

East Stroudsburg University  
Applied DNA Sciences

**Northeast  
Infectious Disease  
Diagnostic Laboratory**

*Three ticks common to the  
Northeast United States are:*

*Deer Tick*



*Lone Star Tick*

*American  
Dog Tick*



## **Deer Tick/Black-Legged Tick**

*(Ixodes scapularis)*

Vectors Lyme Disease,  
Babesiosis and Anaplasmosis

## **Lone Star Tick**

*(Amblyomma americanum)*

Vectors Anaplasmosis

## **American Dog Tick**

*(Dermacentor variabilis)*

Vectors Rocky Mountain  
Spotted Fever (RMSF)

*Attachment of 24 hours or more  
allows for the transmission of  
the Lyme spirochete.*

*Attachment of six hours or more  
allows for the transmission of  
RMSF.*

## **Symptoms:**

Lyme, Anaplasmosis, Babesiosis, and Rocky Mountain Spotted Fever (RMSF) share similar symptoms: nausea, fever, headache, chills, fatigue, joint and muscle pain. Some symptoms are specific to certain tick-borne diseases.

**Lyme Disease:** a bull's-eye shaped rash may appear within 4-20 days. Other Lyme symptoms commonly mimic arthritis.

**RMSF:** the rash usually appears as blanching, often faint, red macules that evolve into petechiae. Eruption typically starts on the wrists and ankles before appearing on the trunk, palms, and soles of the feet.

## **To prevent tick-borne diseases:**

- ◆ Avoid tick-infested areas.
- ◆ Wear light colored, tightly woven clothing.
- ◆ Use insect repellent.
- ◆ Tuck pant legs into socks.
- ◆ Tape openings in clothing.
- ◆ Conduct a body check upon returning from a grassy area.
- ◆ Check pets for ticks.

## **For proper tick removal:**

- ◆ Avoid handling ticks with uncovered fingers.
- ◆ Remove the tick with tweezers.
- ◆ Grasp at the mouthpart and pull gently until the tick releases.
- ◆ Place tick into a sealed container for future testing.
- ◆ Wash the wound site and hands
- ◆ Apply antiseptic.



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For testing, Diagnostic  
Submission forms may be  
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**[www.esu.edu/dna](http://www.esu.edu/dna)**

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**Northeast Infectious  
Disease Diagnostic  
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