

Rabbit Hemorrhagic Disease Information Sheet



What is Rabbit Hemorrhagic Disease?

Rabbit hemorrhagic disease (RHD) is a highly contagious disease caused by a virus in the calicivirus family. It is not known to cause disease in humans or animals other than rabbits and/or hares (lagomorphs). These viruses have been spreading quickly in North America with a high mortality rate. Most infected rabbits will die. The most recent Canadian outbreak occurred in British Columbia in February 2018. This disease has now become established on Vancouver Island and areas of the mainland. RHD has been confirmed in multiple states including Montana and Washington, therefore it is inevitable this virus will also become a concern in Alberta.

In April 2021, a case of RHD was confirmed in Southern Alberta and although this appears to be an isolated incident, the fact remains that this virus is making its way into the province. All domestic rabbits, including stray populations, are susceptible. The virus confirmed in Southern Alberta is the RHDV2 virus which is distinct from previously identified RHDV1 in that RHDV2 affects wild rabbit/hare populations, in addition to domestic rabbits.

How does RHD spread?

RHD is highly contagious and is spread through direct contact with an infected rabbit or its bodily fluids/feces or through indirect contact with people or items contaminated with the virus from an infected rabbit. Examples of indirect contact include: contaminated food, bedding or enrichment items (such as pellets, hay and veggies, sticks from yards); people's clothing or shoes; yard contamination (for example, from car tires that are able to transport the virus from the environment where the virus is found); insect vectors; and predators and scavengers (including dogs). All of these contacts can spread the virus to new areas and will increase the risk that people will bring it into their communities or home to their own rabbits.

This virus is very hardy and can survive extreme temperatures and conditions for extended periods of time (several weeks) and this has contributed to its rapid spread. Very few viral particles are required to transport this infection to a susceptible rabbit. Rabbits that survive infection may shed the virus for months.

What are the symptoms of RHD?

Symptoms usually occur between one to nine days following infection. Sudden death with no previous symptoms may be the only presentation or the rabbit may have any of the following symptoms: loss of appetite, lethargy, high fever, seizures, jaundice, bleeding from eyes/nose/mouth/rectum, and/or difficulty breathing.

RHDV affects the liver and other organs with hemorrhage resulting from interference with clotting. There is no cure for RHD. Supportive care can be attempted however there is a high mortality rate (RHDV1: 40-100%, RHDV2: 5-80%) with surviving rabbits potentially shedding the virus for months following infection. A sudden rabbit death is suspicious and should be reported to your veterinarian.

How can I protect my pet rabbit?

Control and prevention of RHD spread requires minimizing risk, daily monitoring, frequent disinfection and quarantine.

1. Limit human visitors who have been in areas where the disease was reported and avoid travelling to these areas.
2. If you bring new rabbits into your home, they should be strictly quarantined for 14 days.
3. Ask visitors to remove footwear before entering your home and have them wash their hands before handling your rabbit.
4. If you volunteer at a shelter in an area with an outbreak, have special clothes and shoes that you wear only at the shelter. Change shoes before you drive your car.
5. Use designated clean clothing (washed and dried in a dryer) that has not been outside when caring for your rabbit.
6. Clean and disinfect any rabbit supplies that enter your home.
7. Use only high-quality commercial feed from manufacturers with good quality control.
8. Do not use wild plants, vegetables, tree branches or grass grown in areas accessed by feral rabbits or other wildlife as food, bedding or enrichment items.

9. Remove or tightly secure anything outside (feed or garbage) that could attract feral rabbits, wildlife or flies.
10. Exercise rabbits outdoors only in secured areas with no possibility of contamination.
11. Do not allow cats or dogs who go outside to potentially contaminated areas have access to your rabbit's housing area or exercise areas.
12. Monitor your rabbit daily for signs of illness and contact your veterinarian immediately if any concerns are noted.
13. Discuss vaccination with your regular veterinarian especially if outbreaks develop in your area. The vaccine must be obtained through a special drug release, so call your veterinarian to ask if they have access to this vaccine.

Cleaning and disinfection of rabbit supplies

Supplies should be thoroughly cleaned with soap and water and then disinfected with one of the following disinfectants, as per label instructions:

- bleach (1:10 dilution)
- accelerated hydrogen peroxide (Prevail, Accel and Peroxigard). Prevail may be available from your veterinarian and is not as irritating as bleach.

Please contact your veterinarian for additional recommendations on biosecurity, monitoring and vaccination. If you find a deceased or sick rabbit, call Alberta Fish and Wildlife to report and do not handle the rabbit.

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