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Public Health
Prevent. Promote. Protect.

Don't Let One Bite *Change Your Life*...



A Guide to the use of Tick Repellents



The use of repellents can be a highly effective way to prevent tick bites and reduce the risk of getting any number of tick-borne diseases including Lyme, babesiosis and anaplasmosis.

Beginning in 2015 manufacturers will have the option of using images developed by the EPA to place on product packaging. The intent is to communicate the effectiveness of the product. Note, these images illustrate the effectiveness of repellents applied to skin:



Consumers should follow all label directions concerning application.

Repellents for Skin application

Deet - The most widely available active ingredient on the market. Protection times 1–10 hours. Product concentrations 7–100%. Use at least 20% DEET to repel ticks; 7% DEET repels mosquitos only.

American Academy of Pediatrics and Centers for Disease Control: “Recommendation for children older than 2 months of age is to use 10% to 30% DEET. DEET should not be used on children younger than 2 months of age.”

Ex: *Cutter, OFF!, 3M Ultrathon*

Picaridin - Synthetic version of piperine, a chemical found in black pepper. Protection times 6–8 hours. Product concentrations 10–20%.

Ex: Avon Skin-So-Soft Bug Guard, Cutter Advanced, Natrapel

IR3535 - Beta-alanine, synthetic version of an amino acid. Protection times 2–12 hours. Product concentrations 7–20%. Ex: *Avon Skin-So-Soft, Coleman Skin Smart*

Oil of Lemon Eucalyptus - Modified version of a natural plant oil. Protection time 6 hours. Product concentrations 30 – 40%. FDA: “Oil of lemon eucalyptus products should not be used on children under 3 years of age.” Ex: *Citrapel, Coleman Botanicals, Repel Essential*

“Herbal” or Botanicals – A number of repellent products contain plant oils such as peppermint, lemongrass, cedar, rosemary and others. Their effectiveness against ticks or mosquitoes is questionable. They may contain allergens; they are not EPA registered.

EPA skin repellent selector tool:

<http://www2.epa.gov/insect-repellents/find-insect-repellent-right-you>

Repellents for Clothing

Permethrin - For application to clothing, including footwear, NOT skin. Highly effective at repelling/killing ticks. Effectiveness lasts through multiple washings. Pre-treated clothing is also on the market. This is a good complement to skin-applied repellents. EPA’s position is that treated clothing poses no immediate or long-term effects to toddlers, children, pregnant women or nursing mothers.

There are a number of permethrin products designed for different applications. Consumer should be careful to select product specially formulated for application to outerwear/camping gear. Ex: *Ben’s, Coleman, Sawyer*

Repellents for Pets

Pet precautions – The above products should not be applied to pets, as they lick their fur. Use only products formulated for your type of pet. Check with your veterinarian for advice.

Repellent products may be found at garden centers, sporting goods/camping outfitters, drug stores, some “box” stores, hardware stores.