

# Horse Antibiotics & Vaccinations



The following guide will help you understand the different types of **vaccines and antibiotics** that are available to treat your horse. You will also learn about some of the most common types of horse diseases and illness.

### **Horse biologicals such as equine vaccines, bacterins, toxoids, and anti-serums**

Equine biologicals are products designed to stimulate an animal's immune system in response to an invasion by viruses or bacteria. Make sure to read product labels and avoid off-label use of products.

#### **Modified live virus vaccine**

These horse vaccines contain live viruses that have been modified so that they can no longer cause the disease but will still cause an immune response in the animal. Modified live vaccines must be reconstituted and used when first opened. The advantages of modified live virus vaccines for horses are that they yield a quicker immune response and usually require only one dose. The disadvantage is that they can trigger some symptoms of the disease.

#### **Killed virus vaccine**

These vaccines contain killed virus that can still cause an immune response in the animal. The advantage of killed virus vaccines is fewer side effects. The disadvantages are that they have a slower response time and are more expensive.

#### **Bacterin**

These vaccines contain preparation of killed bacteria and work similarly to killed virus vaccines.

#### **Toxoids**

Toxoids contain inactive versions of toxins released by bacteria. The toxoid causes the body to create an anti-toxin to neutralize toxin in the system.

#### **Antitoxin, anti-serums, serums**

These are not technically vaccines, because they do not stimulate the animal's body to fight the infection itself. Instead, these products give immunity by fighting the infection directly. As a result, they provide only short-term prevention and are most often used when there has been exposure to a virus or bacteria, such as a puncture wound or cut in the case of tetanus.

Bacterial infections are often secondary infections that take advantage of initial viral infection. An example is "Shipping Fever" in cattle, where an initial infection by the IBR virus is followed by a pasteurella bacteria infection that causes pneumonia.

### **Horse antibiotics**

An equine antibiotic is a drug that controls or kills bacteria in the animal's body. Antibiotics only work against bacteria and not against viruses. The numbers that appear in the names of injectable antibiotics refer to the amount (in milligrams) of drug in each milliliter of the product. Long- vs. Short-Acting Penicillin "Benzathine is an ingredient added to penicillin to make it last longer in an animal's system. Any penicillin product containing Benzathine will be a long-acting product and so will have a longer withdrawal time.

There are two varieties of antibiotics for horses:

- Broad Spectrum: These antibiotics control a wide variety of bacteria. Examples: Liqueamycin LA-200, Duramycin 72 200.
- Narrow Spectrum: These antibiotics control a narrower range of bacteria. Examples: Pen Aqueous, Combi-pen 48, and Tylan.
- Antibiotics can be administered to horses in a variety of ways:
  - Injectable - Injected with a syringe.
  - Topical - Rubbed on the skin, as on a wound.
  - Oral - Taken through the mouth.



### **Common horse diseases**

While it isn't possible to cover the full range of horse diseases and conditions, it is useful to know something about the ones that are among the most common.

The major horse diseases for which vaccinations are available include the following:

- Rhinopneumonitis, or "cold," is a highly contagious viral disease spread by aerosol or direct contact with secretions of infected horses, as well as contaminated feed and water utensils. The virus can survive up to seven days when dried in horsehair or on burlap. Rhinopneumonitis is characterized by respiratory infections, abortions, foal deaths and paralysis. Vaccination should be considered a must for pregnant mares, foals, and horses at high risk.
- Equine influenza, or "flu," is another highly contagious viral disease spread by aerosol transmission. Symptoms include coughing, nasal discharge, depression, fever, and loss of appetite. Influenza infections can be costly to treat and can leave the horse in a weakened condition. The disease affects primarily younger horses, although it can strike horses of all ages. Vaccination should be considered a must for horses that are in contact with other horses.
- Tetanus, or "lockjaw," is an often-fatal disease caused by tetanus bacteria invading wounds and foal umbilical cords. Symptoms include high fever, muscle stiffness, muscular spasms, and difficulty eating and drinking. Vaccination is a must.
- Encephalomyelitis, or "sleeping sickness," is an extremely dangerous viral disease transmitted by mosquitoes. Symptoms of this disease include high fever, partial loss of vision, reeling gait, paralysis, yawning, and inability to swallow. Death can occur in over 50% of cases. Survivors may suffer permanent nerve damage. There are three strains of encephalomyelitis that occur in the U.S.; Eastern, Western, and Venezuelan. Vaccination is a must.
- Strangles is a respiratory bacterial infection transmitted through contact with other horses and from contaminated equipment, feed, and water troughs. Symptoms include high fever, depression, difficulty breathing, nasal discharge, lack of appetite, and swollen abscessed lymph nodes. Strangles can kill foals, yearlings, and horses whose immune systems are already stressed. Customers should contact a veterinarian for vaccination recommendations.
- Potomac Horse Fever is a potentially life-threatening intestinal disease characterized by fever, depression, loss of appetite, lameness, colic, and soft-to-watery diarrhea. It is fatal in approximately one-third of all cases; survivors can be permanently lame. The exact method of transmission is unknown. Vaccination is recommended in areas where the disease has been positively diagnosed, and for horses traveling to such areas.
- Rabies can infect all warm blooded animals, including humans. It attacks the central nervous system, causing death. Rabies vaccinations are only available from a veterinarian.

For specific questions about vaccines or antibiotics for livestock, dogs or cats, call your veterinarian.

