



LEVIN & HOROWHENUA

VETS *...your animal health professionals*

RABBIT CALICIVIRUS

WHAT IS RABBIT CALICIVIRUS DISEASE?

Rabbit Calicivirus Disease (RCD), also known as RHD (Rabbit Haemorrhagic Disease), or HVD (Haemorrhagic Viral Disease) is a highly infectious and usually fatal disease that affects wild and domestic rabbits of European Rabbit (*Oryctolagus cuniculus*), which includes all wild and domestic rabbits in New Zealand.

The virus was illegally introduced to New Zealand in 1997 to control the wild rabbit population on farms.

HOW IS RABBIT CALICIVIRUS TRANSMITTED?

Transmission of RCD occurs by direct contact with an infected animal animals and contaminated objects or organisms.

Rabbits acquire RHD through oral, nasal or

conjunctival pathways. Urine, faeces and respiratory secretions may also shed the virus. The virus may also be carried by the wind.

Carriers of the virus may remain infectious for up to a month depending on climate conditions; however, the virus has been known to persist for as little as 2 days and as long as 215 days. An infected carcass or hairs from an infected animal may also transmit RCD. Fomites such as clothing, contaminated food, cages, bedding, feeders and water will also harbour the virus. Even though the

virus cannot reproduce in other mammals, predators and scavengers including some birds can excrete the virus through their faeces after ingesting an infected rabbit carcass. Flies, rabbit fleas, and mosquitoes can also spread the virus between rabbits.

The incubation period is only a few days, and an outbreak can last up to two weeks.

WHAT ARE THE SIGNS MY RABBIT HAS THE DISEASE?

There are three forms of the disease, ranging from mild and recoverable to severe and fatal, and there is a wide range of symptoms.

In mild cases, symptoms may include:

- Depression
- Loss of Appetite

Recovery from these symptoms due to RCD usually ensures immunity to re-infection.

More severe cases will show the following signs:

- Uneasiness

RCD is often a very swift and sudden killer, giving little warning.



- Excitement
- Loss of appetite
- Swollen eyelids
- Paralysis
- Bleeding from the eyes
- Paddling

Rabbits that recover from these symptoms often later develop jaundice, weight-loss and lethargy, diarrhoea or constipation and abdominal pain. They often die a few weeks after infection.

In the most severe cases, symptoms may include:

- Loss of appetite
- Lethargy
- High Fever
- Spasms
- Vocalising / Squealing
- Coma, leading to death within 12 - 36 hours

RCD is often a very swift and sudden killer, giving little warning. Rabbits may die without showing any symptoms at all.

- Sudden death
- Sometimes bleeding from the nose, mouth and rectum is seen.

Rabbits who survive this disease are carriers and shed the virus for at least 42 days, perhaps longer.

HOW CAN I PROTECT MY RABBIT?

This disease can be prevented through vaccination.

There is one vaccination available in New Zealand: CYLAP RCD by Zoetis. This vaccine stimulates active immunity against the virus.

Rabbits in good health should be vaccinated between 9 and 12 weeks of age. If the chance of exposure is high, rabbits can be vaccinated before this, however they will require a booster 4 to 6

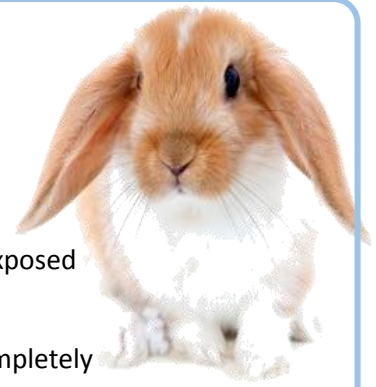
weeks' later.

Annual boosters are then recommended.

Vaccination is the best chance of protection for exposed rabbits.

However, no vaccine is completely effective under all circumstances.

There are many factors that may reduce its effectiveness. There are also several other diseases that cannot be vaccinated against that exhibit similar signs, including pasteurellosis, *myxomatosis*, poisoning, heat exhaustion, and *E. coli* or *Clostridium perfringens* type E enterotoxaemia.



OTHER MEASURES TO PROTECT YOUR RABBIT INCLUDE:

- House your rabbits indoors.
- Wash your hands thoroughly before handling your rabbits, particularly when you come home from places where other rabbits may have been, or where people who have been in contact with rabbits may have been. This would include places such as feed stores, pet stores, country show grounds, etc.
- Change your clothes and wash your hands after handling or coming in contact with rabbits. Wash these clothes twice in hot water before you wear them around your rabbit.
- Know your sources of hay and feed and if they are near areas of any outbreaks.
- Quarantine any new rabbit for 5 days. Always handle quarantined rabbits last, and keep all supplies for them separate from your other rabbit's supplies.
- Disinfect objects, using a viricidal disinfectant such as Sterigene, Safe4 or Virkon. Remembering that it must stay in contact with the item and remain wet for at least ten minutes. Ensure correct dilutions are used.

30 - 100% of exposed animals will be affected. Usually 90% of infected animals will die.