Ticks at BNL

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06/11/09
Community Advisory Council
Lyme Disease in the World

No Risk  |  Medium Risk  |  High Risk
Lyme Disease in the United States

Medium Risk

High Risk
What types of ticks are on Long Island?

• Three types
  – Deer Ticks
    • Lyme Disease
    • Babesiosis
  – Dog Ticks
    • Rocky Mountain Spotted Fever
  – Lone Star Ticks
    • Ehrlichiosis,
    • Southern Tick Associated Rash Illness (STARI)
What causes Tick Diseases?

Microorganism

- Lyme Disease: Spirochete
- Rocky Mtn Spotted Fever: Rickettsia
- Ehrlichiosis: Bacteria
- Babesiosis: Protozoan
- STARI: Spirochete ?

Tick

- Spirochete 1000 x

Human
Ticks have four stages
Egg – Larvae – Nymph - Adult
Seasonal Activity of *Ticks* in southern N.Y.

![Graph showing the seasonal activity of Ticks in southern N.Y.](image)
QUESTING: Search for a Meal

Search for animal lasting up to 2 yrs.

6-8 months/ea
x
3 life stages

Leaf on shrub

Front pair of legs extended and moved in searching
QUESTING: Search for a Meal

They sense a host in the area by “smelling” CO₂
Success in QUESTING

• The tick touches a host as it passes by and **GRABS ON** for the ride.

• The tick moves to the source of CO2 on the host (mouth and nose) which is close to the ears (the thinnest skin and highly blood veined).
Tick Bite

• Tick inserts a tube like structure into the skin

• The tick injects anticoagulants and glue

• Spits in and sucks out over a 24 to 76 hour feeding period

• Typically not painful or itchy, a rash may be present
Tick Removal

**If Bitten, act promptly:**
- Remove tick immediately
- Record date of bite
- Watch for symptoms, seek medical attention if needed

**NO:**
- Burn with match
- Cover with Vaseline
- Squeeze body of tick
- Wait till it falls off

**YES:**
- Use Tweezers
- Pull gently at head
- Remove tick ASAP, within 24 hours
- Wash hands and skin

If bitten, act promptly.
Tick Habitats - Places they like

**Unlikely:**
- Roads, Sand,
- Tall trees

**Possible:**
- Low Grass,
- Mown lawns,
- Low tree branches

**Very likely:**
- Tall Grass,
- Shrubs
BNL Housing Area

SAFE in Grass, NOT SAFE in woods

20-30 feet from woods = much reduced tick population
QUIZ: Where are ticks likely to be found?
How do ticks get on people?

Ticks live in tall weeds and grass.

- **Adults** climb into shrubs at **sock to waist** height.
- **Nymphs** are picked up at **sock to knee** level.
- **Larvae** are picked up at **shoe** level.
Tips for Self-Protection
Tick Control

Personal control

**Barrier** of socks, pants, and shirt

- **Tuck socks into pants or Tape at legs**, Light colored clothing
- (Plastic Booties / Tyvek type suit)
- Remove clothes within 1 hour of being in woods
- Shower soon after being in woods
- Clothes into hot dryer or plastic bag
- Apply repellants (as per directions)
Dressed out well

• Light colored
• Barrier at sock level
• Tight cuffs
• Continuous barrier up to the neck
Chigger & Tick Control

Personal control

Barrier at the sock,
- Plastic Booties
- Tyvek type suit
Personal control

- Insect repellents are useful for deterring bites when walking through chigger & tick infested areas.
- DEET (skin & clothing)
  - K70766
- Permethrin (clothing only)
  - K70764

Do not rely on this as the sole line of defense
Control of habitats around the home.


An excellent reference:
Center for Disease Control
Tick Management Handbook

Integrated Tick Management

- Habitat control
  - Mowing
  - Brush reduction

- Life style- Avoid tick areas

- Manage hosts
  - Fencing
  - Food reduction for animals
  - Predators- Buy a cat, fox, and snake

- Pesticide applications
Pet Protection

- Pet collars, Sprays, & Dips - pyrethrin, permethrin, amitraz, fipronil, carbaryl (K9 Advantix™, Kiltix®, Frontline®, )

- Canine Lyme disease vaccine - annual booster

- Electronic fencing to control pet’s range

- Check daily for ticks
The end (s)

Questions or Comments ???