

Hendra viruses – Advice for Horse Owners

What are Hendra Viruses?

Hendra viruses can cause fatal disease in people and horses, and as a result are notifiable diseases. There are two types of Hendra viruses, the original Hendra virus (HeV) and the newly discovered variant, Hendra virus genotype 2 (HeV-G2). Under South Australian legislation, if you suspect the presence of these viruses in horses, you must report it immediately to the:

Emergency Animal Disease Watch Hotline on **1800 675 888**.

Hendra virus (HeV)

All four species of flying-foxes (fruit bats) found on mainland Australia have shown evidence of carrying HeV, however they do not show any apparent signs of illness when infected. Horses can become infected when in close contact with an infected flying fox or its body fluids, i.e. urine, faeces, saliva, other body fluids.

The virus can multiply rapidly in horses resulting in large amounts of virus being excreted in nasal secretions, urine and faeces. All known human cases have resulted from very close contact between the person and an infected horse. Veterinarians and their hospital staff are a particularly high-risk group. There have been no known cases of people becoming infected directly from flying foxes.

Hendra virus genotype 2 (HeV-G2)

A closely related variant of the original HeV was detected in a small number of Grey-headed and Little red flying-foxes from limited samples collected in 2013 from Victoria, South Australia and Western Australia, called Hendra virus genotype 2 (HeV-G2). In early 2021, HeV-G2 virus was detected in historical samples from a horse from South-East Queensland. Then in October 2021, this variant was detected in an unvaccinated horse near Newcastle, NSW.

Given the similarity of HeV-G2 to the original HeV strain, these findings show that in all areas in Australia where flying-foxes and horses co-exist, **horses are at risk of Hendra virus spill over and infection, and both virus strains pose a similar risk of infection to humans from infected horses.**

Hendra virus in South Australia

Hendra viruses have been detected in flying-foxes in South Australia, however, hendra viruses have not yet been detected in horses in South Australia. What are the risks to South Australian horses?

All areas in Australia where flying-foxes and horses co-exist are at risk of Hendra virus spill over into horses, and both virus strains pose a similar risk of infection to humans from infected horses.

Small colonies of flying foxes are known to reside in Adelaide and the South East of South Australia.

Therefore, given the presence of flying foxes in South Australia, the potential for Hendra virus to occur in a local horse (that has not travelled) should be considered in any sick horse. All horse owners in South Australia should take preventative actions to minimize potential contact between their horses and flying foxes.

What are the risks for horses being transported into SA?

There is still an extremely small chance that a horse could be transported into South Australia that was infected in QLD or NSW prior to travel. The incubation period (the time from infection to becoming sick) is five to 16 days.

What are the clinical signs of Hendra virus infection in horses?

The clinical signs of Hendra virus infection are very vague. Any horse which is unvaccinated for Hendra virus and is from South Australia, or that has recently been (within three weeks) transported into South Australia from Queensland or NSW with the following signs, should be considered suspicious for Hendra virus:

- acute onset illness
- depression, not eating
- discomfort/ weight shifting between legs
- increased body temperature
- increased heart rate; and
- rapid progression of illness (or death).

While neurological signs (including abnormal muscle twitching, weakness and loss of balance) and respiratory signs (nasal discharge, coughing, breathing difficulty) are the most common signs they are not always seen.

Any sick horses should be examined by your private veterinarian, who will work with Biosecurity SA to arrange exclusion testing for Hendra virus infection if required. The use of appropriate personal protective equipment during this examination is essential.

Prior to purchasing a horse, you should check the Hendra virus vaccination status of the horse and current situation for Hendra virus in the state from which the horse is originating.

How can I reduce these risks?

The following steps can be taken to reduce the risk of Hendra virus infection in your horses:

- Vaccinate your horse against Hendra virus (for both HeV and HeV-G2). Discuss with your private veterinary practitioner about whether vaccinating your horses is appropriate for your situation.
- Place feed and water containers under cover if possible.
- Do not place feed and water containers under trees, particularly if flying foxes are attracted to those trees.
- Do not use feed that might be attractive to flying foxes if they are known to be in the area. For example, fruit and vegetables or anything sweet, such as molasses.
- If possible, remove horses from paddocks that contain fruiting or flowering trees. Return the horses after the trees have stopped flowering.
- If removal of horses from paddocks is not possible, try to temporarily remove your horses during times of peak flying fox activity (usually at dusk and during the night).
- Wash your hands with soap and water regularly, during and after handling multiple horses
- Keep any sick horse isolated from other horses, people and animals until you have obtained a veterinary opinion.
- Do not allow visiting horse practitioners (farriers etc) to work on sick horses. They should only work on healthy horses.
- If there is more than one horse on your property, handle unaffected horses first and then only handle sick horses after taking appropriate precautions.
- Make sure gear exposed to any body fluids from horses is cleaned and disinfected before it is used on another horse. This includes things like halters, lead ropes and twitches. Talk to your vet about cleaning agents and disinfectants to use; and
- Seek veterinary advice before bringing any sick horse back to your property.

Hendra virus vaccine

A registered Hendra virus vaccine (Equivac HeV from Zoetis) is available to help prevent disease in horses. This is the most effective way to manage the disease.

Expert opinion suggests that this current vaccine is likely to provide immunity against the HeV-G2 variant strain as well as the original HeV strain. Horses from 4 months of age can be vaccinated. Initially two doses of the vaccine are given 3-6 weeks apart followed by periodic boosters. Speak to your private veterinarian about vaccinating your horse against Hendra virus.

As a horse owner, what personal safety precautions should I take?

Human infections can occur when handling Hendra virus infected horses (both live and dead horses). Contact with suspect horses should be avoided until a veterinarian has investigated and provided advice on handling affected horses safely. This includes vaccinated horses as there is no 100% guarantee that the vaccine is protective.

If contact occurs, the contaminated skin should be washed thoroughly with soap and water, ideally by taking a shower. Any cuts or abrasions that become exposed or contaminated should also be cleansed thoroughly with soap and water. If available, an antiseptic with viricidal action such as povidine-iodine, iodine tincture, aqueous iodine solution or alcohol (ethanol) should be applied after washing. Medical advice should be sought from your local doctor or contact Health SA on 1300 232 272.

For further advice if Hendra infection is suspected:

Call the Emergency Animal Disease Watch Hotline number on **1800 675 888**

Additional information

Queensland Government Hendra virus Website:

<https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/livestock/horses/hendra-virus>

New South Wales Government Hendra Website:

<https://www.dpi.nsw.gov.au/animals-and-livestock/horses/health-and-disease/hendra-virus>

Zoetis Hendra virus vaccine for horses:

<https://www.health4horses.com.au/range/products/equivac-hev.aspx?ReturnUrl=/index.aspx>

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