



Rabbit Hemorrhagic Disease

Alternate Names: RHD.

Species Affected: Domestic and wild rabbits of European ancestry.

What causes RHD? Rabbit Hemorrhagic Disease Virus (RHDV), a highly contagious and fatal virus of rabbits and hares – two subtypes exist: RHDV1 and RHDV2.

How is RHD transmitted? RHDV is present in infected body fluids (e.g. saliva, urine, blood), scat, fur, and carcasses. Direct contact with infected rabbits will transmit RHD. The virus survives in the environment, and contact with contaminated bedding, feed, footwear, tools, equipment (e.g. cages) and pelts can transmit RHD. Contaminated vehicle tires can move RHD from one area to another.

What are the clinical signs or RHD? Often the first sign of RHD is sudden death. When present, clinical signs are seen 1 to 5 days after exposure to the virus and include fever, difficulty breathing, loss of appetite, depression, frothy and/or bloody discharge from the nose, blood spots in the eyes, seizures, and paralysis before death.

In rare cases, a chronic (longer) disease presents with diarrhea, decreased appetite, weight loss, bloating, and jaundice (yellowing of the skin, eyes, and mucous membranes due to liver disease).

What are the consequences of RHD infection? RHDV is highly contagious and will spread rapidly in rabbit colonies killing up to 100% of rabbits. Many species of Canadian wild rabbits and hares are susceptible to RHDV making RHD a high impact wildlife disease.

How is RHD detected? Suspicion of RHD based on clinical signs and history need to be confirmed with laboratory tests such as PCR (Polymerase Chain Reaction, a molecular test to confirm the presence of viral RNA).

How can RHD be prevented? Good husbandry practices and biosecurity help prevent the introduction of RHD into places housing rabbits. Examples of biosecurity include keeping rabbits in designated areas restricted to visitors, quarantining new rabbits and rabbits returning from fairs and shows prior to introducing them to the group, avoid placing domestic rabbits where they could be in contact with wild rabbits and hares, and with outdoor areas that may be frequented by wild rabbits and hares.

There is a vaccine available in Canada to prevent RHD. Consult with your veterinarian.

How is RHD treated? There is no treatment for RHD.

Is RHD a Reportable disease? RHD is an Immediately Notifiable Disease In Canada and diagnostic laboratories are required to report suspicion or confirmed cases to the [Canadian Food Inspection Agency \(CFIA\)](https://inspection.canada.ca/).

Is RHD zoonotic (transmitted from animals to humans)? No

References:

- Abrantes, J. (2012, February 10). *Rabbit haemorrhagic disease (RHD) and rabbit haemorrhagic disease virus (RHDV): a review - Veterinary Research*. BioMed Central. <https://veterinaryresearch.biomedcentral.com/articles/10.1186/1297-9716-43-12>
- Mayer, J. (2021b, December 15). *Viral Diseases of Rabbits*. Merck Veterinary Manual. <https://www.merckvetmanual.com/exotic-and-laboratory-animals/rabbits/viral-diseases-of-rabbits?query=rabbit%20hemorrhagic%20disease>
- *Rabbit haemorrhagic disease (RHD) fact sheet - Canadian Food Inspection Agency*. (n.d.). Government of Canada CFIA. <https://inspection.canada.ca/animal-health/terrestrial-animals/diseases/immediately-notifiable/rhd-or-viral-haemorrhagic-disease-of-rabbits/fact-sheet/eng/1526322490096/1526322490704>