

Vaccinations

In New Zealand horses are vaccinated to prevent the following diseases:

Tetanus

Tetanus is a disease caused by a toxin released by the bacterium *Clostridium tetani*. The bacterium is a common inhabitant of the intestinal tract of animals, and spores from this organism are capable of persisting in the soil for many years.

Horses are the most susceptible domestic animal species to tetanus.

Horses are frequently exposed to the infective form of the bacteria due to their predilection for acquiring wounds and hoof injuries.

It is important that horses are vaccinated against this disease! The vaccine is one of the most effective equine vaccines available.

Tetanus toxoid: (Equivac T®, Equivac 2 in 1® and Vetivax Equine Tetanus Toxoid®)

This is the vaccine used to immunise horses against tetanus. The initial vaccine is given intramuscularly, and a booster vaccination given 4-6 weeks later. A further booster should be given 6-12 months after this initial course, with vaccination every 5 years after that. Mares should be given a booster vaccination 4-6 weeks prior to foaling to confer maternal immunity via the colostrum to the foal. Foals should commence a course of tetanus vaccinations at 3 months of age.

Annual vaccinations are commonly recommended and practiced despite long-term immunity. There is a better prognosis if when a horse gets the disease, it has been vaccinated within the last year.

Tetanus antitoxin: (Equivac TAT® and Vetivax Equine Tetanus Antitoxin®)

Contains preformed equine antibodies against tetanus toxin. It provides some immunity to unvaccinated horses whenever they sustain an injury that is likely to provide a suitable environment for the bacteria to grow. It does not stimulate the horse to produce its own antibodies and therefore should be given in conjunction with a tetanus toxoid to vaccinate the horse at the time of injury. A booster toxoid vaccination will be required as above.

Strangles

Strangles is a highly infectious bacterial respiratory disease in horses caused by the bacterium *Streptococcus equi var. equi*. Infection is by

inhalation or ingestion of the organism. The disease is most common in young horses (1-5 years old). The organism is spread in nasal discharges or by contaminated grooming utensils, rugs, feed bins, or people. Horses incubating or recovering from the disease are the usual source of introduction into a naïve population.

Equivac S® , Equivac 2 in 1® and Pinnacle I.N.®

Vaccination is available in two forms, an intramuscular injection or an intranasal vaccine. Immunity obtained from intramuscular vaccine is poor, however it reduces the severity of the disease. Side effects to the vaccine can occur and include swelling at injection site and less commonly systemic signs may occur in horses sensitised to *S. equi*. Vaccination requires 3 intramuscular injections 2 weeks apart. Combination Strangles and Tetanus vaccines are available. Pinnacle IN, a newer intranasal vaccine is now available, it stimulates antibody production at the site where bacterial invasion is likely to occur, i.e. the nasal mucosa. Two intranasal doses should be administered 2 - 3 weeks apart in every horse regardless of previous vaccination with other strangle products. Annual booster vaccinations with the intranasal vaccine are recommended.

Equine Herpes virus

EHV-4 is the major cause of acute respiratory disease in horses throughout the world, with most being affecting during the first 2 years of life.

EHV-1 is also capable of causing respiratory disease similar to that caused by EHV-4. However, the most important problem with EHV-1 is intermittent outbreak of abortion, which can be devastating for some stud farms.

Several brands of vaccinations are available. They do not fully protect against the respiratory form of the disease, but reduce the clinical signs of infection. These are generally given to young horses in racing stables.

Fort Dodge Duvaxyn EHV1/4

The initial dosing involves 2 doses given 2-4 weeks apart, followed by 6 monthly boosters as need. Foals are generally given their first dose at 5 months of age. However, if they received inadequate colostrum then they may be given an extra dose at 3 months of age.

Fort Dodge Pneumabort - K + 1B

Mares should receive 1 dose each at 5th, 7th, and 9th months of gestation.

Pneumequine

Non-breeding horses get 2 doses 4 weeks apart plus annual booster.

Stallions should be vaccinated 1 month before breeding.

Mares may receive 2 doses 4 weeks apart before service and then a booster in the 4-5th month of pregnancy or 1 dose each at either 3, 4 & 6 months or 4,5 & 7 months of gestation.

Salmonella

Infection with the bacterium *Salmonella sp.* can result in diarrhoea in adult horses or septicaemia (blood borne infection) &/or diarrhoea in foals. The bacteria may be derived from many sources, such as water and feed or the faeces of rodents, birds, and other infected animals including horses. Salmonella infections may occur when horses are stressed as a result of poor sanitation, following transportation, surgery, or the use of antibiotics. Foals can be particularly susceptible due to the immaturity of their immune system.

Vetivax Equine Salmonella Vaccine®

Used as an aid to prevent salmonellosis in mares and foals. Mares are initially given 2 doses, 4 weeks apart, followed by annual boosters given one month before foaling to provide good colostral immunity to their foals. Foals born to vaccinated mares can be given 2 vaccinations, four weeks apart, beginning at 4 months of age, a booster vaccination is given as a yearling. Foals born to unvaccinated mares can be vaccinated from 2 weeks of age, followed by boosters 6 months later than as a yearling.

Other vaccines

Horses travelling to other countries may be vaccinated against diseases prevalent in the country they are travelling to (e.g. Equine Influenza, Rabies, EVA, African Horse sickness, Western or Eastern equine encephalitis).