

All About Hantaviruses

Special Precautions for Homes of Persons with Confirmed Hantavirus Infection or Buildings with Heavy Rodent Infestations

Special precautions should be used for cleaning homes or buildings with heavy rodent infestations in areas where HPS has been reported. If you are attempting to deal with such an infestation, it is recommended that you contact the responsible local, state, or federal public health agency for guidance.

The special precautions may also apply to vacant dwellings that have attracted numbers of rodents while unoccupied and to dwellings and other structures that have been occupied by persons with confirmed hantavirus infection.

Workers who are either hired specifically to perform the clean-up or asked to do so as part of their work activities should receive a thorough orientation from the responsible health agency about hantavirus transmission and should be trained to perform the required activities safely.

Precautions To Be Used:

- Persons involved in the clean-up should wear coveralls (disposable, if possible), rubber boots or disposable shoe covers, rubber or plastic gloves, protective goggles, and an appropriate respiratory protection device, such as a half-mask air-purifying (or negative-pressure) respirator with a high-efficiency particulate air (HEPA) filter or a powered air-purifying respirator (PAPR) with HEPA filters.

Note The HEPA classification recently has been discontinued. Please read ["Update On the Nomenclature and Use of Respirators as a Precaution for Hantavirus Infection, February, 1999"](#) for details.

- Personal protective gear should be decontaminated upon removal at the end of the day. If the coveralls are not disposable, they should be laundered on site. If no laundry facilities are available, the coveralls should be immersed in liquid disinfectant until they can be washed.
- All potentially infective waste material (including respirator filters) from clean-up operations that cannot be burned or deep buried on site should be double bagged in appropriate plastic bags. The bagged material should then be labeled as infectious (if it is to be transported) and disposed of in accordance with local requirements for infectious waste.
- Workers who develop symptoms suggestive of HPS within 45 days of the last potential exposure should immediately seek medical attention. The physician should contact local health authorities promptly if hantavirus-associated illness is suspected. A blood sample should be obtained and forwarded through the state health department to CDC for hantavirus antibody testing.

Hantavirus Pulmonary Syndrome: Clean Up!



Clean up urine and droppings

Take precautions before and while cleaning rodent-infested areas. Before cleaning a space, ventilate the area by opening the doors and windows for at least 30 minutes to diffuse potentially infectious aerosolized material. Use cross-ventilation and leave the area during the airing-out period.

When you begin cleaning, it is important that you **do not** stir up dust by sweeping or vacuuming up droppings, urine, or nesting materials. Wear rubber, latex, vinyl, or nitrile gloves when cleaning urine and droppings. Spray the urine and droppings with a disinfectant or a [mixture of bleach and water](#) and let soak 5 minutes. The recommended concentration of bleach solution is 1 part bleach to 10 parts water. Use a paper towel to pick up the urine and droppings, and dispose of the waste in the garbage. After the rodent droppings and urine have been removed, disinfect items that might have been contaminated by rodents or their urine and droppings.

Mop floors and clean countertops with disinfectant or bleach solution. Steam clean or shampoo upholstered furniture and carpets with evidence of rodent exposure. Wash any bedding and clothing with laundry detergent in hot water if exposed to rodent urine or droppings. Lastly, before removing gloves used while cleaning, wash gloved hands with soap and water or spray a disinfectant or bleach solution on gloves before taking them off. Wash hands with soap and warm water after removing gloves.

Clean up dead rodents or nests

Wear rubber, latex, vinyl, or nitrile gloves when cleaning up dead rodents or nests. Spray the dead rodent or nest and the surrounding area with a disinfectant or a mixture of bleach and water. Soak rodent, nesting materials or droppings in solution for 5 minutes before wiping up with a paper towel or rag. Place the dead rodent or nesting materials in a plastic bag and seal tightly. Place the full bag in a second plastic bag and seal. Throw the bag into a covered trash can that is regularly emptied.

Wash gloved hands with soap and water or spray a disinfectant or bleach solution on gloves before taking them off. Wash hands with soap and warm water after taking off your gloves.

Clean up cabins, sheds, barns, or other outbuildings

Before attempting to [clean cabins, sheds, barns, or other outbuildings](#), open all doors and windows for 30 minutes to allow for the diffusion of potentially infectious aerosolized material. Wear rubber, latex, vinyl, or nitrile gloves and clean up all rodent urine, droppings, nests, and dead rodents using disinfectant or bleach and water. Mop floors or spray dirt floors with a disinfectant or mixture of bleach and water. Clean countertops, cabinets, and drawers with a disinfectant or a mixture of bleach and water.

Clean up heavy rodent infestation

Special precautions should be used for cleaning homes or buildings with [heavy rodent infestation](#). Also, workers who are either hired specifically to perform a clean-up or asked to do so as part of their work activities should receive specific training about hantavirus from a health agency. The special precautions may also apply to vacant dwellings that have attracted large numbers of rodents and to dwellings and other structures that have been occupied by persons with confirmed hantavirus infection.

Persons involved in the clean-up should wear coveralls (disposable, if possible); rubber boots or disposable shoe covers; rubber, latex, vinyl, or nitrile gloves; protective goggles; and an [appropriate respiratory protection](#) device, such as a half-mask air-purifying (or negative-pressure) respirator with a high-efficiency particulate air (HEPA) filter or a powered air-purifying respirator (PAPR) with HEPA filters. Personal protective gear should be decontaminated upon removal at the end of the day. All potentially infective waste material (including respirator filters) from clean-up operations that cannot be burned or deep buried on site should be double bagged in appropriate plastic bags. The bagged material should then be labeled as infectious (if it is to be transported) and disposed of in accordance with local requirements for infectious waste.

Hantavirus Pulmonary Syndrome: Clean Up!

Clean up rodent food sources and nesting sites

[Prevent contact with rodents](#) by cleaning up your home, workplace, or campsite.

Eliminate possible rodent food sources. Keep food in thick plastic or metal containers with tight lids. Clean up spilled food right away and wash dishes and cooking utensils soon after use. Always put pet food away after use and do not leave pet-food or water bowls out overnight. Use a thick plastic or metal garbage can with a tight lid. Keep compost bins 100 feet or more from the house. Keep grains and animal feed in thick plastic or metal containers with tight lids. In the evening, uneaten animal feed should be returned to containers with lids.

If storing trash and food waste inside the home, do so in rodent-proof containers, and frequently clean the containers with soap and water. Dispose of trash and garbage on a frequent and regular basis, and pick up or eliminate clutter.

Eliminate possible nesting sites outside the home. Elevate hay, woodpiles, and garbage cans at least 1 foot off the ground. Move woodpiles 100 feet or more from the house. Get rid of old trucks, cars, and old tires that mice and rats could use as homes. Keep grass and shrubbery within 100 feet of the home well trimmed.

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Hantavirus Pulmonary Syndrome (HPS)

SEAL UP!

HOW TO KEEP RODENTS OUT OF YOUR HOME

- Seal up gaps around roofing, attic spaces, windows and doors.
- Examine the outside of your house for gaps between the foundation and the ground.
- Inspect for gaps under the sink and locations where water pipes come into your home.
- Check around vents and air conditioners for holes.
- Seal any gaps or holes with steel wool, lath metal or caulk.
- Fix gaps in trailer skirting.

TRAP UP!

HOW TO USE SNAP TRAPS

- Select an appropriate trap - some are for mice and some are for rats.
- Read the instructions on the box before setting the snap trap. Set away from children and pets.
- Place chunky peanut butter the size of a pea on the bait pan on the snap trap.
- Position the bait end of the trap next to the wall so it forms a "T" with the wall.
- Place snap traps in areas where you have seen rodents, nesting materials, urine or droppings.

CLEAN UP!

HOW TO KEEP A CLEAN AND HEALTHY HOME

How to clean up rodents and rodent droppings:

- Wear rubber or plastic gloves when handling dead rodents or rodent droppings.
- Spray dead rodent, urine or droppings with a disinfectant or a mixture of bleach and water.
- Soak rodent, nesting materials or droppings in solution for five minutes before wiping up with paper towel or rag as appropriate.
- Place the paper towel and rodent with trap or nesting material in a plastic bag and seal it.
- Place the full bag in a second plastic bag and seal it.
- Mop or sponge the area with a disinfectant or bleach solution.
- Wash gloved hands with soap and water or spray a disinfectant or bleach solution on gloves before taking them off.
- Wash hands with soap and warm water after taking off your gloves.

Clean up rodent food sources and nesting sites

- Place human and pet food in thick plastic or metal containers with tight lids.
- Wash dishes and cooking utensils soon after use.
- Put pet food away in rodent-proof containers after use. Do not leave pet-food or water bowls out overnight.
- Place garbage in thick plastic or metal can with a tight lid.
- Move woodpiles and composting bins more than 100 feet from the home.
- Trim grass and shrubbery within 100 feet of the home.

