

# Equine Herpes Virus

Equine herpes virus (EHV) is a common virus occurring in horse populations worldwide. There are 4 strains of Equine Herpes Virus - EHV1 to 4.

- EHV1 is the most significant because it is widespread & causes abortion, stillbirths, septicaemia in newborn foals, respiratory & nervous system diseases [staggering, lack of coordination].
- EHV2 is common but not associated with disease.
- EHV3 causes ulcerative sores on the vulva & vagina of mares & penis of stallions, being spread during mating. Pain may prevent mating but recovery is usually complete within 2 weeks.
- EHV4 usually causes upper respiratory tract disease. On rare occasions it may be associated with abortions in individual mares but not causing outbreaks / "abortion storms".

Respiratory disease caused by EHV is most common in young horses (weanlings and yearlings), while older horses are more likely to transmit the virus without showing clinical signs.

Clinical Signs may be:

- Fever - in some cases fever may be the only sign and may go undetected if temperatures are not taken
- Coughing
- Nasal discharge
- Abortions typically occur late in pregnancy and often present no warning signs

Foals may be infected *in utero* and are abnormal from birth. Signs include:

- Weakness
- Jaundice
- Difficulty breathing
- Neurologic signs

Affected foals typically die within several days. Older foals that become infected generally show signs of respiratory disease such as nasal discharge. The Neurologic disease EHM typically affects the hind limbs and urinary tract.

Signs include:

- Lack of coordination
- urine retention
- incontinence

Severely affected horses may be unable to rise. "Dog-sitting" may be observed. The incubation period is typically short (as short as 24 hours) but

can be longer. EHV abortions can occur from two weeks to several months following infection. The virus can persist in the horse long term, possibly for life, without causing clinical disease. Re-activation of infections, and subsequent disease and/or shedding of virus can occur in situations of stress. The virus is transmitted primarily by aerosol and through direct and indirect contact. Shedding by the respiratory route typically lasts for seven to 10 days but can persist longer. A 28-day isolation period is therefore generally recommended after the diagnosis has been established. Abortions result in distribution of infectious virus in the placenta, foetal membranes and foetal fluids. Aborted foetuses are also infectious. Mares that have aborted also shed virus in their respiratory secretions. Indirect transmission is an important route of transmission of the virus. Indirect transmission occurs when infectious materials (nasal secretions, fluids from abortions etc.) are moved between infected and uninfected horses by people or objects. Poor hygiene (such as lack of hand washing) and sharing of equipment are often responsible. Recovery is generally good for mildly affected horses, but is poor for those that have been severely affected. Horses that recover from the disease may take several weeks to months before neurologic problems go. Some horses may have complications for the rest of their life. A vaccine is now available & is recommended for use on studs, in racing stables & for competitive horses. It will not guarantee complete protection but will greatly reduce the debilitating effects of viral respiratory disease, decrease recovery time & reduce the number of abortions in an outbreak.



Horse with EHV1 Neurological