



**KAMARAJ IAS ACADEMY**  
Only IAS Academy by Grandson of "Perunthalaivar Kamarajar"

# Leptospirosis

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## Why in news?

Cases of Dengue and **Leptospirosis** rises on the urban areas as a **sesonal flu**.

## About

- Leptospirosis, also known as "**rat fever**", is a **rare bacterial infection** that affects people and animals.
- The disease is caused by a **bacterium** called **Leptospira interrogans**, or **Leptospira**.

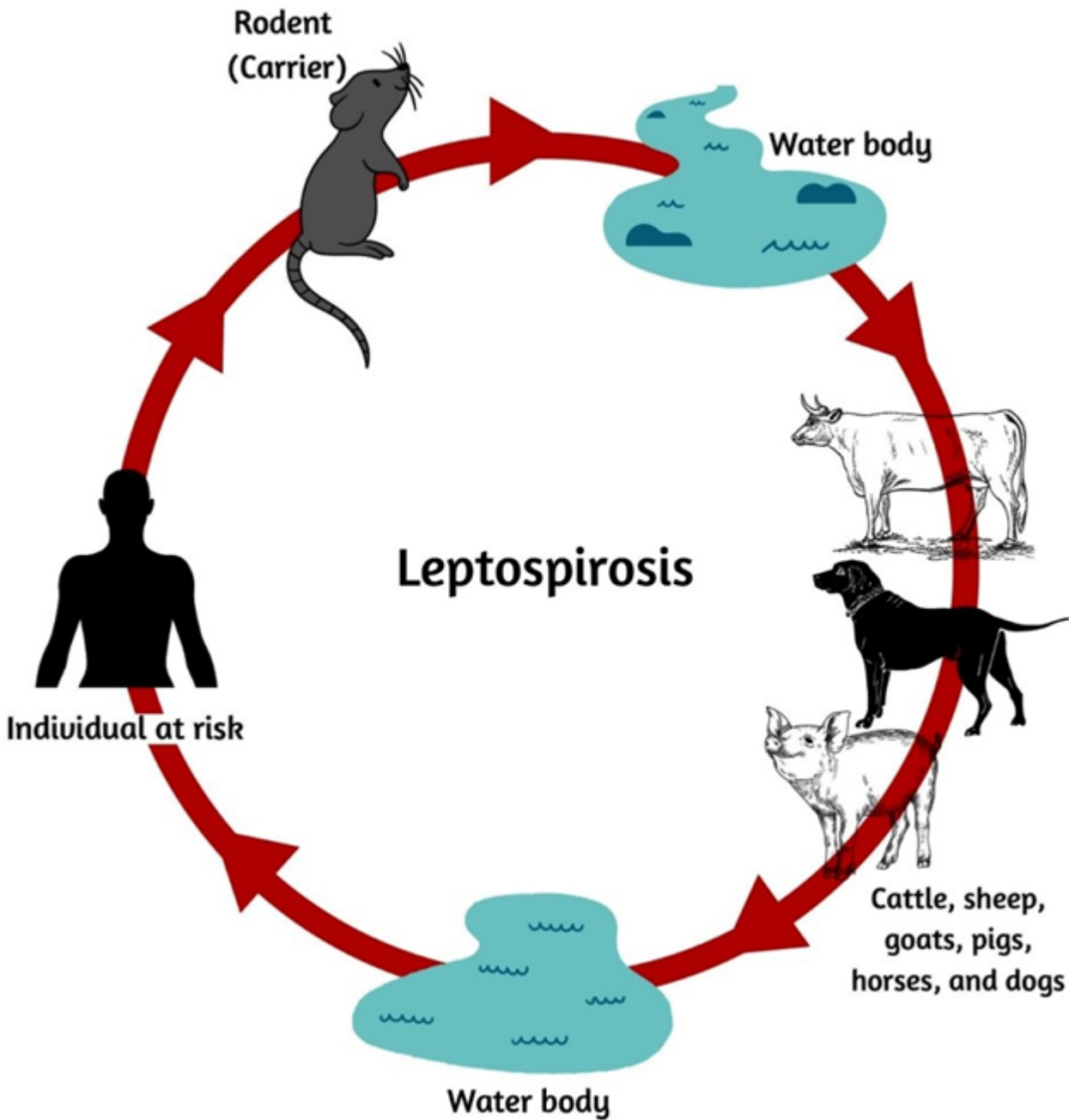
## Infection

The **carriers** of the disease can be either **wild or domestic animals**, including **rodents, cattle, pigs, and dogs**.

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### Signs and symptoms

- It generally **takes 2-30 days to get sick** after having contact with the bacteria. Leptospirosis may **occur in two phases**.
- In the **first phase**, people may have **fever, chills, headache**, muscle aches, vomiting, or **diarrhea**. The person may **feel better for a while but become ill again**.
- Some people may suffer a more **severe second phase** with **kidney or liver failure**, or **inflammation** of the membrane **around the brain and spinal cord (meningitis)**.

### Acute Form

- Weil's disease, the acute, severe form of leptospirosis, causes the infected individual to become jaundiced (skin and eyes become yellow), develop kidney failure, and bleed.
- Bleeding from the lungs associated with leptospirosis is known as severe pulmonary haemorrhage syndrome.

### Transmission

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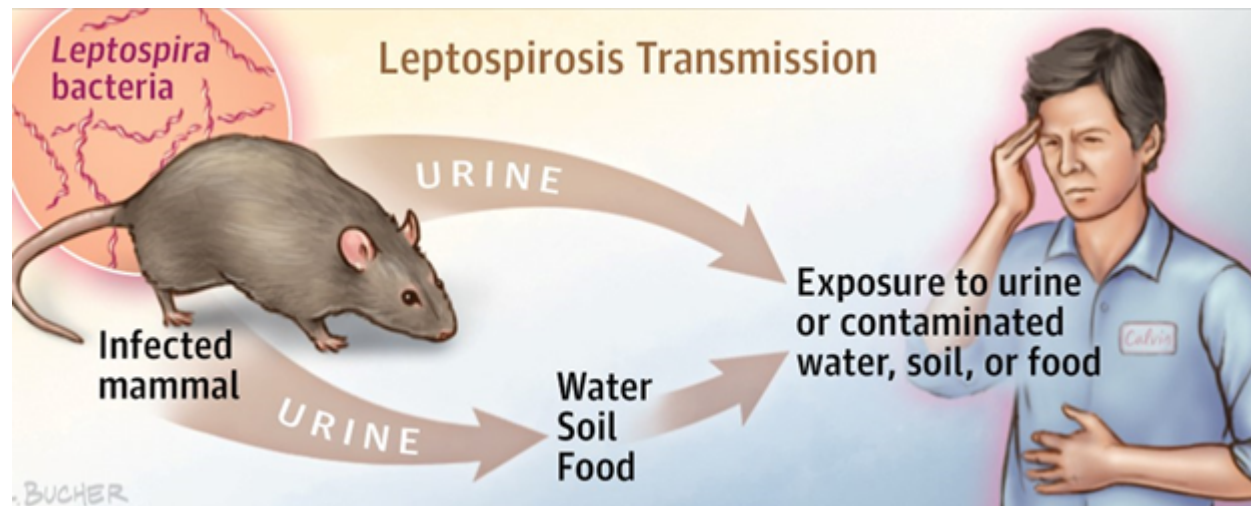
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**Infected animals spread the bacteria through their urine (pee).** They may continue to urinate the bacteria into the environment for several months or years.

The **bacteria** can survive in **contaminated water or soil for weeks to months**

It is **not spread from person to person**, except in very **rare cases**.

It is most **common in tropical areas** and warmer climates **with lots of rainfall** each year.



### Treatment

- Treatment, when infected, is with antibiotics such as **doxycycline, penicillin, or ceftriaxone**.
- The **lepto vaccination** provides **protection against leptospirosis**.

# WHAT IS LEPTOSPIROSIS

➤ Leptospirosis is a bacterial disease that affects both humans and animals

➤ It is caused by bacteria of the genus leptospira

➤ In humans, it can cause a wide range of symptoms, some of which may be mistaken for other diseases

## HOW DO HUMANS GET INFECTED

➤ The infection spreads first from animals through their urine



➤ Humans get infected through direct contact with urine of infected animals or with a urine-contaminated environment

➤ This infected urine gets mixed with water in puddles, waterlogged streets or flooded areas



➤ Humans who waded through such water may get infected

➤ The bacteria enters body through cuts or abrasions on skin, or through mucous membranes – nose and eyes



➤ Person-to-person transmission is rare

## ANIMAL SPECIES THAT CAN TRANSMIT THE DISEASE TO HUMANS

A wide variety of animal species, primarily mammals, may serve as sources of human infection



**The following are considered to be the most important in this context:**

**1** Small mammal species, notably feral and peridomestic rodents (rats, mice, voles, etc.) and insectivores (shrews and hedgehogs)

**2** Domestic animals (cattle, pigs, dogs, more rarely sheep, goats, horses and buffaloes)

(Source: World Health Organization, Centre for Disease Control)