

# Japanese Encephalitis

## What is Japanese encephalitis and what causes it?

Japanese encephalitis is a serious viral disease transmitted by mosquitoes that can affect animals and humans. Illness ranges from mild disease (fever, lethargy) to severe brain infection (encephalitis). It can cause reproductive problems in pigs.

The disease primarily occurs in temperate regions of Asia, but has been spreading to parts of Indonesia, northern Australia, Papua New Guinea and possibly Pakistan. The virus can affect humans and animals.

## What animals get Japanese encephalitis?

The Japanese encephalitis virus causes disease in horses, donkeys, and pigs. Other animals can be infected, but typically do not show signs of illness, these include cattle, sheep, goats, dogs, cats, wild mammals, reptiles, amphibians, and birds.

## How can my animal get Japanese encephalitis?

Japanese encephalitis is spread through the bite of an infected mosquito (**vector**). Some animals, especially infected pigs and birds, can have large amounts of the virus in their blood and serve as a major source of the virus (reservoir) for mosquitoes.

## How does Japanese encephalitis affect my animal?

Horses usually show no signs of disease. Rare cases may result in brain infection (encephalitis), fever, inability to walk, stupor (trance), and teeth grinding. Signs begin to show 8 to 10 days after exposure to the virus.

In pigs, reproductive or breeding problems such as, stillbirths, abortions, mummies, and infertility may occur. Piglets born alive often have tremors and convulsions. The period from exposure to infection in pigs is uncertain.

Many species of animals that become infected, such as cattle, dogs, cats, and birds show no signs of illness.

## Can I get Japanese encephalitis?

Yes. People can get Japanese encephalitis from the bite of an infected mosquito (**vector**). The virus is not spread directly from infected animals or people.

Most human infections have limited or no signs of illness. When clinical signs are seen they have a quick onset with high fever, headache, neck stiffness. Infection of the brain (encephalitis) can cause disorientation, tremors or convulsions (especially in infants), paralysis and coma. Infections are generally more severe in infants and the elderly.



**Japanese Encephalitis**  
is a viral disease  
spread by mosquitoes.  
It can affect pigs, horses  
and humans.

Photo from CDC Public Health Image Library.

## Who should I contact, if I suspect Japanese encephalitis?

**In Animals** – Contact your veterinarian immediately.

**In Humans** – Contact your physician immediately.

## How can I protect my animal from Japanese encephalitis?

Since Japanese encephalitis virus is spread by certain species of mosquitoes, proper mosquito control programs can help minimize the spread of the disease. Vaccines are available for swine in Japan and Taiwan.

## How can I protect myself from Japanese encephalitis?

Proper mosquito protection is important. Minimize your outdoor exposure to mosquitoes, especially in the early evening when their activity is the greatest. Wear long pants and long-sleeved shirts when outside. Use DEET insect repellents.

## For More Information

CFSPH Technical Fact Sheets. Japanese Encephalitis at <http://www.cfsph.iastate.edu/DiseaseInfo/default.htm>

CDC website. Japanese Encephalitis. <http://www.cdc.gov/ncidod/dvbid/jencephalitis/index.htm>