

Strangles

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Strangles is a serious contagious disease of horses and donkeys caused by the bacterium *Streptococcus equi equi*. Infection occurs when susceptible horses have direct contact with infected horses or indirect contact with things contaminated by infected horses such as stables and bedding, feed or water utensils, tack, transport vehicles, and hands or clothing. Generally strangles is mostly seen in young horses but it can also infect older horses. Outbreaks sometimes occur when large numbers of horses are held in close contact.

Strangles affects the upper respiratory system and lymph nodes of the head. It rapidly spreads from horse to horse through coughing, or by eating feed or drinking water that has been contaminated by nasal discharge or pus from a sick horse. Contaminated grooming utensils, rugs, feed bins, or humans (hands, clothing, etc.) can also spread the infection.

Within 3 to 8 days of becoming infected the horse will become depressed and develop a fever (39.5° to 40.5°C). In most cases, the throat becomes extremely inflamed so that swallowing food or water becomes very painful or impossible. The lymph nodes of the head (particularly in the throat area) become swollen and very painful and may eventually burst and discharge thick creamy yellow pus. This swelling can make breathing difficult. There is often a watery to thick nasal discharge. In less severe cases a nasal discharge may be the only sign of infection. The horse also may develop a cough.

Clinical signs may persist for days to months. In most cases, once affected lymph nodes have abscessed and drained, recovery is uneventful. Abscesses typically rupture and drain within two weeks. Affected horses remain infectious for at least four weeks after clinical signs have disappeared. However some horses may retain the infection in the guttural pouch and shed bacteria intermittently for months afterwards.

In one study, 19% of horses infected on a stud remained carriers.

Ponies have been shown to carry infection for up to 15 months, and have been confirmed as the source of infection for other horses 8 months after being infected themselves.

Occasionally the infection may spread to other parts of the body. This is known as 'bastard strangles'. This form is difficult or impossible to cure, and is frequently fatal.

Diagnosis

Diagnosis is based on clinical signs. Swelling and abscessation in the throat area is a strong indication that the horse has strangles. However less severe cases may only have a nasal discharge. Usually the veterinarian will collect swab samples from the nose and/or any abscesses and send them to a veterinary laboratory for bacterial culture. Samples must be collected before any antibiotic treatment is commenced. Growth of *S. equi equi* confirms the diagnosis..



Horse with strangles – note the swollen lymph nodes in the throat area. Photo from OLIVER, University of Sydney.

Treatment and horse welfare

Strangles is a painful condition that is distressing for both horse and owner. Veterinary treatment should be sought immediately to alleviate the symptoms. Anti-inflammatory medication may be used to reduce fever, pain and swelling.

Individual cases need to be assessed to decide if antibiotics are indicated. Antibiotics do not penetrate well into abscesses, but may be given early in an infection, or if secondary infection of burst abscesses is considered a risk. Horses affected with strangles need good nursing care under veterinary advice.

Horses with strangles should not be transported unless it is absolutely necessary for veterinary treatment. Transport is stressful for sick horses and risks spreading the disease.

Any horse with signs of respiratory disease, such as a 'snotty' nasal discharge, or that has recently recovered from such symptoms should not be taken to any place where it might come into contact with other horses, e.g. sale yards, showgrounds, pony club, race meetings.

Preventing spread to other horses on your property

Affected horses should be isolated for 6 to 8 weeks following the onset of clinical signs to prevent spread to other horses.

This disease is easily spread by careless horse handlers. Strict hygiene is necessary for people handling horses. In larger premises it may be possible to allocate separate handlers to infected and uninfected groups of horses. If you must handle both infected and uninfected horses, deal with the uninfected horses first.

Scrupulous hand and boot washing and the use of disposable over-clothing are recommended. Any gear, such as rugs, halters, lead ropes, feed bins, and grooming brushes, should also be kept separate and used only for the sick horse. It should then be disinfected after the sick horse has recovered and before being used on other horses.

Stables where sick horses have been held, and any areas that they may have contaminated with nasal discharge or pus should be disinfected as thoroughly as possible. The strangles bacterium is very hardy, and can remain viable in the environment for weeks or even months in moist conditions, representing an ongoing risk to other horses. In one study bacteria survived on wood for 48 days at 20 degrees centigrade.

A number of disinfectants are effective against the strangles bacteria. It is important to follow label directions when using disinfectants. All disinfectants have reduced efficacy in the presence of organic matter so removing dirt, manure, other organic matter from inanimate objects before applying disinfectants will increase their effectiveness.

Reducing the risk of introducing strangles to your property

Most diseases are introduced to a horse property with the arrival of a new horse that is already infected, even though it might not be showing clinical signs.

Alternatively, your horse property might become infected if one of your horses comes into contact with an infected horse at an event, and then brings the infection home.

Handling new arrivals

It is a good idea to ask what vaccinations or medications have been given to any horse you are planning to introduce to your property. Find out if there has been any recent illness among horses on the property of origin and get as many details as possible. A pre-purchase examination by a veterinarian is desirable.

Isolate new arrivals from resident horses for at least two weeks and check them daily for any signs of ill health.

Protection when attending events

When you take your horse to competitions or events, make it standard practice to take along your own feed bins, water buckets, tack and grooming gear. There is always a risk of infection if you share equipment or let your horse use communal water troughs or feeders.

Thoroughly clean your boots and outer clothing after each horse event.

Where possible, it is advisable to keep your competition horses separate from your 'stay at home' horses, and to keep records of horse movements. These records help with tracing in the event of a disease outbreak.

Visiting horse properties

People can introduce diseases if they handle an infected horse and then handle another horse soon afterwards.

If you have been in contact with other horses you need to thoroughly wash your hands before handling your own horses. You should also consider changing your clothes.

Check that visitors to your property follow the same biosecurity precautions.

Boundary fences

Nose-to-nose contact between your horses and those on a neighbouring property may allow an infectious disease to spread. This risk can be managed by keeping horses away from the boundary or using double fencing. A line of trees between the fences is ideal both as a windbreak and to improve biosecurity.

Vaccination

A regular vaccination program will help control outbreaks of strangles and is recommended for horses that go to studs, shows or camps, or those on agistment with other horses.

Vaccination does not provide 100% protection but it will reduce the incidence and severity of disease and restrict the spread to other horses.

Strangles vaccine can be given alone or combined with tetanus vaccine as a bivalent (2-in-1) vaccine.

See [Horse Health – Vaccination against tetanus and strangles](#) for more information.

In previously vaccinated mares a booster 2 to 6 weeks before foaling will provide protection for her foal via the milk. This protection will last for approximately 12 weeks.

Foals should then be started on their own vaccination program at 12 weeks of age and given 3 doses at 2 week intervals.

Annual boosters are necessary to maintain adequate levels of immunity. Six-monthly boosters are recommended to provide increased protection in high risk situations.

Swelling at the site of injection and some mild systemic signs (e.g. depression and inappetence) may occur following vaccination. These signs usually subside after a few days.

Infected horses should not be vaccinated. Exposed horses should be isolated for 7-10 days and only vaccinated if they have a normal temperature, and remain healthy during that period.

Is strangles notifiable?

Strangles is no longer a notifiable disease in NSW so there is no obligation to report suspected or confirmed cases of strangles.

Some countries to which we export horses require certification that the property of origin has been free from strangles for between three months and two years prior to export. If that is the case then a vendor declaration from the horse owner will be necessary to satisfy the importing country.

As strangles is highly infectious it is important that owners of properties where strangles has been suspected or confirmed, advise other horse owners who may have horses on the property on agistment or who may be planning to bring horses to the property of the potential risk so that they can decide a course of action.

More information

For further information contact Paul Freeman NSW DPI horse health coordinator.
Ph: (02) 66261214

For updates go to
www.dpi.nsw.gov.au/factsheets

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