

LYME DISEASE

THE ESSENTIAL GUIDE



WHAT IS LYME DISEASE?

Lyme disease is caused by a microscopic organism called *Borrelia burgdorferi*. These bacteria, also known as spirochetes, live in the gut of the eastern black-legged tick and can be transmitted when an infected tick feeds on your dog. These ticks are extremely small. They're often found in shady, moist areas, in tall grasses, brush, shrubs, and low tree branches.

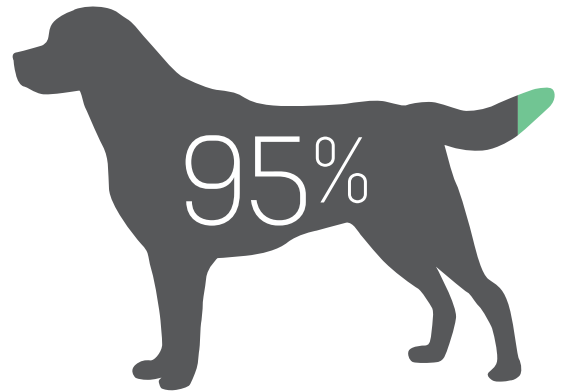


Lyme disease is one of the most common tick-transmitted diseases in the world. Other tick-borne diseases include *Babesia infection*, *Anaplasma*, and *Ehrlichia*. The most common symptom in dogs is lameness caused by inflammation in the joints. An infected dog may also show signs of depression or have a reduced appetite. More serious complications can include damage to the kidneys, and rarely, heart or nervous system disease.

IS YOUR DOG AT RISK?

Even though dogs are far more likely to be exposed to the bacteria that cause Lyme disease than people, they're less likely to get sick.

How likely? Researchers at the University of Pennsylvania found that 95% of dogs exposed to Lyme disease **NEVER** showed any symptoms.



This is because Lyme disease is a coinfection. This means, if your dog is healthy and free of immune-related diseases, he can be bitten by a Lyme infested tick and probably never show any symptoms of Lyme disease.



So, ticks shouldn't be a reason to panic. Still, to be as safe as you can be, it's a good idea to have a plan.

We'll show you how to safely remove ticks from your dog and some home remedies you can use to reduce his risk of Lyme disease.

HOW TO REMOVE A TICK

Great, you found a tick ... now what?

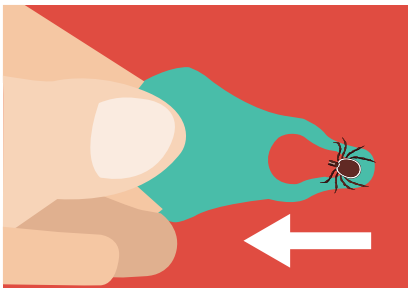
There are a few different ways to remove a tick.

1 USE A TICK KEY

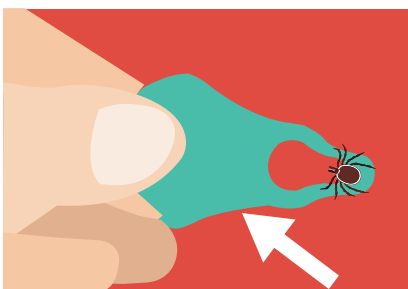
Place the Tick Key over the tick. Slide the tick to the end of the tapered slot so it gets caught in the key and pull slowly away from the skin.



Place the key over the tick in the tear-drop hole.




Slide the tick into specially tapered slot.



Pull key away from skin. Tick is removed easily ... head and all! Disinfect your Tick Key after each use.

 Early and proper tick removal is known to help prevent tick-borne diseases.

 The Tick Key is made of high-strength anodized aluminum, durable and easy to keep clean with alcohol.

HOW TO REMOVE A TICK

2

PULL IT OFF BY HAND OR WITH TWEEZERS

Wear rubber gloves or use tweezers and get hold of the tick as close to your dog's skin as you can. Pull backward, slowly and gently.



Keep pulling the tick toward you and releasing. Don't just pull - you have to pull and release to irritate the tick enough to eventually give up and pull out of your dog. Don't squeeze or pull too hard and don't rotate the tick. If you do, you can pull the head off and it will remain embedded in your dog. But if the head does stay in, don't worry – there's a solution: give your dog the homeopathic remedy *Silica* (or *Silicea*). Place 3 pellets of *Silica* 200C in a glass of water and give your dog couple of tablespoons 3-4 times a day until the head comes out or for 4-5 days.



HOW TO REMOVE A TICK

***NOTE:**

Remember – once you remove the tick, drown it – don't just throw it in the trash (it will crawl back out again). Drop it in a jar with a lid and fill it with alcohol.



REMEDIES

After Bite Homeopathic Remedy

LEDUM PALUSTRE 200C. *Ledum* is the foremost remedy for any kind of animal or insect bite.

 Give the first dose of this remedy at the time you remove the tick

 Continue dosing with *Ledum* every 3 hours for the first day

 Then, dose twice daily for a week

 After the first week, dose twice weekly for a month

 Then once per week for another month

This is probably overkill, but worth the extra effort to be certain. If the tick was discovered in the last few days, this is likely all you'll need. If the head was left in, give this at the same time as the *Silica*.



For dosing see **page 14**

NATURAL OPTIONS FOR LYME DISEASE




What happens if you removed the tick but your dog was diagnosed with Lyme?

MANAGING LYME DISEASE

Homeopath, Joette Calabrese has used this homeopathic protocol for many years for people and pets. This has been found to be highly effective for bites that are rather recent – say within a few weeks.

Lyme Diagnosis Remedy:

Aurum arsenicum 200C. *Aurum arsenicum* is a great choice for when a poisonous infection arises, and this is one of those times.

-  Give twice daily for one week
-  After the first week, dose twice weekly for a month
-  Then once per week for another month

For dosing see **page 14**

MANAGING LYME DISEASE

Clinical Symptoms Remedy

Borrelia burgdorferi 30C (also called *Lyme Nosode* 30C).

Borrelia is the remedy made from the Lyme tick.

- 🌿 Dose with the remedy once per day for three days and then stop, for a total of three doses
- 🌿 This may need to be repeated every few months if the symptoms remain

For dosing see **page 14**



HERBAL REMEDIES

Here is a good general herbal protocol to use with your dog, from Stephen Harrod Buhner, a well-known expert on herbal treatment of Lyme disease. Generally, improvements begin to occur within two to four weeks.

All of the herbs can be given simultaneously, but it's a good idea to add one herb at a time and wait a few days before adding the next one.

Dose: These are for a medium sized dog. If your dog is very small, use smaller doses. If larger use more. You can use liquid formulations as well if you don't have the fresh herbs. Give 1 drop per lb of body weight twice a day for treatment.



HERBAL REMEDIES

1. Japanese Knotweed Root (*Polygonum cuspidatum*)

The most important herb to use is Japanese knotweed root. Inflammation can occur through a number of different pathways in the body but the root of this plant is specific for the exact pathways that the Lyme bacteria initiate. It will reduce the inflammation which will then reduce many of the symptoms that occur. Additionally, the herb is a fairly good synergist which means it tends to increase the actions of both herbs and pharmaceuticals when used along with them.

Japanese knotweed is a food grade herb, which means it can normally be taken in rather large doses. Get the bulk root, powder it (in a Vitamix or blender), and add it to your dog's food. It's best given at least twice a day, morning and evening.



Start with an initial dose of three tablespoons, twice a day. Another benefit of this plant? It's invasive in nearly all Lyme endemic areas so if you're on the east coast you can often harvest the root yourself.

HERBAL REMEDIES

2. Cat's Claw (*Uncaria tomentosa*)

This herb can be used to combat the pain and to protect and strengthen the central nervous system. It boosts CD57 white blood cell count – an important part of the immune system. It can also help protect and cleanse the kidneys. Use the bulk herb as a powder and the same dosage as the knotweed.



3. Glucosamine Sulfate

The third important supplement that promotes joint health is glucosamine sulfate. This is a natural supplement that is often included in doggy snacks to help joint problems. It can help with pain and inflammation but it's also good for its ability to help restore and protect cartilage.

Some of the powdered forms also include chondroitin and collagen. All of these are helpful. Begin with 30mg, twice daily. These three things will, for most dogs, take care of the majority of the problems Lyme causes. In addition, here are a couple of other things that can really help. You can safely give a triple dose for a week and a double dose for longer term.

HERBAL REMEDIES

4. Astragalus (*Astragalus membranaceus*)

Research into the onset of Lyme infection found that the better the immune health, the better the outcome and the milder the infection. Astragalus raises the immune markers needed to keep infection low or nonexistent. It's also a food grade herb and can be taken in large doses all year long. Give your dog three tablespoons, twice daily in food. In some cases of long standing Lyme, due to certain complexities of the infection, the herb can exacerbate the symptoms. It's best used as a preventative and if the Lyme infection is less than two years old.



HERBAL REMEDIES

5. Teasel (*Dipsacus spp*)

This is very good for joint inflammation. If your dog is suffering badly from Lyme arthritis, use this. It is a very safe herb as well. Add the powder in food, one tablespoon twice daily.


Lyme disease can be scary, but just remember the chance of infection is low. Checking your dog for ticks after every hike, knowing how to safely remove a tick and how to treat your dog naturally are all important steps in keeping your dog safe and protected.



NATURAL PREVENTION

The best way to avoid Lyme disease is by preventing ticks in the first place with a natural tick repellent spray. Look for one with cedar oil as the main ingredient (and of course, no chemicals).

You can also make your own tick repellent with only a few ingredients:

 Mix 20 drops of rose geranium essential oil with 2 tablespoons almond oil. You can also use olive oil but the almond oil contains sulphur, which is a tick repellent.

 Place a few drops on your dog's collar. Repeat often.

Other tick prevention tips:



Ticks are often found in tall grasses or dead leaves, so avoid these areas when you can.



Once you return from a walk, run a wide toothed flea comb over your dog. Ticks don't attach to your dog right away as they will search for the best location to feed.



Keep your grass mowed as short as possible and keep bushes trimmed. Rake up any leaves as well.

HOMEOPATHIC DOSING

Homeopathic remedies usually come in pellets or granules. You can use a dry or wet dose, but dry dosing should never be repeated – only use it once.

Dry dosing: dry pellets of the remedy may be dropped directly into your dog's mouth. Tip 2 or 3 pellets or a few granules into the cap of the container. There's a little pocket in the side of your dog's mouth that makes this easy. If your dog doesn't like this, just use a wet dose.

Wet dosing: simply drop 1 to 3 pellets into a volume of water (the exact amount isn't that important). Stir or shake well. The pellets may or may not dissolve, depending on the hardness of the pellet, but this doesn't matter as long as the solution is stirred or shaken well. Dose by placing 1 to 2 drops directly into your dog's mouth.

The exact volume is not that important. As long as some gets into your dog's mouth, you're good. The goal is to ensure good contact with the mucous membranes.

