What is Lyme disease?

Lyme disease is an infection caused bybacteria called *Borrelia burgdorferi*(pronounced bore-EL-ee-uh burg-DOR-fer-rye). They belong to a family of bacteria calledSpirochaetes (SPY-roe-

keets), because of their spiral shape.

This is a highly magnified image of a group of Borrelia burgdorferi bacteria.



What happens when you get Lyme disease?

Some people, but not all, get a circular redrash (see photo below) that spreads out from the bite. Later, you might feel ill. You might experience:

- headaches
- stomach upsets
- feeling very tired
- pains in muscles and joints
- numbness or tingling feelings

Lyme disease can be mild, but it can also be very serious. Lyme disease doesn't always go away on its own, so must always be treated.



Be smart and be aware!

- Keep your arms and legs covered when walking in woodland and similar places.
- Insect repellents containing chemicals called DEET or Picaridine will help keep ticks away.
- Check for ticks regularly when you are out, brush off clothing before going inside and check yourself carefully afterwards.
- If you find a tick attached, remove it quickly and in the proper way.

FACT: ticks can carry other germs as well, These include *Babesia*, *Bartonella* and *Anaplasma*. An infected tick can give you more than one infection at the same time!

Further Information

See our website to find out more about Lyme disease, including links to many other resources.

www.LymeDiseaseAction.org.uk

Email support service: support@LymeDiseaseAction.org.uk

Leaflets are also available from:

Lyme Disease Action, PO Box 235, Penryn, Cornwall, TR10 8WZ. UK



Including a donation will help us in our work for people affected by Lyme disease.

Please don't bin this leaflet - pass it on.

Disclaimer: Lyme Disease Action publications are not a substitute for professional medical advice and are intended as general information only. If you have or suspect you may have Lyme disease you should consult a doctor.

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What are ticks?

Ticks have eight legs (apart from the larvae, which have six), so they are not insects, but are ARACHNIDS, and are related to spiders, mites and scorpions. They go through four stages in their life cycle - egg, larva, nymph, then adult.

Actual size! Larva Nymph Adult male



This is an adult female tick, which is about the size of a pea. It has fed so its body has stretched and is full of blood.

(before feeding)

Where are ticks found?

They tend to live in places with damp vegetation and lots of small animals and birds they can feed on.

Ticks can be found in woodland, moors, and even parks and gardens all over the UK.





So how does a tick feed?

To grow from one stage to the next, the tick has to feed. It climbs a leaf or stalk, then waits for an animal or person to brush past. The tick has hooks on its front legs so that it can hang on to fur, clothing or skin. The tick's mouth is like a hollow needle (the proper name is HYPOSTOME). It stabs this into the skin and slowly drinks the blood, like sucking a drink through a straw.



This is a highly magnified photograph of a tick's mouthparts, showing the barbed hypostome in the middle. The barbs help the tick to stay firmly attached.

The tick might stay attached for several days. Infections can be passed to you during this time. When it has finished feeding it drops off, ready to change to the next stage in its life cycle.



This photograph shows a nymph tick attached to someone's skin. Look how small it is compared to a fingernail!

How do you remove a tick?

The best way to remove a tick is to use a simple tick remover which hooks underneath the tick. Some, like the one shown, are made to be twisted as you pull to help break the grip.

Tick removers can be bought from our website or from vets and pharmacies.



If you don't have a tick remover, tie a loop of thread around the tick as close to your skin as possible and pull firmly upwards without twisting. Try not to damage the tick.

- DO NOT try to pull a tick out with your fingers!
 You might squeeze the contents of the tick into your body, which is more likely to make you ill.
- DO NOT try to burn the tick or cover it with vaseline or any other creams or chemicals.
- DO NOT scrape or cut the tick, but remove it whole.
- DO disinfect the area around the bite using antiseptic cream, after you remove the tick.

What if I have been bitten?

Don't panic! If you are bitten by a tick it doesn't mean you will get ill, as not all ticks carry diseases. Just make sure the tick is removed as quickly as possible and in the right way.

Lyme disease can be serious, so if you get a rash or you feel ill in the first six weeks or so after a tick bite, see a doctor straight away.