

Hantavirus

Frequently Asked Questions

Q. I've been hearing about Hantavirus Pulmonary Syndrome (HPS) in the news recently? What is it?

A. HPS is a serious respiratory disease carried by certain wild rodents, mainly deer mice, and is passed to humans through contact with a rodent's infected urine, droppings or saliva. Breathing in contaminated mist or dust is the most common form of transmission.

Q. How serious is it?

A. HPS is extremely serious and can be fatal; the case fatality rate is high. Through March 28, 2003, a total of 335 cases of hantavirus pulmonary syndrome have been reported in the United States. The case count started when the disease was first recognized in May 1993. Thirty-eight percent of all reported cases have resulted in death. Of persons ill with HPS, 61% have been male, 39% female. The mean age of confirmed case patients is 37 years (range: 10 to 75 years).

Q. Is there more risk of HPS this year due to the wet weather?

A. This year there have been increased populations of some rodent hosts of hantaviruses in some areas because of increased vegetation resulting from wetter than usual weather. This increase is unlikely to be statewide, but in order to prevent HPS, precaution is recommended. As always, if you notice increased numbers of wild mice in rural areas, steps should be taken to minimize human contact with these rodents.

Q. Who can get HPS?

A. Since the virus is carried by deer mice and other wild rodents, persons who are exposed to infected rodents or rodent-infested areas are at risk of contracting HPS. This would include persons living or working in rural or semi-rural areas of Colorado. Deer mice and other rodents that carry HPS are generally not found in urban or suburban settings.

Q. How can one get HPS?

A. The infected rodents excrete the virus in their urine, droppings, and saliva. These droppings contaminate dirt and dust that becomes airborne. People are infected by inhaling airborne particles of the virus or by direct contact with rodents, their droppings, or nests.

Q. What is the incubation period?

A. The incubation period varies widely, but ranges from 1 to 6 weeks, with an average of 2-3 weeks.

Q. What are the symptoms?

A. The early symptoms include fever, headache, and muscle pain, severe abdominal, joint and lower back pain, nausea and vomiting. A cough and shortness of breath usually develops 1 to 5 days after the onset of symptoms. The primary symptom of HPS is difficulty in breathing due to fluid build-up in the lungs. This can quickly progress to respiratory failure.

Q. How is HPS treated?

Currently there is no effective drug treatment for HPS. When HPS infection is suspected or confirmed, early admission to a hospital where careful monitoring, treatment of symptoms, and good supportive therapy can be provided is important. If you have had exposure to rodents and experience symptoms mentioned above, it would be helpful to mention the exposure to your physician. A quick diagnosis helps the physician take the appropriate measures in managing the patient.

Q. How can HPS be prevented?

A. By getting rid of rodents in and around the home

Rodent-Proof House, Shop and Barn

- Best long-term solution! Even if the structure can't be completely rodent-proofed, the number of rodents entering a structure can be reduced
- Seal holes & cracks 1/4th inch or larger with steel wool, metal sheeting, hardware cloth, or patching plaster
- Insure weather seals under doors are tight & screens are in good repair

Eliminate Food Sources More food = More mice !

- Food attracts mice, and food supply affects mouse populations
- Store pet food, feed and bird seed in metal containers
- Feed animals only as much as they will consume at one time
- Feed only in daytime, and remove food and water at night
- Clean up spilled feed and seed
- Keep garbage in containers with tight lids
- Clean dishes and sweep floor daily
- DO NOT FEED RODENTS

Limit Possible Nesting Sites

- Rodents like hiding spots. They avoid open areas where they are more vulnerable to predation
- Remove rodent hiding places: clutter, junk, brush & wood piles, abandoned vehicles, and construction materials
- Store hay, woodpiles and equipment 100 feet from buildings
- Keep grass and vegetation trimmed low within 100 feet of buildings
- Store firewood up off the ground to prevent burrowing underneath

Practice Continuous Rodent Control

- Trapping and poisoning are more effective if above steps are taken
- Apply flea powder to rodent burrows, nests, and hiding places to kill fleas which may transmit plague
- Indoors: use snap traps - allows for easy carcass removal
- Outdoors: use snap traps, multicatch traps, or poisons
- Spray carcasses with disinfectant solution & let soak for 10 minutes
- Use rubber gloves when handling rodent carcasses
- Place carcass in bag and deposit in outdoor trash

- Encourage natural predators (hawks, owls, foxes, non-poisonous snakes, etc.) which consume large numbers of rodents

If rodents are present in the home, eliminate them by using "snap-traps" baited with a peanut butter/oatmeal mix. Trapping success will be increased if food sources have been eliminated and entrances to the building sealed to keep new mice from moving in. Continue trapping efforts as long as rodent presence is suspected in the home.

1. Use a solution of household bleach (one cup bleach per gallon of water) to disinfect rodents carcasses before handling. Spray the rodent and trap and allow to sit for 5-10 minutes. Wear rubber gloves when handling trapped rodents. Disinfect the gloves and the trap afterward.
2. Air out rodent infested buildings or areas at least 30 minutes before cleaning. Do not sweep or dry vacuum rodent contaminated surfaces which may stir up the dust and allow potentially contaminated dust to be breathed in. Spray contaminated materials with the bleach solution and allow it to soak in 5-10 minutes before cleaning them with a mop, sponge or wet (shop) vacuum. Wear gloves.
3. In heavily rodent infested areas or situations where ventilation and/or wet clean-up can not be effectively done, use a face mask with a high efficiency particulate air (HEAP) filter.
4. When camping or sleeping outdoors, avoid disturbing or sleeping near rodent droppings and/or burrows. Sleep in tents with floors, above ground or on a ground cloth, not directly on the ground.

Q. Where can I obtain more information about HPS?

- [Centers for Disease Control and Prevention - Hantavirus Pulmonary Syndrome](#)

To obtain a free brochure: Contact the Colorado Department of Public Health & Environment Information Center at (303) 692-2700 or toll-free 1-800-886-7689.

Information provided by the Colorado Department of Public Health and Environment and Centers for Disease Control & Prevention