

Hendra virus

Sarah Robinson, Former Regional Veterinary Officer

Belinda Walker, Technical Specialist Animal Biosecurity

What is Hendra virus?

Hendra virus is a virus carried by fruit bats that inhabit Australia, Papua New Guinea, and surrounding islands. So far, clinical disease due to Hendra virus infection has only been recognised in Australia. Fruit bats (flying foxes), the natural host, appear to be unaffected by the virus.

Rarely, Hendra virus spreads from fruit bats to horses, causing severe disease, and can then spread to people who are in close contact with infected horses. Four of the seven people who are known to have been infected (at the time of writing) have died. Cats, pigs and guinea pigs are susceptible to experimental infection.

What should I do if I suspect Hendra virus in a horse?

If you suspect your horse has Hendra virus keep everyone away from the horse and call your private veterinarian immediately. Hendra virus is a notifiable disease, and the vet will notify the local [Livestock Health and Pest Authority](#) or an inspector with [Department of Primary Industries \(NSW DPI\)](#), if they consider the case highly suspect for Hendra.

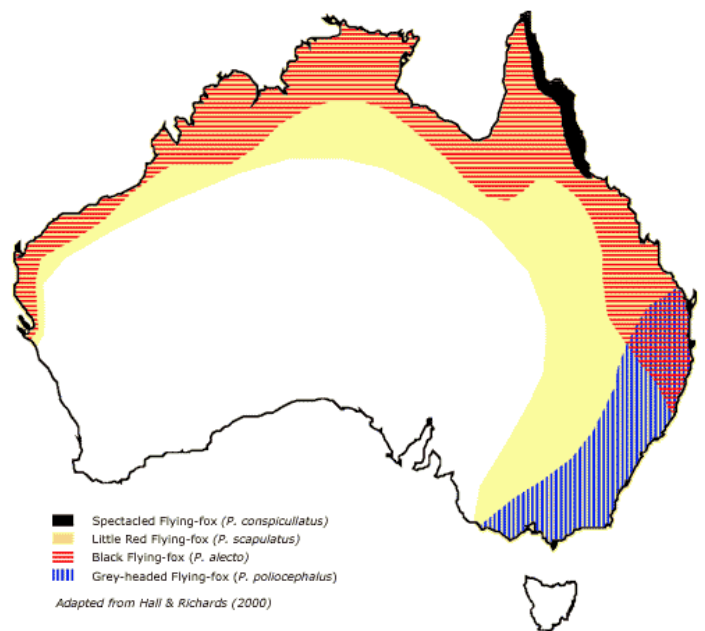
If your vet is unavailable and the illness is progressing rapidly, call the Emergency Animal Disease Watch Hotline on 1800 675 888.

Where does it occur?

Hendra virus was first isolated in 1994 in the suburb of Hendra, Brisbane. Since then a number of infections in horses have been detected on or east of the Great Dividing Range from Cairns to Murwillumbah. However, Hendra virus could potentially occur wherever there are fruit bats.

The distribution of the four species of flying fox present in Australia is shown in Figure 1. All four species have been shown to carry the virus.

Figure 1. Distribution of flying foxes in Australia



Symptoms in horses

Hendra virus can cause a range of symptoms in horses. Usually, there is an acute onset of fever with rapid progression to death associated with either respiratory or neurological signs. Hendra virus should be suspected whenever a horse's health deteriorates rapidly. However, in some cases the onset of signs is more gradual. One of the two known NSW cases survived four days before being euthanased.

Symptoms in horses may include laboured breathing, frothy and/or blood stained nasal discharge and a temperature higher than 40°C. Neurological changes, if present, can include tilting of the head, loss of vision, abnormal muscle twitching, weakness and loss of balance. Shifting of weight on feet may look like discomfort and initially mimic colic. Facial swelling may also occur. Most cases in horses are fatal but occasionally a horse will survive the infection. The reported mortality rate in infected horses is greater than 70%.

Symptoms in humans

In humans, Hendra virus infection may cause a flu-like illness that can progress to pneumonia, and/or encephalitis (inflammation of the brain). Encephalitis may cause confusion, headache, high fever, and drowsiness, which can progress to convulsions or coma.

If you develop any of these symptoms and your horse has been ill recently, contact your doctor or NSW Health urgently.

Incubation period and course of illness

The incubation period in both horses and humans is in the range of 5–16 days. Once illness develops, deterioration is quite rapid.

People who have apparently recovered from Hendra virus infection may relapse, with one person dying from encephalitis that recurred after 13 months. Relapses have also been reported in 7.5% of people infected overseas with the closely related Nipah virus. (Nipah virus has not been found in Australia.)

How is it controlled?

Where Hendra virus has been confirmed as the cause of illness or death in horses, DPI and NSW Health will manage the situation. Urgent measures will be taken to minimise the risk to people and other horses, and to track the likely cause and extent of the infection.

Under most conditions Hendra virus will only survive for a few hours in the environment as it is very fragile. It is easily killed by heat, soap/detergent and desiccation (drying out). Even under ideal conditions it will not survive for more than a few days in the environment.

How do people get the disease?

A small number of people are known to have been infected with Hendra. These infections resulted from very close contact with infected horses (either sick horses or during autopsies).

There is no evidence of human-to-human spread or human-to-horse spread of Hendra virus.

Keys to preventing the disease in people

Horses can shed Hendra virus for about 2 days before they show any sign of illness. So all horse handlers should protect themselves by routinely using good hygiene practices whenever handling horses.

Always cover any cuts or abrasions on exposed skin before handling your horse. Always wash your hands with soap and water, particularly after handling your horse's mouth or nose. Remember that every time you put a bridle on or take it off you are likely to contact the horse's saliva.

Great care should be taken with hygiene and personal protection when handling sick horses. In particular, avoid contact with blood, other body fluids (especially respiratory and nasal secretions, saliva and urine) and tissues.

Ideally you should avoid all contact with suspect horses until a veterinarian has investigated and provided advice on the safe handling of affected horses. Everyone handling or investigating a suspect case of Hendra virus should wear full protective clothing. The minimum standard is impervious overalls, boots, gloves, P2 respirator mask and eye protection. Follow the procedures outlined in 'Guidelines for veterinarians handling potential Hendra virus infection in horses', available on the Queensland Primary Industries & Fisheries (QPIF) website.

DPI will contact NSW Health whenever Hendra virus is confirmed or strongly suspected. NSW Health will then work with the horse owner, handlers and attending veterinarians to manage infection risk.

How do I reduce the chances of my horses becoming infected?

The risk of contacting Hendra virus can be reduced by limiting contact (direct or indirect) between fruit bats (and their droppings) and horses. Do not place feed and water troughs under trees where fruit bats might feed or roost. If feed and water troughs must be placed in the shade of fruiting trees, consider building a cover over them to prevent contamination from above.

If possible, remove horses from paddocks when trees on which bats may feed are flowering. If this is not possible, fence or tape off the area under flowering trees. Alternatively, stable horses at high risk times when fruit bats are feeding or roosting in or around their paddocks.

Further information

See the Hendra virus page from the QPIF website www.dpi.qld.gov.au/4790_2900.htm

Contact details for NSW Public Health Units are available at www.health.nsw.gov.au/publichealth/Infectious/phus.asp

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