

Tick-Borne Illnesses and Diseases

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GENERALIST



Brief Introduction

- Tick-borne pathogens can be passed to humans by the bite of infected ticks. Ticks can be infected with bacteria, viruses, or parasites.
- In order to survive, ticks need blood to eat. This requires them to find a host to feed on.
- Ticks find their hosts by waiting in well-used paths and detect hosts through breath, body odors or by sensing body heat, moisture and vibrations.
- Tick exposure can occur year-round, but ticks are most active during warmer months (April-September).
- Ticks live in grassy, brushy or wooded areas. You're most likely to encounter a tick while walking your dog, camping, gardening, or spending time outdoors.

Why has there been an increase in ticks?

- Climate Change
 - as we have longer periods of warm weather, the environment becomes better suited for ticks
 - Makes more parts of the US inhabitable to ticks
- Land Development

Tick-Borne Illnesses

- Alpha Gal 'red meat allergy' is a serious, potentially life-threatening allergic reaction.
 - Hives or itchy rash, Nausea or vomiting, difficulty breathing, Swelling of the lips, throat, tongue, or eye lids, Dizziness or faintness, Severe stomach pain
- Babesiosis is caused by a parasite that infect red blood cells and are spread by certain ticks.
 - Fever, chills, sweats, Malaise, fatigue, Myalgia, headache, anorexia and nausea, Dark urine



Lone Star Tick



Black Legged Tick (also known as Deer Tick)

Tick- Borne Diseases

Lyme Disease is caused by the bacterium *Borrelia burgdorferi* and rarely, [*Borrelia mayonii*](#). It is transmitted to humans through the bite of infected blacklegged ticks.

- Signs/Symptoms occur 3-30 days after tick:
 - Red annular or homogeneous rash at the site of tick bite; expands gradually over several days to >5 cm in diameter
 - Fever, chills, malaise, fatigue, headache, myalgia, arthralgia

In 2020, there were 2,566 cases of Lyme Disease in NJ

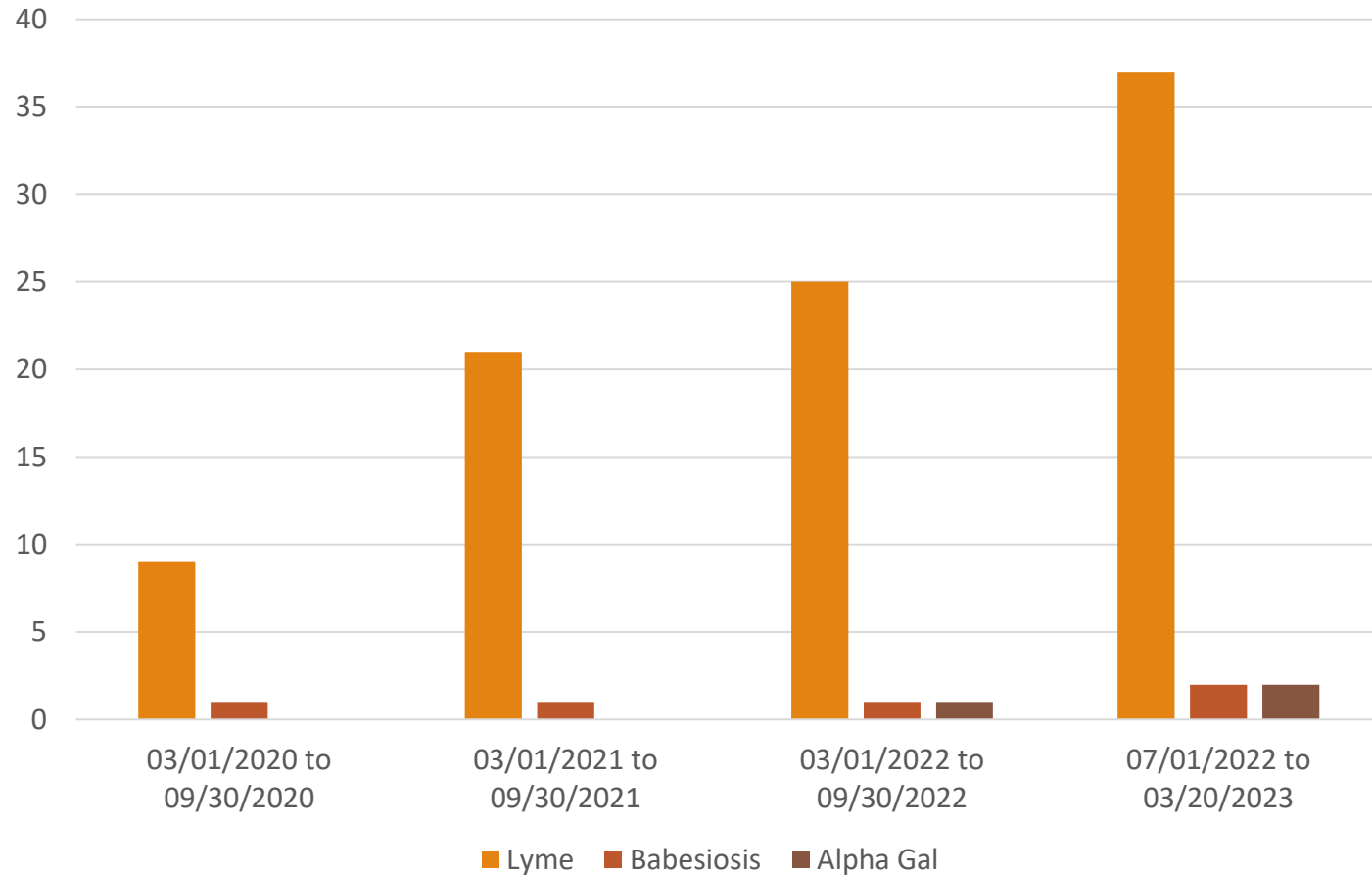
If you notice symptoms, go see your medical provider who can prescribe antibiotic treatment



Quick Stats

Tick Borne Diseases

From 7/1/2022 to 3/20/2023 West Orange has had 37 reported Tick-borne cases compared to 2 Babesiosis, 2 Alpha Gal, 33 Lyme Disease



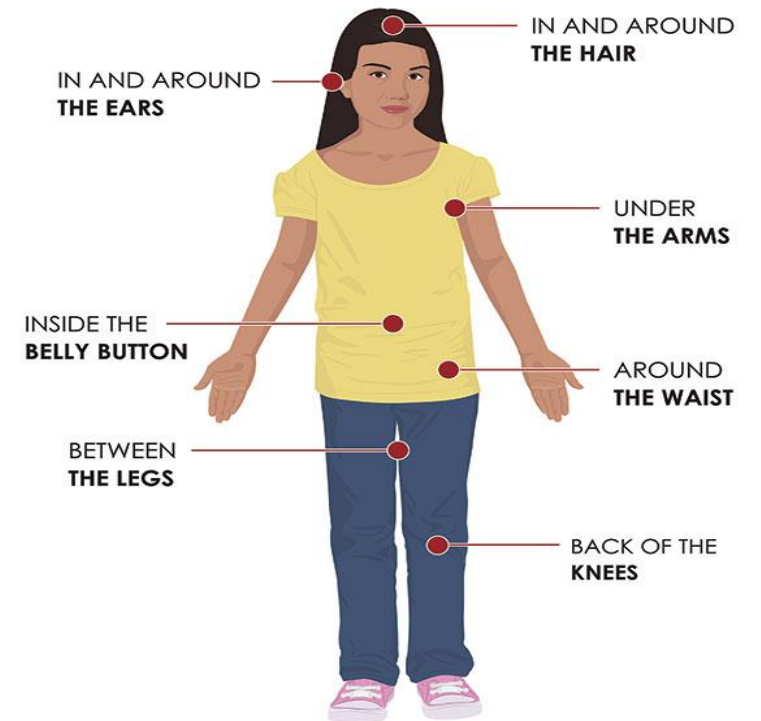
How can we protect ourselves?

Prevention before going outside:

- Be aware of your surroundings
- Treat your clothes with Environmental Protection Agency (EPA) insect repellents
 - DEET, picaridin
 - IR3535
 - Oil of Lemon Eucalyptus (OLE)
 - Para-menthane-diol (PMD) or 2-undecanone

Prevention after going outside:

- Conduct a body scan after being outdoors
- Check your clothing for ticks
- Check your pets for ticks
- Shower



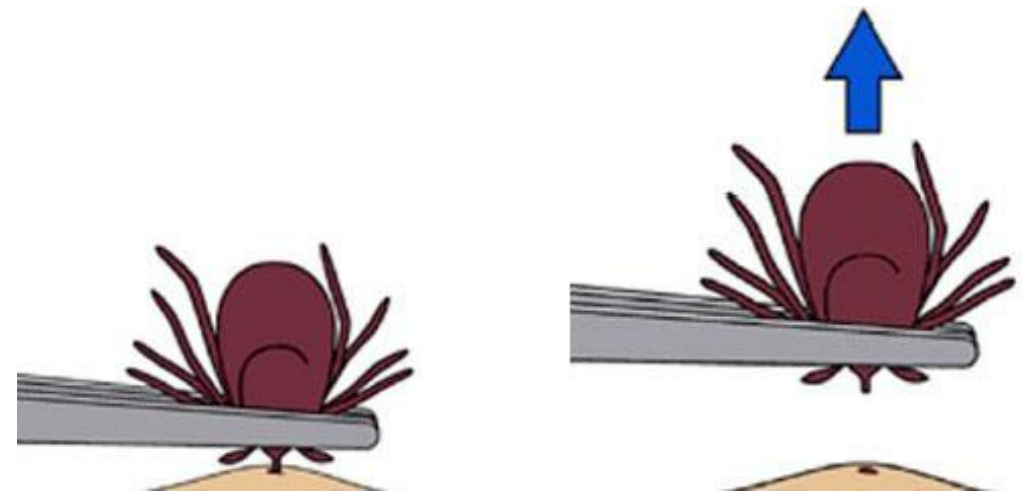
How can we protect ourselves? (cont.)

1. Use clean, fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull upward with steady, even pressure. Don't twist or jerk the tick; this can cause the mouth-parts to break off and remain in the skin. If this happens, remove the mouth-parts with tweezers. If you cannot remove the mouth easily with tweezers, leave it alone and let the skin heal.
3. After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol or soap and water.
4. Never crush a tick with your fingers. Dispose of a live tick by
 - Putting it in alcohol,
 - Placing it in a sealed bag/container,
 - Wrapping it tightly in tape, or
 - Flushing it down the toilet.

Follow-up

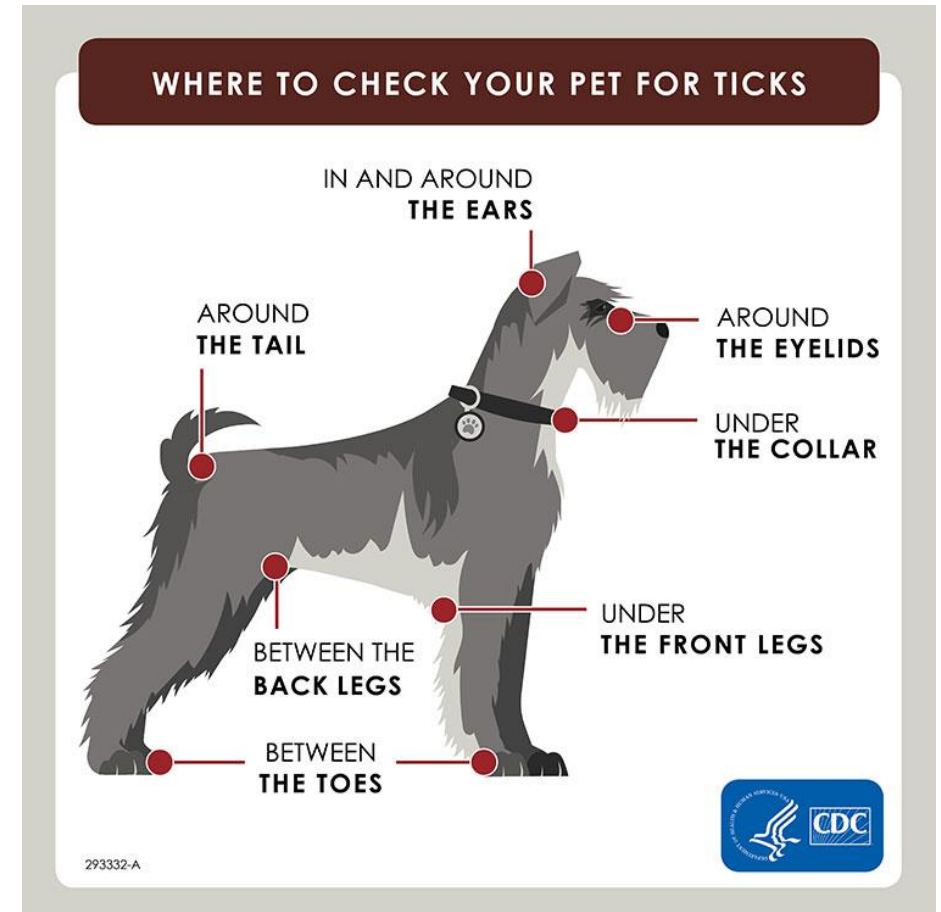
If you develop a rash or fever within several weeks of removing a tick, see your doctor:

- Tell the doctor about your recent tick bite,
- When the bite occurred, and
- Where you most likely acquired the tick.



How can we protect our pets?

- For pets :
 - Lyme disease vaccine for pets
 - Putting preventative sprays and serums
 - Scan your pets after being outdoors



How and when to make yards less hospitable to ticks

- Remove leaf litter
- Clear tall grasses and brush around homes and at the edge of lawns.
- Place a 3-ft wide barrier of wood chips or gravel between lawns and wooded areas to restrict tick migration into recreational areas.
- Mow the lawn frequently.
- Stack wood neatly and in a dry area (discourages rodents).
- Keep playground equipment, decks, and patios away from yard edges and trees.
- Discourage unwelcome animals (such as deer, raccoons, and stray dogs) from entering your yard by constructing
- Remove old furniture, mattresses, or trash where ticks may hide.

More Information

There are lots of FREE safety and educational materials, information, and resources available from the CDC and other sources.

For MORE INFORMATION, visit:

- WOHD page at www.westorange.org
- <https://www.nj.gov/health/cd/topics/lyme.shtml>
- <https://www.cdc.gov/ticks/tickbornediseases/overview.html>
- <https://www.cdc.gov/lyme/removal/tick-bite-bot.html> CDC Tick Bot

QUESTIONS

Stay safe and enjoy the outdoors!

Thank You!