

A Tick in Time (Saves Lyme)

by Jenny O’Dea



Ticks collected in Portumna Forest, Co Galway

The joys of summer bringing with it the not so joyful insect bites! Midges, gnats, mosquitoes, you name it; it bites & can irritate the skin. But did you realise that the tick (in the family of spiders & mites) can be potentially life changing? Ticks are tiny (from the size of a pin head to a sesame seed) - they prefer to hang out in long grass, bracken, under trees, among leaf litter as well as in sand dunes & pastureland. They’re commonly associated with deer, although ticks are usually carried in the earlier stages of development by ground feeding birds such as robins, thrushes & blackbirds as well as the common garden mouse. Even hedgehogs & squirrels can carry ticks & it’s often these smaller hosts that transmit a serious infection called Lyme disease onto the feeding tick.

Once a tick has fed, they go into hiding to enable them to moult & mature into the next life stage. Unfortunately once they are ready to feed again they will carry the Lyme disease bacteria in their gut meaning the next blood meal (be it you, a child, a pet, a bird or animal) could be infected with nasty bacteria. The Lyme bacteria known as *borrelia* is [spirochetal](#), meaning it can burrow its way through blood, tissue & get into joints & organs. Due to the way it spreads it can cause a variety of symptoms, hence affecting people in lots of different ways.

What are the symptoms:

In early Lyme disease: Known as a bulls-eye rash, a singular rash ‘may’ appear at the site of the bite within days to weeks of the bite which can gradually enlarge into rings resembling a dartboard. It’s important to note that not everyone gets this rash & it doesn’t always look ring shaped, sometimes it can be uniform in nature & sometimes [multiple rashes](#) can occur. The rash ‘tends’ not be painful or itchy unless a secondary infection has settled in during the tick bite. However any rash following a

tick bite should be taken seriously as early treatment can prevent a more serious disease developing. Some patients may experience summertime flu, which after a tick bite is also a sign that infection may have taken hold. At this stage testing is usually negative so a doctor MUST treat immediately on suspicion of Lyme disease, especially if a tick bite has been reported.

In disseminated disease (which can take weeks to several years to develop) many symptoms can appear such as bell's palsy (paralysis on side of face), profound fatigue, memory loss, migratory joint pain, muscle pains, weakness, tingling & numbness & in more serious cases meningitis can occur. In very rare cases temporary or permanent paralysis can occur so prevention is much better than cure. Patients can be misdiagnosed with cross over illnesses such as Multiple Sclerosis or ME / Chronic Fatigue Syndrome. Antibodies may develop slowly & testing can be inconclusive making diagnosis difficult. Not all ticks will be infected, studies in [Kerry](#) showed tick infection rates from 11-29% plus some patients may be carriers without showing symptoms, but it's good to be aware of the dangers.



Bulls-eye rash courtesy of CDC/ [James Gathany](#)

How to prevent tick bites:

Ticks feed by crawling up tall grasses & holding their legs out (called a questing position). Using little hooks on their legs they can attach themselves to fur or clothing as the hosts pass by. For this reason they recommend sticking to well cut pathways & trails. Keep garden lawns cut short & remove leaf litter away from the house. Use tick repellents on pets & humans (some repellents are poisonous to cats so check the bottle to be sure). Remember that ticks can still sneak past some repellents so we do advise regular tick checks (ie checking outside of clothing whilst out walking & before getting into the car & around body as soon as you get home). Also take a shower as soon as you get in if able. Ticks can be killed in high heat so placing clothes in a hot machine wash (don't use cold setting) plus a hot dry afterwards should kill any that might be hiding in clothes. Remember to check inside shoes.

If out regularly ie walking or camping then look out for sprays containing [permethrin](#), this has to be applied to material only (not the skin) BUT lasts for several washes before you need to re-apply. During a tick check you need to look in tucked away places too such as behind the ear, back of knee, in the groin regions etc. They prefer thinner skin that's well hidden so could be easy to miss.

Tips for prevention:

- DO wear light coloured clothing so you can see ticks on you
- DO tuck trousers into socks so prevent ticks crawling up under clothes
- DO use tick repellents on family & pets before trips out to the countryside
- DO have a shower & wash clothes on your return
- DO check the body for any ticks, including tucked away places, checking yourself, children & pets too (ears are favourites as well as soft parts of tummy in pets)

Tips for tick bites:

DON'T squeeze the tick, burn it or smother it (causing agitation to ticks can cause them to regurgitate their blood meal, thereby increasing the risk of disease transmission)

DON'T jerk the tick suddenly as this may leave mouth parts behind, just pull gently & slowly
 DO remove gently with tick twisters, fine tipped tweezers or a cotton thread used as a noose
 DO keep removal tool as close to skin as possible, to remove the mouth parts from under the skin
 DO use an antiseptic wipe (if available) to prevent other infections getting into the bite area
 DO write on calendar when the tick bite happened (this will remind you to keep checking for a rash which could take days or weeks to develop)
 DO go to the doctor *immediately* if you develop any symptoms after a tick bite

If you have saved the tick after removal you can put it in a plastic freezer bag or sample pot & place it in the freezer. Laboratories can [test the tick](#) for infections if you are concerned. Some say a tick needs to be on you for long periods of time to transmit any disease, however as research & opinions vary on this, we feel it's best to be vigilant for symptoms, however long the tick has been feeding.

Be aware that a tick changes shape during feeding, starting off brown, black or reddish they can start to turn white, grey or blue-ish. The image below shows various life stages of tick with chart below.



Key to the images		
larva (unfed, 0.75 mm)	male (unfed, 2.1 mm)	female (engorged, 8.72 mm)
nymph (unfed, 1.34 mm)	female (unfed, 3.2 mm)	
nymph (engorged, 3.6 mm)		

Courtesy of Dr Keith Ryan, Dartmoor Tick Watch UK

 **Useful resources:**

[Lyme poster for children](#) / [Children's e-book by Tick Talk Ireland](#) / [HPSC advice](#) (includes posters for children) / [Irish Lyme disease handout](#) (PDF) / [Irish Lyme disease leaflet](#) (PDF)
 David Bellamy – video '[It's a Jungle out there](#)' on Ticks / ILADS – video '[What to do if bitten?](#)'

A young family from the US contracts Lyme disease from tick bites in Kerry:

<http://lymeandfriends.com/our-journey/one-little-tick-bite-in-ireland>
<http://lymeandfriends.com/our-journey/another-tick-bite-in-ireland-followed-by-lyme-disease>

Let us know if you spot any ticks using our [Tick Talking while You're Walking survey!](#)

 **Tick Talk Ireland:** www.ticktalkireland.org / info@ticktalkireland.org