

Staying healthy during a mouse plague



Health risks associated with rodents

Mice, rats and other rodents may carry infections that can spread to humans. These infections can spread through direct contact with infected mice or through contact with soil, food or water contaminated by infected mice. These infections are rare, but people should take steps to reduce their risk.

Rodent-borne infectious diseases

Diseases that humans can get from mice include:

Leptospirosis

Symptoms include fever, headache, sore muscles, chills, vomiting and red eyes.

Leptospirosis is a bacterial infection. The bacteria may be present in mouse and rat urine and can enter the human body through cuts or abrasions, and occasionally through the lining of the mouth, nose and eyes. Treatment is with antibiotics.

Lymphocytic choriomeningitis virus (LCMV) infection

Symptoms include influenza-like illness, headache and meningism (neck stiffness and pain when looking at light).

LCMV infections usually come from exposure to urine, faeces or saliva of infected rodents. Symptoms may be mild or can include an influenza-like illness and sometimes meningitis (infection of the fluid surrounding the brain and spinal cord). Infection in pregnancy has not been recorded in Australia. However, there have been cases where LCMV infection in pregnancy has resulted in adverse outcomes (fetal death or congenital conditions affecting the central nervous system).

Rat bite fever

Symptoms may include fever, muscle pain, rash, joint pains, vomiting and headache.

Rat bite fever is a bacterial illness that can be contracted through the bite of an infected animal or from exposure to water or food contaminated by rodent urine or faeces.

Complications can include deep infections and sepsis. The wound is usually not visible by the time the illness presents. Treatment is with antibiotics.

Gastrointestinal infections such as salmonellosis, campylobacteriosis and cryptosporidiosis

Symptoms include diarrhoea, fever, abdominal pain, headache, vomiting, body aches and lethargy.

A number of bacterial infections that are usually foodborne can also be transmitted by rodents. This can be via direct contact with rodents or contamination of food preparation surfaces.

On rare occasions these infections can result in severe disease. Specific antibiotics and other medications can be given for these infections.

Protecting your health

Minimising rodent contact

- Seal any holes or gaps inside your home.
- Store food inside thick, well-sealed containers and clean up any spills/leftover food promptly to avoid attracting rodents.
- Do not set mouse traps near food preparation areas.

What to do if you are bitten by a rodent

- Immediately clean the wound with soap and water.
- Dry the area, apply an antibiotic cream and a clean bandage.
- Seek medical attention. You may need a tetanus immunisation, and in some circumstances (not always), antibiotics are given to prevent infection.
- As the wound heals, keep an eye out for signs of infection such as skin that is warm to the touch, redness or pain. See a doctor if these signs develop.

Clean and disinfect mouse contact areas

- Mop floors and clean countertops with disinfectant or bleach solution.
- Steam clean or shampoo upholstered furniture and carpets with evidence of rodent exposure.
- Wash any bedding and clothing with laundry detergent in hot water if exposed to rodent urine or droppings.

Clean up of mouse carcasses

When cleaning up mouse carcasses or working in areas where mice have been:

- Wear gloves.
- Wear waterproof protective clothing and footwear.
- Cover cuts and abrasions with a waterproof dressing.
- Wash hands with soap and dry your hands after completing the clean-up, and especially before eating.
- Ideally, any handling of mouse carcasses should be undertaken by household members who are not pregnant or immunosuppressed.

Rainwater tanks contaminated by mouse carcasses

Tank inlets and overflows should have screens installed to prevent entry of mice and other small animals and leaves. Check the tank regularly to ensure there are no gaps.

Rainwater can be disinfected by bringing it to a rolling boil and being allowed to cool before drinking. A kettle with an automatic shut off switch can do this.

If you suspect that water in your rainwater tank has been contaminated, it can be disinfected with powdered swimming pool chlorine (calcium hypochlorite, 65% available chlorine) or liquid chlorine (sodium hypochlorite, 12.5% available chlorine). You should not use stabilised chlorine (chlorine cyanurates). Ready reckoner tables are available to help guide the amount of chlorine needed for different tank sizes. See link under additional resources below.

If sludge is present in your rainwater tank it should be removed by siphon or by complete emptying of the tank and cleaning.

If cleaning of the tank requires entering the tank, it is recommended that a qualified professional tank cleaner undertake this activity. Cleaning water tanks presents a number of health and safety risks, such as working in confined spaces.

For further information on tank disinfection and cleaning see the NSW Health webpage on rainwater tanks under the additional resources below.

Mouse baits and poisons

Mouse baits must always be used in accordance with the instructions on the label. Mouse baits licenced for agricultural use must never be used for domestic purposes. Agricultural mouse bait products containing zinc phosphide release phosphine gas when they react with moisture or acids. Children and pets should be kept away from areas where mouse baits have been used.

Additional resources

Leptospirosis:

www.health.nsw.gov.au/Infectious/factsheets/Pages/leptospirosis.aspx

Lymphocytic choriomeningitis:

www.cdc.gov/vhf/lcm/index.html

Rainwater tanks:

www.health.nsw.gov.au/environment/water/Pages/rainwater.aspx

Disinfection ready reckoner tables:

www.health.nsw.gov.au/environment/water/Documents/chlorine-ready-reckoner-tables.pdf

Speak with your GP if you have any further health concerns related to rodent-borne disease.

Call your local Public Health Unit if you have other public health-related concerns on 1300 066 055.

This factsheet is also available in Arabic, Simplified and Traditional Chinese, Farsi, Korean and Vietnamese from Multicultural Health Communication Service at www.mhcs.health.nsw.gov.au/publications/staying-healthy-during-a-mouse-plague