

What Every Nurse Practitioner Needs to Know About Tick-Borne Diseases



Recognizing Symptoms of Tick-borne Diseases is Important

- ▶ Please see the “Tick-Borne Diseases in the U.S.” chart for those symptoms most likely to be seen in children
- ▶ Ask symptomatic children (or parents) if they have been bitten by a tick and/or if they have been in an area near home or school where ticks might be present
- ▶ Inquire if they have traveled outside the state recently (bite might have occurred elsewhere)
- ▶ Think “tick-borne disease” even in winter months. Tick bites and tick-borne diseases can occur year ‘round in most states.
- ▶ Explain that antibiotics are needed (typically doxycycline) and should be administered before traditional diagnostic test results are available. Time is often of the essence.

Teach Parents and Older Children Strategies for Avoiding Tick Bites

- ▶ Dress properly—light colored fabrics, long pants tucked into socks, long sleeves, collared shirt
- ▶ Apply DEET-based repellent according to directions on exposed skin and on clothing. Use a product with at least 20% concentration. (**Lower concentrations do not work as well or as long -- see CDC chart handout at <http://www.deetonline.org/resources/brochures-literatur/>.) Other active ingredients are not as effective and not available in higher concentrations. Essential oils and “natural” products are not registered by the EPA for tick repellency.**

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- ▶ Conduct thorough tick checks and shower as soon as possible upon returning inside to remove any unattached ticks (see below)
- ▶ Use permethrin (an insecticide) on clothing...NEVER on bare skin. Follow label instructions
- ▶ Avoid tick habitat – note that most tick bites occur in one’s own backyard
- ▶ Check family pets for ticks, use vet-recommended tick products on them. Do not use repellents registered for humans on pets
- ▶ For proper repellent application, watch the Missouri Department of Health and Senior Services video “Keeping the Bite at Bay” <http://www.youtube.com/watch?v=hofkw4FOy9g&>

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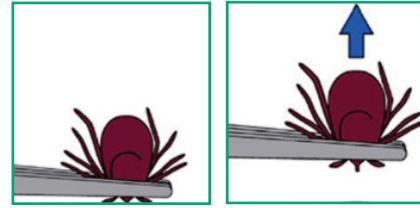
Removing Ticks

- ▶ Always remove the attached tick as soon as possible. Experts suggest that ticks may infect humans in a matter of hours
- ▶ Never squeeze ticks or use folklore remedies such as heat or “painting” the tick with nail polish or petroleum jelly to prompt it to detach from the skin. These actions often cause the tick to regurgitate fluids into the bite, increasing potential for disease transmission.
- ▶ Instruct parents and older children how to remove ticks

(continued on back)

Proper Removal Technique

1. Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull upward with steady, even pressure. Don't twist or jerk the tick. This can cause the mouth-parts to break off and remain in the skin. If you are unable to remove the mouth easily with clean tweezers, leave it alone and let the skin heal.
3. After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol, an iodine scrub, or soap and water.
4. Place the tick in vial filled with alcohol to kill it. Squeezing or mangling the tick body can release infectious fluids. Never discard it outside or down the drain.



Graphics and guidance from the Centers for Disease Control and Protection.

Dealing with Parents

- ▶ Urge parents to remove ticks immediately. Show them the proper way to do so.
- ▶ Advise parents if their child had an attached tick and they removed it, they should monitor for symptoms. Ask if they noted the type of tick in case the child becomes ill.
- ▶ The American Academy of Pediatrics notes that DEET-based repellents in concentrations up to 30% can be used on children as young as two months of age. If parents are using lower concentrations or products with other active ingredients on their youngsters, these children are not protected from ticks.
- ▶ If the child shows signs and symptoms of illness from Day 1 up to two weeks, urge parents to seek medical attention immediately. Many tick-borne diseases cause serious illness and even death if not treated quickly.
- ▶ Doxycycline is the **ONLY** antibiotic recommended by CDC for treatment of major tick-borne diseases such as Rocky Mountain spotted fever. Do not wait to administer this before diagnostic test results are available.
- ▶ ***The CDC states that if the child is asymptomatic, there is no need to take antibiotics (<https://cid.oxfordjournals.org/content/43/9/1089.full>).***

This is provided for your information only and is not intended to diagnose or treat any medical condition. Should you have any symptoms or concerns, please contact your doctor.

MORE INFORMATION

- ▶ **DEET Education Program**
www.RepellentInfo.org
- ▶ **Missouri Department of Health and Senior Services**
<http://health.mo.gov/living/healthcondiseases/communicable/tickscarrydisease/index.php>
- ▶ **Centers for Disease Control and Prevention**
www.cdc.gov/ticks

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