



## Rodent Control After a Disaster

### DISASTER RECOVERY FACT SHEET

#### HIGHLIGHTS

- Surviving rodents often relocate to new areas in search of food, water, and shelter.
- Remove food sources, water, and items that provide shelter for rodents.
- Dispose of garbage on a frequent and regular basis inside and outside of the home.
- Thoroughly clean areas with signs of rodent activity to reduce the likelihood of exposure to germs and diseases.

Rats and mice are destructive pests that can spread disease, contaminate food, and destroy property. After a disaster, the number of rats and mice is often reduced, so illness or injuries associated with rats and other small rodents are uncommon in the short term.<sup>1</sup>

Rodents that survive a disaster often move to new areas. It will take time for rodents to regroup, reorganize their social behavior, become familiar with their new environment, find safe haven, locate food and water, and memorize their movements. Colony building and reproduction will begin only when their new ecosystem has stabilized. This typically takes 6 to 10 months under favorable conditions. As the rodent population grows and resettles, people have a greater chance of being exposed to the diseases carried by rodents. Rodent urine and dander also contain allergens that can cause allergic reactions or trigger asthma symptoms in sensitive persons and more than 9,000 persons are treated in emergency departments annually for rat or mouse bites.

Indications that rodents are present—aside from seeing either live or dead ones—are rodent droppings, runways, rub marks, and tracks. Other signs include burrows, nests, gnawings, food scraps, rat hair, urine spots, rodent noises, insects that are associated with rodents, odors from urine, or dead rodents. Rats and mice are different animals and methods used to control them will differ.

The following recommendations will help residents reduce the risk of disease or personal injury associated with rodents.

### Precautions to Limit Household Exposure

Removing food sources, water, and items that provide shelter for rodents is the best way to prevent contact with rodents. Where necessary, control rodents by using an integrated pest management approach that includes environmental sanitation, proper food storage, rodent-proofing, trapping, and poisoning.

### Inside the Home

- Keep food and water covered and stored in rodent-proof containers. A rodent-proof container is made of thick plastic, glass, or metal and has a tight-fitting lid.
- Keep pet food covered and stored in rodent-proof containers. Allow pets only enough food for each meal, then store or throw out any remaining food. Do not leave excess pet food or water out overnight.
- Dispose of garbage on a frequent and regular basis. If storing trash and food waste inside the home, do so in rodent-proof containers.
- Wash dishes, pans, and cooking utensils immediately after use.
- Remove leftover food and clean up any spilled food from cooking and eating areas.
- Do not store empty cans or other opened containers with food residues inside the home.
- When possible, use spring-loaded traps in the home and outside buildings. Use a small amount of chunky peanut butter or other available food as bait. (Remember – you are more likely to be successful trapping rodents if your home is free of other easily accessible food items.) Place traps in a “T” shape against baseboards or wall surfaces where rodent rub marks, droppings, or rodents have been seen. Keep children and pets away from areas where traps are placed.
- Glue traps and live traps are not recommended. Glue traps mainly catch juvenile rodents, not breeding adults. Rodents caught in live traps and released will likely reenter the home.

## Outside the Home

- Dispose of debris and trash as soon as possible. Store woodpiles and stacks of lumber or other materials at least 12 inches above the ground and as far away from the home as possible.
- Store garbage in rodent-proof containers with tight fitting lids.
- Store grains and animal feed in rodent-proof containers.
- Remove any food sources, including animal carcasses, that might attract rodents.
- Haul away trash, abandoned vehicles, discarded tires, and other items that might serve as rodent nesting sites.
- Keep grass short and cut or remove brush and dense shrubbery that may provide rodents cover and protection.
- Trim tree limbs or shrubs that overhang or touch buildings.
- Place spring-loaded traps in outbuildings and in other areas where signs of rodents are found. Do not allow children or pets to play near spring traps.

## Rodent-Proofing Your Home

Rats can enter the home through a hole the size of a quarter. Mice can enter through a hole the size of a dime. Seal gaps and holes inside and outside the home that are greater than a ¼-inch diameter with any of the following materials:

- Cement or cement mortar,
- 19-gauge or greater metal mesh, wire screening, or hardware cloth (1/4-inch or less spacing is preferred),
- steel wool,
- heavy-duty caulk or elastomeric sealant, or

- expanding foam.

## Cleanup of Rodent-Contaminated Areas or Dead Rodents

Thoroughly clean areas with signs of rodent activity to reduce the likelihood of exposure to germs and diseases. When cleaning, **do not** stir dust when sweeping or vacuuming up droppings, urine, or nesting materials.

### Cleanup of Contaminated Surfaces

- Do not vacuum or sweep rodent urine, droppings, or contaminated surfaces unless they have been disinfected.
- Wear rubber or plastic gloves if you need to touch dead rodents, traps, or rodent droppings.
- Spray rodent urine or droppings with a disinfectant or a 1:10 chlorine solution (1½ cups of household bleach mixed with 1 gallon of water) until thoroughly soaked. Let it soak for 5 minutes.
- Use a paper towel to pick up the urine and the droppings and discard it outdoors in a sealed garbage container. After the rodent droppings and urine have been removed, disinfect items that might have been contaminated.

### Cleanup of Dead Rodents

- Check traps regularly.
- Spray dead rodents with a disinfectant or 1:10 chlorine solution (1½ cups of household bleach mixed with 1 gallon of water).
- Wear rubber or plastic gloves.
- Take the rodent out of the trap by lifting the spring-loaded metal bar and letting the animal fall into a plastic bag, then seal the bag, OR place the entire trap and dead rodent into a plastic bag, then seal the bag.
- Place the rodent or entire trap and rodent into a second plastic bag and seal it. Promptly dispose of the sealed double bag in a properly sealed outdoor garbage can.
- Wash gloved hands with soap and water or spray a disinfectant or bleach solution on gloves before taking them off.
- After removing gloves, thoroughly wash hands with soap and water (or use a waterless alcohol-based hand gel when soap and water are not available and hands are not visibly soiled).
- If the trap will be reused, decontaminate it by immersing and washing it in a disinfectant or 1:10 chlorine solution (1½ cups of household bleach with 1 gallon of water) and rinsing well afterwards.
- Continue trapping for at least 1 week after the last rodent is caught.
- If rodents continue to be a problem, consider contacting a professional pest control operator for help.

## Precautions for Building Entry After a Disaster

Damaged or abandoned homes and other buildings may be infested with rodents. If buildings have been abandoned for an extended period of time, it may be helpful to air them out for 2-3 days before reentering.

If you see signs of rodents, the building will need to be thoroughly cleaned. Contact your local health

department for guidance on cleaning in these situations.

Do not vacuum or sweep rodent urine, rodent droppings, or contaminated surfaces that have not been disinfected.

- Spray urine and droppings with a disinfectant or a 1:10 chlorine solution (1½ cups of household bleach mixed with 1 gallon of water) until thoroughly soaked.
- Let it soak for 5 minutes.
- Use a paper towel to remove urine and droppings.
- Discard the paper towel outdoors in a sealed garbage container.

## References

1. World Health Organization: Vector and pest control. Available at [http://www.who.int/water\\_sanitation\\_health/hygiene/emergencies/em2002chap10.pdf](http://www.who.int/water_sanitation_health/hygiene/emergencies/em2002chap10.pdf) ([http://www.who.int/water\\_sanitation\\_health/hygiene/emergencies/em2002chap10.pdf](http://www.who.int/water_sanitation_health/hygiene/emergencies/em2002chap10.pdf)) .
2. Centers for Disease Control and Prevention and U.S. Department of Housing and Urban Development. Healthy housing reference manual. Available at <http://www.cdc.gov/nceh/publications/books/housing/housing.htm> (<http://www.cdc.gov/nceh/publications/books/housing/housing.htm>).
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