

# HANTAVIRUS

## Hantavirus Pulmonary Syndrome

(Sin Nombre “Four Corners,” Bayou, or Black Creek Canal virus)



Hantaviruses are a family of related viruses found worldwide, typically carried by rodents. There are two types of hantaviruses: New World and Old World. New World hantaviruses are usually found in the Americas and can cause hantavirus pulmonary syndrome (HPS) in humans. Old World hantaviruses are usually found in Europe and Asia and can cause Hemorrhagic Fever with Renal Syndrome (HFRS) in humans (please refer to the HFRS fact sheet [P-42053](#)). Anyone can get HPS, but people who have contact with rodents or rodent-infested areas are at highest risk of becoming ill.

### What causes it?



- ▶ HPS can be caused by several New World hantaviruses, including Sin Nombre “Four Corners,” Bayou, or Black Creek Canal virus.
- ▶ The deer mouse, white-footed mouse, rice rat, and cotton rat are animals that can cause HPS.
- ▶ HPS is carried and spread by rodents in their bodily secretions (e.g., urine, droppings, and saliva).
  - ▶ Spending time in an environment with rodent waste and breathing in dust that has been contaminated with rodent’s bodily secretions is the most common way that people get sick with HPS.
  - ▶ People can also be infected with HPS through direct contact with the rodent’s infected bodily secretions.
- ▶ HPS cannot be spread from person to person.

### What are the signs and symptoms?



*If people get HPS, they will feel sick one to five weeks after they were around mice or rats that carried a hantavirus.*

#### Early Symptoms

- |                       |                  |
|-----------------------|------------------|
| ▶ Fever               | ▶ Chills         |
| ▶ Severe muscle aches | ▶ Nausea         |
| ▶ Fatigue             | ▶ Vomiting       |
| ▶ Headaches           | ▶ Diarrhea       |
| ▶ Dizziness           | ▶ Abdominal pain |

#### Late Symptoms

*(Four to 10 days after early symptoms begin)*

- ▶ Shortness of breath
- ▶ Coughing

### What are the treatment options?



There is currently no specific treatment, cure, or vaccine for HPS. Ill individuals can have better outcomes when they are seen by a health care provider early on in their illness. HPS can be fatal in approximately 38% of people who become ill.



## How can it be prevented?

*Rodent control and avoiding extended contact with rodents, their nests, or droppings are key for preventing HPS. Prevention measures should be taken in the home, worksite, campsite, or anywhere rodents can be present. The tips below can help to reduce the chance of becoming ill from an infected rodent:*

- ▶ **It is important to follow the CDC's [instructions](https://www.cdc.gov/rodents/prevent_infestations/index.html)<sup>1</sup> to prevent rodent infestations. They recommend individuals “Seal Up, Trap Up, and Clean Up!” their homes.**
  - ▶ Look for gaps or holes inside and outside of the home.
  - ▶ Seal up holes inside and outside the home to prevent rodents from getting inside.
  - ▶ Trap rodents around the home in order to help reduce the rodent population.
  - ▶ Clean up and remove rodent food sources and nesting sites. Store food, garbage, and pet food in containers with tight lids.
- ▶ **If you do have a rodent infestation, it is important to take necessary precautions when cleaning those areas.**
  - ▶ Before you clean the space, make sure to open doors and windows to air it out. Open the doors and windows for 30 minutes to allow fresh air to come in.
  - ▶ Wear rubber or plastic gloves and a face mask when cleaning up rodent droppings or nests.
  - ▶ When you start cleaning, do not stir up any dust or dirt by sweeping or vacuuming up droppings, urine, or nesting materials.
  - ▶ Spray all rodent urine, droppings, nests, or dead mice or rats with a disinfectant or a mixture of bleach and water (3 tablespoons bleach to 1 gallon of water). Make sure to soak thoroughly and then place in a double plastic bag. Seal the bags and place in a trash can with a tight-fitting lid.
  - ▶ After taking away contaminated materials, clean countertops, floors, drawers, etc., with a mixture of water, detergent, and disinfectant.
  - ▶ Wash gloved hands with soap and water, or spray gloves with a disinfectant spray or bleach solution before taking them off. Make sure you wash your hands with soap and water after taking gloves off.

1. ([https://www.cdc.gov/rodents/prevent\\_infestations/index.html](https://www.cdc.gov/rodents/prevent_infestations/index.html))

