

Safe Rat Handling by Pet Stores: Interim Guidance

In January, 2017, the Illinois Department of Public Health (IDPH) was notified of Seoul virus infection in eight people who handled or owned rats purchased from rat breeding facilities in one Wisconsin and two Illinois locations. At this time, it is not known how widespread Seoul virus is in pet rats. States are conducting tracing activities and testing suspect rat breeding facilities. Information on rat breeding facilities known to have Seoul virus will be updated as it becomes available.

Pet stores may have rats that are sold as pets or may use feeder rats for reptile diets. For your current rat inventory, there is no recommendation to test, remove, or euthanize the rats unless you have been notified that the rat was purchased from one of the affected rat breeding facilities. At this time, no Seoul virus illnesses have been reported in pet store employees. Safe handling of pet rats, along with thorough and regular cleaning and disinfection of rat cage areas are important and should be done at all times and with all pet rats.

The following points are important for pet store employees and rat caretakers to review:

Notification

- If a pet rat was known to be associated with one of the rat breeding facilities linked to Seoul virus cases, the owner has been contacted.
- **At this time, IDPH recommends that pet stores do not accept owner surrendered rats.** Owners who wish to surrender pet rats should contact the local animal control facility or pet rescue organization for assistance.

Transmission of Seoul virus

The Seoul virus is not transmitted person to person. As with other diseases carried by rodents, Seoul virus is transmitted to people from direct contact with rat urine or feces, contaminated materials like bedding, and possibly by aerosolized feces, urine, or saliva. It can also be transmitted through a bite from an infected rat.

Symptoms of Seoul virus in rats

Infected rats will not show any symptoms of illness. However, you should routinely monitor the rats' health and behavior and contact a veterinarian if any of the store's rats seem ill.

Symptoms of Seoul Virus in Humans

In people, symptoms may include fever, severe headache, back and abdominal pain, chills, blurred vision, redness of the eyes, or rash. In severe cases, infection can also lead to acute renal disease. However, not all people infected with the virus experience symptoms.

People who work with rats and have symptoms should contact their health care provider; it is important to inform your health care provider that you have had contact with pet rats.

Safe handling of feeder rats

Frozen or live rodents used for pet food, also called feeder rodents, can carry germs that can make people sick. This can happen even if the rodent looks clean and healthy. Freezing does not kill these germs.

- Always wash your hands right after handling frozen or live rodents or after touching anything that was in contact with these animals.
- Never eat, drink, or smoke while handling live or frozen rodents.
- Clean and disinfect all surfaces and supplies that come into contact with rodents. Rodents can contaminate surfaces where they are thawed or anything they touch. You can get sick by touching contaminated surfaces, even if you haven't touched the rodent.
- Keep rodents and their supplies out of the kitchen or other areas where food is prepared, served, or consumed.
- Never use the kitchen sink or food preparation areas to thaw frozen rodents or to clean live rodent habitats. Do not thaw frozen rodents in the microwave.
- Clean rodent supplies outside your home when possible. If you clean rodent supplies indoors, use a laundry sink or bathtub. Thoroughly clean and disinfect the area immediately afterward.
- Use frozen rodents when possible to reduce the risk of injury to your or your pet. Never feed your pets wild rodents.
- Tell your health care provider that you have been around rodents, whether at home or away from home. Some rodent germs can cause serious and life-threatening illness in people.
- Avoid handling frozen or live rodents if you are at greater risk for serious illness, including children age five years or younger, pregnant women, and people with weakened immune systems.

CDC: [Key Messages about Rodents Used for Pet Food \(Feeder Rodents\)](#)

Safe handling of pet rats

Rats can carry and transmit many different diseases if not safely handled and maintained. Safe handling of pet rats is urged **at all times**. The Centers for Disease Control and Prevention (CDC) guidance on how to avoid becoming ill with diseases carried by rats includes the following:

- Wash hands thoroughly with soap and water after handling rats or areas where rats have been.
- Keep rats and their cages out of kitchens or other areas where food is served.
- Do not eat, drink or smoke while tending to rodents.
- Clean pet cages, bedding, toys, feed or water containers away from areas where food is served or people may bathe.
- Use gloves and a face mask for cleaning.
- Avoid creating dust from fecal materials by wetting down bedding and disinfecting it.
- Do not sweep or vacuum rodent urine, droppings, or nests as this sends particles into the air.
- Cover cuts and scratches before handling the rat.
- Don't snuggle or kiss rats or touch your mouth after handling rats.
- Avoid bites from rats.
 - Provide training to all staff who interact with rats on how to avoid bites.
 - Customers who handle rats in your store should be monitored while holding the rat. Provide instruction on how to avoid bites prior to handling rats, as well as other safe rat handling practices.
- Ensure all new owners who purchase a rat from your store are aware of safe handling practices for rat owners.
- Please note that the Centers for Disease Control and Prevention (CDC) does not recommend pet rodents for families with children five years old or younger, pregnant women, or people with weakened immune systems because these groups are at greater risk for serious illness.

The CDC provides excellent guidance, available at the following links:

- [CDC: Fact Sheet on Healthy Pets](#)
- [CDC: Key Messages About Pet Rodents](#)
- [CDC: Small Mammals](#)

Cleaning and Disinfection of rat cages and areas near rat cages

- Keep cages and surrounding areas clean. After cleaning rat cages, disinfect the cage and items in the cage.
 - A bleach solution can be used for disinfecting the cage. The recommended concentration of bleach solution is one part bleach to 10 parts water.

- If using a commercial disinfectant, following the manufacturer's instructions on the label for dilution and disinfection time.
- Dispose of rat bedding without stirring up dust created by sweeping or vacuuming droppings, urine, or nesting materials; soak bedding with disinfectant for five minutes before removing to help decrease dust particles.
- Wear rubber, latex, or vinyl gloves when cleaning up urine and droppings. Always thoroughly wash your hands with soap and water after removing your gloves.
- **Remember to clean and disinfect the cage and area around the rat cage.**
 - Mop floors and clean countertops with disinfectant or bleach solution.
 - Routinely steam clean or shampoo upholstered furniture, carpeted areas, or rugs if the rat is allowed to be on them, and consider discontinuing this practice.
 - Wash clothing exposed to rat urine or droppings with laundry detergent in hot water.
- Ensure all staff and volunteers who interact with rats and/or are responsible for cleaning and disinfection of cages have received appropriate training on how to clean the cages and areas around the cage, which cleaning and disinfecting products to use, and how to prepare and use cleaning and disinfecting products.

If you have any additional questions or concerns about this topic, call your local health department or the IDPH Communicable Disease Section at 217-782-2016.