

Environmental Health Fact Sheet



Hantavirus Pulmonary Syndrome

- Hantavirus Pulmonary Syndrome (HPS) is an acute viral disease characterized by an abrupt onset of flu-like symptoms such as fever, muscle aches, headache and cough. Shortly afterwards, the infected individual's lungs fill with fluid causing breathing difficulties which can lead to respiratory failure. A person with the virus will begin to display symptoms two to six weeks after being exposed to the virus.
- The disease is difficult for humans to contract and incidents are rare. To date, there have been 22 confirmed cases of Hantavirus in Washington State.
- The source of the virus is from infected rodents with the majority of the cases in the Northwest connected to deer mice.
- HPS is transmitted through ingestion or inhalation of dust contaminated with rodent wastes such as urine, droppings, and nesting materials.
- There are no known cases of the disease being spread from one person to another, by pets, or by wild animals other than rodents.
- Currently, there are no known vaccinations for preventing HPS.
- If you experience an abrupt onset of flu-like symptoms after cleaning rodent wastes, consult your physician immediately.



1101 West College Avenue
Spokane WA 99201-2095
324-1560 ext. 7
TTY 324-1464

Mouse Facts

Preventing mice from entering buildings requires some knowledge of their biology and behavior.

Mice live successfully outside or inside buildings, in grass, trash, or small holes in the soil. They do not construct long, wandering burrows but can leave trails.

Several mice live together in a small territory dominated by a "King" mouse.

Mouse territory extends about 15 to 30 ft. from its established nest.

Mice will travel up to 100 ft. from their nest to where adequate food is available. However, mice are "stay-at-home" creatures.

A mouse needs only a three inch by one inch hole for a comfortable house. A non-moving, stable, protected place available only for a few days will induce it to build a nest. They have been known to build nests in automobiles during long camping trips.

A mouse can squeeze through a 1/4 inch wide opening.

Mice are capable of climbing straight up rough surfaces such as concrete, brick, and tree bark. They can leap, jump and reach areas up to two feet away.

Mice are very inquisitive. The average mouse takes only eight minutes to investigate a new feeder.

A 45 day-old mouse can conceive and have a litter in 20 days.

The house mouse will eat at two or three sites and investigate multiple sites in a two hour period. Each night it changes feeding sites within its territory.

The body weight of an adult mouse is about 20 grams and it consumes 10 to 16% of its body weight daily. Mice will eat any food suitable for human consumption and spill and contaminate large quantities of stored foods in the process.

Mice pass 50 plus fecal pellets daily.

A mouse may not seek out water in a dry area but it will readily drink water if available. It needs 0.3 ml (1/16 Tsp) to 3 ml (1/2 Tsp) of water per day, in some form. A mouse passes .05 ml or more of contaminating urine per day, any place, at any time, in spotty dribbles.

Rodent (Mice) Prevention

Four main strategies for mouse control.

- Nesting sites inside and outside the building must be eliminated.
- Access gaps and holes greater than 1/4 inch must be closed.
- Traps, glueboards and bait stations must be used inside and outside to eliminate existing mice.
- Once the initial population is eliminated, ongoing inspections inside and outside are needed for prevention.

Ten Control Measures

1. Fill all potential nesting holes inside the home (i.e., broken cinder blocks, utility, and service openings).
2. Eliminate all entries or nesting holes on the exterior of the building walls by closing holes to an 1/8 inch gap. Include door to jam gaps, openings around pipes, electrical services, and around vents and drain covers.
3. Remove weeds and grasses adjacent to buildings.
4. Store equipment, pallets, and machinery off the ground or on cement/blacktop surfaces to prevent burrowing.
5. Pet foods, grains, bird seed, and garbage should be kept in impervious containers. Clean up spilled foods inside and outside before nightfall.
6. Plant shrubs that do not lie on or grow close to the ground. Keep vines and tree limbs off of buildings.
7. Use multi-catch or snap traps inside and outside of building entrances. Inspect traps twice daily.
8. Use fresh bait in bait stations inside and outside where practical and protected. You do not want to bait mice into living or working space. Rain, dirt, and sunlight will ruin baits.
9. Use glue boards in protected dry or dust free areas and in conjunction with baits when practical.
10. Use personal protection such as respirators, rubber gloves, and disinfectant to “douse the mouse,” and clean the traps and areas contaminated by rodent urine or feces.

Clean Areas Contaminated by Mice



Follow these steps when cleaning areas where mice have fed, left droppings, or nested:

1. Wear latex, plastic, or rubber gloves.
2. Wear sensible work clothes with long sleeves.
3. Wear at least a half-face air purifying respirator equipped with a H.E.P.A. filter. Dust masks will provide some protection but not the best protection. Respirators are not considered protective if a proper face seal is not achieved. Facial hair will interfere with the face seal. Respirator use practices should be instructed by a knowledgeable person to ensure proper fit.
4. Mix a solution of one cup household bleach to 10 cups water or use any other over-the-counter disinfectant.
5. Do not vacuum, sweep, or dust contaminated areas. Cleaning methods which create airborne dusts spread the virus.
6. Use rags, sponges or mops soaked in the disinfectant solution to clean contaminated areas.
7. Steam clean contaminated carpets, rugs and upholstered furniture.

8. Wash contaminated clothing and bedding in hot water and detergent.
9. To dispose of contaminated items, including dead mice, douse with disinfectant. Double bag in plastic and dispose in the garbage.
10. Disinfect or properly dispose of the gloves you used.
11. When finished decontaminating, wash your hands and/or shower with soap and water, and launder work clothing.

Look-A-Like Pests

It is important to be able to distinguish between the Deer Mouse and the House Mouse. The Deer Mouse is the main carrier of Hanta virus in the Pacific Northwest.

Deer Mouse

Total length is 5-9 inches.

Belly is white and is distinctly separated from the red-brown to gray-brown upper fur.

Feet are white.

Tail has short hairs, darker color on top and lighter underneath.

Eyes and ears are larger than the house mouse.



Deer Mouse

House Mouse

Total length is 5-7 inches.

Belly is somewhat lighter than grayish-brown upper fur. No sharp distinction between belly fur and upper area.

Feet are grayish-pink, not white.

Tail is almost naked and scaly.

Eyes and ears are smaller than the deer mouse.



House Mouse

Food

Mainly seed eaters, also nuts, acorns, insects, flower heads. Known for storing seeds and other foods near their nests for winter.

Almost anything--nibbles on seeds, grain, meats, pet food, butter, jam, insects, nuts, chocolate, etc.

Habits

Lives primarily outdoors but may also dwell in buildings. Lacks the musty odor of the house mouse.

Lives in and around buildings, in outdoor burrows, in weeds, shrubs, or near foundations.