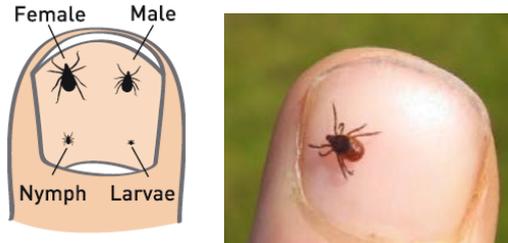


A9 Dualling Guidance Note 6

Ticks & Lyme Disease

What are ticks and what do they look like?

Ticks are small, blood sucking arthropods related to spiders, mites and scorpions. There are many different species of tick living in Britain, each preferring to feed on the blood of different animal hosts. If given the opportunity some of them will feed on human blood too.



There are three stages of the life-cycle: larva, nymph and adult. To the naked eye the larvae look like specks of soot, while nymphs are slightly larger, pinhead or poppy seed size. With their eight legs, adult ticks resemble small spiders.

Once an adult tick has started to feed, its body will become filled with blood. As the blood sac fills it generally becomes lighter in colour and can reach the size of a small pea, generally grey in colour.

The tick bite itself is totally painless and most people will only know they have been bitten if they become aware of a feeding adult tick attached to them. However, it is the pinhead size nymph that is the most likely to bite you.

What do ticks eat?

Ticks feed on the blood of just about any bird or mammal and some reptiles too. They pick up Lyme disease and other infections from these animals, e.g. mice, voles, squirrels, blackbirds, pheasants and seabirds, which naturally carry the diseases.

Ticks carry more diseases than any other invertebrate host. If an infected tick subsequently bites you, it may transfer one or more of the diseases into your bloodstream. A tick can be born with the disease that its infected mother tick carries. So, all three stages of the life cycle, larva, nymph and adult, are capable of transmitting disease.

When are ticks active?

Cold temperatures reduce tick activity, so ticks are most active from April to October. During warm winters and in certain areas of Britain, ticks 'quest' for blood throughout the whole year.

Ticks may survive for more than a year without food and their bodies can remain in a dormant state for long periods. Their bodies dry out easily, so lack of moisture can be fatal to them in hot, dry summers and in very cold or dry winters.

Where are ticks active?

Ticks can survive in many places but prefer slightly moist, shady areas such as grass, bracken, bushes and leaf litter. This is also where the animals they feed on are most likely to visit. Ticks can be found in both rural and urban locations. They are least likely to be found in areas where conditions are dry.

Do all ticks carry diseases?

There are 'hotspot' locations throughout Britain where tick activity has been linked with cases of one or more of the tick-borne diseases. The reality is that we do not know what percentage of ticks are infected in such areas. Even less is known about other areas of the country where ticks may be present in large numbers but the link between ticks and disease symptoms has not been made.

Where will a tick bite me?

Many people are unaware that they have been bitten because the ticks are tiny and their bites are usually painless. Ticks can attach anywhere on your body, so you do need to check all over.

For adults it is particularly important to check armpits, groin, navel, neck and head. In addition, on children, ticks are also frequently found on the head at the hairline.

Can I avoid ticks?

The best strategy is 'awareness'. Check yourself for ticks whenever you have visited a place where they may have been present. Do this both immediately and for up to three days after any outdoor visit.

This may allow you to see any adult tick that has attached. Once it has started to feed, its blood engorged body will make it very visible. If you find a tick, remove it as soon as possible.

Ticks can locate their prey by detecting host body heat, carbon dioxide and ammonia. They may crawl towards a stationary host or stretch out their front legs, equipped with tiny 'grappling hooks' in order to attach to a passing host. So anything you can do to thwart these tactics may help you to avoid tick bites. There are many suggestions about how to stop ticks reaching your skin but there has been little measurement of their effectiveness.

Awareness still remains the best strategy.

- You should make it more difficult for a tick to reach your skin by wearing shoes rather than sandals and tuck long trousers into socks.
- Ticks can be more easily seen on white or light coloured clothing.
- Avoid a tick's favourite places by walking in the middle of paths and check yourself after sitting on logs or leaning against tree trunks.
- Consider spraying your clothing with an effective anti-tick pesticide. There are a variety in outdoor shops and chemists. Make sure you follow the instructions carefully.

How do I remove a tick?

Your main aims are to remove all parts of the tick's body and to prevent it releasing additional saliva or regurgitating its stomach contents into your bite wound.

DO use a proprietary tick removal tool and follow the instructions provided. The two types of removal tool available are illustrated below.

If no tools are available, rather than delay use a cotton thread. Tie a single loop of cotton around the tick's mouthparts, as close to the skin as possible, then pull gently upwards and outwards.

DO commence by cleansing the tweezers with antiseptic. After tick removal, cleanse the bite site and the tweezers with antiseptic.

DO wash hands thoroughly afterwards.

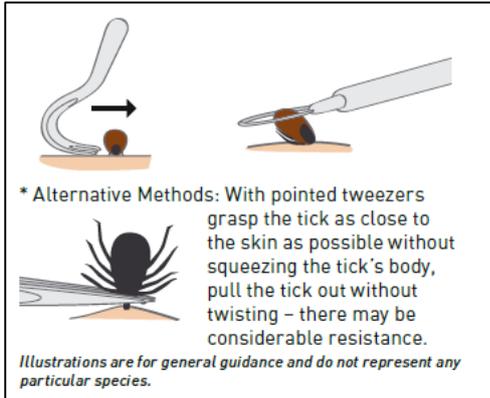
DO save the tick in a container in case you develop symptoms later (label with date and location). The Health Protection Agency are currently running a scheme to investigate ticks, details available at www.lymediseaseaction.org.uk/information/tick.htm or from the HPA at www.hpa.org.uk.

DO NOT squeeze or twist the body of the tick, as this may cause the head and body to separate, leaving the head embedded in your skin.

DO NOT use your fingernails to remove a tick. Infection can enter via any breaks in your skin, e.g. Close to the fingernail.

DO NOT crush the tick's body, as this may cause it to regurgitate its infected stomach contents into the bite wound.

DO NOT try to burn the tick off, apply petroleum jelly, nail polish or any other chemical. Any of these methods can cause discomfort to the tick, resulting in regurgitation, or saliva release.



Lyme Disease

Some ticks carry Lyme disease and they can inject the bacteria into you when they take a meal of blood. Symptoms may appear between 2 and 30 days after the bite and include

- Feeling unwell with 'flu-like symptoms
- Extreme fatigue
- Muscle, tendon or joint pain
- Muscle weakness
- Stiff neck
- Headache
- Disturbances of sight, hearing, digestive system or sleep
- A 'Bull's eye' rash. If you get a rash, photograph it for a record Lyme disease is treatable with antibiotics: the sooner the better.

