

# Lyme Disease

## What is Lyme disease and what causes it?

Lyme disease is a bacterial disease spread by ticks. Disease can vary but usually involves a skin rash and joint pain (arthritis). The disease occurs worldwide and throughout the U.S. The states with the highest number of cases are in the northeast and the upper-Midwest.

## What animals get Lyme disease?

Dogs, horses and sometimes cattle can get Lyme disease. White-tailed deer, mice, chipmunks, gray squirrels, opossums and raccoons can also be infected.

## How can my animal get Lyme disease?

Lyme disease is spread through the bite of an infected tick (**vector**). Wild mammals, especially small rodents and deer, can carry the bacteria in nature. Ticks get the bacteria when they feed (bloodmeal) on infected wildlife. The tick can now spread the bacteria to other animals (such as pets) or humans when it feeds (bites).

## How does Lyme disease affect my animal?

Wild mammals infected with the bacteria usually show no signs of illness. In dogs, signs of disease can take up to 2-5 months to appear. Lameness and joint pain (arthritis) may be seen. The "knee" and "elbow" are the most commonly affected and lameness may shift from leg to leg or occur "off and on" (intermittent). Dogs may also have a fever. The disease usually heals on its own; some cases may last long term. Rarely, the bacteria may affect

the kidneys or heart, which can cause death. Signs of disease are rarely seen in horses and cattle but involve lameness or stiffness.

## Can I get Lyme disease?

Yes. People get Lyme disease through the bite of an infected tick (**vector**). The tick must be attached for at least 24 hours to transmit the bacteria. Immature ticks, called nymphs, are much smaller than adult ticks and are the primary transmission source of Lyme disease in humans.

Lyme disease in humans can vary from no illness to severe disease. Signs may start 1-2 weeks after infection (tick bite). First, a small red bump may be seen at the site of the tick bite. It slowly develops and spreads into a large circular "bulls-eye" type rash. Not all people infected will get this rash. Other signs may include fever, body aches, stiff neck and headache.

The second stage of the disease occurs weeks to months later. It involves pain in one or more joints; the knee is the most common site. The pain will occur off and on and the joints may be swollen. This can

continue for years. During this stage many "bulls-eye" rashes can also develop. Rare cases involve the spread of the bacteria to the brain or heart.

## Who should I contact, if I suspect Lyme disease?

### In Animals –

Contact your veterinarian.

### In Humans –

Contact your physician.

## How can I protect my animal from Lyme disease?

Use tick prevention medications. Keep your pets out of wooded areas and from contact with wildlife. Check them often for ticks and remove any ticks found promptly. Wear gloves when removing the ticks to protect yourself. A vaccine is available for dogs in high risk areas.

## How can I protect myself from Lyme disease?

Avoid tick prone areas (leaf litter, wooded areas, high brush). If entering these areas, wear long sleeves, long pants, closed toed shoes. Light colored clothing will make finding any ticks on you easier. Check yourself and others frequently for ticks, especially when leaving the area, and remove them promptly. When touching or removing ticks, wear gloves. Always wash your hands afterwards.

## For More Information

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

CDC website Lyme Disease at [http://www.cdc.gov/ncidod/diseases/submenu/sub\\_lyme.htm](http://www.cdc.gov/ncidod/diseases/submenu/sub_lyme.htm)

