

Hantavirus Pulmonary Syndrome (HPS)



What is Hantavirus Pulmonary Syndrome (HPS)?

Hantavirus Pulmonary Syndrome (HPS) is a severe, sometimes fatal, respiratory disease in humans caused by infection with hantaviruses.

Anyone who comes into contact with rodents that carry hantaviruses is at risk of HPS. Rodent infestation in and around the home remains the primary risk for hantavirus exposure. Even healthy individuals are at risk for HPS infection if exposed to the virus.

How is HPS transmitted?

In the United States, deer mice (along with cotton rats and rice rats in the southeastern states) are reservoirs of the hantaviruses. The rodents shed the virus in their urine, droppings, and saliva. The virus is mainly transmitted to people when they breathe in air contaminated with the virus.

There are several other ways rodents may spread hantavirus to people:



If a rodent with the virus bites someone, the virus may be spread to that person, but this type of transmission is rare.



Scientists also suspect people can become sick if they eat food contaminated by urine, droppings, or saliva from an infected rodent.



People may get the virus if they touch something that has been contaminated with rodent urine, droppings, or saliva, and then touch their nose or mouth.



The hantaviruses that cause human illness in the U.S. cannot be transmitted from one person to another. For example, you cannot get these viruses from touching or kissing a person who has HPS.

To date, no cases of HPS have been reported in the United States in which the virus was transmitted from one person to another.

Who is at risk of Hantavirus infection?

Anyone who comes into contact with rodents that carry hantavirus is at risk of HPS. Rodent infestation in and around the home remains the primary risk for hantavirus exposure. Even healthy individuals are at risk for HPS infection if exposed to the virus.

Any activity that puts you in contact with rodent droppings, urine, saliva, or nesting materials can place you at risk for infection. Infection occurs when you breathe in virus particles.

Potential risk activities for HPS include:



Opening and cleaning previously unused buildings

Opening or cleaning cabins, sheds, and outbuildings, including barns, garages and storage facilities, that have been closed during the winter is a potential risk for hantavirus infections, especially in rural settings.



Work-related Exposure

Construction, utility and pest control workers can be exposed when they work in crawl spaces, under houses, or in vacant buildings that may have a rodent population.



Housecleaning Activities

Cleaning in and around your own home can put you at risk if rodents have made it their home too. Many homes can expect to shelter rodents, especially as the weather turns cold. Please see our prevention information on how to properly clean rodent-infested areas.

What are the symptoms?

Due to the small number of HPS cases, the “incubation time” is not positively known. However, on the basis of limited information, it appears that symptoms may develop between 1 and 8 weeks after exposure to fresh urine, droppings, or saliva of infected rodents.

Early Symptoms

- Fatigue
- Fever
- Muscle aches
 - e.g. thighs, hips, and back
- Dizziness
- Chills
- Abdominal pain

Late Symptoms

- Coughing
- Shortness of breath
- Fluid in the lungs

What is the treatment for HPS?

There is no specific treatment, cure, or vaccine for hantavirus infection. However, we do know that if infected individuals are recognized early and receive medical care in an intensive care unit, they may do better. In intensive care, patients are intubated and given oxygen therapy to help them through the period of severe respiratory distress.

How can you prevent HPS?

Eliminate or minimize contact with rodents in your home, workplace, or campsite. Seal up holes and gaps in your home or garage. Place traps in and around your home to decrease rodent infestation. Clean up any easy-to-get food.