



# Tick Control Around The Home

FACT SHEET 18-001-0818

Ticks are small arachnids, relatives of spiders and insects. In order to grow and reproduce, ticks must feed on the blood of animals. Most ticks go through three stages (larva, nymph, and finally adult) in their life cycle. The tick must feed (take a blood meal) once at each stage and this blood meal takes several days to complete. The main species of ticks which readily bite humans in the United States are *Ixodes scapularis* (blacklegged tick, a.k.a. deer tick), *Ixodes pacificus* (western blacklegged tick), *Amblyomma americanum* (lone star tick) and *Dermacentor variabilis* (American dog tick). In Europe *Ixodes ricinus* (sheep tick) is the predominant species and *Ixodes persulcatus* (taiga tick) is common in Asia. Ticks don't fly or jump. Rather, a tick climbs to the ends of blades of grass, shrubs or weeds, and waits quietly with its front legs extended until it can grab onto a passing animal or human. This behavior is called questing. Ticks are most common in woods, brushy areas, and un-mowed fields or other overgrown places. These are the areas where ticks are not only protected from the harsh drying effects of the sun and wind, but also where their animal hosts (such as mice and deer) live. Ticks may sometimes be found on well-mowed lawns or even inside your home because they can drop off pets or other animals that cross over from tick habitat back into mowed areas or homes.



Courtesy Graham Snodgrass APHC  
The three major tick species of concern in the United States. Lone star tick (top), blacklegged or deer tick (bottom left), and American dog tick (bottom right).

### Should I be concerned about ticks and their bites?

Ticks can spread diseases to people, pets, and other animals. Pathogens that may be present in their saliva are transmitted as they feed on the person or animal. These pathogens include the bacteria and viruses that cause such serious diseases as Lyme disease, babesiosis, Rocky Mountain spotted fever and other rickettsioses, and human ehrlichiosis. Not all ticks are infected. You cannot tell if a tick is infected just by looking at it. Ticks need to be attached to a host before they are able to transmit any diseases they may be carrying; therefore, it is important to remove any ticks attached to your skin as soon as possible. **Ticks that are just crawling on you cannot transmit diseases.**



Left: Nymphal blacklegged tick questing for animal host. Middle: Deer are major hosts for blacklegged ticks (deer ticks). Deer populations can transport ticks to areas around the home. Right: Tall grass, woods, and wood lines provide suitable habitat for ticks around homes.

### What personal protective measures should I use to protect myself against ticks?

Use an insect repellent containing **DEET**, picaridin, or IR3535 on your exposed skin (skin that is not covered with clothing). Use an insect repellent containing **permethrin** on your clothing. Always **FOLLOW LABEL DIRECTIONS** when applying repellents. Be sure to check your clothing and body for ticks when you have been outdoors. Shower after activities in tick habitat and be sure to check your clothing and body for ticks. Ticks can ride into the home on clothing and pets, then attach to a person later, so carefully examine pets, clothing, and gear. Immediately wash and dry clothing, or just tumble dry on high heat for an hour to kill any remaining ticks.

## What are the best ways to control ticks around the home?

- Create 'tick-free' zones around your home by cutting back wooded areas and removing any high grass, weeds, leaf litter and undergrowth from around your home.
- Keep your lawn well mowed to a height of 3 inches or less. This lowers the humidity at ground level, making it difficult for ticks to survive. Also, mice and other small animal hosts avoid these neatly trimmed areas because they cannot easily hide or find food and nesting materials.
- Move woodpiles as far from your house as possible. Mice and chipmunks can hide and nest in woodpiles.
- Place picnic tables, lawn furniture, and children's play areas as far from any woods, shrubs, and undergrowth as possible.

## Are there chemical control options I can use around the home?

Widespread application of pesticides for tick control is less effective than habitat modification techniques mentioned above. On-post residents should consult with Preventive Medicine staff to survey your area for ticks and determine if chemical control is needed. Applying pesticides should be considered only as a last resort. If living off-post, it is best to hire a professional pest control company.

## What are the standard military insect repellent products available for use on exposed skin?

Approved military insect repellents for use on exposed skin come in a variety of formulations. Always refer to the label to determine frequency of repellent application based on activity. **Do not apply repellent to eyes, lips, or to sensitive or damaged skin.** Available military repellents are:

- Cutter® pump spray (NSN 6840-01-584-8598) contains 25% DEET; one application protects for up to 10 hours.
- Bullseye™ Bug Repellent pump spray (NSN 6840-01-656-7707) contains 20% IR3535®; provides protection for up to 8 hours.
- Natrapel® pump spray (NSN 6840-01-619-4795) contains 20% picaridin; one application protects for up to 8 hours.
- Ultra 30™ Insect Repellent Lotion (NSN 6840-01-584-8393) contains 30% Lipo DEET; one application protects up to 12 hours.
- Ultrathon™ (NSN 6840-01-284-3982) contains 34% controlled-release DEET lotion; one application protects for up to 12 hours.

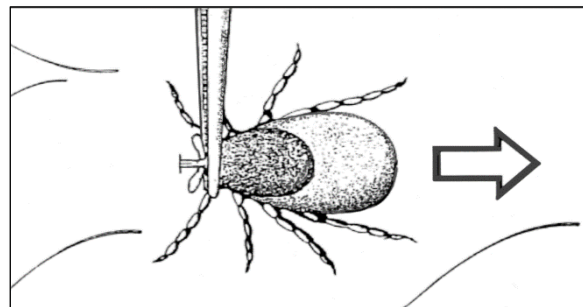


## What can I use to treat my clothing with permethrin?

Aerosol products containing 0.5% permethrin and permethrin-impregnated garments are commercially available for civilian use.

## What do I do if there is a tick on me?

Unattached ticks do not present a threat by crawling on you. Remove attached ticks as soon as you find them. Use tweezers to grasp the tick's mouthparts up against the skin, and pull back firmly and steadily. Do not pull back abruptly, or the tick's mouthparts may break off, leaving them embedded in the skin. If the mouthparts do break off, don't panic – the mouthparts alone cannot transmit disease because the infective body of the tick is no longer attached. However, to prevent secondary infection, remove the mouthparts like you would a splinter. Never squeeze the body of the tick or use methods to "make the tick let go". Do not use such things as petroleum jelly, fingernail polish remover, or a lighted match: these methods could force more infective fluid into the skin. Wash the wound site and apply an antiseptic after removal. See the picture to the right about effectively removing an embedded tick from your skin. For more information on tick removal, view <http://www.tickencounter.org/>, and [https://www.youtube.com/watch?v=3bl37ceSZ\\_s](https://www.youtube.com/watch?v=3bl37ceSZ_s). Ticks removed from military personnel, their dependents, or DOD civilians can be turned in for identification and disease testing through the Army Public Health Center's DOD Human Tick Test Kit Program. For more information visit our website at: <http://phc.amedd.army.mil/topics/envirohealth/epm/Pages/HumanTickTestKitProgram.aspx>



## What can I do to protect my pets from ticks?

Consult your veterinarian about products and treatments to protect your pets from ticks. Always check your pets for ticks after they have been in wooded or overgrown grassy areas.

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