



MEDIA CONTACT

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PIJAC Health Alert: Seoul Virus Outbreak

The Centers for Disease Control and Prevention (CDC), Illinois Department of Public Health, and Wisconsin Department of Health Services are investigating human illnesses caused by the Seoul virus, a rare disease in the United States. The first illnesses were reported in December 2016 and involved two people operating a home-based rat breeding facility in Wisconsin. The facility had acquired rats from sources in Wisconsin and Illinois. Investigators found six people at two Illinois rat breeding facilities who tested positive for Seoul virus. All individuals have recovered from the virus.

Continuing investigation discovered that 15 states may have received infected rats, but human infections have been confirmed in only 3 of these states. As of February 9, 2017, 11 people have been infected with Seoul virus, with 7 cases in Illinois, 3 cases in Wisconsin and 1 case in Indiana. To date, six facilities in two states have been confirmed to have Seoul virus infection in humans or rats; these have been smaller facilities that sell rats as pets to other breeders and owners, and are not suppliers for large commercial enterprises. Refer to CDC's web page for continuing updates: <https://www.cdc.gov/hantavirus/outbreaks/seoul-virus/>

The virus is carried by Norway (brown) rats and black rats. These rodents are carriers of the disease but have no symptoms. The virus is transmitted in the saliva, urine and feces of infected rats. CDC recommends blood testing for anyone who has become ill

- after handling rats from a rat facility with confirmed Seoul virus infection
- after handling rats from a facility that sold rats to a facility with Seoul virus

The CDC is offering testing for people exposed to the virus, in coordination with local and state health departments.

Seoul virus symptoms

Although not all cases are severe, infection can lead to hemorrhagic fever with renal syndrome (HFRS). Symptoms usually develop within 1 to 2 weeks after exposure to infectious material, but in rare cases, they may take up to 8 weeks to develop. Initial symptoms begin suddenly and include intense headaches, back and abdominal pain, fever, chills, nausea, and blurred vision. Individuals may have flushing of the face, inflammation or redness of the eyes, or a rash. Later

symptoms can include low blood pressure, acute shock, vascular leakage, and acute kidney failure, which can cause severe fluid overload.

For more information: <https://www.cdc.gov/hantavirus/hfrs/index.html>

Preventing Infection

- Cover your hands with gloves if there is a possibility of contact with rat saliva, urine and feces (including bedding or nesting material), particularly if you have skin wounds or abrasion.
- Avoid close facial contact such as kissing or nuzzling.
- Disinfect rat habitats regularly. Wear latex, rubber or vinyl gloves and use a 10% bleach solution to clean contaminated areas.
- Follow recommendations in PIJAC's Feeder Rodent Best Management Practices to keep wild rodents out of breeding facilities.

For more information: <https://www.cdc.gov/hantavirus/outbreaks/seoul-virus/cleaning-up-pet-rodents.html>

Testing rats for Seoul virus

CDC has been using its own test which has proven accurate over many years. Preliminary tests suggest that the IDEXX serologic (antibody) and molecular (PCR) tests for Seoul virus in rats yield results very similar to those for CDC's tests and is a reliable method to screen for the virus; the fecal and urine tests have not been evaluated.

Serologic and molecular testing of newly arriving rats can be effective tools to prevent introduction of infected rats into non-infected colonies. Owners and breeders may wish to seek proof, i.e., a validated Seoul virus test, of a rodent's infection status before bringing new animals into existing colonies.

More information

PIJAC hosted a conference call with CDC experts January 31, 2017. A summary of the information presented, along with answers to questions from rodent breeders is available here:
Link to call summary:

<http://www.pijac.org/sites/default/files/pdfs/PIJACSeoulvirusconferencecallnotesv2.pdf>

Illinois Department of Public Health: <http://dph.illinois.gov/topics-services/diseases-and-conditions/diseases-a-z-list/seoul-virus>

Wisconsin Department of Health Services:

<https://www.dhs.wisconsin.gov/disease/hantavirus.htm>