



Information for Pet Owners:

Reducing the Risk of Becoming Infected with LCMV from Pet Rodents

What happened recently to bring attention to LCMV?

In May 2005, CDC received reports of four solid organ-transplant recipients with unknown illness. All were infected with lymphocytic choriomeningitis virus (LCMV) from a common organ donor. Three of the four organ recipients died from LCMV infection.

Epidemiologic investigation traced the source of the virus to a pet hamster recently purchased by the donor from a pet store in Rhode Island. LCMV testing of other rodents at the pet store identified three other LCMV-infected rodents (two hamsters and a guinea pig). All four pet rodents had been supplied by a single distributor, MidSouth Distributors in Ohio. During this investigation, it was determined that LCMV-infected pet rodents might have been transported from the Ohio facility to pet stores in the northeastern and midwestern United States as early as February 2005.

Where does the virus come from?

The primary host of LCMV is the common house mouse (*Mus musculus*). LCMV is not normally found in pet rodents, such as hamsters, gerbils, and guinea pigs. However, pet rodents can become infected after being in contact with wild house mice in breeding facilities, pet stores, or homes. People have become infected from contact with LCMV-infected hamsters.

Humans can develop LCMV infection from exposure to urine, droppings, saliva, or nesting material of infected rodents. LCMV infection can also occur when these materials are inhaled or directly introduced into broken skin or into the nose, eyes, or mouth, and possibly by a bite from an infected animal.

What are the symptoms of LCMV in people?

Adults with normal immune systems can be infected with LCMV without symptoms, or they may develop a mild illness with symptoms that may include the following: fever, lack of appetite, muscle aches, headache, chills, nausea, and vomiting. Some people may have meningitis (inflammation of the brain covering) approximately 7-15 days after the start of fever. People with weakened immune systems may have more severe or fatal illness when infected with LCMV.

Women who become infected with LCMV during pregnancy may have spontaneous abortion, or their baby may have severe birth defects, including congenital hydrocephalus (fluid on the brain), chorioretinitis (inflammation of the eye), blindness, or mental retardation. It is unknown what proportion of infants whose mothers have LCMV during pregnancy will have developmental defects.

Can LCMV spread from one person to another?

A pregnant woman who becomes infected can pass the LCMV infection to her unborn baby; in addition, LCMV can be spread through organs transplanted from an infected donor. With the exception of these situations, there is no documented evidence of person-to-person transmission.

Which pet stores have LCMV-infected rodents?

Rodents and other pets from *any* pet store pose some risk of transmitting certain infectious diseases and should be handled appropriately. For more information on how to reduce the risk of infectious diseases from your pet, please see the CDC *Healthy Pets* Web site: www.cdc.gov/healthypets.

Should I get rid of my pet hamster or other rodent?

Persons who are not pregnant and who have healthy immune systems are at very low risk for any serious illness associated with LCMV. The probability of any one rodent being infected is low. The greatest risk of infection for a pet owner is likely to occur soon after purchase of a pet rodent. Thus, most exposures have likely already occurred for existing owners, and continued ownership of the rodent will not likely result in substantial added risk. Persons with further concerns about their pets should seek guidance from a veterinarian. Women who are pregnant or planning to become pregnant, or persons who have impaired immune systems should not obtain rodents for pets.

What should I do if I no longer want my pet rodent?

People who have already purchased hamsters or other rodents from pet stores should not return their animals to the stores, regardless of where the animal was purchased. People who no longer wish to keep their pet rodent should consult a veterinarian.

Can I release my pet rodent into the wild?

No. Pet rodents must not be released into the wild for humane reasons and because it is illegal in many states. Pet rodents are not adapted to surviving in the wild environment and may starve or be killed by predators. Many pet rodents are not native species to North America. Releasing them into the wild could introduce a non-native species that could become a pest, endanger native species, or otherwise damage the normal ecosystem.

Can I have my pet rodent tested for LCMV?

CDC does not recommend testing individual pet rodents. Testing on live rodents can be inaccurate and misleading. Always assume that pet animals are capable of transmitting certain infectious diseases. Follow appropriate precautions as described on CDC's *Healthy Pets* Web site (www.cdc.gov/healthypets) when handling any pets.

How can I purchase a safe and healthy pet?

There is no way to be absolutely sure that any pet animals are free of all infectious diseases. Information on purchasing a healthy pet and general steps to prevent pet rodents from bringing diseases into the home is available at http://www.cdc.gov/healthypets/lcmv_rodents.htm.

How can pregnant women reduce the risk of LCMV?

LCMV infection during pregnancy can cause severe illness or developmental defects in the fetus. Women who are pregnant or who are planning to become pregnant should avoid contact with all rodents. Some of the following precautions can be taken to reduce the risk of acquiring LCMV infection during pregnancy:

- To avoid contact with wild rodents, pregnant women who reside in a household with a wild rodent infestation should have the infestation controlled promptly by a professional pest control company or another member of the household.
- To avoid contact with pet rodents, remove the pet rodents from the house or keep pet rodents in a separate part of the home. Pregnant women should ask another family member or friend to clean the cage and care for the pet or arrange for temporary adoption of the pet by a responsible person. Pregnant women should avoid any room where a rodent resides.

How can people with weakened immune systems reduce the risk of LCMV?

People with an impaired immune system may be at risk for more severe disease from LCMV and other diseases carried by pet rodents. Persons with an impaired immune system should avoid contact with all rodents.

Can I get tested for LCMV?

Testing for LCMV infection in persons who have no symptoms is not necessary. Individuals who are experiencing symptoms as described above should seek medical care and let the physician know about any exposures to wild or pet rodents. Only your physician can decide whether testing for LCMV is necessary.

What is being done to prevent LCMV infection in pet rodents?

CDC and other partners are working with breeders and retailers in the pet industry to minimize the risk of LCMV infection in rodents that are sold to the public and to educate owners of pet rodents about LCMV infection. For more information on what your state is doing regarding LCMV, please contact your state health department or visit their Web site (<http://www.cdc.gov/doc.do/id/0900f3ec80226c7a>).