

**PREVENTIVE MEASURES FOR LYME DISEASE – RULES & PROCEDURES  
(GETTING READY FOR THE OUTDOOR FIELD TRIP)**

All participants should be required to wear long pants and long-sleeved shirts; also, shoes and socks (no sandals). The clothing should be light-colored so that ticks may be readily spotted and removed. (Kids generally love painter's pants - good choice.)

Parents should spray the pants before the child leaves for school. These products remain effective for several hours. For liability reasons, a teacher should never apply repellents to a student and children should not be allowed to do so.

Among the preventive measures recommended is the use of a tick repellent. Two compounds have been shown to be effective:

1. 'Deet' = N, N-diethyl-m-toluamide
2. Permethrin

Deet is found in many readily available products and in a range of concentrations (see list below). It may be applied to skin or clothing. Permethrin products may be applied only to clothing, which should be allowed to dry for at least 2 hours before dressing. Before using any repellent, be sure to read the label and to follow the directions carefully. These are powerful products\* that could cause side-effects if applied carelessly. Deet products are probably the most likely choice. At a maximum, the Deet concentration for adults should never exceed 35%, 15% for children. Lower concentrations are generally recommended:

Deet repellents offer a wide and diverse range of products. Active ingredients run from the low single digits up to 100%. An efficiency curve drawn for Deet would show that the repellent effectiveness begins to drop off quickly in concentrations above 35% Deet. Normal logic says that more is better, but not for Deet. Most experts realize that more frequent application of low-percent Deet products yield better results. Most Deet products are below 35%. Safety Consulting Services, LTD., Stony Point, NY

Deet repellents may be sprayed on the outer clothing and exposed skin only; never spray directly on the face. In fact, since ticks generally crawl up from the legs, it is really not necessary to spray above the waist. Do not over apply or saturate the fabric. Keep any repellent away from the eyes & mouth.

Repellents have been shown to be safe and effective when used properly. However, if a child (or adult) experiences an adverse reaction to a repellent, it should be washed off immediately, and medical advice sought. And never rely on repellents alone. Tick checks should always be conducted after outdoor activity and at least once a day, especially between April and November.

Commonly available products - approximate Deet concentrations:

- "Bug Out" - 145
- "Cutter" - several products 10 to 28%
- "Off! Skintastic" - 7%
- "Off! Skintastic for Kids" - 5%
- M Ultra-thon" - 25%

\*For those concerned about these compounds, it should be pointed out that it is possible to purchase products, probably less effective, but derived from natural sources, such as citrus extracts.

Information contributed by Massachusetts Department of Public Health and the NY Department of Health.

Before heading out, everyone should tuck his/her pant legs into the socks and shirt into the pants. With this arrangement, any tick will be kept to the outside where it can be seen.

Using the "buddy" system, students can watch for ticks on each other.

Another important preventive measure, during a field trip, is to keep to the trails where they are available, and to try to stay in the middle-away from the vegetation at the edges.

After the field trip, a quick check should be carried out. After getting home, a thorough tick check should be conducted, followed by a shower/bath. Loose ticks will generally wash off, and repellent should be washed off with soap and water.