**April Newsletter: Mosquito and Tick Repellents**

It may be hard to think about mosquito and tick repellents while the snow’s still melting, but bug season will be upon us before we know it. Often parents have questions about what repellents are good to use in order to prevent diseases caused by ticks and mosquitoes such as Lyme disease and West Nile Virus.

Repellents are applied to skin, clothing or other surfaces to discourage mosquitoes and ticks from landing or crawling on that surface. Use them when you’re going to be outdoors.

Different products work against different bugs. It is important to look at the “active ingredient” on the product label. Products with DEET or permethrin are recommended for protection against ticks. In addition to DEET and permethrin, products that contain IR3535 or picaridin provide protection against mosquitoes. Also, oil of lemon eucalyptus has been found to provide as much protection as low concentrations of DEET when tested against mosquitoes found in the United States. However, picaridin and oil of lemon eucalyptus have not been shown to work against ticks.

**DEET** products should not be used on infants under two months of age. Children older than two months should use products with DEET concentrations of 30 percent or less. DEET products are available in formulations up to 100 percent DEET, so always read the product label to determine the percentage of DEET included. For mosquitoes, products with DEET concentrations higher than 30 percent do not provide much additional protection, but do last longer. The length of protection against mosquitoes varies widely depending on temperature, perspiration and water exposure. 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. Follow product instructions carefully.

**Oil of lemon eucalyptus** products should not be used on children under the age of three years.

A number of plant-derived or “natural” products are available for use as mosquito repellents. Limited information is available regarding how well most of these products work and how safe they are. The information that is available shows that most of these products general do not provide the same level or duration or protection as products like DEET or permethrin, except for oil of lemon eucalyptus and IR3535, which have been found to provide as much protection as low concentrations of DEET.

Here are a few tips for using repellents safely:

* Follow instructions given on the product label.
* 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 products onto your hands first, and then apply it to your face.
* Use just enough product 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, and 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 a repellent, stop using the product, was 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.

Adapted from the Massachusetts Department of Public Health Mosquito Repellents and Tick Repellents Fact Sheets. For more information, ask the School Nurse or visit [www.mass.gov/dph/tick](http://www.mass.gov/dph/tick) or [www.mass.gov/dph/mosquito](http://www.mass.gov/dph/mosquito)