

**What is DEET?**

DEET, also known as N,N-diethyl-m-toluamide or N,N-diethyl-3-methylbenamide, is the active chemical ingredient in most insect repellents applied to the skin. It has been tested against a variety of biting insects and has been proven to be an effective insect repellent for mosquitoes, ticks, black flies, fleas, and no-see-ums. Both the World Health Organization and Centers for Disease Control and Prevention recommend the use of DEET-based repellents to protect against insect-borne diseases such as West Nile virus.

**SAFE and EFFECTIVE USE of DEET**

DEET is safe when used according to label directions. DEET was developed by the U.S. Army in 1946 for use by military personnel in insect-infested areas and was first registered in the United States in 1957. However a few incidents of toxic reactions to DEET have occurred even when the product was used properly.

The length of time that an insect repellent will provide protection from mosquito bites depends on the concentration of DEET in the product. A higher percentage of DEET in a repellent does not provide better protection, just longer protection. It has been proven that products with a DEET concentration over 50% do not increase the length of protection. A higher percentage of DEET should be used if you are outdoors for a long period of time and a lower percentage of DEET should be used if you are outdoors for a short period of time.

Products containing up to 30% DEET have been found to be safe for adults. No definitive studies exist in the scientific literature about what concentration of DEET is safe for children. The American Academy of Pediatrics states that insect repellents containing DEET with a concentration of 30% appear to be as safe as products with a concentration of 10% when used according to the directions on the product label. DEET is not recommended for use on children under 2 months of age; most experts agree it is safe to apply insect repellent with low concentrations of DEET to children over 2 months of age. The safest approach for infants and children under 2 years is to minimize exposure to mosquitoes.

The Environmental Protection Agency and the Centers for Disease Control and Prevention recommend the following guidelines for using insect repellents containing DEET:

- ✓ **Read and carefully follow product label directions and precautions.**
- ✓ **Apply repellent sparingly on exposed skin and/or clothing.**
- ✓ **Do not apply DEET underneath clothing.**
- ✓ **Do not apply repellent near eyes, lips, or mouth.**
- ✓ **Never apply DEET over cuts, wounds, or irritated skin.**
- ✓ **Avoid using sprays in enclosed areas. Do not use DEET near food.**
- ✓ **Do not apply repellent to the hands of young children.**
- ✓ **Do not allow young children to apply repellents themselves.**
- ✓ **After returning indoors, wash treated skin with soap and warm water.**
- ✓ **Avoid over application. Heavy application is not necessary to achieve protection.**
- ✓ **Wash treated clothing before wearing again.**