



# Hantavirus

A Fact Sheet prepared by the National Telecommunications Safety Panel

## Introduction

Hantavirus pulmonary syndrome (HPS) is a deadly disease passed to humans through contact with infected rodent urine, droppings, or saliva. Breathing in contaminated mist or dust is the most common form of transmission. HPS was first recognized in 1993 and has since been identified throughout the United States. Although rare, HPS is potentially deadly. Rodent control remains the primary strategy for preventing hantavirus infection.

## What is HPS?

HPS is a severe viral infection characterized by respiratory distress. The early stage of the disease is characterized by fever, headache and severe myalgia (muscle pain) especially in the lower back. Within 1-5 days the person develops a cough, shortness of breath and difficulty breathing. Once these breathing difficulties appear the disease may rapidly progress to severe respiratory and cardiac failure, during which the patient requires intubation and advanced life-support assistance.

The incubation period varies widely, but ranges from 1 to 6 weeks, with an average of 2-3 weeks.

## What causes HPS?

HPS is caused by hantaviruses which are carried by wild rodents. The hantavirus responsible for the original outbreak in the Southwestern U.S. in 1993 is named Sin Nombre virus, and is carried by the deer mouse. Since then, other hantaviruses have been found to cause HPS. These viruses have different rodent hosts, including the cotton rat and the white-footed mouse in the US and the long-tailed rice rat in Argentina and Chile. All rodents that host hantaviruses which cause HPS belong to a specific group called "the New-World rats and mice."

## How is HPS treated?

When HPS infection is suspected or confirmed, early admission to a hospital where careful monitoring, treatment of symptoms, and good supportive therapy can be provided is important. If you have had exposure to rodents and experience the symptoms mentioned, it would be helpful to mention the exposure to your physician. A quick diagnosis helps the physician take the appropriate measures.

## How can HPS be prevented?

### Getting rid of rodents is the best way to prevent HPS.

- Even if the structure can't be completely rodent-proofed, the number of rodents entering a structure can be reduced
- Seal holes & cracks 1/4th inch or larger with steel wool, metal sheeting, hardware cloth, or patching plaster
- Insure weather seals under doors are tight & screens are in good repair

### Eliminate Food Sources: More Food = More Mice!

- Food attracts mice, and food supply affects mouse populations
- Keep garbage in containers with tight lids
- Clean dishes and sweep floor daily
- DO NOT FEED RODENTS

### Limit Possible Nesting Sites

- Rodents like hiding spots. They avoid open areas where they are more vulnerable to predation
- Remove rodent hiding places: clutter, junk, brush & wood piles, and construction materials
- Keep grass and vegetation trimmed low within 100 feet of buildings

### Practice Continuous Rodent Control

- Trapping and poisoning are more effective if above steps are taken
- Indoors: use snap traps - allows for easy carcass removal
- Outdoors: use snap traps, multicatch traps, or poisons
- Spray carcasses with disinfectant solution & let soak for 10 minutes
- Use rubber gloves when handling rodent carcasses
- Place carcass in bag and deposit in outdoor trash
- Encourage natural predators (hawks, owls, foxes, non-poisonous snakes, etc.) which consume large numbers of rodents

### Clean Up Infested Areas, Using Safety Precautions:

- Use a solution of household bleach (one cup bleach per gallon of water) to disinfect rodents carcasses before handling. Spray the rodent and trap and wait for 5-10 minutes. Wear rubber gloves when handling trapped rodents. Disinfect the gloves and the trap afterward.

## Hantavirus, continued

- Air out rodent infested buildings or areas at least 30 minutes before cleaning. **Do not sweep or dry vacuum rodent contaminated surfaces which may stir up the dust and allow potentially contaminated dust to be breathed in.** Spray contaminated materials with the bleach solution and allow it to soak in 5-10 minutes before cleaning them with a mop, sponge or wet (shop) vacuum. Wear gloves.
- In heavily rodent infested areas or situations where ventilation and/or wet clean-up can not be effectively done, use a face mask with a high efficiency particulate air (HEAP) filter.

### Additional Information:

- **Center for Disease Control**  
<http://www.cdc.gov/ncidod/diseases/hanta/hps/>
- **Occupational Safety and Health Administration**  
<http://www.osha.gov/>