

Lyme Disease



What is Lyme Disease?

- An inflammatory disease caused by bacteria transmitted to humans by tick bites.
- Not all tick bites will give you Lyme disease. Only ticks that are infected with the disease can transmit it.
- Ticks can attach to any part of the human body but are often found in hard-to-see areas such as the groin, armpits, and scalp. In most cases, the tick must be attached for 36 to 48 hours or more before the Lyme disease bacterium can be transmitted.
- The disease can also be transmitted to animals through tick bites.

Signs and Symptoms

The *Centers for Disease Control (CDC)* describes Lyme disease in three stages:

1. Early localized stage (3 to 30 days post-tick bite)

- Red, expanding rash called erythema migrans (EM)
- Fatigue, chills, fever, headache, muscle and joint aches, and swollen lymph nodes



2. Early disseminated stage (days to weeks post-tick bite)

If left untreated the infection can spread to the rest of the body having effects like:

- Additional EM rashes on other areas of the body
- Facial or Bell's palsy (loss of muscle tone on one or both sides of the face)
- Severe headaches and neck stiffness due to meningitis (inflammation of the spinal cord)
- Pain and swelling in the large joints (such as knees)
- Shooting pains that may interfere with sleep
- Heart palpitations and dizziness due to changes in heartbeat (Lyme carditis)

These symptoms can come and go, and some may resolve without treatment, but lack of treatment can worsen your situation and lead to stage 3.

3. Late disseminated stage (months to years post-tick bite)

- Approximately 60% of patients with untreated infection may begin to have intermittent bouts of arthritis with severe joint pain and swelling. Large joints are most often affected, particularly the knees.
- Up to 5% of untreated patients may develop chronic neurological complaints months to years after infection. These include shooting pains, numbness, or tingling in the hands or feet, and problems with short-term memory.

Treatments

- Antibiotics and intravenous treatments can be used depending on how the Lyme disease has affected your body.
- People in the early stages of Lyme disease usually recover quickly and completely.
- After treatment some people may still have symptoms like fatigue, pain, or joint and muscle aches. These can last weeks to months, but most of the time the symptoms go away with time. This is called Post-treatment Lyme Disease Syndrome. Causes of this is unknown, but it is thought to happen as the result of residual damage to tissues and the immune system that occurred during the infection.

- Your doctor can give you medication to help manage the Post-treatment Lyme Disease Syndrome.

How to Avoid a Tick Bite

- If you remove a tick quickly (within 24 hours), you can greatly reduce your chances of getting Lyme disease. It takes some time for the Lyme disease-causing bacteria to move from the tick to the host. The longer the tick is attached, the greater the risk of acquiring disease from it.
- Try to avoid areas that are wooded or with high grass. Ticks are abundant in these areas.
- Wear tick repellent. Apply to both skin and clothing.
- Shower as soon as possible after being outdoors.
- Thoroughly check your entire body for ticks. Feel through your hair as well.
- Check clothes, shoes, and pets for ticks.
- Some ticks are as small as poppy seeds, so take care in searching.
- You can put clothes in the dryer for an hour to kill any ticks left on clothes. (Do not wash the clothes first).



Removing a Tick

- Use tweezers and grab the tick as close as possible to the skin.
- Pull straight upward. Do not twist the tweezers as you pull it out. This could detach the tick's head from the body and make it stick in your skin. If you do get any part of the tick stuck in your skin, try to remove it with tweezers.
- Clean the bitten area with soap and water or rubbing alcohol.
- The CDC says to dispose of a live tick by submersing it in alcohol, placing it in a sealed bag/container, wrapping it tightly in tape, or flushing it down the toilet. Never crush a tick with your fingers.

- Also, do not listen to old folklore or home remedies for removing a tick like burning it or painting it. These are ineffective. The best way to remove a tick is to pull it straight out with tweezers.