

Hantavirus Pulmonary Syndrome (HPS)

Last Reviewed: October 2011

- [Versión en español](#) – Centers for Disease Control and Prevention (CDC)

What is hantavirus pulmonary syndrome or HPS?

HPS is an infection of the lungs caused by several different strains of hantaviruses. Hantaviruses are a type of virus found in rodents in different parts of the world. In the U.S., human hantavirus infections were first identified in the southwest in 1993. In recent years, sporadic cases have been found in several eastern states including New York. [Studies](#) have shown that mice are often infected and appear to be the source of infection.

Is this illness common to humans?

No. HPS infections are rare. Sporadic or isolated cases may occur throughout the country, with larger numbers in dusty areas conducive to virus transmission.

How is the virus transmitted?

Hantaviruses are carried by rodents, such as mice, that are found throughout North America. Infected rodents shed live virus in saliva, droppings and urine. Humans are infected when they inhale microscopic particles that contain viruses from rodent urine or droppings. Insect bites and pets are not believed to play a role in hantavirus transmission.

Can people infect each other?

There is no evidence of person-to-person transmission in the United States. No health care workers have been infected while caring for infected persons.

What are the symptoms?

Typical symptoms include high fever, muscle aches, cough and headache. After several days, respiratory problems worsen rapidly. The lungs may fill with fluid and victims may die of respiratory failure or shock.

How long does it take to develop symptoms after exposure?

There are limited data on the time from exposure to development of disease in humans, but the incubation period is generally thought to be between 1 and 5 weeks from exposure to illness.

Is there any treatment?

There is no specific treatment for HPS. Physicians have been administering ribavirin, an antiviral drug, on an experimental basis to suspected victims.

Is the disease always fatal?

No. Early on, about half of those infected died, but rapid diagnosis and supportive treatment have improved survival.

What is the best way to prevent exposure to hantaviruses?

Avoid contact with rodent droppings or urine. To reduce exposure to hantavirus around the home, prevent or eliminate rodent infestations. If rodents are in the home, consult an [exterminator](#) or your local health department for additional information on rodent removal and control. If snap traps are used to eliminate rodents, the traps should be set in an empty container, such as a milk carton lying on its side, or on newspaper to prevent contact with potentially infectious material. The used trap, box or newspaper and rodent should be thoroughly wet down with a household disinfectant solution (consisting of detergent and 1½ cups of bleach for each gallon of water) and then placed in double plastic bags for disposal. Wash hands with soap and water after completing the cleanup. After eliminating rodents from a building, you should then eliminate the conditions that attract them (improperly stored food sources, rubbish, etc.). Rodent-proof measures should be applied to prevent rodent entry.

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What should be done to clean up after rodent droppings?

Dwellings with large amounts of rodent droppings should first be aired before re-occupying the building. It is important to keep rodent dropping particles from getting into the air where they can be inhaled. The debris should be thoroughly wet down with a household disinfectant solution (consisting of detergent plus 1½ cups of bleach for each gallon of water) to reduce airborne dust. An old spray bottle with a fine mist is ideal for [applying](#) the solution. Debris should then be wiped up while wearing gloves and placed in double plastic bags for disposal, together with any cleanup materials such as paper towels, etc. Do not use vacuum cleaners or sweep with brooms, which will create dust in the air. Use of gloves, dust mist masks, long-sleeved clothing and protective eyewear may help prevent personal exposure. Wash hands with soap and water after completing the cleanup.

Where can I get more information?

If you are seriously ill with a high fever, consult a doctor or local emergency room immediately. For general information, call your local or state health department. Additional information on hantavirus prevention is available from the Centers for Disease Control and Prevention (CDC) at: <http://www.cdc.gov/hantavirus/>.

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