

Block the Bite!

A guide to commonly encountered ticks and
how to protect yourself and your family

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November 4, 2020



Autumn Health Picks

What will we be discussing?



What are ticks, and why are they potentially dangerous?



An overview on how to identify a tick vs. not ticks



Commonly encountered ticks in Illinois and what diseases they may carry



Tick bite prevention for humans and non-humans alike



Safe tick removal and next steps



What even are ticks?

- Tiny blood-sucking parasites (arachnids)
- Approximately 900 species worldwide
- Generally 7 major ticks of concern in the U.S.
- Mostly pests of wildlife, but will bite and feed on humans and domestic animals
- Can carry and transmit various diseases that can be harmful or even fatal if not treated promptly



Tick life stages

Example: Blacklegged (deer) tick

Image credit: TickEncounter Resource Center

1st stage: Egg



2nd stage: Larvae



- 6 legs
- Size of the head of a pin
- Emerges from eggs with hundreds to thousands of others
- Generally uninfected

3rd stage: Nymph



- 8 legs
- Size of a poppyseed
- Most dangerous stage – can spread disease

4th stage: Adult male and female



- 8 legs
- Size of a sesame seed
- Males rarely transmit disease




- 8 legs
- Size of a sesame seed
- Females need to feed to support eggs
- Can spread disease



What makes a tick a tick?



 (*Ixodes scapularis*)

 (*Dermacentor variabilis*)

 (*Amblyomma americanum*)

Mouthparts:
Pointed?
Short?
Long and slender?

Scutum (shield):
Part of body or entire?
Shape?
Pattern?

Festoons (ridges):
Ridges present or absent?



Tick or Schtick?



Tick or schtick?

TICK!

Adult male

brown dog tick



Tick or schtick?

SCHTICK!

Spider beetle



Tick or schtick?

TICK!

Larval lone star tick



Tick or schtick?

SCHTICK!

Bed bug



Tick or schtick?

TICK!

Adult female

American dog tick

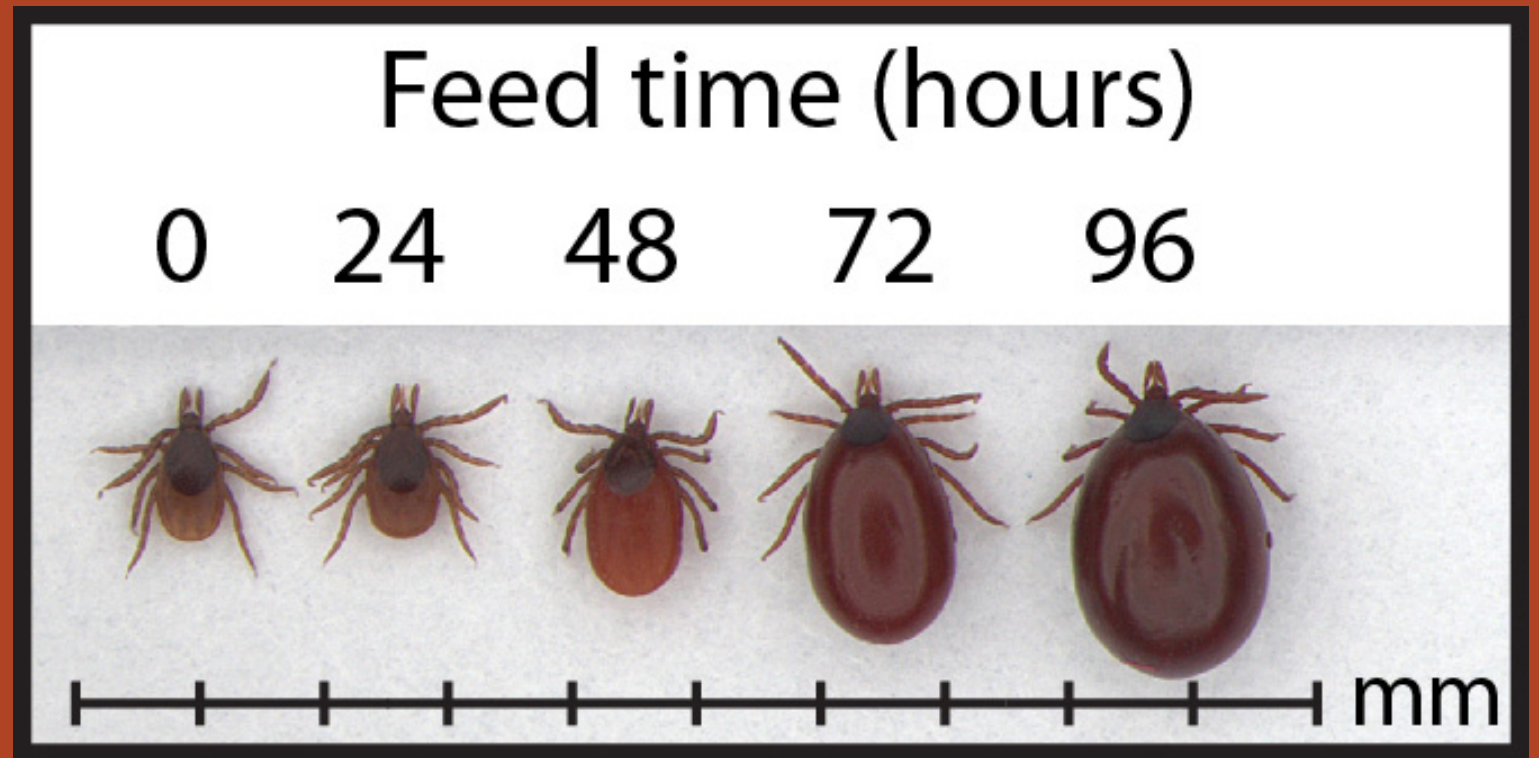


Can you find the ticks on this muffin?

From: <https://www.cdc.gov/ticks/gallery/index.html>



Ticks Change Appearance As They Feed



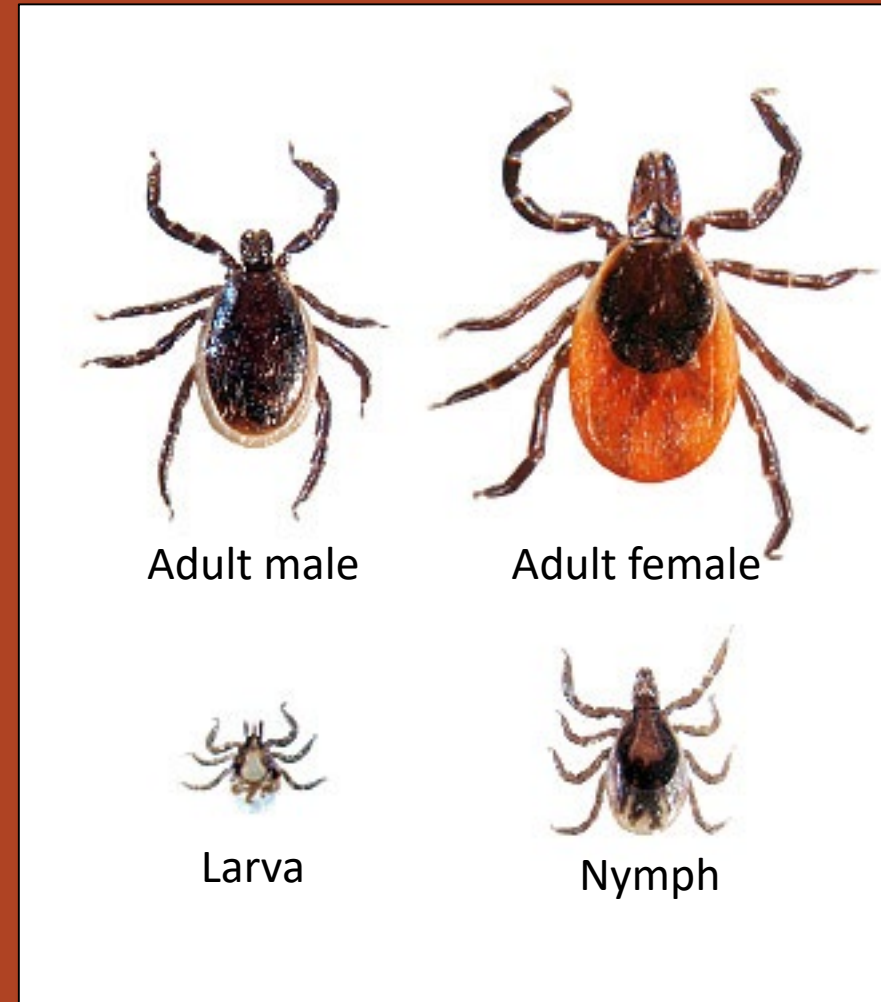
Blacklegged (deer) tick (*Ixodes scapularis*)

Active Season

- Spring = Nymphs, Adults
- Summer = Nymphs, Larvae
- Fall = Larvae, Adults
- Winter = Adults

Transmits:

- Lyme disease
- Anaplasmosis
- Babesiosis
- Powassan virus

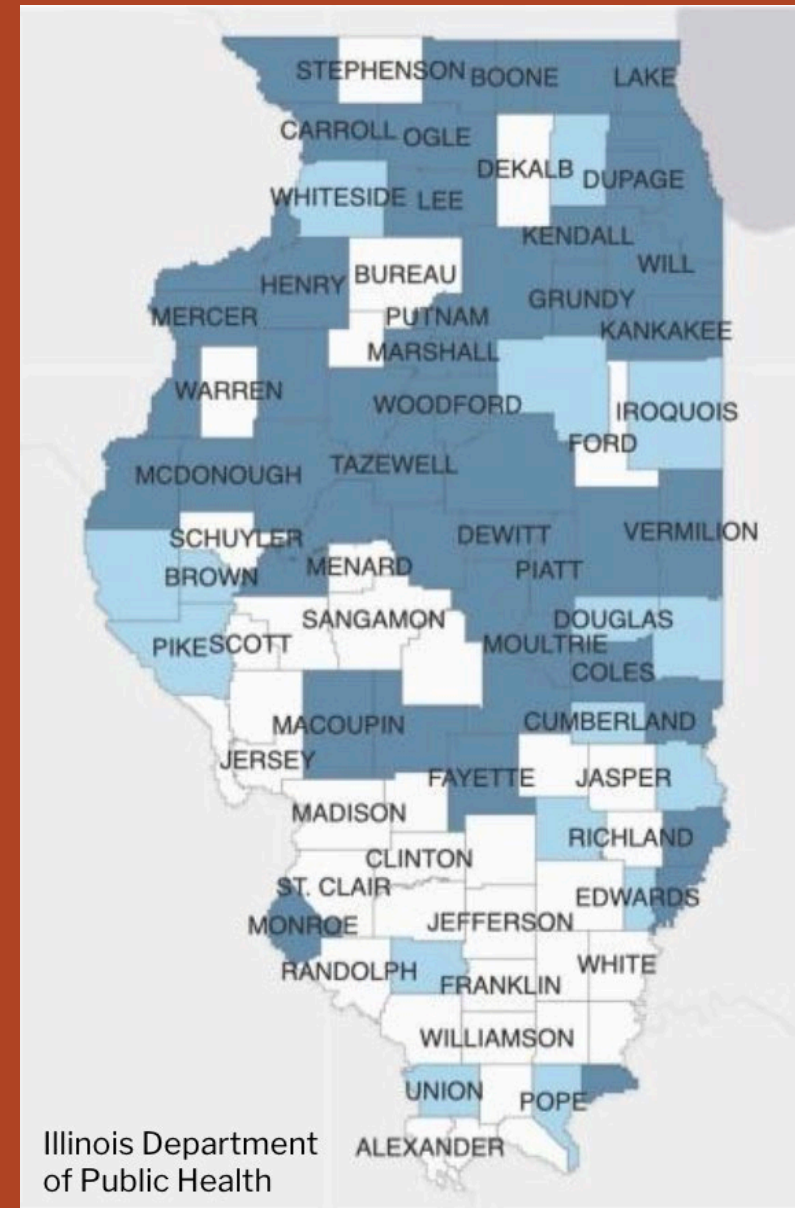


Blacklegged (deer) tick (*Ixodes scapularis*)

White counties = Unobserved

Light blue counties = Reported
(Fewer than 6 individuals observed)

Dark blue counties = Established
(More than six individuals or two life stages observed)



American dog tick (*Dermacentor variabilis*)

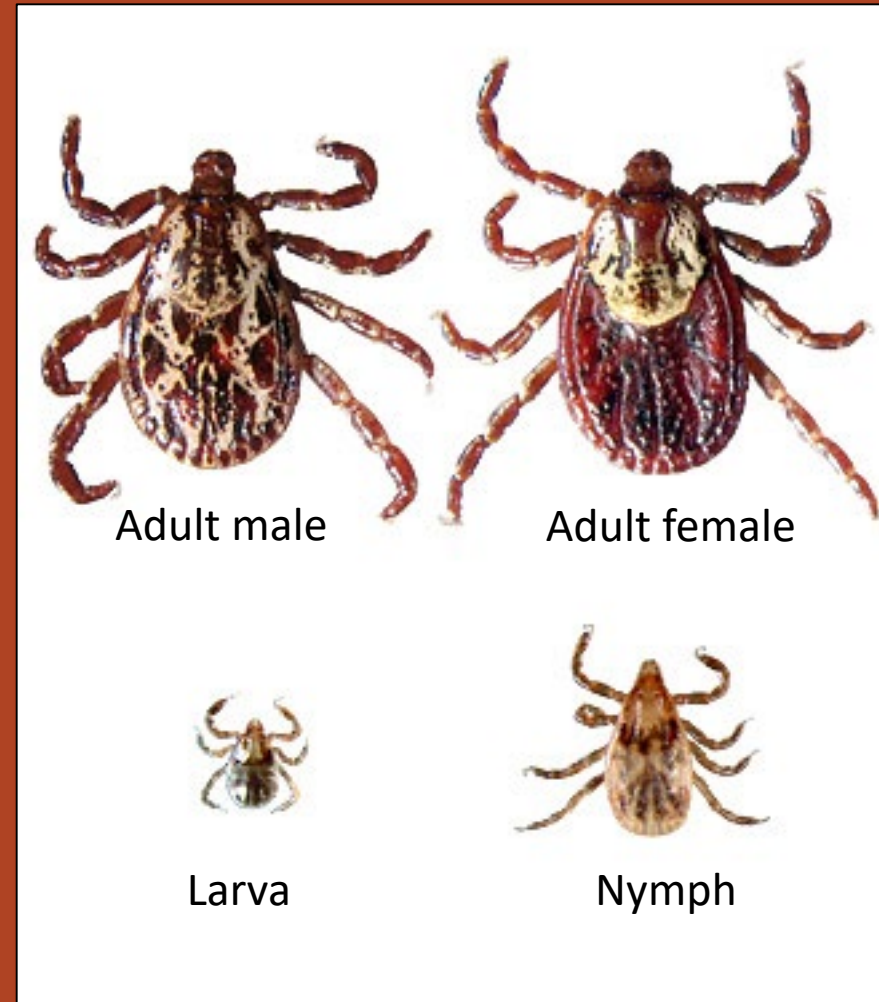
Active Season

- Spring = Adults*
- Summer = Adults*
- Fall = dormant
- Winter = dormant

**Humans and pets rarely encounter larvae or nymphs*

Transmits:

- Rocky Mountain Spotted fever
- Tularemia
- Tick paralysis



American dog tick (*Dermacentor variabilis*)

White counties = Unobserved

Light blue counties = Reported
(Fewer than 6 individuals observed)

Dark blue counties = Established
(More than six individuals or two
life stages observed)



Lone star tick (*Amblyomma americanum*)

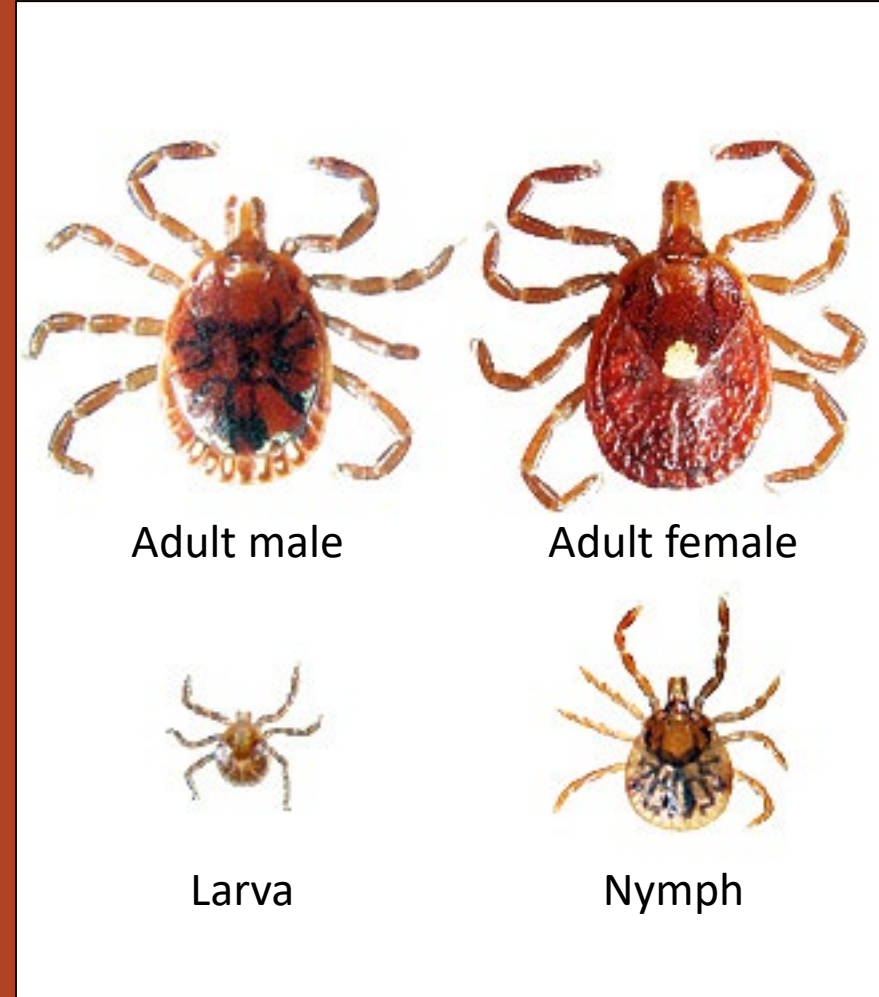
Active Season

- Spring = Adults
- Summer = Nymphs, Adults
- Fall = Larvae
- Winter = dormant

Transmits:

- Ehrlichia
- Alpha-gal red meat allergy
(<https://www.cdc.gov/ticks/alpha-gal/index.html>)
- Rickettsial illnesses

***Lone stars are aggressive biters



Lone star tick (*Amblyomma americanum*)

White counties = Unobserved

Light blue counties = Reported
(Fewer than 6 individuals observed)

Dark blue counties = Established
(More than six individuals or two
life stages observed)



New arrival! Gulf coast tick (*Amblyomma maculatum*)

Active Season (in southern Atlantic range)

- Spring = Adults
- Summer = Adults
- Fall = Adults, Larvae
- Winter = Nymph, Larvae

Transmits:

- *Rickettsia parkeri*





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 Tick Encounter Resource Center **Ixodes scapularis (Blacklegged ticks or Deer ticks)**



 Tick Encounter Resource Center **Dermacentor variabilis (American Dog ticks)**



 Tick Encounter Resource Center **Amblyomma americanum (Lone Star ticks)**



 Tick Encounter Resource Center **Amblyomma maculatum (Gulf Coast Tick)**



How do I prevent these
suckers from biting?



**Check your clothing and body for ticks after being outdoors
in grassy, brushy, or wooded areas where ticks live!**

CHECK THESE PARTS OF YOUR BODY AND YOUR CHILD'S BODY FOR TICKS:

IN AND AROUND THE HAIR

IN AND AROUND THE EARS

UNDER THE ARMS

INSIDE BELLY BUTTON

AROUND THE WAIST

BETWEEN THE LEGS

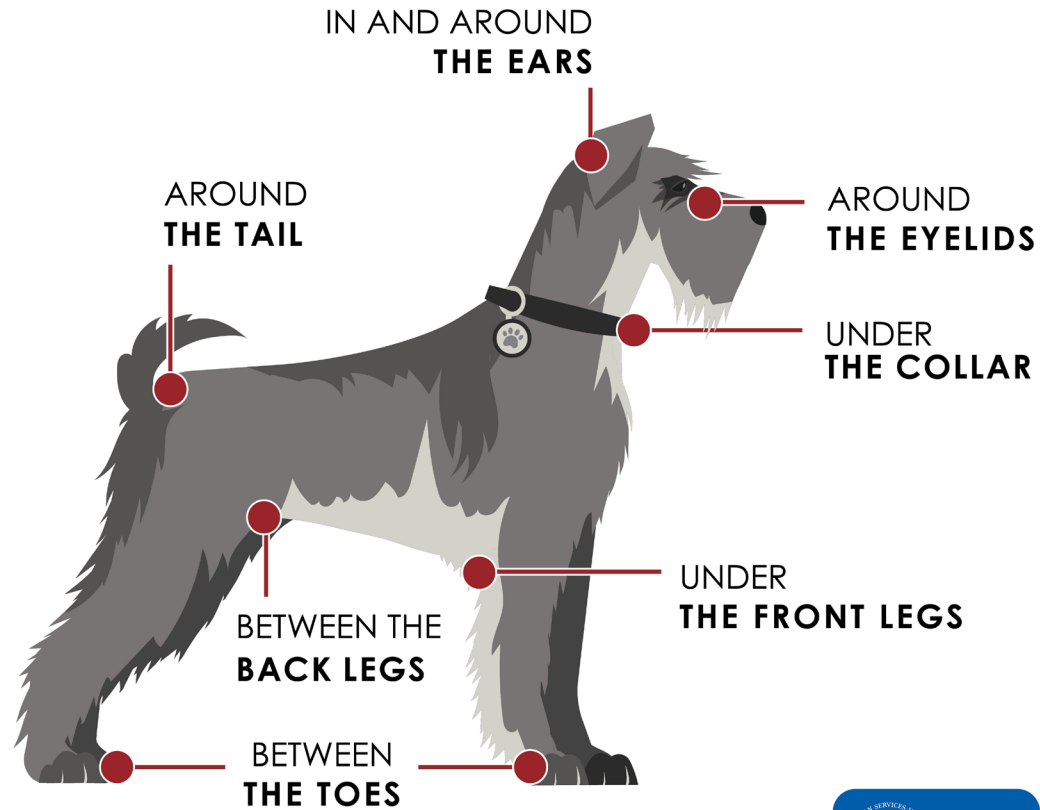
BACK OF THE KNEES



1. Frequent Tick Checks



WHERE TO CHECK YOUR PET FOR TICKS



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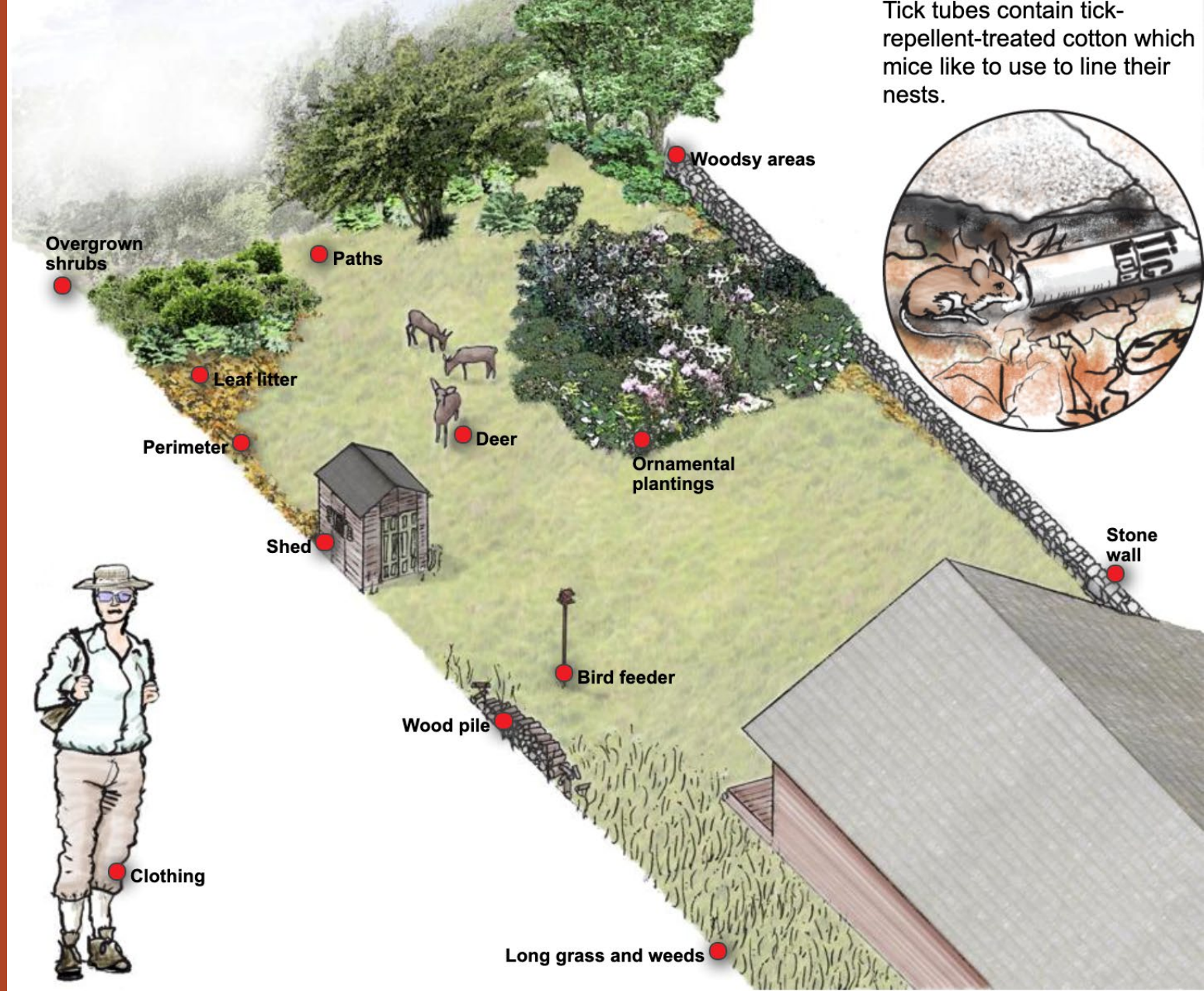
1. Frequent Tick Checks



2. Avoid tick habitat



3. Maintain a tick-unfriendly yard



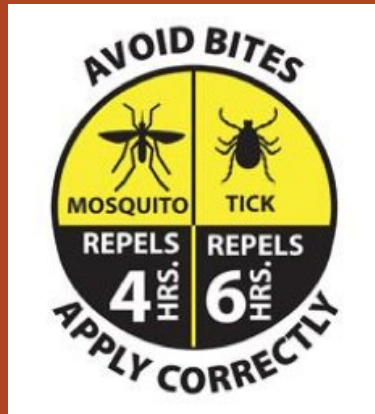
3. Wear an effective repellent



EPA-registered vs. Unregistered/Minimum Risk

EPA-registered – the product and active ingredient have been evaluated for human safety and effectiveness and determined to be safe for use when used according to the product label.

Unregistered/Minimum risk – based on previous studies, the active ingredient in the product has been deemed a minimal risk to human health and exempted from needing EPA registration.



However, this also means that the repellent product has likely **NOT** been tested by tick scientists to determine if it *actually works* to repel ticks or mosquitoes.



Which Tick Repellent to Choose?

Product	Which products contain it?	Where does it come from?	Where do I apply it?	How long does it last?	EPA-Registered
DEET	Cutter, Off!, Sawyer, Jungle Juice	Synthetic insecticide	Skin or Clothing	Up to 8 hours	Yes
LIPODEET	Sawyer Premium Ultra 30 Lotion	Synthetic insecticide	Skin	Up to 11 hours	Yes
Permethrin	Sawyer, Repel	Synthetic chrysanthemum flower derivative	Clothing only	Repellency wears off quickly; Kills ticks on contact for up to 4 weeks	Yes
Picaridin	Morpel 220, SS220, Cutter Advanced; Skin-So-Soft Bug Guard Plus	Synthetic black pepper	Skin	Up to 4 hours against lone star ticks; Only up to 1 hour against deer ticks	Yes
IR 3535	Skin-So-Soft Bug Guard Plus Expedition, SkinSmart	Synthetic β -alanine (amino acid)	Skin	Up to 6 hours	Yes
Oil of lemon eucalyptus (PMD)	Repel, Off! Botanicals, MyggA Natural	Synthetic lemon eucalyptus leaf derivative	Skin	Up to 6 hours	Yes
BioUD	BiteBlocker	Synthetic tomato leaf derivative	Skin	2-3 hours	Yes



Skin-application
and collars



Monthly re-application

Lasts 8 months

Talk to your vet about which is best for your pet –
but use ALL YEAR ROUND

What about my
pet?

Chewables



Monthly dosage

1 every 12 weeks



Oh no! I've STILL encountered
a tick!

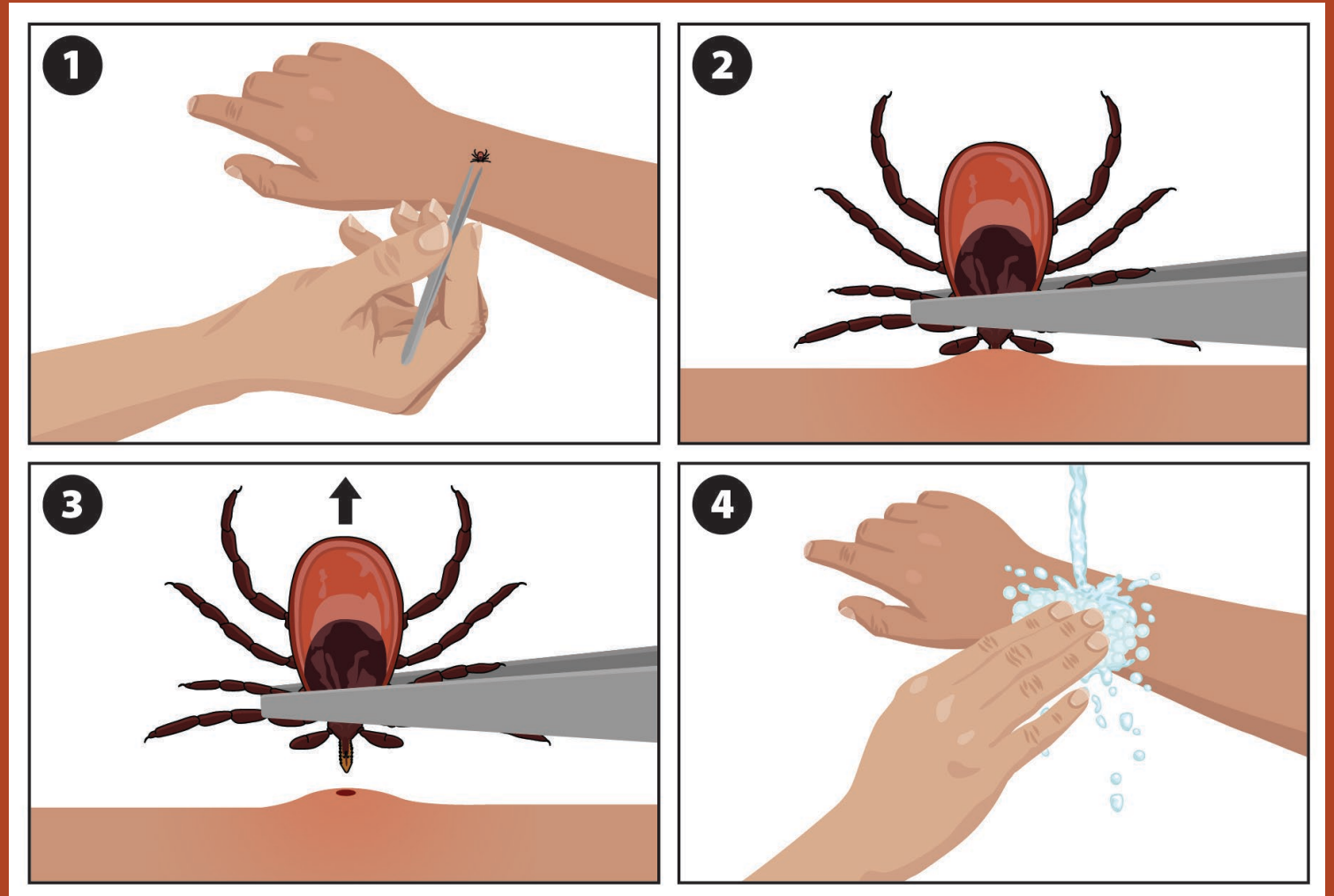




How to safely remove a tick

The risk of a tick-borne illness increases with length of attachment.

***Do NOT apply petroleum jelly, matches, rubbing alcohol, nail polish remover, dish soap, etc. etc. etc. to the tick.



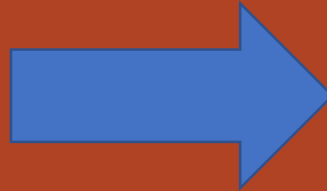
SAVE THAT TICK!

Put tick in a sealable baggie



LABEL THE BAG

- Who was the tick on?
- What's the date you found it?
- Where do you think you picked it up?



Keep tick in freezer for future ID or
**testing



**Testing ticks is often not recommended because the presence of a pathogen doesn't mean you've been infected with it, and you could've been bitten by another tick that you didn't find. Monitor your symptoms.



Now what?



(Illinois Tick Inventory
Collaboration)

<https://vetmed.illinois.edu/i-tick/>



<https://thetickapp.org/>



Now what?

- Monitor symptoms
 - Fever? Rash? Abnormal headaches? Generally just not feeling well → see your doctor.
 - Tell them that you were bitten by a tick, the type of tick, how long it was feeding
 - Document with photos any rashes at the bite site
 - Often tick bites get very irritated but this doesn't mean you're infected with a tick-borne disease



Image credit: CDC



5 Key take-aways

1. Be familiar with the common tick species in your area and their active seasons.
2. Use effective repellent/protection on people and pets.
3. Make frequent tick checks a habit when outdoors.
4. Remove attached ticks immediately and safely with pointy tweezers.
5. Save that tick!



Other resources

- *Illinois Department of Public Health:* <https://www.dph.illinois.gov/topics-services/environmental-health-protection/structural-pest-control/common-ticks/identification>
- *I-TICK:* <https://vetmed.illinois.edu/i-tick>
- *The Tick App:* www.tickapp.org
- *CDC Ticks:* <https://www.cdc.gov/ticks/index>.
- *EPA Repellent Finder:* <https://www.epa.gov/insect-repellents/find-repellent-right-you>
- *TickEncounter Resource Center:* www.tickencounter.org

