# BROKANE REGIONAL ENVIRONMENTAL PUBLIC HEALTH · ZOONOTIC DISEASE PROGRA DIESTRICT RODENTS & Hantavirus



# **About Hantavirus**

Hantavirus Pulmonary Syndrome (HPS) is transmitted by breathing or swallowing dust that has been contaminated with rodent waste such as urine, droppings, and nesting materials. In the Pacific Northwest, the majority of Hantavirus cases are from deer mice.



The disease is difficult for humans to contract and incidents are rare, however, there have been 45 confirmed cases of Hantavirus in Washington state through 2012. There are no known cases of the disease being spread from person to person, by pets, or by wild animals other than rodents.

# **Symptoms**

Hantavirus has 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. Hospital care is usually required. It is serious disease and about one out of three people diagnosed with HPS have died.

Currently, there are no known vaccinations for preventing HPS. If you experience an abrupt onset of flu-like symptoms after cleaning rodent wastes, consult a physician immediately.

# **Additional Information:**

- Washington State Department of Health doh.wa.gov/YouandYourFamily/IllnessandDisease/Hantavirus.aspx
- Centers for Disease Control & Prevention cdc.gov/hantavirus/

# How to Clean Areas That Have Been Contaminated by Mice

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

- 1. Before starting clean up, open doors and windows for at least 30 minutes to ventilate the space. Leave the area during the airing-out period.
- 2. Do not stir up dust by sweeping, vacuuming, or dusting. Creating airborne dusts spread the virus.
- 3. Get ready. Wear rubber, latex, or vinyl gloves; sensible work clothes with long sleeves, and at least a half-face air purifying respirator equipped with a H.E.P.A. filter following directions carefully.
- 4. Spray the urine and droppings thoroughly with a disinfectant or a mixture of bleach and water and let soak 5 minutes. The recommended concentration of bleach solution is 1 part bleach to 10 parts water. When using a commercial disinfectant, following the manufacturer's instructions on the label for dilution and disinfection time.



- Use a paper towel to pick up the urine and droppings, and dispose of the waste in the garbage.
- 6. Next, clean and disinfect the whole area. Steam clean contaminated carpets, rugs and upholstered furniture. Wash contaminated clothing and bedding in hot water and detergent.
- 7. Lastly, remove gloves, and thoroughly wash hands with soap and water.

# For additional tips, go to:

cdc.gov/rodents/cleaning/index.html doh.wa.gov/rodents

# **Mouse Identification**

It is important to be able to distinguish between the deer mouse and the house mouse. The deer mouse is the main carrier of Hantavirus in the Pacific Northwest.



#### **Deer Mouse**

- 5-9 inches long
- 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.
- Food: mainly seed eaters, also nuts, acorns, insects, flower heads; known for storing foods near their nests for winter.
- Habitat: Lives primarily outdoors but may also dwell in buildings. Lacks the musty odor of the house mouse.
- Wash your hands thoroughly.



# **House Mouse**

- 5-7 inches long
- Belly is somewhat lighter than grayish-brown from the red-brown to gray-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.
- Food: Almost anything--nibbles on seeds, grain, meats, pet food, butter, jam, insects, nuts, chocolate, etc.
- Habitat: Lives in and around buildings, in outdoor burrows, in weeds, shrubs, or near foundations.

# How to Prevent Mice From Entering Buildings

# Seal Up

Mice can squeeze through a hole the size of a nickel. Prevent rodents from entering the home by checking inside and outside for gaps or holes. Fill small holes with steel wool. Put caulk around the steel wool to keep it in place. Use lath screen or lath metal, cement, hardware cloth, or metal sheeting to fix large holes. Outbuildings and garages should also be sealed to prevent the entrance of rodents.

# Trap Up

Set traps in any area where there is evidence of frequent rodent activity: attics, basements, crawlspaces, etc. Speak with a certified pest control operator to get information about using traps that will work well in your situation. Carefully read and follow the trap instructions.

# **Clean Up - Eliminate Rodent Food Sources**

- Keep pet food in thick plastic or metal containers with tight lids.
- Clean up spilled food right away and wash dishes and cooking utensils soon after use.
- Keep outside cooking areas and grills clean.
- Keep bird feeders away from the house and utilize squirrel guards to limit access to the feeder by squirrels and other rodents.
- Keep trash in a thick plastic or metal garbage can with a tight lid.
- Keep compost bins as far away from the house as possible.
- Keep grains and animal feed in thick plastic or metal containers with tight lids. In the evening, uneaten animal feed should be returned to containers with lids.
- If storing trash and food waste inside the home, do so in rodent-proof containers, and frequently clean the containers with soap and water. Dispose of trash and garbage on a frequent and regular basis, and pick up or eliminate clutter.
- Eliminate possible nesting sites outside the home. Move woodpiles as far away from the house as possible. Get rid of old trucks, cars, and old tires that mice and rats could use as homes. Keep grass cut short and shrubbery well trimmed.