

Lymphocytic Choriomeningitis

What is lymphocytic choriomeningitis and what causes it?

Lymphocytic choriomeningitis (LCM) is a viral disease of varying severity that is spread by contact with rodents. The common house mouse is the primary reservoir for the virus. The disease occurs in Europe, the Americas, Australia, and many other areas throughout the world.

What animals get LCM?

Mice and other rodents are the primary animal species that can carry the LCM virus. In addition to mice, infection has been reported in hamsters, guinea pigs, chinchillas, rats, rabbits, dogs, pigs, and primates.

How can my animal get LCM?

Infected rodents shed the virus in saliva, urine, milk, feces, and semen; it can be spread through the air in **aerosols**, or through abraded skin or mucous membranes (**direct contact**).

How does LCM affect my animal?

In hamsters, signs of disease are highly variable. Many will not show signs of illness or may be infected for several months before becoming ill. Signs include loss of appetite, depression, and a rough hair coat. Later, there may be weight loss, hunched posture, reddened eyelids, and eventually death.

In mice, signs of LCM vary with age. Those exposed prior to or shortly after birth, become infected persistently and shed the virus for life; these mice may show no signs of illness initially but after 5 to 12 months will develop signs similar to those seen in hamsters. Mice infected several days after

birth may not become sick or may develop acute, severe illness which can lead to either recovery or death.

Can I get LCM?

Yes. Humans can get LCM from exposure to urine, droppings, saliva or the nesting material of infected wild rodents and rarely pet rodents. Transmission occurs through **direct contact** exposure of wounds or abraded skin, the bite of an infected animal, or contact with mucous membranes of the nose, eyes, or mouth. Direct person-to-person transmission has never been reported.

Some people show no signs of infection while others develop illness 8 to 13 days after exposure. The first stage of illness, which may last up to a week, involves fever, loss of appetite, headache, muscle aches, nausea, and vomiting. After a brief period of recovery, symptoms return and get worse. This second stage includes fever, headache, stiff neck, confusion, drowsiness, and nervous system problems such as paralysis.

Most people recover fully but infection in pregnant women has led to developmental problem of the fetus and infected infants may have severe complications.

Who should I contact, if I suspect LCM?

In Animals – Contact your veterinarian immediately.

In Humans – Contact your physician immediately.

How can I protect my animal from LCM?

Prevent contact between pet rodents and wild rodents. To control this type of exposure in your home, seal up rodent entry holes or gaps with steel wool, lath metal or caulk. While taking appropriate precautions, clean up potential rodent food sources (e.g., pet food) and nesting sites and trap wild mice and rats.

How can I protect myself from LCM?

Avoid contact with wild mice. Prevent them from entering your home, especially if you are pregnant. Wear gloves when handling live or dead mice. Keep pet rodent cages free of soiled bedding and clean them in a well-ventilated area or outside. Always wash your hands thoroughly with soap and water after cleaning rodent cages or handling pet rodents.

For More Information

CFSPH Technical Fact Sheets. Lymphocytic choriomeningitis at <http://www.cfsph.iastate.edu/DiseaseInfo>

CDC website. Lymphocytic choriomeningitis at <http://www.cdc.gov/ncidod/dvrd/spb/mnpages/dispages/lcmv.htm>



Lymphocytic Choriomeningitis
is a severe
viral disease shed by
rodents.

Photo from Mammals Trust UK at www.mtuk.org.