

NORTHERN INTER-TRIBAL HEALTH AUTHORITY INC.



Hantavirus Disease



What is Hantavirus Disease?

Hantavirus is a rare but serious illness spread by deer mice. It begins as a flu-like illness. The initial symptoms include fever, muscle aches, cough, headaches, nausea and vomiting. As the disease worsens, severe lung infection can occur which can be fatal.

The initial symptoms of the disease may appear from one to six weeks after the exposure, with an average of two to three weeks. Once symptoms appear, the disease can progress rapidly and become life-threatening within a short time.

Reason for Concern

Since 1994, there have been between 0 and 4 cases reported each year with about a third of the cases resulting in death. Deer mice are the primary carriers of the disease. Deer mice are found in Saskatchewan.

Risk Groups:

- Anyone in close contact with deer mouse feces, dried urine or nests in poorly ventilated areas.
- Anyone cleaning (sweeping or vacuuming) poorly ventilated areas (e.g. cabins, sheds) with deer mouse feces, dried urine or nests
- Anyone handling firewood, if wood piles are contaminated with deer mouse feces, urine or nests.

Source of Infection:

Hantavirus is transmitted to people by the inhalation of airborne particles contaminated by rodent saliva or excretions. It may be possible for Hantavirus to be transmitted to people by:

- Breathing air contaminated by deer mouse saliva, urine or feces containing infectious hantaviruses;
- Wiping your eyes, nose, mouth or broken skin with contaminated hands or material;
- Sweeping or vacuuming contaminated areas;

- Eating food or drinking fluids contaminated by infected deer mouse saliva, urine or feces; or the bite of an infected rodent.

The virus is present in and can survive to some extent in dried saliva or excretions. There is no evidence that the virus can be spread from insects and ticks, cats, dogs or from people.

Preventive Measures:

Include mouse/rodent control and preventing the breathing in of particles.

A. Rodent Control/Rodent-proof buildings, homes and work sites:

- seal holes that are larger than 0.5 cm around buildings;
- store food, grain and animal feed in containers with tight lids;
- put pet food/water away at night;
- clear brush/grass from around foundations;
- reduce rodent shelters: abandoned cars, discarded furniture, tires, woodpiles;
- encourage natural predators, e.g., cats;
- mouse-proof garbage cans by elevating or using well-fitting lids; and
- use spring-loaded mouse traps continuously in infested areas;

B. Preventing the Breathing in of Contaminated Particles

1. Clean infested buildings/work sites:

Properly clean and disinfect rodent infested buildings or other enclosed areas before use.

- Ventilate closed buildings or areas 30 minutes before cleaning.
- Dampen surfaces before sweeping or vacuuming (wet-wiping, damp-mopping, hosing). Include an effective concentration of disinfectant (example, 1:10 dilution of household bleach or a commercial disinfectant)
- Wear eye protection and/or plastic or rubber gloves. Where eye and /or skin contamination is unavoidable, cover broken skin.
- If cleaning is done in an enclosed space, where there is evidence of rodents or rodent excreta, wear a well-fitting filter mask or a respirator with filtering cartridges. Select a HEPA filter mask or filter cartridges that carry the National Institute for Occupational Safety and Health "NIOSH" label rated: N100, R100 or P100.
- When cleaning up mouse droppings, nest material, rodents and traps, spray or soak with household disinfectant (example a 1:10 dilution of Javex or household bleach) before removal.
- For disposal of animals: Wear rubber or plastic gloves, place the dead animal in a plastic bag, twist tie it and place it in regular garbage. Clean the area with the disinfectant.
- **THOROUGHLY WASH YOUR HANDS** after cleaning any area;

2. Avoid contact with rodents and their excreta:

- Maintain rodent-proof buildings.
- Everyone should use caution when working within or cleaning structures that may be infested with rodents.
- Hikers and campers should avoid sleeping on the bare ground. Use tents with floors.
- Hikers and campers should avoid coming into contact with rodents and rodent burrows or disturbing dens (such as pack rat nests).

NOTE: Persons who develop a fever or respiratory illness within 45 days of the last potential exposure should immediately seek medical attention and inform the attending nurse/physician of the potential risk of Hantavirus infection.

For further information on Hantavirus and how to prevent infection, visit the Ministry of Health's website at <https://www.saskatchewan.ca/residents/health/diseases-and-conditions/hantavirus> or contact the NITHA Environmental Health Advisor at (306) 953-5028.

Guidelines for workplaces with heavy infestations are available from the Canadian Center for Occupational Health and Safety at: <http://www.ccohs.ca/oshanswers/diseases/hantavir.html>
Adapted from Saskatchewan Ministry of Health & Labour Relations and Workplace Safety.