

RAT RELATED HEALTH HAZARDS & DISEASES

Here is information on some of the diseases caused by rats, as gathered from the Center For Disease Control & Prevention <http://www.cdc.gov>

Hantavirus Pulmonary Syndrome (HPS): Hantavirus pulmonary syndrome (HPS) is a deadly disease transmitted by infected rodents through urine, droppings, or saliva. Humans can contract the disease when they breathe in aerosolized virus. HPS was first recognized in 1993 and has since been identified throughout the United States. Although rare, HPS is potentially deadly. Rodent control in and around the home remains the primary strategy for preventing hantavirus infection.

Murine Typhus: Murine typhus (caused by infection with *R. typhi*) occurs worldwide and is transmitted to humans by rat fleas. Flea-infested rats can be found throughout the year in humid tropical environments, but in temperate regions are most common during the warm summer months. Travelers who visit in rat-infested buildings and homes, especially in harbor or riverine environments, can be at risk for exposure to the agent of murine typhus.

Rat-bite fever (RBF): Rat-bite fever (RBF) is a systemic bacterial illness caused by *Streptobacillus moniliformis* that can be acquired through the bite or scratch of a rodent or the ingestion of food or water contaminated with rat feces.

Salmonella enterica serovar Typhimurium: As its name suggests, it causes a typhoid-like disease in mice. In humans *S. Typhimurium* does not cause as severe disease as *S. Typhi*, and is not normally fatal. The disease is characterized by diarrhea, abdominal cramps, vomiting and nausea, and generally lasts up to 7 days. Unfortunately, in immunocompromized people, that is the elderly, young, or people with depressed immune systems, *Salmonella* infections are often fatal if they are not treated with antibiotics.

Leptospirosis: Leptospirosis is a bacterial disease that affects humans and animals. It is caused by bacteria of the genus *Leptospira*. In humans it causes a wide range of symptoms, and some infected persons may have no symptoms at all. Symptoms of leptospirosis include high fever, severe headache, chills, muscle aches, and vomiting, and may include jaundice (yellow skin and eyes), red eyes, abdominal pain, diarrhea, or a rash. If the disease is not treated, the patient could develop kidney damage, meningitis (inflammation of the membrane

around the brain and spinal cord), liver failure, and respiratory distress. In rare cases death occurs.

Eosinophilic Meningitis: Eosinophilic meningitis is an infection of the brain occurring in association with an increase in the number of eosinophils, white blood cells that are associated with infection with worms that penetrate into the body. The organism most commonly causing eosinophilic meningitis is a rat lung worm called *angiostrongylus cantonensis*