



# What is Hendra virus?



**Hendra virus was first isolated in 1994 in a racing stable in the suburb of Hendra, Brisbane. Hendra virus is a zoonotic disease, which means it can transfer from animals to people.**

Hendra virus occasionally causes disease in horses and rarely causes disease in humans. It can be transferred from flying fox-to-horse, horse-to-horse and horse-to-human. Dealing with a Hendra virus infection is an important public health and workplace health and safety matter requiring careful management.

The scientific information available on the disease is not complete and research is being done to learn more about Hendra virus—particularly how it is transmitted from flying foxes to horses.

## Facts about Hendra virus

The following are facts about Hendra virus:

- While Hendra virus is present in flying fox populations, the risk of horses being infected is very low.
- Hendra virus is not related to equine influenza or Australian bat lyssavirus.
- While cats and pigs have been infected experimentally with Hendra virus, the virus has not been known to occur naturally in these animals.
- **In previous situations where Hendra virus has been confirmed, no cases of infection have been found in animals other than horses.**
- The few cases of Hendra virus infection in humans have been the result of very close contact with infected horses. Body fluids (blood, respiratory secretions, saliva, urine etc.) from an infected horse can contain Hendra virus.
- There is no evidence of human-to-human or flying fox-to-human spread of Hendra virus.

- Since 1994, Hendra virus has been confirmed on 14 occasions, involving approximately 48 horses and seven humans.
- Hendra virus occurs naturally in flying foxes; **however, these animals should not be targeted for culling.** Flying foxes are a protected species and are critical to our environment. They pollinate our native trees and spread seeds. Without them, we wouldn't have our eucalypt forests, rainforests and melaleucas.

## What do I look for in my horse?

Hendra virus can cause a broad range of signs in horses. **Hendra virus infection should be considered in any sick horse when the cause of illness is unknown and particularly where there is rapid onset of illness, fever, increased heart rate and rapid deterioration associated with either respiratory or neurological signs.** Occasionally, horses will survive Hendra virus infection.

Hendra virus is much more likely to occur in a single sick or dead horse rather than in a number of horses. In paddock situations to date, the majority of Hendra virus cases have involved one infected horse that died without any companion horses becoming infected. However, on several occasions one or more companion horses became infected after close contact with the first infected horse prior to or at the time of death.

It appears that Hendra virus has the potential to spread to other horses either through direct contact with infectious body fluids, or through indirect contact via contaminated equipment that could transfer body fluid from one horse to another.

## Signs

The following signs have all been associated with Hendra virus cases, but not all of these signs will be found in any one infected horse:

- **rapid onset of illness**
- **increased body temperature/fever**
- **increased heart rate**
- **discomfort/weight shifting between legs**
- **depression**
- **rapid deterioration.**

Respiratory signs include:

- **respiratory distress**
- **increased respiratory rates**
- **nasal discharge at death—can be initially clear, progressing to stable white froth and/or stable blood-stained froth.**

Neurological signs include:

- **‘wobbly gait’**
- **apparent loss of vision in one or both eyes**
- **aimless walking in a dazed state**
- **head tilting and circling**
- **muscle twitching**
- **urinary incontinence**
- **inability to rise.**

**A range of other observations have also been recorded in individual horses infected with Hendra virus.**

The following points, when combined with the above signs, could also support suspicion of Hendra virus:

- there are multiple deaths over a period of time or a high rate of deaths occurs within 48 hours
- some cases have initially been reported as colic
- there are flying foxes in the area, although a lack of sightings does not exclude Hendra virus.

If you see these signs:

- Call your local veterinarian or Biosecurity Queensland on 13 25 23.
- Shower, shampoo your hair and change your clothes if you have handled a sick horse.
- Stay away from other horses.

## Reducing the risk

**Take the following steps to reduce the risk of people and horses becoming infected with Hendra virus. This advice is based on our current understanding of the virus.**

- It is strongly advised that you avoid contact with sick horses and their blood and body fluids until a veterinarian has excluded Hendra virus infection as the cause of illness.
- If contact with a sick horse is absolutely unavoidable you should seek advice from your veterinarian about appropriate personal protective equipment such as gloves, protective eyewear and a face mask.
- If you have had contact with sick horses, shower with soap, wash your hair and put on clean clothes and footwear before handling other horses.
- Remove any clothing contaminated with body fluids from a sick horse carefully to ensure there is no contact with your facial area, particularly your eyes, mouth and nose.
- After handling any horse wash your hands with soap and water and dry or use hand wipes and waterless hand hygiene solution.
- Place horse feed and water containers under cover if possible.
- Do not place horse 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. Fruit and vegetables (e.g. apples, carrots) or anything sweet (e.g. molasses) may attract flying foxes.
- If possible, remove horses from paddocks where flowering/fruited trees have resulted in a temporary surge in flying fox numbers. Return the horses after the trees have stopped flowering/fruited.
- If it is not possible to remove horses from paddocks, try to temporarily remove your horses during times of peak flying fox activity (usually at dusk and during the night).
- Keep any sick horse isolated from other horses, people and animals until you have obtained a veterinarian's 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.
- Seek veterinary advice before bringing any sick horse onto your property.
- Do not take sick horses to events such as competitions or Pony Club.

## Personal safety

People have been exposed to Hendra virus while handling infected horses (including sick live horses and dead horses at necropsy examinations). A major problem has arisen from handlers not considering Hendra virus at the time, resulting in exposure occurring before the horse was diagnosed.

People need to be aware and carefully consider their safety whenever Hendra virus is suspected. Hendra virus can cause a life-threatening illness. You should therefore be cautious with sick horses and always ensure the personal safety of yourself and others:

- In particular, treat blood and other body fluids (especially lung and nasal discharges, saliva and urine) and tissue as potentially infectious and take precautions to prevent any direct contact with these.
- Protect all exposed skin, mucous membranes and eyes from direct contact and cover cuts and abrasions with a water-resistant dressing when handling sick horses.
- Always maintain good hand hygiene after handling horses.

## Personal protective equipment (PPE)

Personal protective equipment (PPE) is an important part of personal safety when dealing with potential Hendra virus situations.

PPE items require proper instruction and training in their wearing and use. Unless you have been trained in the proper use of PPE, your best defence is to isolate your horse, wash any contamination off yourself and wait for professional help.

If your property is quarantined because of Hendra virus, Biosecurity Queensland officers will work with you to ensure a biosecurity program is put in place. They will also provide advice on the appropriate PPE to prevent exposure to horse blood and body fluids.

## Who do I call?

If you, as a horse owner or carer, suspect Hendra virus infection, you should immediately contact your local veterinarian. If you are unable to reach your veterinarian, you should notify a government veterinarian or Biosecurity Queensland officer (there is a legal obligation to do this). If it appears that human illness may be associated with the case, you should also include this information. Remember, notification is also an opportunity to seek professional advice.

Notify suspected Hendra virus cases by contacting:

- Biosecurity Queensland on **13 25 23** (during business hours)
- Emergency Animal Disease Watch Hotline on **1800 675 888** (24-hour hotline).

Clearly explain that you are calling to notify a suspected case of Hendra virus infection. The person you speak to will go through the case with you and help you have the case investigated (if needed).

Following notification, and after further investigation, Biosecurity Queensland will decide whether the property in question should be quarantined to stop horses moving off the premises—possibly carrying infection with them.

If Biosecurity Queensland has a high suspicion of Hendra virus infection, or if Hendra virus infection is confirmed by laboratory testing, Biosecurity Queensland will notify Queensland Health of the situation. Queensland Health will coordinate risk assessments and appropriate follow-up for people involved.

Biosecurity Queensland will also notify the appropriate professional bodies, including the Australian Veterinary Association and Equine Veterinarians Australia. Private details will not be released in these notifications.

If any person is concerned about their health at any time, they should seek medical advice.

Contact your GP, local Emergency Department or local Public Health Unit if you have concerns about possible exposure of people to a horse with Hendra virus infection. General enquiries about Hendra virus infection in humans may be directed to the Queensland Health Hotline on **13HEALTH (13 43 25 84)**.

For information about managing the risk of Hendra virus in the workplace contact Workplace Health and Safety Queensland on 1300 369 915 or visit **[www.worksafe.qld.gov.au](http://www.worksafe.qld.gov.au)**