Pennsylvania Department of Health

Hantavirus Fact Sheet

What is hantavirus?

Hantaviruses are a family of related viruses carried by certain wild rodents (such as mice and rats). Humans contract hantavirus primarily through exposure to infected rodent urine, droppings, or saliva.

Which diseases are caused by hantavirus?

- **Hantavirus Pulmonary Syndrome (HPS)** occurs mostly in North, Central and South America. This is a severe respiratory (breathing) disease that progresses rapidly, beginning with flu-like symptoms and often advancing to acute respiratory distress (difficulty breathing).
- **Hemorrhagic Fever with Renal Syndrome** occurs mostly in Europe and Asia. In the United States (U.S.), Seoul virus — a different type of hantavirus — causes this illness that mostly affects the kidneys and blood vessels.

How common is hantavirus infection in the United States and Pennsylvania?

Hantavirus infections in the U.S. are rare, with typically fewer than 30 cases reported annually. The infection can be severe and sometimes fatal. About one-third of people with hantavirus infection in the U.S. die from the infection. Illness caused by hantavirus is very rare in Pennsylvania. The wild rodents that can carry hantaviruses may be present in Pennsylvania, but human illness is exceedingly uncommon. Since 2010, only two cases of hantavirus have occurred in Pennsylvania.

Who is at risk for acquiring hantavirus?

Anyone who has contact with infected wild rodents or areas contaminated by their urine, droppings, saliva, or nesting material can be at risk.

Risk is higher for people who clean, work in, or spend time in rodent-infested spaces, including homes, cabins, sheds, garages, barns, crawl spaces, storage buildings, vacant buildings, or other enclosed areas.

People who may have higher risk include campers, hikers, pest-control workers, construction workers, utility workers, agricultural workers, and people cleaning long-vacant buildings if they disturb rodent-contaminated material.

It is extremely rare for people to develop hantavirus disease from common situations such as seeing a mouse, walking outdoors, gardening, or briefly entering a building where mice may be present.

Which rodents are known to carry hantaviruses?

In the U.S., hantaviruses that can cause HPS are carried by certain wild rodents. These include the deer mouse, white-footed mouse, cotton rat, and rice rat.

The deer mouse is the primary reservoir for Sin Nombre virus, the most common cause of HPS in the U.S. Cotton rats and rice rats are mainly found in the southeastern U.S.

White-footed mice are common in Pennsylvania and other northeastern states and can carry hantaviruses, although human infection remains rare.

Not all mice and rats carry hantaviruses. HPS is rare in Pennsylvania and in the United States overall (fewer than 30 cases/year).

How is hantavirus transmitted?

Hantavirus is transmitted by infected wild rodents through their urine, droppings, and saliva.

The most common route of infection is breathing in tiny airborne particles when rodent urine, droppings, saliva, or nesting materials are disturbed.

Transmission can also occur when contaminated materials come into direct contact with broken skin, the eyes, nose, or mouth.

Eating food contaminated by infected rodent urine, droppings, or saliva may also pose a risk.

Rodent bites can transmit the virus, but this is rare.

Briefly seeing a mouse, walking outdoors, or being in an area where mice may be present is highly unlikely to cause hantavirus disease.

Can hantavirus spread from person to person?

In the U.S., person-to-person transmission of hantavirus has not been documented.

People do not generally get hantavirus from touching, kissing, or caring for a person with the disease. Health care workers are not known to become infected from caring for patients with HPS in the U.S.

An exception to this is the Andes virus which is a rare type of Hantavirus found in South America. Andes virus is the only known hantavirus capable of person-to-person spread.

Even with Andes virus, person-to-person spread requires prolonged close contact with a sick person, such as direct physical contact, prolonged time in close or enclosed spaces, or exposure to the infected person's saliva or body fluids. Andes virus is not found in rodents in the U.S.

Can people get hantavirus from dogs, cats, farm animals, or pet rodents?

Dogs, cats, and farm animals are not known to carry or spread hantaviruses to people.

However, dogs and cats may bring wild rodents into the home or yard. Wild rodents may also contaminate pet food, animal feed, or animal housing.

Pet rats have been linked to Seoul virus, a different type of hantavirus that can very rarely cause hemorrhagic fever with renal syndrome.

What are the symptoms of HPS?

Symptoms usually develop 1 to 5 weeks after exposure, but the time from exposure to illness (incubation period) can be as long as 8 weeks.

Early symptoms may include:

- Fever
- Fatigue
- Muscle aches, especially in the thighs, hips, back, or shoulders
- Headache
- Dizziness
- Chills
- Nausea, vomiting, diarrhea, or abdominal pain

Several days after early symptoms begin, some people develop cough and rapidly worsening shortness of breath as fluid leaks into the lungs.

Blood pressure may fall dangerously low because the heart and circulation are affected.

Severe illness can progress quickly to respiratory failure, shock, and multi-organ failure. Emergency hospital care is required.

Patients who survive the critical phase can recover rapidly, often without long-term complications.

When should someone seek medical care?

Seek medical care promptly if you develop fever, muscle aches, cough, or shortness of breath after exposure to rodents or rodent-contaminated areas.

Tell the health care provider about the rodent exposure. This is important because early symptoms of HPS can resemble influenza, COVID-19, pneumonia, or other infections.

Severe shortness of breath is an emergency and should be evaluated immediately.

Can HPS be treated?

There is no specific antiviral treatment, vaccine, or post-exposure medication for hantavirus-related disease.

Treatment is supportive and is most effective when illness is recognized early. Patients with suspected hantavirus disease may need hospital care for close monitoring.

Hospital care may include oxygen, medications to support blood pressure and heart function, and mechanical ventilation (using a breathing machine). In the most severe cases, specialized heart-lung support, such as ECMO, a machine that temporarily supports the work of the heart and lungs, may be needed.

How long can hantavirus remain infectious in the environment?

Hantaviruses do not remain infectious indefinitely outside a rodent host.

Survival depends on temperature, humidity, sunlight, and the amount of contamination.

The virus may survive for days under some indoor conditions and may survive longer in cold, protected environments. Sunlight, drying, and outdoor conditions help kill the virus so it is no longer contagious.

Areas with recent or ongoing rodent activity should be handled using recommended precautions.

How can hantavirus infection be prevented?

The best prevention is to keep wild rodents out of homes, workplaces, and recreational buildings and to clean rodent-contaminated areas safely.

- Seal openings where rodents can enter buildings. Use steel wool, metal flashing, hardware cloth, caulk, or other rodent-resistant materials.
- Remove rodent food sources. Store food, pet food, bird seed, animal feed, and garbage in containers with tight-fitting lids.
- Reduce nesting areas. Remove clutter, brush, wood piles, and debris near buildings when possible.
- Trap rodents using appropriate snap traps. Avoid handling live trapped rodents. Place traps away from children and pets.
- Before cleaning any space that may be rodent-infested, ventilate the area by opening windows and doors for at least 30 minutes.

How should rodent-contaminated areas be cleaned?

1. Ventilate the area: before cleaning, open windows and doors for at least 30 minutes to ventilate the area. Leave the area during ventilation when possible.
2. Put on rubber, latex, vinyl, or nitrile gloves.
3. Do not sweep, vacuum, or dust dry rodent urine, droppings, nesting material, or dead rodents. This can send contaminated particles into the air.
4. Wet contaminated areas with an EPA-registered disinfectant according to the product label or prepare a fresh bleach solution by mixing 1½ cups of household bleach with 1 gallon of water (approximately 1 part bleach to 10 parts water). Never mix bleach with ammonia or other cleaners.
5. Allow the disinfectant to sit for at least 5 minutes or follow the contact time listed on the disinfectant label.
6. Once everything is wet, use paper towels or disposable rags to wipe up urine, droppings, nesting material, or other contaminated material.
7. Mop or sponge the area with disinfectant.
8. Spray dead rodents with disinfectant. Place the dead rodent and cleanup materials into a plastic bag. Seal the bag, place it into a second plastic bag,

seal it, and dispose of it in a covered trash container according to local requirements.

9. Before removing gloves, wash or disinfect the gloves. After removing gloves, wash hands thoroughly with soap and water. If soap and water are not available, use an alcohol-based hand sanitizer.

Can I use a vacuum with a HEPA filter to clean rodent-contaminated areas?

Do not use a household vacuum, including a HEPA-filtered vacuum, for initial cleanup of dry rodent urine, droppings, or nesting material.

Wet contaminated material with disinfectant first (see question 13).

For routine household cleanup, wet-disinfection followed by wiping or mopping is recommended.

Professional remediation of heavily contaminated areas, ventilation systems, or large infestations may use specialized equipment and procedures.

How should books, papers, and delicate items be cleaned?

Books, papers, and other items that cannot be cleaned with liquid disinfectant or thrown away may be placed outdoors in sunlight for several hours, when practical, or stored in a rodent-free indoor area for about one week before handling.

Wear gloves when handling these items.

Wipe surfaces gently with a cloth lightly moistened with disinfectant when possible.

Discard heavily contaminated items.

How should clothing, bedding, or stuffed animals be cleaned?

Wash clothing, bedding, stuffed animals, or other washable items in a washing machine using hot water and regular laundry detergent.

Laundry detergent helps break down the virus, making it noninfectious.

Dry on high heat when the fabric allows, or dry in direct sunlight.

Do not place contaminated items directly into a dryer without washing them first.

How should carpets, rugs, and upholstered furniture be cleaned?

After visible contamination is removed using wet-disinfection methods, carpets, rugs, and upholstered furniture may be cleaned with disinfectant, steam cleaning, or shampooing.

Heavily contaminated items may need to be discarded.

What should I do if I think I was exposed to hantavirus?

If you were exposed to rodents or rodent-contaminated areas but feel well, no medication, testing, or quarantine is recommended.

Monitor for symptoms for up to 8 weeks after exposure.

Seek medical care promptly if you develop fever, muscle aches, cough, or shortness of breath. Tell the health care provider that you may have been exposed to rodent urine, droppings, nesting material, or dead rodents.

Where can I get more information?

Centers for Disease Control and Prevention

Hantavirus:
https://www.cdc.gov/hantavirus/

Andes Virus:

https://www.cdc.gov/hantavirus/about/andesvirus.html

This fact sheet provides general public health information. It does not replace medical care. Contact a health care provider for medical questions about symptoms or possible exposure.

Updated: May 2026