

# Hendra virus

## What is Hendra virus?

- Hendra virus is a virus that infects large fruit bats (Flying-foxes).
- Occasionally the virus can spread from Flying-foxes to horses and horses can then pass the infection on to humans. A small number of people who had very close contact with infected horses have developed Hendra virus infection.

## What are the symptoms?

### *Hendra virus symptoms in people*

Symptoms typically develop between 5 and 16 (possibly up to 21) days after contact with an infectious horse. Fever, cough, sore throat, headache and tiredness are common initial symptoms. Meningitis or encephalitis (inflammation of the brain) can then develop, causing headache, high fever, drowsiness, convulsions and coma.

Hendra virus infection can be fatal.

### *Hendra virus symptoms in horses*

Hendra virus can cause a range of symptoms in horses. Usually there is a sudden fever and either respiratory or neurological illness and rapid death. In some cases the onset of illness is gradual. For more information on Hendra virus infection in horses, refer to the NSW Department of Primary Industries website at: [www.dpi.nsw.gov.au](http://www.dpi.nsw.gov.au).

## How is it spread?

- The exact way horses become infected by bats is unknown but may be through horses coming into contact with the body fluids of Flying-foxes (e.g. from contaminated feed).
- Hendra virus spreads between horses when a horse inhales the respiratory secretions of an infected horse.
- People are at risk if they have had close contact with a horse that has Hendra virus infection, either through inhaling respiratory secretions or if they get the virus in their eyes, nose or mouth or on their skin, especially if they have cuts or abrasions. People who have contact with body fluids or tissues of an infected horse are at risk (e.g. veterinary staff performing post-mortems without using adequate personal protective equipment).

## Who is at risk?

People who have cared for an infected horse or veterinary staff who have treated or performed a post-mortem on an infected horse without wearing appropriate personal protective equipment are most at risk.

## How is it prevented?

### *General measures to take with horses that are well*

Horses can shed Hendra virus for 3 days before they show any sign of illness so it is always important to use good hygiene practices when around horses.

- Cover any cuts or abrasions on exposed skin before handling horses and wash your hands well with soap and water, especially after handling a horse's mouth or nose (e.g. after fitting or removing a bridle) and before eating, smoking or touching your eyes, nose or mouth.
- Don't kiss horses on the muzzle (especially if the horse is sick).
- Use personal protective equipment to protect yourself from the body fluids of horses.

### *When horses are unwell and Hendra virus is a possibility*

Contact your local veterinarian if you notice unusual disease symptoms, abnormal behaviour or unexpected deaths in your horses. If a horse is suspected to have Hendra virus infection it is important to keep it away from other horses on the property. Only experienced veterinary staff who are using appropriate personal protective equipment should have contact with the animals until the diagnosis is known. All veterinary staff assessing or managing a sick horse should do so in accordance with the *Guidelines for veterinarians handling potential Hendra virus infection in horses* developed by the Queensland Government and available at: [www.dpi.qld.gov.au](http://www.dpi.qld.gov.au).

### *When humans are suspected or known to have Hendra virus infection*

Although there is no evidence of Hendra virus spreading from an infected person to another, a precautionary approach is used to protect others. The patient is cared for in a single room and health care workers and visitors wear protective equipment.

## How is it diagnosed?

Tests for Hendra virus infection include serological tests that are able to measure the body's immune responses to infection. Blood samples are required over 6 weeks to tell if a person has the infection. Polymerase chain reaction tests are able to detect the virus itself by detecting Hendra virus genetic material (RNA) in a blood or tissue sample.

The only people who would normally be tested for Hendra virus infection include: people with symptoms who have had recent contact with an infected horse; well people who have been in contact with the secretions or body fluids of a horse that has confirmed Hendra virus infection; and well

people who have had contact with a person with Hendra virus infection while they are symptomatic if they have not worn personal protective equipment.

Any well person tested for Hendra virus infection will need to monitor their own health for the next 3 weeks and report fever, respiratory symptoms or neurological symptoms to the public health unit immediately so that urgent medical assessment can be arranged. Three blood tests are required to rule out the infection: one initially, one at 3 weeks and one at 6 weeks.

### How is it treated?

There is no specific treatment for Hendra virus infection and cases are treated supportively in hospital or in intensive care. So far, antiviral medications have not been found to be effective in treating Hendra virus infection. Sometimes antibodies against Hendra virus are used to treat people with the infection but this remains experimental.

### What is the public health response?

The NSW Department of Primary Industries will take urgent measures to minimise the risk to people and other horses, and to track the likely cause and extent of the infection. It will contact NSW Health whenever Hendra virus is confirmed or strongly suspected in a horse. NSW

Health will then work with the horse owner, handlers and attending veterinarians to manage the risk of infection in people. An outbreak team will identify people who may be at risk from infectious horses. These people will be contacted so that a detailed assessment can be made of their exposure and current symptoms. People at risk of infection will be given information about Hendra virus and the risk of infection and will be asked to monitor their health. Arrangements will be made for retesting at 3 weeks and 6 weeks.

### Further information

Information for people who are being monitored for Hendra virus infection is available from: [http://www.health.nsw.gov.au/factsheets/infectious/hendra\\_monitor.html](http://www.health.nsw.gov.au/factsheets/infectious/hendra_monitor.html)

