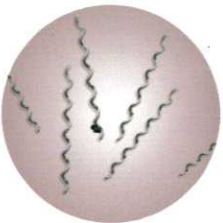


## What is Lyme disease?

Lyme disease is an infection caused by numerous strains of *Borrelia*, which are cork-screw shaped spirochaetal bacteria. The infection is most commonly spread by ticks. The illness may be transmitted congenitally and there is debate about whether the illness can be transmitted sexually and via blood and organ donation. Research is desperately needed.



## What are the symptoms?

The disease causes widespread symptoms which can often be mistaken for other illnesses such as 'Summer flu', Fibromyalgia, Arthritis, Chronic Fatigue Syndrome, Depression, MS, ALS, Parkinson's and Alzheimer's, to name a few. Tick bites aren't usually painful and do not itch. Many people don't even notice they have been bitten. The most distinctive symptom is a bull's-eye rash on the skin but it's important to note that a large percentage of patients never develop the rash. Initial symptoms can include: fatigue, fevers, nausea, flu-like symptoms, Bell's palsy, headaches and a stiff neck. As the disease progresses, neurological and cardiac complications can occur. If you experience these after a tick bite OR after you may have been exposed to a tick bite, then take photos of any rashes and go to your GP immediately.

## Where are ticks found?

Ticks are found all over the UK and have even been discovered in urban parks and gardens as well as woodland, heathland and long grass.



Some ticks can be as small as a poppy seed and so it can be very easy to miss a bite. Ticks are also known to carry numerous other pathogens in addition to Lyme disease which can complicate the illness. These infections are known as co-infections.

## Raising Awareness

### The problem:

Current tests cannot rule out Lyme disease and so a better test and research into better treatment protocols are desperately needed. Awareness of front-line medical staff is poor. It is imperative that more doctors become educated.

If caught early, treatment can be successful. There can be serious complications if the disease is left untreated. Currently many patients are being undiagnosed, misdiagnosed and left with little choice but to seek private treatment, often abroad.

### How you can help:

- ✓ Encourage your GP to take the RCGP e-learning module on Lyme disease.
- ✓ Request LDUK leaflets to hand out in your local community (GP surgeries, pharmacies, schools, hospitals, libraries, vets, outdoor activity and recreational groups).
- ✓ Approach managers of local recreational areas and ask why there is no information displayed about Lyme disease.
- ✓ Print out posters and request to display them on community notice boards and in parks and recreational areas.

## How to remove a tick

### Tick removal tool technique

Follow the instructions which accompany the tool carefully. Popular tick removal tools enable the body of the tick to be cradled and then a twisting action can be applied in one direction only to safely remove it.

1. Packs often contain two different sized tools. Choose the most suitable one according to the size of the tick.
2. Engage the tool by approaching the tick from the side (the body of the tick is flat when unfed) until it is held securely.
3. Lift the tool very slightly and TURN IT (clockwise or counterclockwise). The tick detaches itself after 2-3 rotations.

### Tweezer technique (this method may be better for tiny, nymph ticks)

1. Use fine tipped tweezers, not blunt ones.
2. Grasp the tick as close to the skin as possible and pull upwards with steady, even pressure. **Do not twist or jerk** the tick as this may leave its mouth parts embedded, or cause it to regurgitate fluids containing infection. If any mouth parts do break off, they may be removed with a sterilised needle or tweezer points. **Do not squeeze** or crush the body of the tick. **Do not handle** the tick with bare hands.

### After tick removal

1. After removing the tick, disinfect the bite site with an antiseptic wipe or wound-wash and wash your hands with soap and water.
2. To dispose of the tick, crush it in-between a piece of paper or a tissue (ensuring no blood comes into contact with skin, especially if engorged) and flush it down the toilet. If you choose to save the tick for later identification, place it in a sealed bag and store it in the freezer after writing the date on the bag.

You can send it to Public Health England's Tick Surveillance Scheme (pathogens won't be tested) or send it to a private laboratory for testing. Contact LDUK for laboratory details.

## Preventing Lyme disease

Although more research is needed into other modes of transmission, protecting yourself from tick bites is a good start.

- ✓ Carry sharp pointed tweezers or tick removal tool with you at all times.
- ✓ When engaging in outdoor activities, use a repellent that is effective against ticks.
- ✓ Take extra precaution in long grass, leaf litter and in wooded areas, and stick to pathways.
- ✓ Wear a long-sleeved top and tuck trousers into socks to reduce exposure. Light coloured clothing may enable you to see ticks more easily.
- ✓ If you are in a high risk area or taking part in a high risk activity, it is possible to buy pre-treated clothing from camping or hunting shops that has been sprayed with the repellent permethrin, or you can spray clothing and shoes with this product yourself (do not spray directly on skin and be aware that it is toxic to cats).
- ✓ Check yourself, your children and your pets regularly for ticks when out and about and once you get home. Brush off any ticks that are unattached.
- ✓ If you see an embedded tick, remove it as quickly as possible using the correct tick removal technique - see our website for details. If you become unwell or notice a rash, see your GP immediately and mention your concerns about Lyme disease.



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A scientifically proven, naturally sourced insect repellent. DEET-free. Mosi-guard Natural provides 6 hours of protection against the ticks known to carry Lyme disease.

## Facts about Lyme disease

- ✓ Infected ticks have been found in every county in the UK.
- ✓ You can be bitten by an infected tick during any season.
- ✓ You don't need to be near deer or livestock to be bitten by an infected tick.
- ✓ There is no proven minimum time that a tick needs to be attached to transmit infection.
- ✓ Blood tests cannot rule out Lyme disease, sometimes a clinical diagnosis is needed.



**Lyme Disease UK**

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online!*

Lyme disease UK is a volunteer-run, not-for-profit organisation which aims to raise awareness around the UK and provide patient-centred information and support for sufferers.

We offer online support and promote local group meetings. We attend conferences, take part in media and awareness campaigns and are stakeholders in the NICE Lyme disease guideline development process.

We aim to bring international knowledge about Lyme disease to the UK and campaign for advances in patient care.



**Lyme Disease UK**

# Protect Yourself from Lyme Disease



#wakeuptolyme

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to Lyme**

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