

## Is Lyme disease fatal?

The disease is seldom fatal in animals and humans. However, if it is allowed to progress to a chronic illness, it can result in severe joint pain or neurological problems that may be very difficult to treat. In dogs, kidney problems associated with Lyme disease are often fatal.

## Can I get the disease from my pet?

It is highly unlikely. Your most likely exposure comes from the tick, whether from an animal or from the environment. A tick will not first feed on the pet, come off, and then feed on humans.

## Lyme disease in humans

In almost 80% of human Lyme disease, the first sign is a characteristic rash or lesion called erythema migrans. It begins a few days to a few weeks after the bite of an infected tick. The rash generally looks like a bull's-eye: an expanding red circle surrounding a lighter area, frequently with a small welt in the center. The rash is sometimes confused with poison ivy, spider or insect bite, and ringworm.

At about the same time the rash develops, flu-like symptoms may appear with headache, sore throat, stiff neck, fever, muscle aches, fatigue and general malaise. Some people will develop the flu-like illness without getting a rash. In patients who never get a rash, the diagnosis can be difficult.

If untreated, weeks to months later some patients may develop arthritis, including intermittent episodes of swelling and pain in the large joints; neurologic abnormalities, such as aseptic meningitis, facial palsy, motor and sensory nerve inflammation and inflammation of the brain; and, rarely, cardiac

problems, such as atrioventricular block, acute inflammation of the tissues surrounding the heart or enlarged heart.

## How can humans avoid tick bites?

When outdoors, several precautions can minimize your chances of being bitten:

- Tuck your pant legs into your socks and your shirt into your pants. The ticks grab onto feet and legs and then climb up. This precaution will help keep them outside your clothes where they can be picked off.
- Wear light-colored clothing. You can spot dark ticks more easily against a light background.
- Inspect clothes often for ticks. Have a companion inspect your back.
- Apply repellents according to label instructions. Applying directly to clothes appears to be more effective.
- Upon returning home, remove clothing and wash or put them in the dryer for 30 minutes to kill any ticks on them.
- When you get in from the field, shower and inspect your body thoroughly. Especially check groin, navel, armpits, head and behind knees and ears. Have a companion check your back or use a mirror.
- Inspect children at least once daily for ticks. When in heavily infected areas, inspect children every three to four hours.
- When hiking, stay in the middle of trails. Do not bushwhack.
- Clear brush from your premises and keep grassy areas mown.
- Avoid plants that especially attract deer and other animals.
- Limit watering of lawns.
- Judicious use of insecticides to kill ticks may be necessary in some areas.

## Help Ensure Your Pet's Health

Assuring your pet's daily well-being requires regular care and close attention to any hint of ill health. Consult your family veterinarian if your pet shows any of these signs:

- Abnormal discharge from the nose, eyes, or other body openings
- Loss of appetite, marked weight loss or gain, or excessive water consumption
- Difficult, abnormal, or uncontrolled waste elimination
- Abnormal behavior, sudden viciousness, or lethargy
- Abnormal lumps, limping, or difficulty getting up or lying down
- Excessive head shaking, scratching, and licking or biting any part of the body
- Dandruff, loss of hair, open sores, and a ragged or dull coat.
- Foul breath or excessive tartar deposits on teeth



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# What is Lyme Disease?

How to protect  
your family and  
your pets against  
Lyme Disease.



## What is Lyme disease?

Lyme disease is one of the fastest growing communicable diseases in New York State and the most prevalent tick-borne disease in the country. It has been said that if it were not for AIDS, Lyme disease would be the number one new disease facing us today.

Lyme disease, an illness caused by the bacteria, *Borrelia burgdorferi*, is transmitted to humans and animals by the bite of an infected deer tick. Although not all ticks carry the disease, in some areas as many as 50% or more of the ticks may be infected.

Lyme disease, which can produce skin, arthritic, cardiac and neurological complications, has become a serious public health threat. It has been reported worldwide and across the United States, particularly in the Northeast and upper Midwest.

## How do animals and people get Lyme disease?

Lyme disease is transmitted to animals and humans through the bite of an infected *Ixodes scapularis* tick (commonly called the deer tick) usually during warm weather, especially from the spring through the fall. The peak months for infection are June and July; however, disease symptoms may develop any time throughout the year.

## The Deer Tick

Ticks are found in grassy areas (including lawns), and in brushy, shrubby and woodland habitats, where they thrive even on warm winter days. They are spread primarily by wildlife and have been found on over 25 species of mammals including deer, mice, rabbits, chipmunks, squirrels, raccoons, dogs, cats, horses and cows.

Ticks have been found on over 49 different species of birds. Indeed, birds may be

the primary means by which ticks are spread from one area to another.

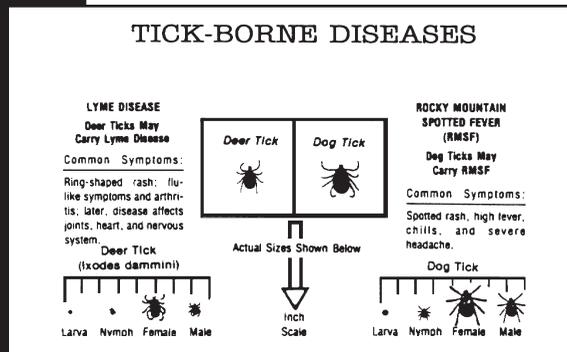
## How do I remove attached ticks?

Prompt removal of ticks decreases the chances of getting Lyme disease. The proper and easiest method is to grasp the tick with fine tweezers as near the skin as you can and gently pull it straight out. Apply antiseptic and watch closely for any symptoms. Use the same technique for you and your animals.

Since the Lyme bacteria are injected by the tick when it bites, you must be careful not to squeeze the tick when removing it in order to avoid having more bacteria injected.

Do not try to remove the tick with your fingers or by using such things as cigarettes, matches, kerosene, nail polish or Vaseline.

Save any ticks you find on you or your pet for future identification in case illness should occur. Put the ticks in a tightly-closed container with a small amount of cotton dampened with rubbing alcohol.



## Lyme disease & animals

Lyme disease has been described in dogs, cats, horses and cows. Symptoms in humans and animals may mimic many other conditions such as arthritis and the flu and usually include listlessness, loss of appetite, soreness and lameness (often with fever), swollen glands and joints.

Lyme disease may affect the kidneys, heart, eyes and nervous system. Temperament changes have been reported and laminitis, poor fertility and abortions have been seen in cows and horses.

Symptoms can be intermittent and vary in severity from mild to quite severe. Your family veterinarian should be consulted as soon as possible if you suspect your pet may have Lyme disease. The earlier the diagnosis is made, the easier it is to treat the disease and hopefully prevent it from becoming a chronic illness.

## How do I keep my pets from getting Lyme disease?

Animals that are outdoors, particularly near wooded areas, are the most likely to be fed upon by ticks. If your pets spend any time outdoors, follow these simple procedures:

- Check animals routinely once or twice a day and more thoroughly after a walk or run outdoors;
- Brush their coats over a light-colored surface so you can see any tiny ticks you dislodge. Ticks that carry the disease are quite small and dark brown in color;
- Check the skin for ticks that have attached. Ticks on animals are most commonly found on the head, neck, chest, between the toes, on or in the ears, and inside the front and back legs where the leg meets the body (armpit and groin areas);
- Treat the areas in which the animals run with an insecticide approved for use in kennels and/or outdoors. Tall grass, weeds, and brush in the area should be cut;
- Insecticide powders as well as the newer dips and sprays and veterinarian-dispensed tick control collars may help control ticks. Your veterinarian is your best source of information for specific insecticides and repellents that may be used on your animals.

## Can pets be vaccinated for Lyme disease?

A vaccine for dogs is available to help prevent Lyme disease. Your veterinarian can help you decide whether or not to vaccinate your dog.

## How is Lyme disease diagnosed?

Veterinarians and physicians diagnose the disease based on clinical symptoms and potential exposure to the tick that causes Lyme disease. Blood tests may be helpful as an aid in diagnosis but are not always reliable. It is possible to have a negative test during the course of the disease or following antibiotic therapy and still have active disease. A negative test following treatment does not indicate cure.

## How is Lyme disease treated?

In the early stages of the illness, symptoms of Lyme disease are treatable with oral antibiotics. The earlier treatment begins, the easier it is to prevent the disease's long-term effects.

Animals treated for Lyme disease in its early stages often appear to be cured although it is not entirely clear whether the disease is "cured" or if "arrested" is the proper term. Many animals continue to test positive for the disease even after treatment. The most effective treatment will be recommended by your veterinarian and will depend on the nature of the symptoms, your pet's history, and its response to treatment.

## Can a dog that had Lyme disease get it again?

It appears that many animals can become reinfected.