

Guideline for Using Commercial Insect Repellents Containing DEET

Insect repellents containing various concentrations of DEET (N, N-diethyl-meta-toluamide) can be safely used to repel biting pests such as stable flies, mosquitoes and ticks, including ticks carrying Lyme Disease.

DEET was developed and patented by the U.S. Army in 1946 for use by military personnel in insect-infested areas. Because **DEET** was recognized as one of the few products effective against mosquitoes and biting flies, it was registered for use by the general public in 1957. Today, **DEET** is the most widely used insect repellent. Most **DEET** products are registered for human use; there are a few products registered for veterinary uses.

DEET poses no significant health risk when used properly. It may be applied to skin, pets, clothing, tents, bedrolls and screens.

DEET should not be used on infants under two months of age, pregnant women, or children's bedding or bedclothes.

For adults and children, a maximum concentration of 30% is recommended.

Concentrations of 10% appear to be as safe as products with 30%.

When applying, avoid wounds, scratches, and the area around the eyes and mouth.

Keep out of reach of small children, because like many chemicals, DEET can be toxic if ingested.

Do not allow small children to apply themselves.

Do not apply to the hands of small children, since they frequently put their hands in their mouth.

Cleanse the skin with soap and water after returning indoors.

Avoid over-saturation. It is not necessary for adequate protection.

A small percentage of children and adults may be sensitive to chemicals such as **DEET**. If there is a suspected reaction to the chemical, wash the area and seek medical attention.

Health effects: Rashes, blisters, skin and mucous membrane irritation, and numb or burning lips have occurred among people who applied products containing a high concentration (e.g., 50% or 75%), or among those excessively exposed. Toxic encephalopathy and seizures have been associated with use in children, specifically in children with ornithine transcarbamylase (OTC) enzyme deficiency. Subtle neurotoxicity in adults (e.g., insomnia, mood disturbances, impaired cognitive function) has been associated with extensive application.

Carcinogenicity: No evidence in humans.

Last updated on May 24, 2004. L. Eck