

# *Streptococcus equi equi* Infection (Strangles) and Vaccination in Horses

- *Streptococcus equi equi* infection (strangles) is contagious and occasionally fatal in horses.
- Horses that routinely have contact with unfamiliar horses (such as at shows or other events) or that are boarded with horses that travel are more likely to develop this contagious infection.
- Timely diagnosis is necessary to minimize the spread of strangles.
- Many horses recover with proper treatment and management; however, some horses have severe complications and require intensive treatment to survive.

## What Is *Streptococcus equi equi* Infection (Strangles), and How Do Horses Become Infected?

Infection with *Streptococcus equi equi*, also commonly known as *strangles*, is a very contagious infection that can spread quickly among horses. It can affect one or two horses on a farm, or many horses can be affected in large outbreaks. While any horse can develop strangles, young horses (younger than 5 years) are more often affected. This infection is usually spread through contact with an infected horse through nasal discharge (such as nose-to-nose contact with a horse with a runny nose) or sharing equipment (such as buckets and automatic waterers) or through contact with people handling an infected horse. The bacterium *Streptococcus equi equi* infects horses' lymph nodes, especially under the jaw and around the throat. Horses that routinely have contact with unfamiliar horses (such as at shows or other events) or that are boarded with horses that travel are more likely to develop this contagious infection.

## Clinical Signs of Strangles

Clinical signs usually start between 3 and 14 days after exposure to a contagious horse. An affected

horse may have a fever, depression, loss of appetite, thick yellow/whitish nasal discharge, and visibly enlarged and/or draining lymph nodes under the jaw. Affected horses have difficulty swallowing due to enlarged lymph nodes. Horses with severely swollen lymph nodes have difficulty breathing; therefore, the disease is known as *strangles*. Clinical signs can range from mild (fever and mild nasal discharge) to severe (labored breathing and death due to obstruction of the airway by enlarged lymph nodes).

Horses that routinely have contact with unfamiliar horses (such as at shows or other events) or that are boarded with horses that travel are more likely to develop this contagious infection.

## Diagnosis and Treatment

Contacting your veterinarian to obtain a timely diagnosis for your horse is very important to limit the spread of this disease and to avoid disease complications such as labored breathing. Your veterinarian will perform a physical examination on your horse and may perform blood tests that can detect recent exposure to *Streptococcus equi equi*. A swab of nasal secretions or sample of the fluid from the enlarged lymph node can be submitted to a laboratory for bacterial culture testing. Your veterinarian may also perform an endoscopic examination of your horse's upper airway, including evaluating the guttural pouches and taking samples for additional tests such as bacterial culture and polymerase chain reaction (PCR) testing. If infection with *Streptococcus equi*

## Preventive Care

*equi* is confirmed, your veterinarian may recommend a quarantine period for your horse and/or barn to prevent the spread of this contagious disease. Treatment varies and is based on the individual case. Some horses with mild disease only require symptomatic treatment such as nonsteroidal anti-inflammatory drugs (NSAIDs) to treat fever and inflammation and hot packing the affected lymph nodes to encourage rupture and drainage. Other horses that are more severely affected may need additional treatment, such as antibiotics; horses with severe infection often require intensive treatment and hospitalization to survive. Many horses with strangles recover and have no long-term problems. Occasionally, some horses can be carriers of the disease without showing signs of it, so they appear healthy but have the infection in their upper airway (the guttural pouches) and need lengthy treatment to eradicate the infection.

### Vaccination and Prevention

Vaccination against strangles may be recommended by your veterinarian and is based on your horse's risk of exposure to this disease. Horses that travel frequently, are boarded with unfamiliar horses, and/or are exposed to horses that travel frequently are likely to need this vaccination; consult your veterinarian on recommendations for your horse. The most common form of vaccination against strangles is an intranasal vaccine, which is a liquid that is placed into the horse's nose. It provides local immunity to the area of the horse's body that would be in contact with the infectious material. Another option is an injectable vaccine that is injected into a muscle.

New horses arriving on a farm should be quarantined for 30 days to minimize potential spread of infectious diseases, including strangles. Checking the new horse's temperature at least once a day during this period will aid in detecting a contagious disease such as strangles.