



**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.**

**Deet** - The most widely available active ingredient on the market. Protection times 1–10 hours. Product concentrations 7–100%.

American Acad. Pediatrics and Centers 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.

**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*

**Pet precautions** - These products should not be applied to pets, as they lick their fur. Use only products formulated for them. Good to check with veterinarian.

**EPA skin repellent selector tool:**

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

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

2015

Cape Cod Cooperative Extension

Barnstable County Dept Health & Environment

Larry Dapsis, Entomologist 508-375-6642