



Horses are susceptible to a number of serious infectious diseases, eg influenza (flu), and fortunately, vaccines are available for some of these common conditions.

What is a vaccination?

A vaccination is an injection that stimulates an immune response against a specific disease.

A vaccination programme will ensure that your horse has maximum protection against these serious (and sometimes fatal) diseases. It will usually mean two or three injections at the start of the course followed by annual booster vaccinations for your horse. To provide your horse with full and continuing protection against these diseases it is essential that the course of vaccinations is completed.

Do I have to have my horse vaccinated?

Some owners give the excuse that vaccination is too expensive as the reason for not vaccinating their horse. Although courses of vaccinations and annual boosters may not be cheap, if your horse contracted one of these illnesses the cost of treatment would be considerably more expensive. These conditions can lead to a severely debilitated horse and, if complications develop, this can result in death.

If you wish to show, race or enter your horse in competitions it must be vaccinated against influenza according to the regulations of the event committee or organisation. This usually involves the presentation of an up-to-date vaccination certificate signed by a veterinary surgeon.

What conditions can be vaccinated against?

Vaccinations are available for a number of diseases but some are only appropriate for horses that travel overseas for racing and competitions. The two most important vaccinations that every horse should receive are **influenza** and **tetanus**.

There are also vaccinations against Strangles and Equine herpesvirus (EHV). EHV can cause abortion in pregnant mares, so contact your vet to discuss this if you are considering breeding from your mare.

Tetanus ('lock jaw')

Tetanus is caused by a bacterium, *Clostridium tetani*, which is found in soil and enters the horse's bloodstream via an open wound. Even small wounds can allow *Clostridium tetani* contamination and, because the incubation period is 7-21 days, the wound has usually healed by the time the first signs of the disease are apparent. Often owners are not even aware that their horse has received a wound, or thought it minor and of no importance and yet their horse develops tetanus.

The signs of tetanus are:

- Vague stiffness in the head and limbs progressing to reluctance to move.
- Spasms in the muscles of the head and neck resulting in difficulty chewing, nostril flaring and a wide-eyed expression.
- 'Sardonic smile' - the corners of the mouth are drawn back tightly.
- Erect ears.
- Trembling progressing to violent, whole body spasms in response to sudden movements or noise.

Approximately 90% of unvaccinated horses that develop tetanus die. In the small number of horses that do recover, intensive veterinary treatment and nursing care is required for a period of about 6 weeks.

Equine influenza ('flu')

This is a highly contagious, viral disease of the respiratory system caused by different strains of influenza virus. A horse contracts the virus either through contact with an infected horse, or indirectly by contaminated environments/air. Infected horses incubate the disease for 1-3 days before displaying any symptoms, which is why outbreaks of equine influenza spread so rapidly.

The symptoms of influenza include:

- A rise in temperature up to 41 degrees C (106 degrees F) for 1-3 days (often undetected).
- A harsh, dry cough of sudden onset that persists for 2-3 weeks or more.

Vaccinations - essential protection



- Clear nasal discharge progressing to thick, green-yellow discharge.
- Lethargy.
- Loss of appetite.

The disease can develop into life-threatening bronchitis or pneumonia. When horses recover from influenza, they can be left in a debilitated state making them more susceptible to secondary infections.

Outbreaks of influenza are most common when large numbers of young horses are brought together in stressful conditions, ie sales or shows.

Strangles

Strangles is a bacterial disease caused by *Streptococcus equi*, affecting lymph nodes. Signs of the disease include a fever, mucopurulent nasal discharge, swollen lymph nodes, depression, off feed. Most horses do recover.

Although vaccination is not 100% efficacious it prevents horses from developing the serious pathologic signs seen in unvaccinated horses, which can lead to death.

EHV

EHV is a highly contagious infection which is a common cause of abortion in pregnant mares. Infection is usually acquired via the respiratory route, either directly by respiratory aerosols or indirectly via ingestion of infected feed sources/fomites. EHV also causes respiratory tract disease, neurological disease and disease of the neonatal foal. For further information on vaccination against EHV, contact your vet.

Is vaccination dangerous?

No, vaccination is not dangerous. There has been much discussion in the media about adverse reactions to vaccinations in pets which, unfortunately, has mostly been irresponsible scare mongering. Millions of horses have been vaccinated against tetanus and influenza over many years and the number of adverse reactions reported from these vaccines is insignificant. Of these reported adverse reactions most are only local injection site reactions or mild muscle stiffness.

The risk to your horse of contracting and suffering serious or fatal consequences of tetanus and influenza is many, many times greater than the risk of your horse having an adverse reaction to a vaccination.

Can I still ride my horse?

You should try and reduce stress, eg heavy exercise, on your horse for the 24-48 hours after vaccination. This will further reduce the very small chance of any adverse reaction.

My horse hates needles - is there any way around this?

No - it is important to ensure that your horse is vaccinated. Very small needles are used and vaccination only takes a matter of seconds. Your vet will be used to vaccinating awkward horses!

There are lots of 'approved' vaccination schedules - how do I know which is best for my horse?

Influenza vaccination

Approved vaccination schedules for the influenza vaccine are published by the Jockey Club, International Equestrian Federation (FEI) and various show societies and committees and these form part of the entry requirements for horses competing or racing in their events. Unfortunately, these schedules differ between organisations and it is confusing for the owner to determine which they should follow. To complicate matters further, the manufacturers' of each vaccine recommend a different schedule again, based on the efficiency of their vaccines determined by clinical trials.

The manufacturers' recommendations provide your horse with the most protection against influenza and will satisfy Jockey Club, FEI and most racecourse, show committee regulations.

Vaccinations - essential protection



Manufacturers' recommendations are:

- a. Primary course: 2 injections, 28-42 days apart.
- b. First booster: 182 days (6 months) after 2nd primary injection.
- c. Following boosters: Annually (within 365 days of preceding booster). However, if in a high risk group (competing, showing, etc) or during an outbreak, boosters should be given every 6 months.

The Jockey Club vaccination schedule is:

- a. Primary course: 2 injections, 21-92 days apart.
- b. First booster: Within 150-215 days of 2nd primary injection.
- c. Following boosters: Annually (within 365 days of preceding booster). Advised to be given more frequently during an outbreak.

The FEI vaccination schedule is:

- a. Primary course: 2 injections, 21-92 days apart.
- b. First booster: As per manufacturers' recommendation
- c. Boosters: Every 6 months (may be extended by a maximum of 21 days).

NB: Jockey Club and FEI regulations state that these injections cannot be given in the 7 days immediately before a competition or entry into competition stables.

Tetanus vaccination

Most influenza vaccinations also contain the tetanus vaccine and if you follow the influenza vaccinations schedule using a combined vaccine, your horse will also be protected against tetanus.

When using separate vaccines, the schedule for tetanus vaccination is:

- a. Primary course: 2 injections, 28-42 days apart.
- b. First booster: Within 365 days of 2nd injection.
- c. Following boosters: Only needed every 1-2 years.

Pregnant mares should be given a tetanus booster in the last 4-6 weeks of pregnancy which will provide the foal with some protection through the milk for the first 6-12 weeks of life.

Foals can also be given an injection of tetanus antitoxin (an 'antidote' to the tetanus infection) as soon as possible after birth to provide temporary cover for 3-4 weeks. This should be followed by another dose after 4 weeks. Regular tetanus vaccination can be started at 3 months old.

EHV vaccination

The vaccination schedule varies depending on whether the horse is being vaccinated to reduce the risk of abortion or to protect against respiratory disease.

Respiratory disease:

- a. Primary course: 2 injections, 28-42 days apart from 5 months of age.
- b. Boosters: every 6 months.

Foals at risk, due to consuming insufficient colostrum or early exposure to field infections should be vaccinated from 3 months of age, followed by the full primary course.

Pregnant mares should be vaccinated during the 5th, 7th and 9th month of pregnancy as an aid in reducing the risk of abortion.

Vaccinations - essential protection



If you want any other information on health issues concerning your horse please contact Hampden Veterinary Hospital on 01296 423666 and we will be happy to advise you.