

HANTAVIRUS

Hemorrhagic Fever with Renal Syndrome (Dobrava, Hantaan, Puumala, Saaremaa, or Seoul 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 (please refer to HPS fact sheet). Old World hantaviruses are usually found in Europe and Asia and can cause Hemorrhagic Fever with Renal Syndrome (HFRS) in humans. Anyone can get HFRS, but people who have contact with rodents or rodent-infested areas are at highest risk of becoming ill.

What causes it?

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- ▶ HFRS can be caused by several Old World hantaviruses, including Dobrava, Hantaan, Puumala, Saaremaa, or Seoul virus. In 2017, there have been several confirmed human cases of Seoul virus in the United States.
 - ▶ Having contact with Norway rats infected with the Seoul virus is the primary cause of HFRS in people living in North America. The Norway rat is the main reservoir of the Seoul virus.
 - ▶ Hantavirus is carried and spread by rodents in their bodily secretions (e.g., urine, droppings, and saliva).
 - ▶ The most common way hantaviruses are spread is when people inhale airborne particles of the rodent's infected bodily secretions.
 - ▶ People can also be infected with hantavirus through direct contact with the rodent's infected bodily secretions.
 - ▶ HFRS cannot be spread from person to person.

What are the signs and symptoms?



Symptoms are seen within 1 to 2 weeks after the person is exposed to infectious material, but in rare cases, they may take up to 8 weeks to develop. Complete recovery can take weeks or months. In some cases, people who are infected may not have any symptoms.

Initial Symptoms

- ▶ Intense headache
- ▶ Back and abdominal pain
- ▶ Fever/Chills
- ▶ Nausea
- ▶ Blurred vision
- ▶ Flushed face
- ▶ Redness of the eyes

Delayed Symptoms

- ▶ Low blood pressure
- ▶ Acute shock
- ▶ Acute kidney failure
- ▶ Vascular leakage

What are the treatment options?

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- ▶ There is currently no specific treatment for Hantavirus. It may be necessary to treat the individual's symptoms as they develop.



How can it be prevented?

The tips below can help to reduce the chance of becoming ill from an infected rodent:

- ▶ Do not sweep or vacuum up rodent urine, droppings, or nests as this creates airborne particles.
- ▶ Avoid creating dust from fecal materials by wetting down bedding and disinfecting it.
- ▶ Wash your hands thoroughly with soap and water after handling your pets or areas where your pets have been.
- ▶ Keep your small pets and their cages out of kitchens or other areas where food is served.
- ▶ Pet cages, bedding, toys, and feed or water containers should be cleaned away from areas where food is served or people may bathe.
- ▶ Use gloves and a face mask for cleaning.
- ▶ Cover cuts and scratches before handling your pet.

