



14) Some of the Facts about 'Ticks' and Symptoms of LYME Disease

Basic Facts:

Ticks are second only to mosquitoes for carrying disease to humans. Changes in our climate and in farming practices mean that there are now more ticks in our countryside and urban areas. When out bird watching we walk through wooded areas, over sand dunes and through areas of tall grasses. With the increase of all species of the deer population all these habitats can provide shelter for large populations of deer and sheep ticks (*Ixodes*) the types of tick that transmits LYME disease (*Borreliosis*). Ticks carry a variety of infective organisms which occur naturally in wild animals. Ticks ingest these organisms when feeding and pass them on to the next host. Wildlife is rarely affected but farm animals, domestic pets and people are affected, basically because they have no natural resistance.

Where do ticks live?

Ticks are usually found in grass, in parkland, on low plants and in fields, especially where there are livestock and deer, where ticks wait for a hoist. In a split second they climb on board as people or animals brush past, they then look for a safe place to feed. These 'safe places' include (but not confined or restricted too) back of knee, elbow, under arms, between fingers and toes. They can also be hidden in belly buttons, around or in the ear, along the hairline, in the scalp as well as all intermit areas! At the end of each walk anywhere in the country at home and abroad, you should conduct a full and through body check to ensure that you are not carrying home one of these unwanted and unwelcome visitors. It may be helpful to have someone else inspect areas that are hard to see, or if you are alone use a mirror.

More ticks can also be found in woodland and forest areas amongst the leaf litter. Ticks are more abundant in late spring to early summer, and again during autumn. But they can be active all year round during milder weather when temperatures are above 3 Deg C.

Finding a tick is scary because you do not know what the insect is carrying? But keep in mind approximately 50% of adult female ticks can be carrying LYME disease. Ticks in the nymph stage (spring) can be as small as a poppy seed so they can easy be missed in hiding places when doing a full body check. It is estimated that 20% of tick nymphs are infected with LYME disease. But do not panic, stay calm, but take the following actions and seek medical advice as soon as possible.

Timing is important. The longer a tick stays attached to the body, the higher the risk it can pass on the LYME disease bacteria *if* it is infected.

Disinfecting the area on your body where the tick is attached is good practice. Forgo anything you might have heard about DIY or 'old time' remedies (i.e. freeze or burn the latch site with a match, or cover it with nail polish, petroleum jelly, spirits or oils to loosen the bite). Ticks latch on firmly using a 'super-glue' like secretion/saliva and release naturally (using a dissolving fluid) once they have had their fill of blood.

Remember, infected ticks latch securely onto the skin for a few days with its special saliva and barbed harpoon-like mouth parts (a hypostome), which is a straw-like anatomy near the insect's mouth. The last things you want to do are split or damage this hypostome such that germs and bacteria can spill into your blood via the split in the tick's mouth, which causes the LYME disease. Therefore if you find a tick remove the insect by the approved method as soon as possible to lower the risk of infection.



After thoroughly disinfecting the attachment area, next you will need a pair of clean, fine tipped, tick-remover tweezers to carefully remove the insect. All good outdoor stores carry these today or a similar tick-remover tool that can be carried in the pocket or wallet in readiness whenever out in the countryside or travelling outside the UK. Firmly grasping your tweezers, you want to remove the attached insect as near to its head and mouth without breaking or splitting the tick in two. So grab it carefully using the point of the tweezers perpendicular to the insect's body without crushing it and pull it up with a steady hand, without twisting the tweezers. After removing the tick apply more disinfectant to the bite area.

Keeping the tick is a vital step to the identification process. Resist the urge to stamp on the tick or throw it away! Place the tick into a clean plastic bag (where it will die quickly). Taking a photograph against a white background is also a good idea to establish the species and make a diagnosis judgement.

Your Doctor or the Accident & Emergency (A & E) Department of the hospital will be able to identify the tick species and, if you should develop LYME disease symptoms, they can recommend swift and the correct treatment options. Along with the tick photograph, you should record your walk route along with the place where you think you were bitten.

After being bitten by a tick, it is common for people to panic. If you start to show the signs of LYME disease (i.e. the tell-tail bull's eye rash or fever). Remember, if you find or even if you are bitten by a tick it does not mean you will become sick or develop LYME disease. But it is better to make sure.

Early diagnosis and treatment with antibiotics is the best case scenario for a variety of tick transmitted diseases. However, if you do develop a rash at the bite site, headache, vomiting, muscle soreness or fever within a few days to a month after getting bitten, visit your Doctor or A & E hospital immediately before it develops further.

We are constantly hearing about the threat of LYME disease when it comes to our pets. However, sometimes it takes 'celebrity power' in order to bring a very dangerous condition into the "Lyme-light" for humans! This is exactly what Yolanda Foster, from the reality US television show 'Real Housewives of Beverly Hills', and wife of composer David Foster, did after suffering unexplainable symptoms – such as emotional outbursts, nervous system abnormalities, skin issues and loss brain function!

Her diagnoses: chronic LYME disease.

The TV wildlife presenter, bushcraft and survival expert Ray Mears has been a victim of LYME disease. As has the retired England rugby player Matt Dawson, who had to undergo a number of long operations to counter the effect of contracting LYME disease through a tick bite while training in a London park. Something many people do on a regular basis throughout the country.

Many areas in the UK where we bird watch with good ground cover and diverse wildlife (such as squirrels, hedgehogs and deer) and livestock can pose a potential risk as wildlife feeds any ticks and allows their population to increase. Animals also transport ticks to new areas. Talk to your vet about tick treatments to protect your pets.

Currently there is no vaccine to defend against LYME disease, so prevention by this method is not yet an option. Ticks can sometimes transmit a 'cocktail' of different infections. This can alter the presentation of LYME disease and can affect the duration and type of treatment required.

Tuck your trouser legs into your socks. This helps to deter ticks from crawling inside your trouser legs or down into your shoes/boots and through most socks. Wearing strong gaiters will also help to prevent this from happening.

Signs and Symptoms of LYME disease.

Technically LYME disease is a bacterial illness that is spread by the bacteria (*borrelia burgdorferi*) via tick insect bites. Once infected, the victim (human or animal) can suffer the consequences in multiple stages that stretch from the first bite to the spread of LYME antibodies within the blood and nine tell-tale symptoms as follows If you suspect a tick bite and/or have any of the following symptoms you **MUST** seek urgent medical attention immediately at your local A & E hospital. **DO NOT DELAY!**

1. Swollen Bite Mark:

The first and most common indication of LYME disease is often a bite mark, which will often become red, swollen and an expanding rash called *Erythema Migrans* (EM), which can grow up to ca.100 mm. (4 inches) in diameter and be quite tender to touch if left untreated. As the bacteria takes hold in the body, it will often strike out at the weakest site first, at the bite mark – meaning the area where the bacteria entered through the skin will form a reddish rash with a red ring around the bite site that resembles a bull's eye target.

2. Flu-like Malaise:

Many victims of LYME disease often complain of what seemed to them like typically “flu-like” symptoms early on. For example, the patient may develop a mild fever, swollen lymph nodes, achy muscles and joints, headache and lethargy.

3. Rapid Heart Rate:

Of the more serious and scary symptoms of LYME disease accelerated heart rate is one of them. Often times, patient's infected with LYME disease bacterium will suffer from rapid heart rate – even at rest without activity.

4. Palsies:

Once the bacterium spread throughout the body, LYME disease can wreak havoc on the nervous system, causing palsies, which result in sudden, uncontrolled spasms or body movements (i.e. shaking arms and legs).

5. Meningitis:

Meningitis symptoms often occur as the infection spreads around the body via the blood and into the cerebrospinal fluid (or the fluid that circulates and cushions the brain and spinal cord) causing inflammation. LYME meningitis is bacterial in nature and even though it's not fatal, it can cause associated fever, neck stiffness and migraine, also eye sensitivities to light, confusion and even seizure!

6. Nerve Damage:

If LYME disease is not treated and the bacterium spreads to the nervous system in the latter stages (a few months after infection), the patient can suffer severe motor and sensory nerve damage that affects the joints, heart, brain and causes severe tremors, neurological symptoms and/or seizures.

7. Arthritis:

If LYME disease is left untreated, after a month or two, it can also result in subsequently and serious stiffness, inflammation, pain and disease of the joints. Eventually this will cause chronic arthritis.

8. Heart Issues:

If LYME disease is left untreated, it will gradually worsen throughout the entire body and even affect the heart, slowly weakening and damaging the heart muscle by causing swelling and abnormal heart rhythms. Eventually, heart failure could occur.

9. Facial Paralysis:

Because LYME disease wrecks havoc on the nervous system, the patient can suffer facial muscle paralysis (i.e. Bell's Palsy), as well as sever swelling, stiffness, loss of sensation, pain in the facial muscles and where normal visual and movement becomes compromised or lost completely.

**THE BOTTOM LINE IS
IF YOU FIND THAT YOU (OR YOUR CHILDREN, OR YOUR PETS)
HAVE BEEN, OR THINK THAT YOU/THEY HAVE BEEN BITTEN BY A
TICK, THEN SEEK MEDICAL ASSISTANCE AS SOON AS POSSIBLE
DO NOT DELAY – STAY SAFE AND HEALTHY AT ALL TIMES!**

References: Borreliosis & Associated Diseases Awareness UK (BADA-UK),
Dr Sarah Randolph, Dr Thomas Mather, Dr Anne Bass and Emily Lockhart

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