#### **Prevent tick bites!**

Recognize and avoid tick habitat: Ticks wait on vegetation (tall grass, bushes and tree branches) with their front legs out, ready to grab onto a host. To avoid them, walk in the center of trails and try not to brush against vegetation.

Dress to suppress: Wear long pants and long sleeves, light colored so ticks stand out. Ticks usually latch onto feet/legs and crawl up, so tuck your shirt into pants and pants into socks.

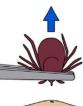


Matt2 Silver . Instructables.co

<u>Safely use repellents</u>: Use 20-30% deet-based repellents or treat clothes with permethrin. Follow label instructions and reapply as needed.

<u>Perform tick checks</u>: Remove clothing and wash on high heat to kill ticks. Carefully inspect the body for new dark spots and "freckles". Don't forget to check hair, ears, armpits and groin.

Remove ticks promptly: Grasp the tick with a fine-tipped tweezers as close to the skin as possible. Pull upwards with a slow, steady force. Try not to crush the tick.



cdc.gov

#### If you do get bit...

Early signs and symptoms of a tick-borne disease can include any combination of the following: skin rash, tiredness, fever, chills, headache, stiff neck, muscle aches, joint pain/swelling, or dizziness. See your health care provider if you develop any of these symptoms after a tick bite.

For more information about tick-borne disease visit:

New Jersey Department of Health

http://www.nj.gov/health/cd/ izdp/vbi.shtml





**Centers for Disease Control** 

http://www.cdc.gov/ticks/ index.html

More information about Monmouth County's Tick Identification & Testing Program can be found at:

visitmonmouth.com/mosquito



or contact us at (Tel): 732-542-3630 ticks@co.monmouth.nj.us

**Tick-borne Diseases Program** 

Monmouth County Mosquito Control 1901 Wayside Road, Tinton Falls NJ 07724

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# Protect your family



## Learn about ticks, disease, and prevention

Monmouth County
Mosquito Control Division

Tick-borne Diseases Program



A program of the Monmouth County Board of County Commissioners

#### Tick biology: the basics

Ticks are small critters in the arachnid group, related to spiders. They have three life stages: larva, nymph, and adult. Each life stage must feed on blood in order to grow into the next stage. After attaching to a host they feed slow-

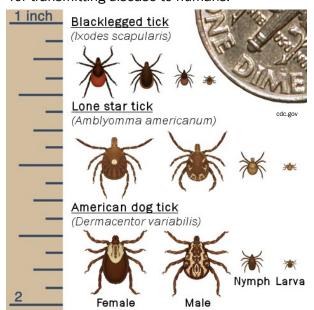
ly, over several days, then fall off. While feeding some of their saliva mixes with the host's blood, and if their saliva contains disease organisms (from a previous meal) then the host can become infected.



Tick after feeding

#### **Meet the culprits**

In our area three tick species are responsible for transmitting disease to humans.



Larvae (who have not yet fed) cannot transmit disease. While adults are more likely to be infected, most disease cases actually come from nymphs because they are harder to see.

#### **Diseases carried by ticks**

Five tick-borne illnesses are known to occur in Monmouth County, and while Lyme disease is the most common, the other four are increasing.

Lyme disease (Borrelia burgdorferi)

Vector: Blacklegged ticks
Disease agent: bacteria

Babesiosis (Babesia microti)

Vector: Blacklegged ticks

Disease agent: protozoan (related to malaria)

Anaplasmosis (Anaplasma phagocytophilum)

Vector: Blacklegged ticks
Disease agent: bacteria

**Spotted fever rickettsiosis** (*Rickettsia spp.*)

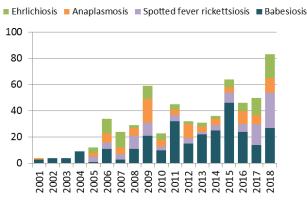
Vector: American dog ticks (possibly others)

Disease agent: bacteria

Ehrlichiosis (Ehrlichia spp.)

Vector: Lone star ticks
Disease agent: bacteria

### Increase in Tick-borne Diseases Other Than Lyme in Monmouth County, 2001-2018

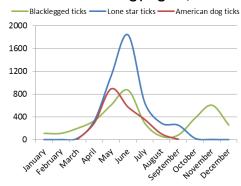


Data from New Jersey Department of Health

In most cases ticks must be attached for at least 24 hours to transmit a disease agent. Prompt removal of ticks greatly reduces the probability of disease.

#### When is "tick season"?

Cumulative submissions to Monmouth County's tick identification & testing program, 2001-2018.



While risk of ticks is greatest May-July, they can actually be encountered any day that temperatures rise above 45°F, even for a short time.

#### **Tick-proof your yard**

Reduce tick encounters in your yard with a few simple landscaping techniques:



Tick zone Avoid areas with forest and brush where deer, rodents, and ticks are common.

Wood chip Use a 3 ft. barrier of wood chips or rock to separate

barrier the "tick zone" and rock walls from the lawn.

Wood pile Keep wood piles on the wood chip barrier, away from

the home.

Tick migration
Zone

Maintain a 9 ft. barrier of lawn between the wood
chips and areas such as patios, gardens, and play sets.

Tick safe

Enjoy daily living activities such as gardening and

zone outdoor play inside this perimeter.

Gardens Plant deer resistant crops. If desired, an 8-ft. fence can

keep deer out of the yard.

Play sets

Keep play sets in the "tick safe zone" in sunny areas where ticks have difficulty surviving.

Based on a diagram by K. Stafford, Connecticut Agricultural Experiment Station