

Strangles: What to Know

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The first reported case of strangles in a horse was in the year 1251, and it has continued to worry horse owners since that time. Your veterinarian has a wealth of knowledge about strangles infections in horses. This article will expose you to the basic facts about strangles so you can be a partner with your veterinarian as you work to treat, control, and prevent the disease.

What causes this highly contagious disease, and what should I expect to see?

Streptococcus equi (commonly known as *S. equi*) bacteria gain access to your horse either through the nose or mouth. They then invade lymph nodes in the head and throat. What follows is a purulent (pus-like) nasal discharge and abscess formation in the lymph nodes. Other signs that might develop include fever, loss of appetite, and listlessness. The name strangles was coined because affected horses sometimes (but rarely) were suffocated by enlarged lymph nodes that blocked their airways. The lymph node abscesses make the nodes swollen and painful. With time, serum might ooze from the overlying skin, as the lymph node abscesses mature before rupturing to drain their creamy pus. Other lymph nodes in the head and throat can be involved, but they are not apparent as many of them drain into the nasal cavity.

How is my horse exposed to strangles?

Most horses that develop strangles got it from the infected nasal discharges of a horse with an active case of strangles or one that has recently recovered from it. Direct transmission occurs when horses, being very social, have nose-to-nose contact. Indirect transmission occurs when a susceptible horse shares feed or water buckets with an infected horse. Owners need to recognize that about 20% of horses continue to shed *S. equi* in their nasal secretions for several weeks after they have recovered. View all recovered horses as potential sources of infection for at least six weeks after the clinical signs of strangles have resolved. An extremely small percent (maybe 1-10%) of horses continue to shed *S. equi* in their nasal secretions for a prolonged period of time, anywhere from months to years. These horses frequently have guttural pouch infections caused by *S. equi*. What about fields and barns? *S. equi* isn't a hardy organism; it doesn't persist well in the environment. While it's possible to contract strangles from an infected horse's pasture, it's very unlikely.

How will my veterinarian know if my horse has strangles? Most often, your veterinarian will diagnose strangles based on the classic clinical signs. To confirm infection, the "gold standard" is still a bacteriologic culture from either nasal swabs or pus from the abscesses. Another test is a polymerase chain reaction (PCR) test, which detects the DNA of *S. equi*. While the test is excellent, it does not distinguish between dead and live organisms.

What do I do if there is a strangles outbreak? Owners are the key to successfully controlling an outbreak of strangles. First, discuss the situation with your veterinarian. With his/her help, you can identify affected groups of horses, look at the geography of the premises, and review management practices. Together you will develop a practical disease control strategy customized for your particular circumstances.

Several specific aims of the plan will be to:

1) Prevent the spread of *S. equi* to horses on other premises and to new arrivals on infected premises. This is done by stopping all movement of horses on and off the affected premises until further notice. Then, horses with strangles and other horses exposed to them should be kept in well-demarcated "dirty" quarantine areas.

Clustering the cases in groups should allow parts of the premises to be allocated as “dirty” and other parts as “clean.”

- 2) Establish when recovered horses are no longer infectious. Your veterinarian will start a program of culturing nasal swabs over several weeks, and horses that are consistently negative will be returned to the “clean” area.
- 3) Investigate long-term carriers. If a horse sheds *S. equi* longer than expected, your veterinarian will recommend an endoscopic examination of the guttural pouches and treatment, if needed.
- 4) Prevent infection spreading from the “dirty” areas to the “clean” areas of the premise. Ideally, separate groups of farm workers will deal with the two groups of horses. If this is not possible, the horses in the clean area should be attended to before working with the horses in the dirty area. Your veterinarian will also be able to describe methods of disinfecting facilities.

In conclusion, the key to a successful control for strangles is developing a plan with your veterinarian, adhering to that plan, and not panicking.