with nasal discharge.

EVA: Equine Viral Arteritis – passed through breeding. Stallions are still fertile with the disease, but it causes abortion in mares. Current vaccine is only allowed if horse has been previously proven to not carry the disease – can affect import and trade of horses. Horses may also have signs of mild respiratory disease that is usually self-limiting (mild cough/nasal discharge). The reproductive impact is the most important. In order to be vaccinated, the horse must be proven negative by a blood test and kept isolated until vaccination.

Strangles – passed through nose to nose contact or contact with nasal discharge from infected horse, or can be from equipment/walls of barn with known Strangles outbreak. Caused by *Streptococcus equi subspecies equi*. Signs include fever, depression, copious nasal discharge, swelling behind jaw in throatlatch area (caused by lymph node enlargement). Intranasal vaccine cannot be administered at the same time as intramuscular vaccine as abscess formation at site of intramuscular vaccine is common. Vaccination is **NOT** recommended during an outbreak. Recommended for horses that share water troughs with strange horses or are housed at a barn/ranch with known strangles problem. Horses that have previously been diagnosed with strangles should not be vaccinated due to the risk of purpura hemorrhagica (immune system over-reaction to stimulation).