PUBLIC HEALTH FACT SHEET

Tick Repellents

Massachusetts Department of Public Health (MDPH), 305 South Street, Jamaica Plain, MA 02130

What is a tick repellent?

A tick repellent is a substance put on skin, clothing, or other surfaces which discourages ticks from crawling on that surface.

Why should I use a tick repellent?

Ticks can spread germs that cause disease. Using a tick repellent can reduce your chances of being bitten by a tick and therefore reduce the risk that you will get one of these diseases.

When should I use a tick repellent?

Use these products when you are outside and exposed to ticks. Ticks are usually found on plants near the ground in brushy, wooded or grassy places. They cannot fly. They can be active year round, depending on the temperature, but are most often a problem between April and October. Depending on where you live, you could get bitten by a tick in your own yard.

Did you know?

You don't have to be a hiker on Cape Cod to worry about ticks. Depending on where you live, you may be bitten in your own yard. There are lots of things you can do around your own yard to make it less inviting for ticks! Visit the MDPH Tickborne Disease Website at www.mass.gov/dph/tick for suggestions.

What kind of repellent should I use?

Different products work against different bugs. It is important to look at the "active ingredient" on the product label. Products with **DEET** (N,N-diethyl-m-toluamide) or **permethrin** are recommended for protection against ticks. Some repellents, such as picaridin or oil of lemon eucalyptus, have been found to provide protection against mosquitoes but have not been shown to work against ticks.

DEET is the active ingredient found in most repellent products. It can be used directly on exposed skin or on clothing. If you use it on your clothes, be aware that DEET can damage some synthetic fabrics such as acetate, rayon or spandex.

There are over 200 products containing DEET registered with the Environmental Protection Agency (EPA), ranging in concentration from 5% to 100% DEET. **Read the product label to determine the percentage of DEET included and how often it should be reapplied.** DEET products should not be used on infants under 2 months of age. Children older than two months should use concentrations of 30% or less. There is limited information available on how well and how long different concentrations of DEET work against ticks.

Permethrin products are intended for use on items such as clothing, shoes, bed nets and camping gear and should not be applied to skin. Apply the permethrin to your clothes before you put them on and follow the product's instructions.

Do "natural" repellents work?

A number of plant-derived products are available for use as repellents. Limited information is available regarding how well these products work and how safe they are. The information that is available shows that these products do not work as well or as long as products like DEET or permethrin against ticks.

Use these products wisely!

- Follow the instructions on the product label. If you have questions after reading the label, such as how many hours does the product work for, or if and how often it should be reapplied, contact the manufacturer.
- Don't use repellents under clothing.
- Don't use repellents on cuts or irritated skin.
- Don't use repellents near the mouth or eyes and use them sparingly around the ears. When using spray products, spray the repellent on your hands first, then apply it to your face.
- Use just enough repellent to lightly cover exposed skin and/or clothing. Putting on a larger amount does not make the product work any better.
- Don't let children handle the product. When using repellents on children, put some on your hands first, then apply it to the child. Don't put repellents on a child's hands.
- When you come inside, wash your skin and the clothes that had repellent on them.
- **If you develop a rash or other symptoms you think were caused by using one of these products,** stop using it, wash the affected area with soap and water, and contact your doctor or local poison control center. If you go to the doctor, bring the product with you to show him or her.

Where can I get more information?

- The Massachusetts Department of Public Health (MDPH), Division of Epidemiology and Immunization at (617) 983-6800 or toll-free at (888) 658-2850, or on the Tickborne Diseases website at www.mass.gov/dph/tick, or your local board of health (listed in the telephone directory under local government)
- **Health effects of pesticides**, MDPH, Center for Environmental Health at 617-624-5757
- **Information on repellents** (such as choosing the right repellent, using repellents on children or pregnant women, or detailed toxicology information), National Pesticide Information Center (NPIC) toll free at 1-800-858-7378 or online at http://npic.orst.edu/index.html

Massachusetts Department of Public Health
Tickborne Disease Website
www.mass.gov/dph/tick

Updated: March 2011