What is my risk of getting HPS?

For most Californians, the risk of getting HPS is extremely low. Fewer than 50 cases of HPS have been diagnosed in California in the last 10 years. Rodents in homes or buildings in an urban or suburban community are likely not deer mice but house mice or roof rats, neither of which carries hantavirus. Symptoms such as fever, headache, muscle pain, and shortness of breath are common to many different illnesses and are more likely to be due to something other than hantavirus infection. Any concerns you have about your health or possible exposure to hantavirus should be discussed with your health care provider. For information about HPS and rodents in your community, contact your local health department or vector control district.

What is “hantavirus pulmonary syndrome”?

Hantavirus pulmonary syndrome, or HPS, is a rare but often severe disease which is associated with rodents. Rodents which are infected with hantavirus shed the virus in their urine, droppings, and saliva. People can become infected if they breathe in virus particles that have been stirred up into the air.

Symptoms of HPS

The first symptoms of HPS begin about 1-5 weeks after exposure and resemble the flu: fever, headache, and muscle aches.

After 2-5 days, HPS patients develop difficulty breathing. Breathing problems are often severe and the HPS patient may need to be hospitalized for intensive care. There is no specific treatment for HPS. Approximately 25% of HPS patients diagnosed in California have died. Persons with HPS cannot give it to someone else.

Hantavirus in nature

Hantavirus is carried by wild rodents. In California, only one rodent species is known to carry hantavirus: the deer mouse (scientific name, Peromyscus maniculatus). Deer mice are similar in size to house mice (4-7 inches) but, unlike house mice, are grey to brown on top and white underneath, and have large unfurred ears.

Deer mice can be found in most undeveloped areas throughout the state. They prefer brush, shrubs, and rocks, but will enter homes and buildings for food, shelter, and nesting material. Not all deer mice carry hantavirus and the proportion of infected mice varies throughout the state. Infected deer mice appear healthy and normal. It is also difficult to tell deer mice from other kinds of rodents that don’t carry hantavirus. Therefore, persons should avoid contact with all rodents.

Dogs, cats, birds, insects, and other animals cannot serve as a source of hantavirus infection.
Transmission of hantavirus

People can get HPS when they have contact with infected deer mice or materials contaminated with deer mouse droppings or urine. Infection usually occurs through breathing in particles of infectious rodent droppings or urine that have been stirred up into the air. Failure to wash hands after handling rodents or rodent-contaminated materials may also lead to infection.

Examples of activities that pose a risk of hantavirus infection include:

- Entering sheds, cabins, barns, or other buildings where rodents are present
- Cleaning or working in enclosed, poorly ventilated spaces contaminated by rodents
- Handling live or dead rodents without gloves
- Disturbing or cleaning up rodent nests or droppings

Prevention of hantavirus infection

Infection with hantavirus can be prevented by keeping rodents out of homes and other buildings and cleaning contaminated areas in a safe manner.

Cleaning areas contaminated by rodents

Dead rodents, rodent nests, and droppings should be removed and surfaces cleaned before areas are reused.

Before entering or cleaning potentially contaminated areas, open windows and doors and allow the area to air out for 1-2 hours.

Wear latex or rubber gloves. Painters’, dust, and surgical masks do not provide adequate protection against hantavirus.

Wet down rodent carcasses, traps, nests, and other potentially contaminated items and surfaces with dilute bleach or disinfectant. A mixture of 1¼ cups of bleach or Lysol® in a gallon of water is effective at killing the virus.

Allow dampened areas to sit for 15 minutes then clean up with a mop or sponge. Do not vacuum or sweep. Contaminated items that cannot be disinfected (e.g., paper, wood, fabric) should be carefully set outside for 2-3 days to allow sunlight to inactivate the virus.

When done, rinse gloves in bleach or Lysol® solution before removing. Remove gloves, dispose in garbage, and thoroughly wash hands with soap and water.

Removing rodents from homes

Place spring-loaded “snap” traps along baseboards and in areas where rodents are entering the home.

Do not use glue or live traps as these may increase your risk of infection. Place traps near areas of rodent activity, but out of the reach of pets and children. Examine traps regularly and remove trapped rodents promptly. Dispose of potentially contaminated traps or thoroughly disinfect them prior to reuse.

Place rodent carcasses, traps, and other contaminated items in a plastic bag. Tie off the bag, place inside a second bag and tie the second bag as well. Dispose of bags with other garbage.

Keeping rodents out of homes

Check buildings regularly for signs of rodents; look for live or dead mice, droppings, urine stains, nests, and gnawing marks. Look for holes or gaps inside and outside the building. Inside, check within and behind kitchen cabinets, inside closets, around vents, behind appliances, around windows and doors, around all electrical, water, gas, and sewer lines. Outside, look around windows and doors, between the foundation and the ground, between the foundation and the siding, around electrical lines and water pipes, and in eaves and vents in the roof.

Seal all holes that are larger than 1/4 inch in diameter. Use cement, wire screening, hardware cloth, or steel wool. Reinforce the sealing material with caulk or expanding foam.

Reducing attractions for rodents

The following measures can reduce the risk of rodents in and around homes:

- Place woodpiles, vegetable gardens, trash cans, and pet food at least 100 feet from the house.
- Promptly remove uneaten pet food.
- Keep food in tightly sealed containers.
- Fix leaks in sprinklers or other outside pipes that might attract rodents as a water source.
- Keep garbage in tightly sealed containers and dispose of at least weekly.