

# Let's talk about Ticks

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Bedford COA

# **Tick population may thrive thanks to snowpack's insulation**

**This year, it's clear that dog ticks are probably up at least a third over what we saw last year same time. The deep snow likely served as an insulator, much to everyone's chagrin," said Thomas N. Mather, director of the University of Rhode Island's Center for Vector-Borne Disease and its TickEncounter Resource Center**

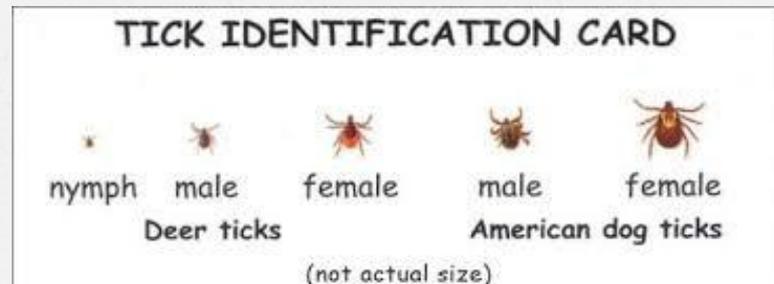


**Boston Globe  
6/15/2015**

# What are Ticks?

-  Ticks are bugs, don't fly or jump, only crawl
-  Feed on the blood of people and animal
-  Ticks are found on vegetation or leaf litter at the edges of woods.
-  Ticks can make you sick
-  Two kinds of ticks found in Massachusetts

- o Deer ticks
- o Dog ticks



## Deer Tick



## Dog Tick



Both Young & Adult ticks bite people

Only Adult

Highest in Spring, Summer & Fall

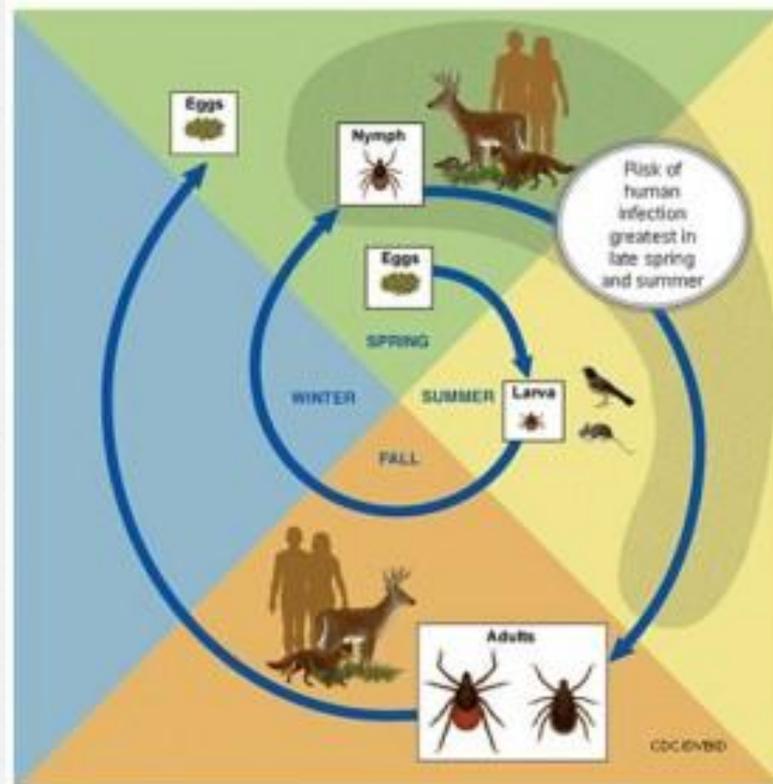
Spring & Summer

Size of Poppy Seed (Nymph)  
Size of Sesame Seed (Adult)

Size of Watermelon Seed

Lyme Disease  
Babesiosis  
Anaplasmosis  
Borrelia miyamotoi  
Powassan Virus

Tularemia  
Rocky Mountain Spotted Fever



[www.cdc.gov/ticks/](http://www.cdc.gov/ticks/)

# Life Cycle of the Tick

# Tick-borne Disease in Northeast U.S.

- o Lyme Disease
- o Babesiosis
- o Anaplasmosis (HGA)
- o *Borrelia miyamotoi* infection
- o Powassan infection (virus)
- o Rocky Mountain spotted fever
- o Tularemia

One tick bite may transmitted more than one disease

# Lyme Disease

- o Spread by Deer tick
- o Bacteria
- o Symptoms begin 3 days to 1 month after bite
- o Bull's eye rash, flu-like symptoms
- o Arthritis, pains, numbness or tingling in the hands or feet, problem with short-term memory and heart problem.

# Babesiosis

- Parasite
- Mild or no symptoms
- 1-6 weeks after been bitten
- Fever, chills, headache, fatigue, nausea, vomiting, abdominal pain, dark urine.
- Elderly, weak immune system
- Cape Cod, Martha's Vineyard and Nantucket

# Anaplasmosis

- o Bacteria affect white blood cells
- o 1-2 weeks after being bitten
- o Fever, Headache, Muscle aches, Chills, Sweating, Nausea, and Vomiting
- o Elderly Diabetes. weak immune system
- o Cape Cod. Martha's Vineyard, Nantucket, and Berkshire County

# Borrelia miyamotoi

- o Bacteria spread by Deer Tick
- o Identified in New England in 2001
- o Fever, headache, muscle aches, Bull's-eye rash, arthritis, facial palsy

# Powassan Virus

- o Spread by Deer Ticks
- o Rare but sever
- o 1 week to 1 month
- o Fever, headache, vomiting, weakness, confusion, loss of coordination, speech difficulties, seizure

# Tularemia

- Spread by dog tick
- 3-5 day to 3 Weeks to show symptoms
- Slow healing sore, Swollen glands
- Cape Cod, Martha's Vineyard, and Nantucket

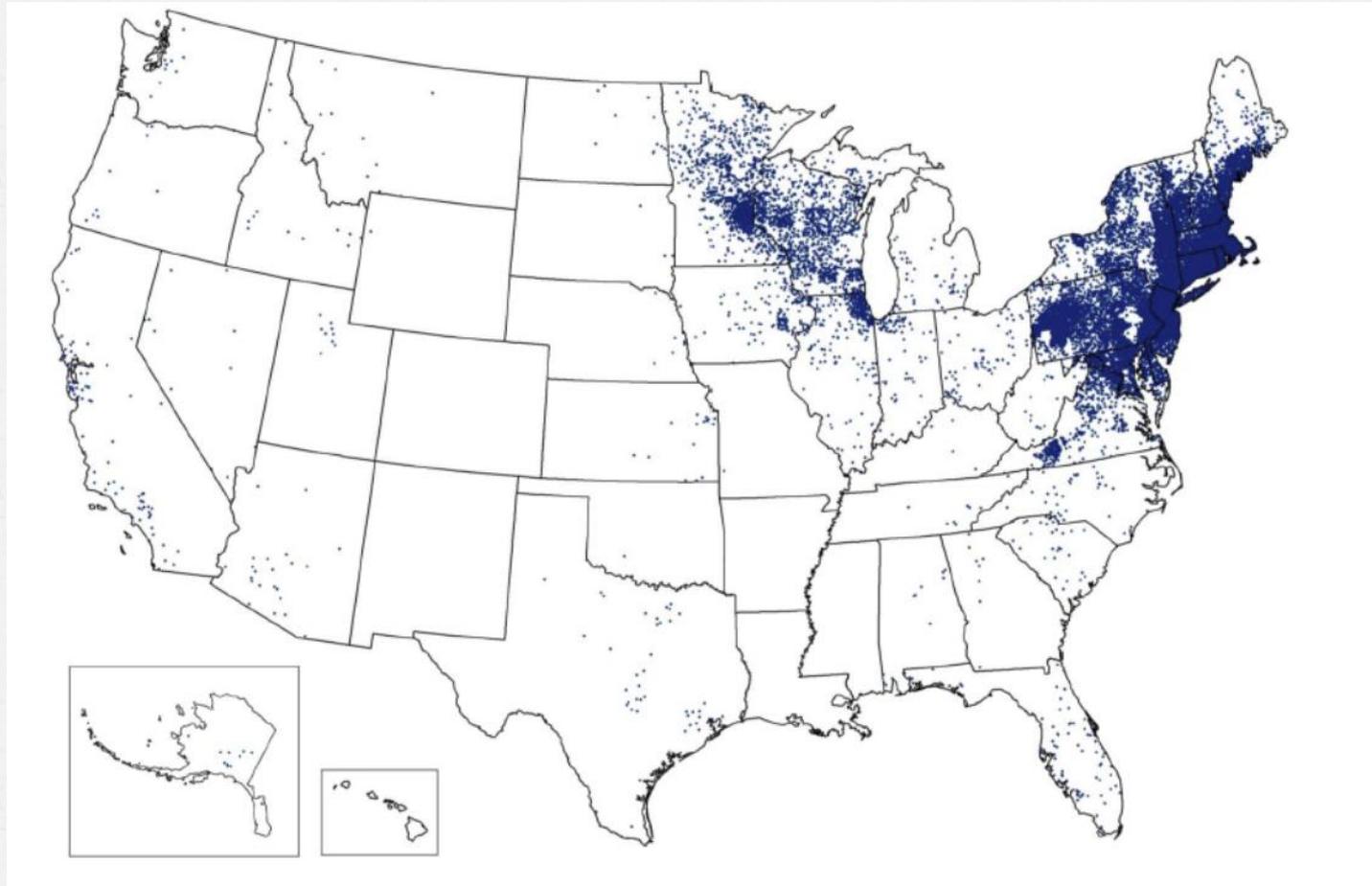
# Rocky Mountain spotted fever

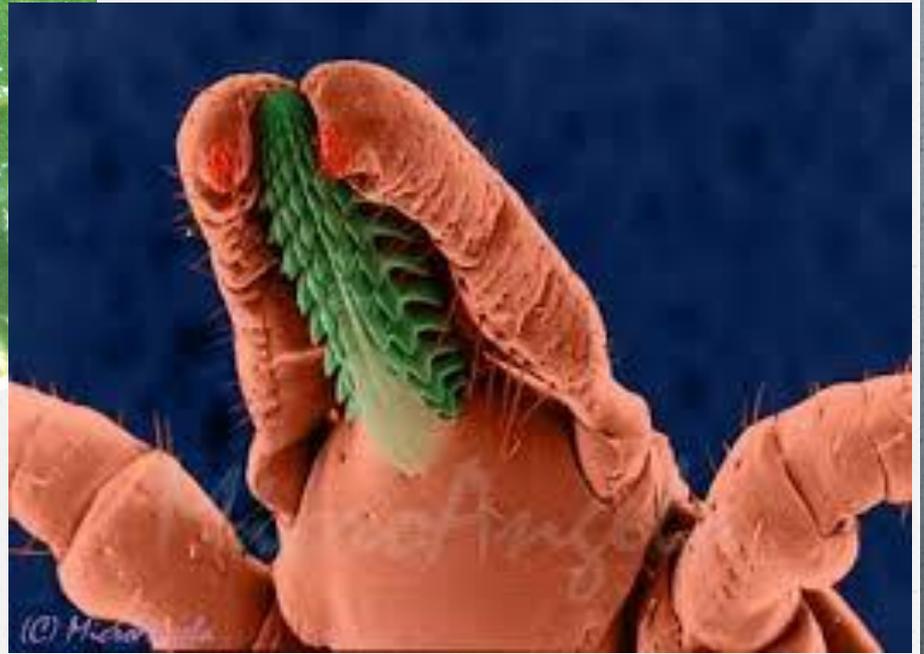
- Spread by dog tick
- Symptoms shows 3 days to 2 weeks
- Fever, rash on palms of the hands and soles of the feet.
- Occurs in Southeastern part of MA, Cape Cod and on Martha's Vineyard

# Did you Know?

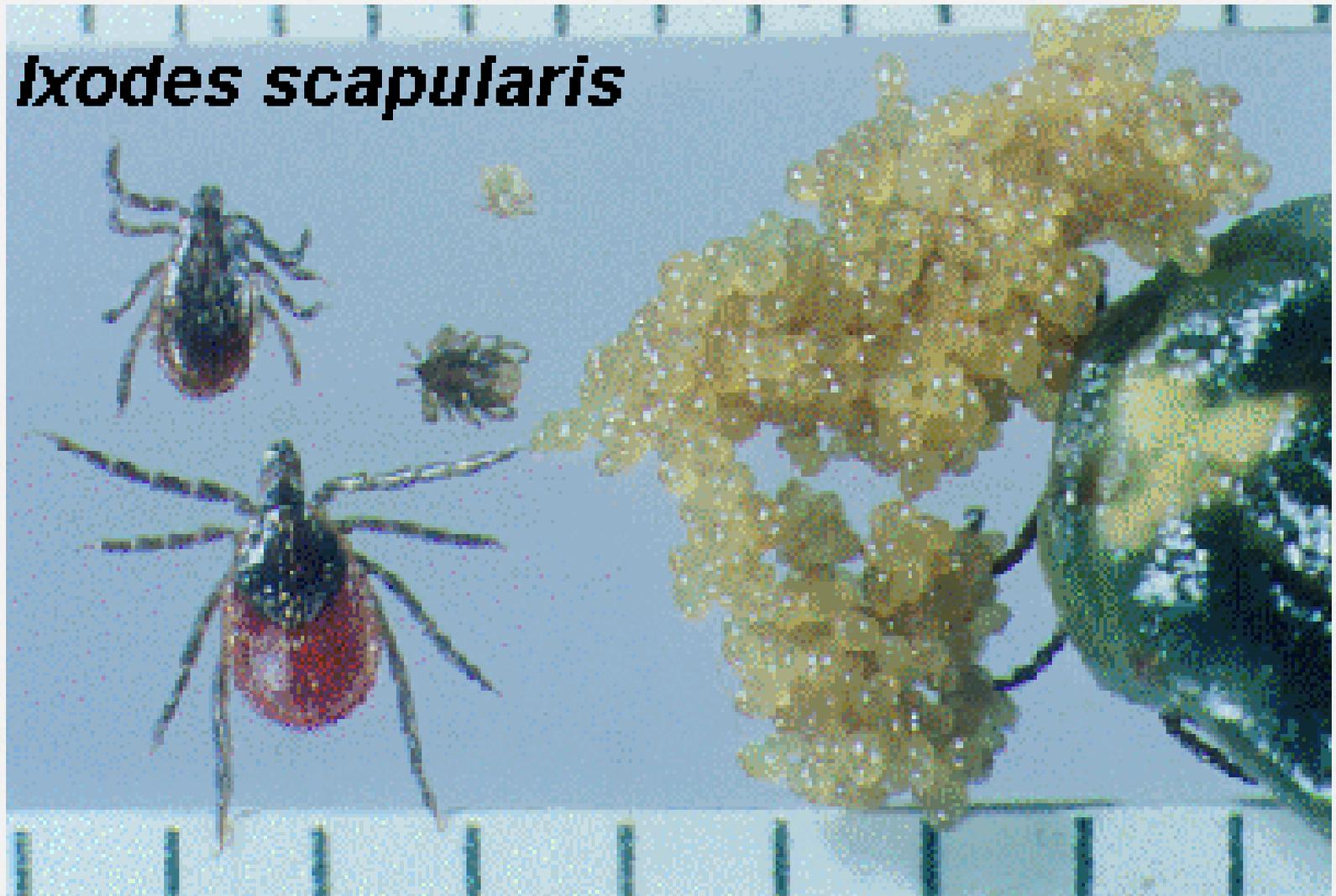
- o While you prevent Tick Bites, you prevent all these diseases.
- o You don't have to be a hiker on Cape Cod to worry about ticks. In Massachusetts, you can be bitten in your own back yard

# Reported Cases of Lyme Disease – United States, 2013





***Ixodes scapularis***



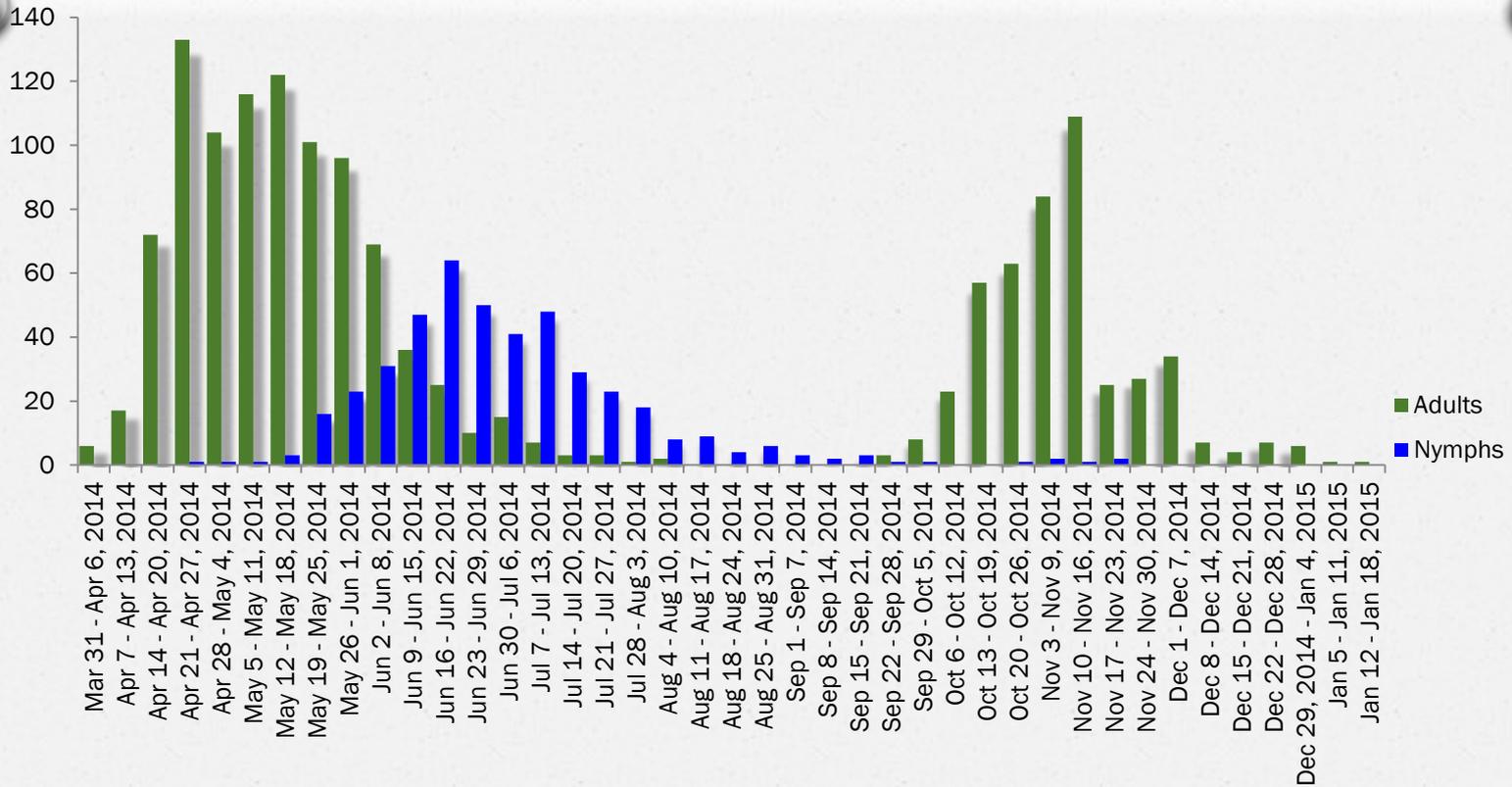


**©R Suhonen**

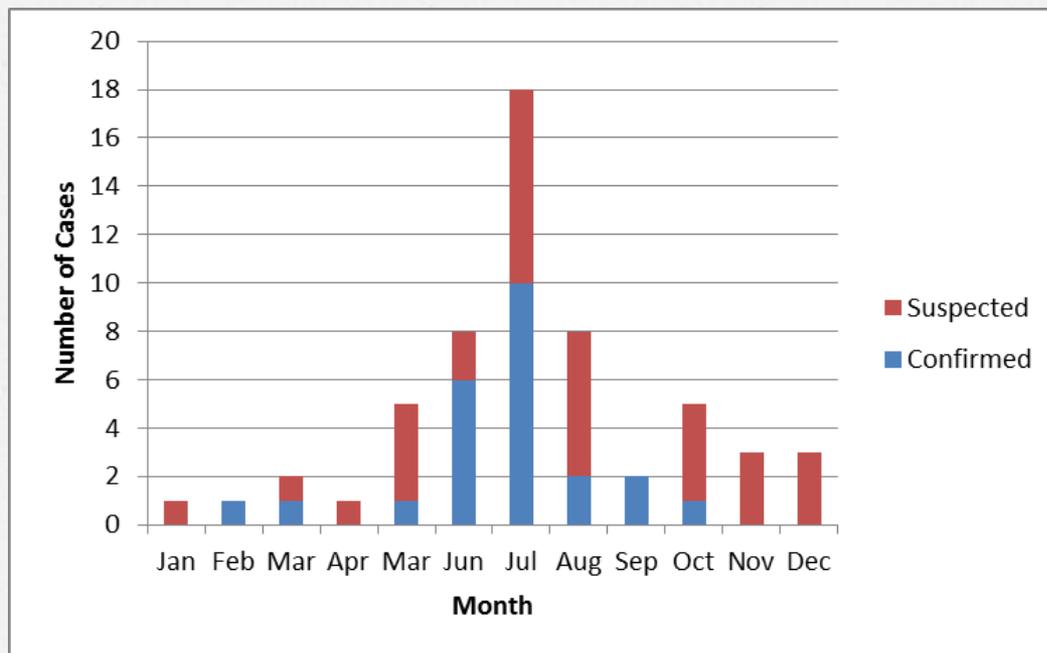
# A Blood-fed Deer Tick





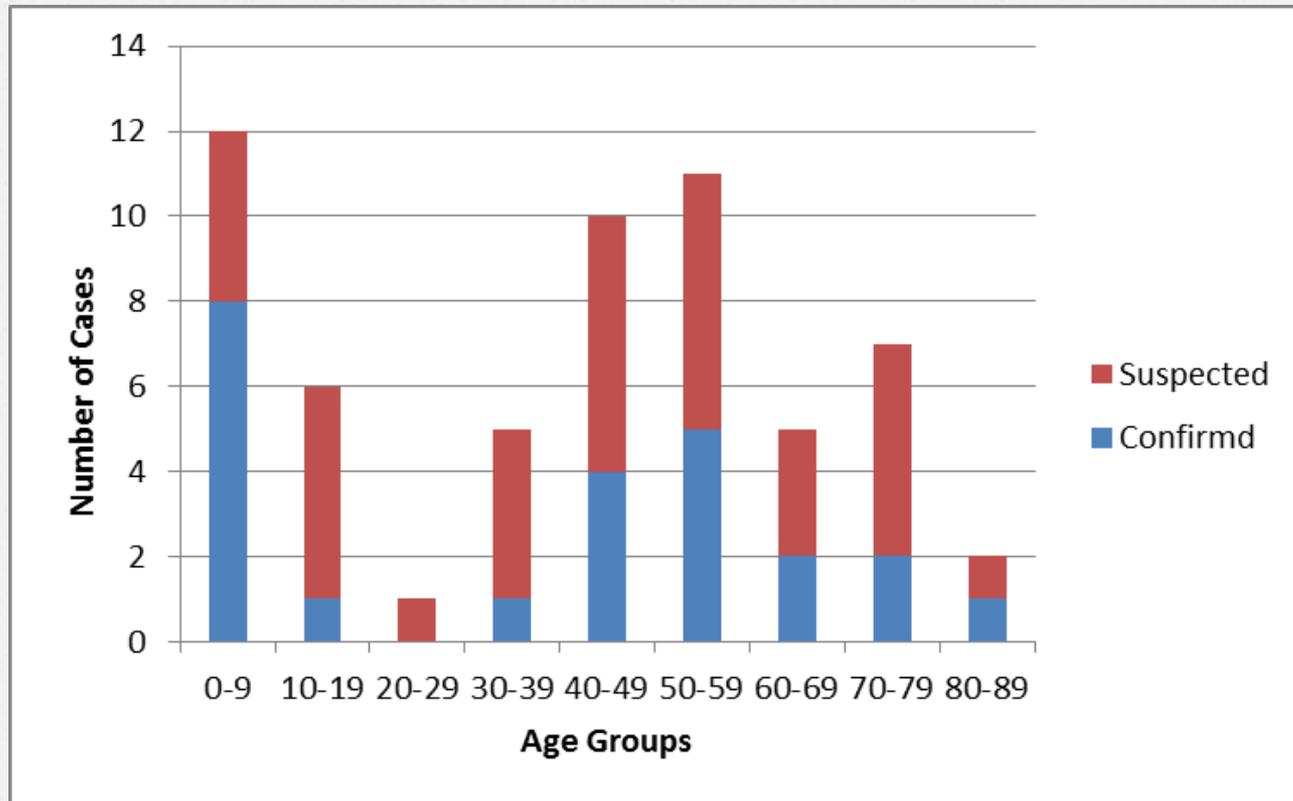


# Seasonal Distribution of Tick submissions



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Confirmed	0	1	1	0	1	6	10	2	2	1	0	0
Suspected	1	0	1	1	4	2	8	6	0	4	3	3

# 2014 Reported Lyme Disease, Bedford



	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89
Confirmed	8	1	0	1	4	5	2	2	1
Suspected	4	5	1	4	6	6	3	5	1

# 2014 Reported Lyme Disease, Bedford

# What people learn after the Tick test

- o Check self and kids for ticks after outdoor (69%)
- o Avoid certain outdoor areas (39%)
- o Use a repellent (22%)
- o Tuck Pants into socks (18%)

# One bite can Change Your Life

- o Tick bites and exposure to diseases are preventable
- o Tick bites can cause Lyme disease, Babesiosis, Anaplasmosis and others
- o Risk of tick bite is year-round, even in winter when temperatures are above freezing.
- o Nymphs pose the highest risk because they are small and difficult to detect.

# Prevent Tick Bite

- Wear long, light-colored clothing and tuck pant cuffs into socks.
- Treat footwear and clothing with permetherin-based repellents.
- Use Deet-based repellent may be used on exposed skin.
- Tumble-dry your clothes for 20 minutes
- Do a tick check after coming inside

# Treat your Yard

- o Keep grass cut short
- o Remove leaves and brushes around your home.
- o Prune low-lying bushes to let in more sunlight and reduce moisture.
- o Deep woodpiles and birdfeeders off the ground and away from your home to discourage mice and other rodents
- o Keep the plants around stone walls cut short
- o Use a three-foot wide woodchip, mulch or gravel barrier where your lawn meets the woods.
- o Use professional pesticide company to treat your yard.

# Prevent Tick bites

- o Use Tick Repellent, with DEET 30% or less
- o DEET should not used on infants under 2 months of age
- o Don't use DEET on cut/open skin
- o Don't use repellents near the mouth, eyes or ears
- o Don't put repellents on a child's hands
- o Use Tick Repellent, Permethrin treated Clothes, shoes, Camping gears.
- o Use tick repellent on your shoes
- o Run clothes in hot dryer for 20 minutes after remove them
- o Check in-and-out pets for ticks and remove them

# Tick Smart: Daily Tick Check



**Only blacklegged ticks transmit Lyme disease.**

*(Ixodes scapularis or "blacklegged ticks" or "deer ticks")*  
*(Ixodes pacificus or "western blacklegged ticks")*

**Other ticks you might find biting**

Lone star ticks      American dog ticks

Nymph    Male    Female    Male    Female

**Daily TickCheck Shower Card**

Daily TickCheck Shower Card brought to you by:

**TickSmart** PROTECT      [www.TickEncounter.org](http://www.TickEncounter.org)

**Be TickSmart. Stay TickSafe!**  
 Check for Ticks Every Day.

Be TickSmart. Stay TickSafe!  
 Check for Ticks Every Day.

1. Scalp      5. Waist & Back  
 2. Ears      6. Behind Knees  
 3. Underarms      7. Pelvic Area  
 4. Belly Button      8. In Between Legs

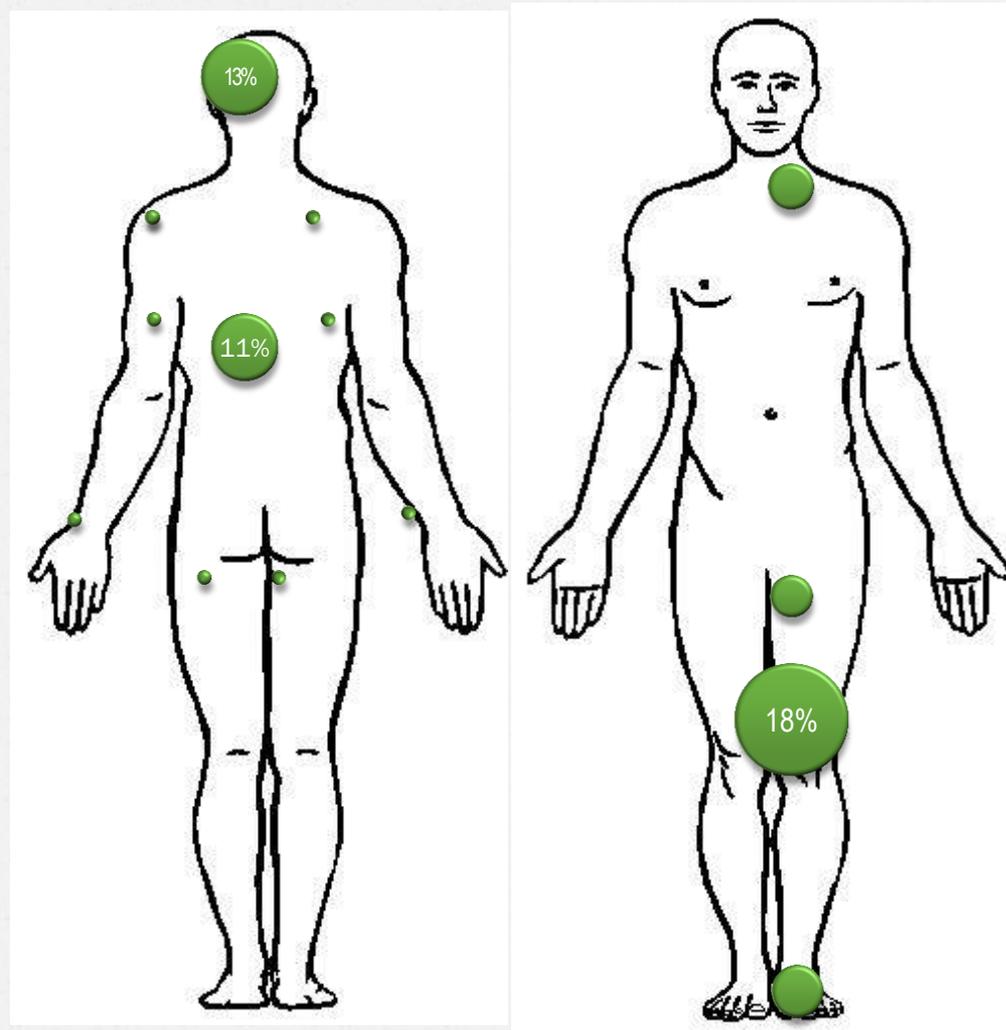
Blacklegged ticks (*Ixodes scapularis*)

Feel for bumps & look for tiny brown spots, especially in these areas.

University of Rhode Island TickEncounter Resource Center © 2014

# Tick Bite Distribution

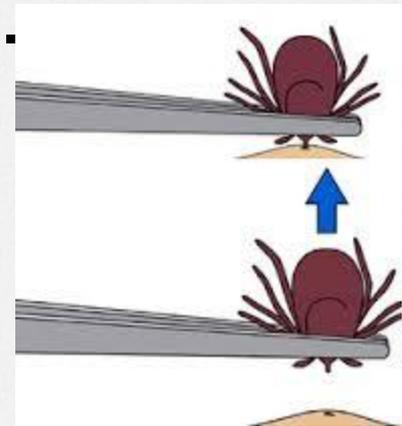
2185 tick bite submissions (2014)



# Tick Removal

- o Using pointy tweezers, grasp tick by the head, close to the skin
- o Slowly pull straight up without twisting.
- o Wash the area and apply antiseptic to the bite area.
- o Save the tick for identification.
- o Tick Testing is available

[Tickreport.com](http://Tickreport.com)



# How safe is the Permethrin?

- o Permethrin is over 2,250 times **more** toxic to ticks than humans; so just a little bit provides great protection safely.
- o The EPA states "...There is reasonable certainty that Permethrin-treated clothing poses **no harm** to infants or children".
- o Put directly on the skin, typically less than 1% of active ingredient is absorbed into the body; **DEET** can be absorbed at over **20 times** that rate.
- o Exposure risk of Permethrin-treated clothing to toddlers is **27 times below** the EPA's Level of Concern (LOC).
- o A 140-pound person would have **no adverse** health effects if exposed to 32 gms of permethrin/day. *There is less than 1 gram of permethrin in an entire bottle of clothing treatment.*
- o A 5% cream (*10 times the dose*) is recommended to treat children and infants with mites *called* scabies.

# More Information

- o [www.bedfordma.gov/board-of-health/pages/tick-information](http://www.bedfordma.gov/board-of-health/pages/tick-information)
- o [www.cdc.gov](http://www.cdc.gov)
- o [www.mass.gov](http://www.mass.gov)
- o Video: **Get Tick Smart: 10 Things to Know, 5 Things to Do**

[http://www.tickencounter.org/news/All\\_Bugs\\_Good\\_and\\_Bad\\_Webinar\\_Series](http://www.tickencounter.org/news/All_Bugs_Good_and_Bad_Webinar_Series)