

# *Hantavirus*

## *What is hantavirus?*

Hantaviruses are a group of viruses that are carried by rodents. One of them, *Sin Nombre* virus, is found in deer mice in North America. *Sin Nombre* virus is the cause of Hantavirus Pulmonary Syndrome (HPS) in people.

## *Does hantavirus occur in Washington?*

Yes. Though they don't have any symptoms, hantavirus infected deer mice live in rural areas statewide. Consequently, the human illness, hantavirus pulmonary syndrome (HPS) also occurs in Washington. The Department of Health usually receives between 1 and 5 reports of HPS each year.

## *How are people exposed?*

Deer mice excrete the virus in their urine, saliva, and droppings. A person may be exposed to hantavirus by breathing contaminated dust after disturbing or cleaning rodent droppings or nests, or by living or working in rodent-infested settings. In North America, there is no evidence that the disease spreads from one person to another.

## *What are the symptoms of Hantavirus Pulmonary Syndrome?*

HPS begins one to six weeks after inhaling the virus in contaminated dust. The disease begins with 2-6 days of "flu-like" illness including fever, sore muscles, headaches, nausea, vomiting, and fatigue. As the disease gets worse, it causes shortness of breath due to fluid filled lungs and hospital care is then required. It is usually a serious infection and about 1 out of 3 people diagnosed with HPS have died.

## *Where is hantavirus found and how common is it?*

The deer mouse (*Peromyscus maniculatus*) is the main carrier of hantavirus in the western United States, however, all wild rodents should be avoided. Deer mice live in all parts of Washington, but mainly in rural areas. Deer mice pass the virus to each other and some of the population is usually infected. The deer mouse can carry and shed the virus without showing any signs of being sick. In Washington, about 14% of over 1,100 tested deer mice have been infected with *Sin Nombre* virus.

## *What does the deer mouse look like?*

The deer mouse is about six inches long from the nose to the tip of its tail. It is grayish to light brown on top, with a white belly, large ears, and a furry tail that is white on the underside. There are many other types of mice in Washington that don't have those features.

## *Can I get hantavirus pulmonary syndrome from another person or animal?*

No. There are no cases in the U.S. of the disease being spread from one person to another. Pets, snakes, and birds of prey don't become infected and can't spread hantavirus infection to people or other animals.

## *How long does hantavirus remain infectious in the environment?*

The length of time hantaviruses can remain infectious in the environment is variable and depends on environmental conditions, such as temperature and humidity, whether the virus is indoors or outdoors or exposed to the sun, and even on the rodent's diet (which would affect the chemistry of its urine). The bottom line is that you can't tell how old a dropping is, so all rodent droppings should be handled as if they are infectious. Areas with ongoing rodent infestation are particularly risky and the recommendations for prevention should be followed.

## *How do I prevent Hantavirus pulmonary syndrome?*

**Keep rodents out of your home and workplace.** Always take precautions when cleaning, sealing and trapping rodent-infested areas.

**Seal up** cracks and gaps in buildings that are larger than 1/4 inch including window and door sills, under sinks around the pipes, in foundations, attics and any rodent entry hole.

**Trap indoor rats and mice** with snap traps.

**Remove rodent food sources.** Keep food (including pet food) in rodent proof containers.

**Clean up rodent infested areas:**

Wear rubber, latex, vinyl or nitrile gloves.

Do not stir up dust by vacuuming, sweeping, or any other means.

Thoroughly wet contaminated areas including trapped mice, droppings, nests with a bleach solution or household disinfectant. **Hypochlorite (bleach) solution:** Mix 1 and ½ cups of household bleach in 1 gallon of water.

Once everything is soaked for 10 minutes, remove all of the nest material, mice or droppings with damp towel and then mop or sponge the area with bleach solution or household disinfectant.

Spray dead rodents with disinfectant and then double-bag along with all cleaning materials. Bury, burn, or throw out rodent in appropriate waste disposal system.

Disinfect gloves with disinfectant or soap and water before taking them off.

After taking off the clean gloves, thoroughly wash hands with soap and water (or use a waterless alcohol-based hand rub when soap is not available).

***What precautions should I use working, hiking, or camping outdoors?***

Avoid coming into contact with rodents and rodent burrows or disturbing dens (such as pack rat nests).

Air out cabins and shelters, then check for signs of rodent infestation. Do not sweep, use the guidelines above for disinfecting cabins or shelters before sleeping in them.

Do not pitch tents or place sleeping bags near rodent droppings or burrows.

If possible, do not sleep on the bare ground. Use tents with floors or a ground cloth.

Keep food in rodent-proof containers!

Handle trash according to site restrictions and keep it in rodent proof containers until disposed of.

Do not handle or feed wild rodents.

***What should I do if I think I have been exposed to mouse droppings?***

If you have been exposed to rodents or rodent infested buildings and have symptoms of fever, muscle aches, and severe shortness of breath, see your health care provider immediately. Inform your health care provider of possible rodent exposure so that he/she is alerted to the possibility of rodent-borne diseases, such as HPS.

***Where can I get more information about hantavirus or hantavirus pulmonary syndrome?***

Call your [local health department](#) or the Washington State Department of Health

- Zoonotic Disease program (360) 236-3369

- Communicable Disease Epidemiology Section (206) 418-5500, or toll free (877) 539-4344

Visit our website <http://www.doh.wa.gov/notify/list.htm> or the Centers for Disease Control and Prevention website:

<http://www.cdc.gov/ncidod/diseases/hanta/hps/index.htm>

