

Nowadays there are several vaccines commercially available to us for protection from a variety of diseases in the horse. These diseases include:

- -Tetanus
  - -Influenza
  - -Herpes Virus
- Strangles

There are other vaccines available, but they are generally used in special circumstances such as on large studs.

### **Tetanus**

This is a disease caused by bacteria known as *Clostridium tetani*. This bacterium produces a toxin which attacks the nervous system of the horse, leading to severe neurological signs in the horse which tend to be fatal.

### **Influenza**

The influenza virus causes this disease. Horses do tend to become quite ill with influenza, commonly developing high temperatures and respiratory signs. However after the initial period of illness, horses can require long periods of rest due to effects of lung damage on performance.

### **Herpes**

This infection is caused by the herpes virus. There are several types of herpes virus, each causing different types of disease. The most common type causes a respiratory infection. Other types can cause abortion and paralysis in horses.

### **Strangles**

Strangles is caused by bacteria known as *Streptococcus equi*. This bacterium generally causes an upper respiratory tract infection. Often horses will be quite ill with this infection and develop high temperatures, thick yellow nasal discharge and form abscesses around the head. Very occasionally horses can develop associated disease processes after they have cleared the initial respiratory infection, known as bastard strangles and purpura haemorrhagica.

## **VACCINATION PROTOCOLS**

<b>Tetanus</b>	Administered intra-muscularly 1 <sup>st</sup> vaccination 2 <sup>nd</sup> vaccination 4-6weeks after 1 <sup>st</sup> Booster every 18-24 months
<b>Influenza</b>	Administered intra-muscularly 1 <sup>st</sup> vaccination 2 <sup>nd</sup> vaccination 21-90 days after 1 <sup>st</sup> 3 <sup>rd</sup> vaccination 150-215 days after 2 <sup>nd</sup> (5-7 months) Booster annually, within 1 year of previous vaccination

If horse is competing under FEI regulations, influenza boosters must now be administered on a 6 monthly basis. An up to date passport with proof of influenza vaccination will be required at most competitions.

<b>Herpes</b>	Administered intra-muscularly 1 <sup>st</sup> vaccination 2 <sup>nd</sup> vaccination 4-6weeks after 1 <sup>st</sup> Booster every 6 months Separate protocol required for pregnant mares
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<b>Strangles</b>	Administered under top lip 1 <sup>st</sup> vaccination 2 <sup>nd</sup> vaccination 4 weeks after 1 <sup>st</sup> Booster every 3-6 months
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In the normal healthy horse, vaccinations can be started as soon as is convenient, although **tetanus** should be started **ASAP!** Foals can start their initial course of vaccination at 5 months of age as up until this point they have protection from their dams colostrum.

Vaccines contain either attenuated strains of the infectious agent or small pieces of the virus or bacteria. This is then combined in a suspension with an adjuvant to maximise the body's immune reaction to it. After the vaccine has been administered the body will produce antibodies to the vaccine, so that if and when the body encounters the bacteria or virus for real, the mechanisms are already present to fight off the disease. To ensure that the vaccine works at optimal levels, boosters should be given at the recommended time intervals.

Failure of protection can either be due to:

- Intervals between boosters too long
- Immune system was not working properly at the time of vaccination
- Virus has managed to mutate slightly and thus the vaccine may only partly protect the horse

Vaccination is important for maintaining a healthy horse. However, vaccination against tetanus in the horse is **ESSENTIAL** due to the fact that the disease tends to have fatal consequences. It's also important to protect against respiratory viruses as they have been implicated in development of allergic lung disease in the horse and can therefore have long term consequences.

After vaccination, very occasionally the horse can develop pain and swelling at the injection site for a couple of days, or even an abscess at the injection site. Some horses may develop a mild cold after vaccination. This is thought to be due to the horse having an infection with another virus at the time of vaccination. It is not a direct effect of the vaccine itself.

Vaccination is a key element in the care of the horse. The yearly vaccination also allows the owner to bring up any questions or concerns regarding their horse's health and wellbeing with the vet. The annual dental examination can also be carried out at this time by the vet.