

# Hantavirus Pulmonary Syndrome

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

## What are the symptoms of HPS?

### Early Symptoms:

- Fever
- Headaches
- Muscle Aches
- Stomach Problems
- Dizziness
- Chills

Early symptoms include fatigue, fever and muscle aches, especially in the large muscle groups—thighs, hips, back, and sometimes shoulders. About half of all HPS patients also experience headaches, dizziness, chills, and abdominal problems, such as nausea, vomiting, diarrhea, and abdominal pain.

### Late Symptoms:

- Lungs Fill with Fluid
- Shortness of Breath

Four to 10 days after the initial phase of illness, the late symptoms of HPS appear. These include coughing and shortness of breath, with the sensation of, as one survivor put it, a "...tight band around my chest and a pillow over my face" as the lungs fill with fluid.

## How do people get HPS?

People can get HPS when they are exposed to infected rodents. Exposures may include:

- Breathing in the virus. This may happen when rodent urine and droppings containing hantavirus are stirred up into the air.
- Touching eyes, nose or mouth after touching rodent droppings, urine, or nesting materials that contain the virus.
- A bite from an infected rodent.

HPS is not spread from person to person.

## Which rodents can cause humans to get HPS?

Rodents known to carry hantavirus include:



Deer Mouse



Cotton Rat



Rice Rat



White-Footed Mouse

Not all rodents carry hantavirus and there is usually no way to tell when a rodent has the virus. So, it is wise to avoid all contact with rodents when possible.

## How is HPS diagnosed?

Diagnosing HPS in an individual who has only been infected for a few days is difficult, because early symptoms such as fever, muscle aches, and fatigue are easily confused with influenza.

Experiencing all of the following would strongly suggest HPS infection:

- A history of potential rodent exposure
- Fever and fatigue
- Shortness of breath

Anyone experiencing these symptoms and having a history of recent rodent exposure should see their physician immediately and mention their potential rodent exposure.

## How is HPS treated?

There is no specific treatment, cure, or vaccine for HPS.

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.

The earlier the patient is brought in to intensive care, the better. If a patient is experiencing full respiratory distress, it is less likely that the treatment will be effective.

## How can HPS be prevented?

When people get HPS, it's usually because they've been exposed to infected rodents or their droppings. So, the best way to help prevent HPS is to eliminate or minimize contact with rodents in your home, workplace, or campsite.

There's an easy way to do this – it's known as **Seal Up! Trap Up! Clean Up!**

### Seal up!



Seal up holes inside and outside the home to keep rodents out.

### Trap up!



Trap rodents around the home to help reduce the population.

### Clean up



Clean up any food that is easy to get to.

For more information on how to Seal Up! Trap Up! Clean Up! visit [www.cdc.gov/rodents](http://www.cdc.gov/rodents).

## More Information:

For More Information Contact CDC Info: 1-800-CDC-INFO (1-800-262-4636)/TTY 1-888-232-6348 or visit our website at [www.cdc.gov/hantavirus](http://www.cdc.gov/hantavirus)