

Population and Public Health Division

Did you know that some pet rats in Ontario are infected with Seoul virus?

This fact sheet provides basic information only. It must not take the place of medical advice, diagnosis or treatment. Always talk to a health care professional about any health concerns you have, and before you make any changes to your diet, lifestyle or treatment.

- The United States Centers for Disease Control and Prevention (CDC) began an investigation earlier this year into an outbreak of Seoul virus in US ratteries. Movement of rats between ratteries in Ontario and the US has been identified.
- To date, some pet rats, as well as three people in Ontario with exposure to rats, have tested positive for Seoul virus infection. No serious health outcomes have been reported in these people.
- This Fact Sheet includes useful information on appropriate precautions which can be taken to minimize the risk of Seoul virus infection both in rats and in humans.

What is Seoul virus?

- Seoul virus is a type of hantavirus that can be spread from rats to people.
- Seoul virus is easily spread amongst rats without causing illness in the rats. Infected rats shed the virus in urine, droppings and saliva and may do so for their whole lives.
- There is no way to know if a rat is infected with Seoul virus without testing it for the virus.

Can people get sick from Seoul virus?

- People can become infected with Seoul virus after exposure to urine, droppings, or saliva of infected rats or after exposure to dust from their nests. Infection can also occur if bitten by an infected rat or when infected secretions from a rat get into broken skin or on mucous membranes (e.g. eyes, nose, mouth).
- Symptoms of infection in people are usually mild, but can include fever, headache, back and abdominal pain, chills, nausea, blurred vision, flushing of the face, inflammation or redness of eyes and rash. Some people will have no symptoms at all.

- Rarely, infection can cause a disease called hemorrhagic fever with renal syndrome (HFRS). Individuals with HFRS can present with signs of bleeding, shock and kidney failure.
- Symptoms of Seoul virus infection usually begin within 1–2 weeks (rarely up to 8 weeks) after exposure. Complete recovery can take weeks or months.

If you own/operate a rattery and have concerns:

- Contact your health care provider to discuss testing for yourself.
- Testing of rats from involved ratteries is currently available through Canadian government laboratories that are helping with the investigation. Please contact your local public health unit to discuss these options.
- Another option is to contact your veterinarian to discuss blood testing of your rats through a commercial laboratory.

If you have a pet rat(s) at home and have concerns:

- Contact your health care provider to discuss testing for yourself if you have symptoms of an illness similar to Seoul virus infection (see above).
- Contact your veterinarian to discuss testing of your rat(s) through a commercial laboratory.

If possible, ask the facility from which you acquired your rat(s) whether they have had their rats tested for Seoul virus and whether your rat(s) may have been exposed to positive rats prior to coming into your possession.

Things to do when handling rats:

- Wash your hands with soap and running water after touching, feeding, or caring for rats, or cleaning their habitats. Be sure to assist children with hand washing.
- Avoid bites and scratches from rats by ensuring they are properly housed and carefully handled at all times.
- Do not eat, drink or smoke and handle rats at the same time.
- Wear gloves when cleaning rodent cages and do the cleaning and disinfecting outdoors if possible. Never clean rat habitats or their supplies in the kitchen or bathroom.
- After removing the rat from its nest, spray bedding with disinfectant (see note below) to avoid spread of any virus that may be present in dust particles. Once soaked, dispose of the wet bedding in a plastic bag, gently close the bag and then seal shut with tape. Place this bag in a second, empty plastic bag and tape the bag shut before putting in the garbage. Once the bedding has been removed, spray the now clean surface of the cage with disinfectant and allow 10 minutes of contact time before wiping dry. Do not place the rat back in its cage until the smell of disinfectant is gone.
- Wipe up any rat urine or droppings with a wet paper towel. Once clean, spray the surface with disinfectant and let soak for 10 minutes before wiping dry.
- Wet mop soiled floors with disinfectant so that it is thoroughly wetted down.

- Pet rats may shed germs that can contaminate surfaces in areas where they live and roam. Make sure rat enclosures are properly secured and safe, so your pet doesn't get hurt or contaminate surfaces.

Note: Bleach solution (1 part bleach to 10 parts water) is an effective disinfectant. When using a commercial disinfectant, follow the manufacturer's instructions for dilution and disinfection time.

For further information on Seoul virus, including rat handling precautions, please see the websites of Public Health Ontario at www.publichealthontario.ca/seoulvirus, the Public Health Agency of Canada at <http://www.phac-aspc.gc.ca/phn-asp/2017/seoul-virus-seoul-eng.php>, and the Ontario Ministry of Agriculture, Food and Rural Affairs at <http://www.omafra.gov.on.ca/english/food/inspection/ahw/seouladvisorymarch1.htm>.

This fact sheet was prepared by the Ontario Ministry of Health and Long-Term Care with the assistance of the Office of the Chief Veterinarian of Ontario.