



Thousands of people are bitten by ticks every year in the United States, and those numbers are increasing. Most ticks do not carry disease, but people can often develop tick-borne illnesses after they are bitten, with symptoms ranging from mild to so severe that they require hospitalization. Diseases that can be transmitted from a tick bite include Lyme disease, babesiosis, Rocky Mountain spotted fever, ehrlichiosis, Colorado tick fever, and Powassan disease. A single tick may transmit more than one disease at a time which can make diagnosis difficult.

Outdoor enthusiasts camp and hike more during the warmer months, just when ticks tend to be more active. Knowing what type of ticks live in your area and how to avoid their bites is an important part of preventing these illnesses from occurring. Adult leaders as well as youth should understand how ticks spread disease, prevention techniques, and how to identify symptoms of tick-borne illnesses.

## Incident Review #1

A 17-year-old camper was taken to the health lodge with complaints of severe headache and high temperature. Upon arrival at the health lodge, the youth had a temperature of 103.5 degrees. She stated she had been hiking every day for the past month and may have been bitten by a tick. She was transported to the local hospital where she received intravenous fluids and antibiotics for both Lyme disease and ehrlichiosis.

### Key Points

- Check for ticks frequently. Taking a shower as soon as possible after an outdoor activity, preferably within two hours, may help to find ticks before they have a chance to bite. Always check your entire body. It may be helpful to use a mirror. Check under the arms, in and around the ears, inside the belly button, behind the knees, between the legs, around the waist, and especially in the hair.
- Be familiar with tick-borne illnesses that are common in your area, and know their symptoms. Monitor health after any tick bite or outdoor adventure. Some people may not be aware that they have been bitten by a tick.

## Incident Review #2

A summer camp staff member found a tick in his groin area. He went to the health lodge and the staff attempted removal, but a portion of the tick head was still attached. The staff member was transported to the local hospital's emergency department.

### Key Points

- When removing a tick, use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
- Pull upward with steady, even pressure. Don't twist or jerk the tick—this can cause the mouthparts to break off and remain in the skin. If this happens, remove the mouthparts with tweezers.
- Avoid folklore remedies such as "painting" the tick with nail polish or petroleum jelly, or using heat to make the tick detach from the skin. These methods do not work and only delay removal. Your goal is to remove the tick as quickly as possible.



This CDC link shows how to remove a tick with an illustration and step-by-step instructions:  
[www.cdc.gov/ticks/removing\\_a\\_tick.html](http://www.cdc.gov/ticks/removing_a_tick.html)



- After removing the tick, thoroughly clean the bite area and your hands with soap and water. Apply a bandage and change as needed or at least once per day. Notify the parent or guardian to monitor for symptoms of tick-borne illnesses, which may appear weeks later.
- See a doctor if you have symptoms of an infection such as a red rash around the bite, fluid draining from the wound, or pain that is getting worse. Again, be aware that symptoms of a tick-borne illness may not develop until weeks after the bite. Seek medical care if you begin to feel ill or develop a rash, fever, headache, muscle or joint pains, or skin ulcer.

Most ticks go through four life stages, according to the CDC. After hatching from an egg, a tick must feed on blood at every stage to survive.

## Incident Review #3

A 12-year-old Scout had been walking through tall grass with his buddy prior to dinner. Several days later, he began complaining of not feeling well. His face was flushed, and he stated that he felt achy all over. His temperature was 102.8 at the health lodge. He was taken to the emergency department in a nearby town where he was diagnosed with a southern tick-associated rash illness (STARI). Antibiotics were prescribed, and the Scout was taken home by his parent.

### Key Points

- Ticks transmit disease by biting a host and feeding on their blood. Prevention techniques such as wearing long-sleeved shirts and long pants that are tucked into your socks can help keep ticks from latching on to you. Using repellents such as DEET in concentrations of 30 percent or picaridin (20 percent) is also important. Applying permethrin to clothing or gear can also be helpful. Follow the manufacturer's instructions for each product, including reapplying as recommended. Check the Environmental Protection Agency website (see Resources) for recommendations on which repellent will work for you.
- Knowledge regarding types of ticks common to the area where you are hiking or camping, and the diseases they may carry, is essential to prompt diagnosis and treatment.
- Avoid walking through tall grasses and dense woods where ticks may live. Staying in the middle of the trail will also help you avoid encounters with ticks.
- Frequently check your gear and clothing for ticks. They may be crawling around on your gear waiting to find a host. Washing items in hot water when possible can help to eliminate ticks. Dryer heat can also be effective. For more information, go to the CDC website (see Resources).

## Incident Review #4

A 7-year-old Cub Scout developed a bull's-eye rash at day camp. The child had been bitten by a tick that was removed at home prior to coming to camp. The parents took the child that day to their family physician, who diagnosed him with Lyme disease.

### Key Points

- Reviewing the Annual Health and Medical Record and discussing any potential concerns with a Scout and parent prior to leaving for an activity may be helpful to you later if medical issues arise.
- Using the Pre-Event Medical Screening Checklist for each participant can alert you to potential illnesses before traveling to an event. Also, be sure to use this list upon arrival at an event or camp to check on the health of all attendees.
- Removing a tick quickly can reduce the chance of contracting some tick-borne illnesses.

## Discussion Questions

- Do all tick bites need to be seen by a doctor or treated with antibiotics?
- Should tick repellent be used on the face and hands?
- When should Scouts leave an event to seek medical care after a tick bite?
- Are methods of removing ticks using matches, fingernail polish, or petroleum jelly safe and effective?
- What is the best method of preventing tick-borne illness?

## Resources

- Centers for Disease Control and Prevention, ticks home page, [www.cdc.gov/ticks/index.html](http://www.cdc.gov/ticks/index.html)
- American Academy of Family Physicians, [www.aafp.org/afp/2000/0601/p3463.html](http://www.aafp.org/afp/2000/0601/p3463.html)
- BSA Annual Health and Medical Record, [www.scouting.org/health-and-safety/ahmr/](http://www.scouting.org/health-and-safety/ahmr/)
- BSA Pre-Event Medical Screening Checklist, [www.scouting.org/filestore/healthsafety/pdf/680-102\\_preeventchklist.pdf](http://www.scouting.org/filestore/healthsafety/pdf/680-102_preeventchklist.pdf)
- Environmental Protection Agency, "Find the Repellent That Is Right for You," [www.epa.gov/insect-repellents/find-repellent-right-you](http://www.epa.gov/insect-repellents/find-repellent-right-you)

It can take up to three years for a tick to complete its life cycle. Most ticks die because they cannot find a host.