Hantavirus Pulmonary Syndrome (HPS)

HPS is carried by a rodent, primarily the deer mouse (genus Peromyscus). HPS was first identified in 1993 in the Four Corners region of the southwest after several individuals died, but the disease has been documented as far back as 1959. It is a rare disease--as of February 2001, 279 cases were confirmed in 31 states. Cases are concentrated in western states, although cases have been documented as far east as Rhode Island and New York.

Only one case of HPS has been documented in Nebraska (1999), even though surveys of rodent populations show that the Sin Nombre virus is endemic in deer mice populations throughout Nebraska. In a number of surveys, between four and 20 percent of collected rodents carried the Sin Nombre virus.

There is no insect vector for hantavirus. The risk associated with this disease is solely dependent on factors that promote rodent populations and the frequency of human activities in infested areas. Rodents are completely unaffected by the disease and do not get sick or die, but serve as a reservoir and can infect other rodents. The virus is shed by rodents in the urine and feces and may remain viable in the environment for some period of time.

The risk to humans occurs when individuals inhale infectious virus particles. Many human exposures have come from contaminated buildings, occupying previously vacant cabins, cleaning barns and other outbuildings, but other sources of exposure have been associated with agricultural activities, such as planting and harvesting field crops. Hikers and campers may also encounter the virus.

Because there is always a risk, even though it is small, precautions should be taken to prevent exposure to the virus. Wearing a properly fitted respirator with a HEPA filter will provide protection by effectively filtering out the tiny virus particles which may be airborne. Paper dust masks do not provide effective protection. When dealing with rodent-infested areas, one must first reduce rodent populations, ventilate the area before cleaning, and then use wet cleaning techniques. These steps will reduce the risk from inhaling infectious virus particles.

Safely Clean Up After Rodents

Eliminating rodents from your home/cabin or other dwelling will decrease your risk for Hantavirus Pulmonary Syndrome. Follow these standard rodent removal and cleanup guidelines:

* Set spring traps that will kill mice.

* Use rubber gloves and spray the nest or dead rodent until soaked with a household disinfectant solution or three tablespoons of bleach in one gallon of water. Other disinfectants can also be used as directed. Let the area soak thoroughly 10 to 15 minutes.

* Remove the nest or rodent using a long-handled shovel or rubber gloves.

* Double bag the rodent or nest securely with plastic bags and dispose of them in the trash. Persons in rural areas may bury the waste two to three feet deep.

* Clean up the rodent area and traps by spraying with disinfectant solution. Let the area soak for 10 to 15 minutes. While still wearing gloves, wipe up the area with paper towels or rags.

* Double bag all paper towels, rags, and gloves used in the cleanup. Dispose of them in a tightly covered trash container.

* Wash your hands with soap and water after completing the cleanup. After the rodents are removed, floors, countertops, cabinets and other surfaces should be cleaned with a solution of three tablespoons of household bleach in one gallon of water, or by a commercial disinfectant. Do not sweep floors with a broom, or vacuum, until area has been disinfected.

Rugs can be steam cleaned; dirt floors should be sprayed with a disinfectant solution.

Sources: Nebraska Department of Health and Human Services, University of Nebraska Cooperative Extension.
http://lancaster.unl.edu/enviro/pest/factsheets/072-01.htm