

LYME DISEASE

Sure, you've heard of Lyme disease, but what is it really?

Lyme disease is a bacterial infection which is transmitted through the bite of an infected deer tick. An infected deer tick can transmit this disease only after it's been attached to, and feeding off a host for ~36 hours.

Lyme disease begins as a local inflammatory disease. If left untreated, the infection can progress to a serious systemic disease requiring medical care.

Early symptoms (2-30 days) post-bite:

a red "bull's eye" skin rash
flu-like symptoms: fatigue, fever, chills
pain & stiffness in the joints & muscles
nausea, loss of appetite
swollen lymph nodes
headache

Late symptoms (months-years) incl:

abnormal heart rate
kidney dysfunction
liver dysfunction
neurological: tremors, memory loss,
sensory issues (vision, tingling), etc.

Note:

A bull's eye can be very distinct and uniform, or more diffuse...

It is usually pink-red and expands in a concentric ring, larger than a dime.

The rash can be warm but is usually not itchy or painful.

The rash can last for days or weeks.

This is a hallmark of Lyme disease.



What is the typical treatment for Lyme disease?

Healthcare providers may treat suspicious bites with either a single dose, or a 2-week round of antibiotics based on the patient's health condition and symptoms.

Alternatively, your doctor may choose to take a "watch & wait" approach which involves observing the bite area and monitoring for other physical symptoms before prescribing meds. **Why no urgency?!**



1. A blood test for Lyme will not show a positive result until 2-6 weeks post bite.
2. False-positives are common - if you were ever infected with Lyme disease in the past, you will always test positive due to the antibodies produced by the immune system (which is not indicative of new infection).
3. Over-treating for an infection you may not have can lead to anxiety, negative medication side effects, and bacterial resistance.

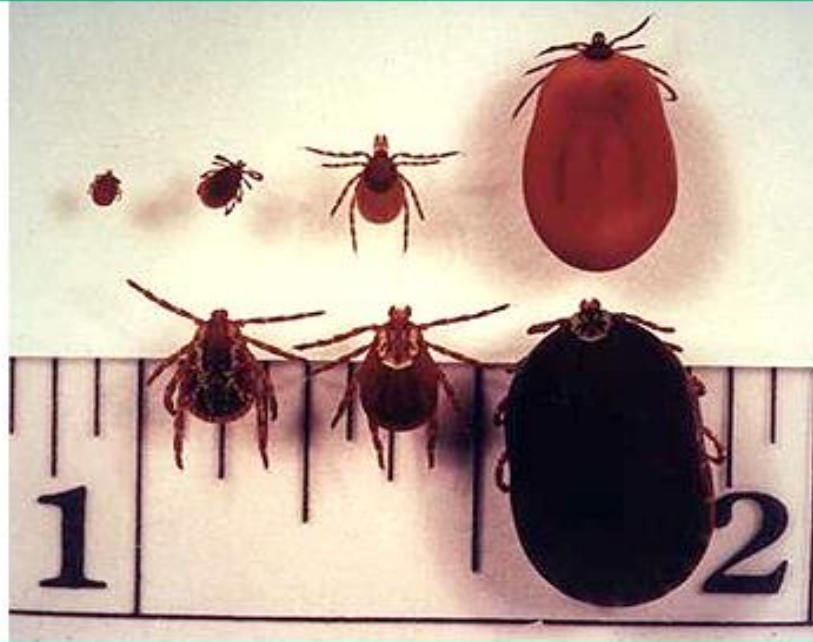
The good news...

- only deer ticks can spread Lyme disease
- disease is not transmitted until the tick is attached for 36 hours
- nearly all early-diagnosed cases of Lyme disease are cured so **knowledge and prevention are key to staying healthy!!**

Questions? Concerns? Contact IO Medical or your personal physician.



Tick comparison



The top row shows deer ticks. These are the kind of tick that can cause Lyme disease. The first tick on the left in the top row is a "nymph," an immature tick. Next are an adult male, an adult female, and an adult female that has been feeding and is full of blood (called "engorged"). The bottom row shows dog ticks, which do not transmit Lyme disease. From left to right, the ticks on the bottom row are an adult male, an adult female, and an engorged adult female. Adult dog ticks are larger than adult deer ticks and have white markings on their back.

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Did you know...



Ticks spread 9 other diseases besides Lyme!!

Anaplasmosis

Ehrlichiosis

Borrelia

Babesiosis

Tularemia

Colorado Tick Fever

Southern Tick Rash

Powassan Virus

Rocky Mountain Spotted Fever

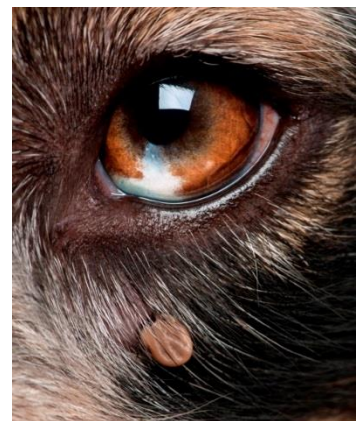
Yuck!!

The risk of developing one of these tick-borne infections is based on the species of tick, the length of time it was attached to the skin, and the geographical area & time of year when bitten.

Symptoms are similar to Lyme disease and can be quite severe, even requiring hospitalization and the potential for organ failure in some risk groups.

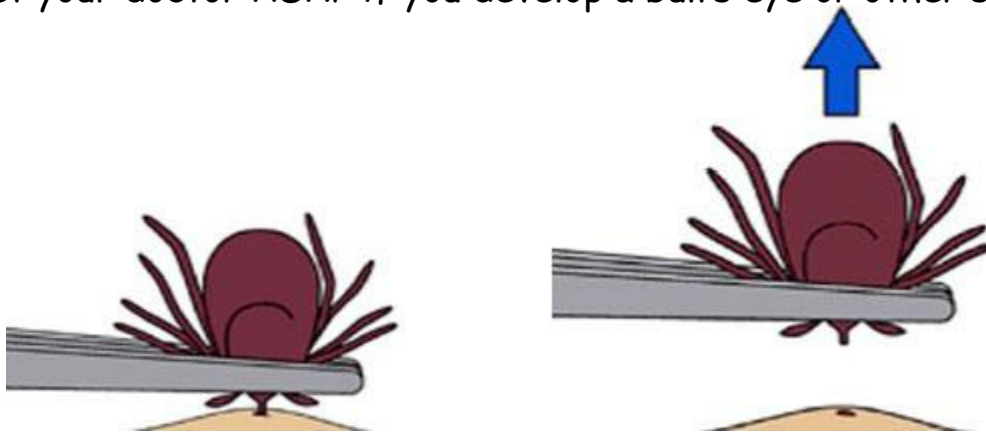
TIPS to help avoid tick-borne illnesses...

1. Wear light-colored pants and long sleeves when working in the yard, picnicking, hiking, mountain biking, etc.
2. Wear a hat and tie long hair back.
3. Tuck your shirt into pants, tuck your pants into socks or boots.
4. Repel and kill ticks by applying Deet to skin & Permethrin to clothes (especially shoes, socks, ankles & pants).
5. Thoroughly inspect all skin surfaces and scalp/hair after spending any time outdoors (make it a habit to do this at least daily or more frequently!).
6. Avoid or clean up high risk areas where ticks hide such as leaf litter, stone walls, wood piles, brushy areas, shady/moist areas, and mow high grass.
7. Create a barrier around your property with a perimeter of gravel or mulch. Also, certified pesticide applicators can treat your lawn in late May which will last thru the summer season (be sure to inquire about eco-friendly options to ensure safety for people and pets).
8. Keep your pets safe and prevent them from bringing ticks indoors...inspect and brush your pets regularly, check between toes and in ears, and use preventative treatment such as vaccines, topicals, and collars.



Removing an embedded tick:

1. Grasp the bug with a fine tweezer, being careful to get the entire head; firmly & steadily pull straight out. (If part of the body remains in the skin, it will eventually dry up and fall out).
2. Immediately destroy the tick by crushing, drowning or burning.
3. Wash area with soap & water.
4. Apply a topical antibiotic ointment (bacitracin or Neosporin).
5. Monitor the area for any signs of infection or an enlarging "bull's eye" for up to a month.
6. Contact your doctor ASAP if you develop a bull's eye or other symptoms.



Interesting facts:

- 25-50%** Percentage of deer ticks carrying Lyme disease in the Northeast
- 25,000** # of annual, newly-reported cases of Lyme disease
- 80%** Percentage of people with Lyme disease who develop a "bull's eye" rash
- May/June** Peak time for newly-hatched ticks (nymphs) looking for 1st blood meal
- Sept-Nov** Feeding & mating season for adult ticks
- ~3,000** # of eggs a single adult female tick lays
- 2 years** Deer tick lifecycle