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# Interim Guidance for Cleaning and Disinfection of Vehicles with Rodent Infestations

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## Introduction

Rodents, including squirrels, mice, and rats, may construct their nests in cars, trucks, campers, and other vehicles, especially if such vehicles are used infrequently. Rodent nesting materials can be found in many areas of a vehicle:

- the engine compartment, including in engine compartment insulation
- the ducting and air filtration components of a vehicle's heating and air conditioning system
- the trunk of a car, including the spare tire compartment
- the passenger compartment, including the headliner, glovebox, and in or under the seats
- tool compartments
- taillight and headlight access areas and enclosures

Some rodents, such as deer mice, can carry hantavirus, and their nesting materials, droppings, and urine may contain hantavirus. People who ride in, or clean, the car may come into contact with these infectious materials. Infectious virus particles blowing onto passengers through the air vents may thus pose a risk to people who use the vehicle.

Rodents can enter vehicles through:

- rust holes
- wire chases
- side vents
- rocker panels
- ducting

An accumulation of nesting materials in the air intake systems of a vehicle can also contribute to odors inside the passenger compartment and could potentially impair engine performance, preventing the vehicle from starting, or causing it to run poorly. Rodents may also chew on electrical wires and hoses, causing electrical shorts or leaks.

## Preparing to Inspect, Detect, Disinfect and Remove Potentially Infectious Nesting Materials from a Vehicle

### Engine Compartment

While the car is in a well-ventilated space, open the hood to allow the engine compartment to air out for 20 minutes. Also, open vehicle doors and the trunk to facilitate airing out. Wearing plastic gloves and a long-sleeve shirt, inspect the engine compartment for evidence of nest building. Accumulations of nesting materials could

occur anywhere, but are frequently found between the battery and vehicle frame, in the area near the window wiper motors, and underneath air intake ducting or within the air filter.

Areas of the vehicle with evidence of rodent activity (e.g., presence of dead rodents, droppings, or nesting materials) should be thoroughly disinfected and cleaned to reduce the likelihood of exposure to hantavirus-contaminated materials.

To avoid generating potentially infectious aerosols, do not use a vacuum cleaner or sweep rodent urine, droppings, or contaminated surfaces until they have been disinfected. Also, do not use “power wash” high-pressure sprayers to soak or dislodge nests or droppings.

First, remove the cables from the battery to reduce the likelihood of getting shocked while cleaning out the nesting material. Then, using either a commercially labeled disinfectant or a mixture of 1 part bleach to 9 parts water, spray the materials until fully soaked and let sit 5 minutes, or follow the manufacturer’s instructions for dilution and disinfection time. Then, use a paper towel to pick up the materials, and dispose of the waste in the garbage. After the rodent droppings and nesting materials have been removed, clean the rest of the area with additional disinfectant. When the recently-sprayed area is dry, re-connect the battery.

## Nesting Materials within Automotive Air Intake Systems

Rodents may travel through the vehicle’s air intake system, building nests on top of accordion-style air filters or in hoses and ducting leading directly to the passenger compartment. For engine compartment air filters, open the unit to reveal the filter. If you see evidence of rodent activity, spray as above using either a commercially labeled disinfectant or a mixture of 1 part bleach to 9 parts water. Spray the materials until fully soaked and let sit 5 minutes, or follow the manufacturer’s instructions for dilution and disinfection time. Then, remove both the nesting materials and the air filter, and discard in the garbage. Insert the new replacement filter, and close the unit.

Inspection, disinfection, and possible replacement of hoses, ductwork, other filters, fans, or other components of the system may be necessary if the rodent infestation is extensive. Consult a qualified mechanic or automotive professional for assistance. For extensive vehicle infestations, refer to CDC’s [Hantavirus Pulmonary Syndrome- United States: Updated Recommendations for Risk Reduction](#) [PDF - 7.04MB] Source: *MMWR* 2002, (Vol. 51) No. RR-9.

## Passenger Compartment

Rodents can enter the passenger compartment through ducting, through rusted areas, through areas where cabling passes, and from the trunk. A variety of approaches can be used to seal out holes and cracks where rodents can enter, depending upon the materials available. Do not leave any kind of food anywhere in the car, as it can attract rodents.

## Trunk

Rodents can enter the trunk from holes in the body, through cable conduits, and from the back seats in certain vehicles. A variety of approaches can be used to seal out holes and cracks where rodents can enter, depending upon the materials available. Do not leave any kind of food anywhere in the car, as it can attract rodents.

## After Inspection and Cleaning

Before removing your gloves, rinse your gloved hands with disinfectant, pour some disinfectant into the garbage bag containing the disposed material sufficient to soak that materials, and then seal the garbage bag. Rinse your gloved hands with water, remove your gloves, and finish by washing your hands with soap and water.

## Prevention of Colonization of Vehicles

Regular exterior and interior inspection of a vehicle, whether in regular use, abandoned, or garaged for the season or otherwise stationary, will help prevent colonization or infestation of a vehicle. Snap traps and poison baits are effective in stopping rodent access into vehicles. When starting a vehicle that has been idle for an extended period, air it out first, and inspect the air intakes and filters before starting the engine.

For more information see [Cleaning Up After rodents](#)

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National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (</ncezid/dw-index.html>)

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