

The following Questions and Answers are from the **Center for Disease Control**, Division of Vector-Borne Infectious Diseases, published 10/04/02

**Q. Why should I use insect repellent?**

A. Insect repellents help people reduce their exposure to mosquito bites that may carry potentially serious viruses such as West Nile virus, and allow them to continue to play and work outdoors.

**Q. Which mosquito repellent works the best?**

A. The most effective repellents contain DEET (N,N-diethyl-m-toluamide), which is an ingredient used to repel pests like mosquitoes and ticks. DEET has been tested against a variety of biting insects and has been shown to be very effective. The more DEET a repellent contains the longer time it can protect you from mosquito bites. A higher percentage of DEET in a repellent does not mean that your protection is better—just that it will last longer. **DEET concentrations higher than 50% do not increase the length of protection.**

**Q. Why does CDC recommend using DEET?**

A. DEET is the most effective and best-studied insect repellent available. (Fradin, 1998). Studies using humans and mosquitoes report that only products containing DEET offer long-lasting protection after a single application. (Fradin and Day, 2002.)

**Q. Are non-DEET repellents effective (e.g. Skin-So-Soft, plant-based repellents)?**

A. Some non-DEET repellent products which are intended to be applied directly to skin also provide some protection from mosquito bites. However, studies have suggested that other products do not offer the same level of protection, or that protection does not last as long as products containing DEET. A soybean-oil-based product has been shown to provide protection for a period of time similar to a product with a low concentration of DEET (4.75%)

**Q. Is DEET safe?**

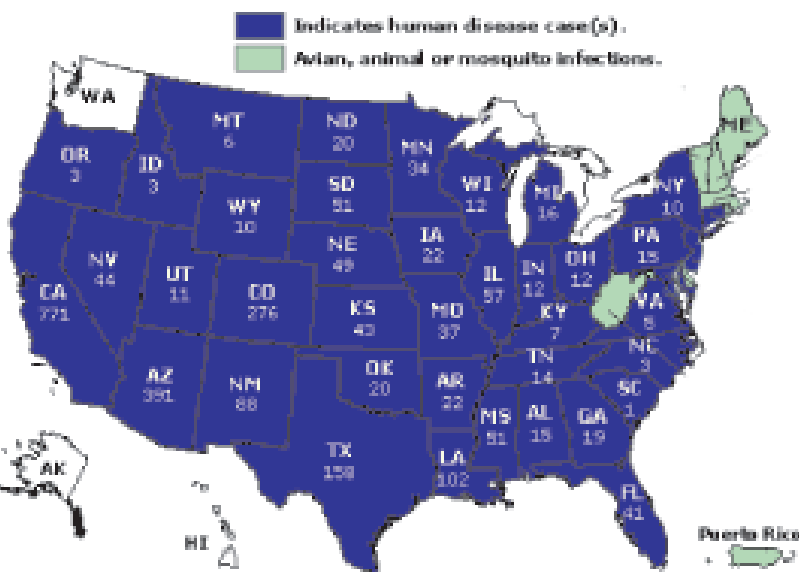
A. Yes, products containing DEET are very safe when used according to the directions. Because DEET is so widely used, a great deal of testing has been done. When manufacturers seek registration with the U.S. Environmental Protection Agency (EPA) for products such as DEET, laboratory testing regarding both short-term and long-term health effects must be carried out. Over the long history of DEET use, very few confirmed incidents of toxic reactions to DEET have occurred when the product is used properly.

**Q. What are some general considerations to remember in order to use products containing DEET safely?**

A. Always follow the recommendations appearing on the product label. **Do not spray aerosol or pump products in enclosed areas. Do not apply aerosol or pump products directly to your face.**

**West Nile Virus in the United States, 2004**

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**Q. How does the percentage of DEET in a product relate to the amount of protection it gives?**

A. Based on a recent study: A product containing 23.8% DEET provided an average of 5 hours of protection from mosquito bites. A product containing 20% DEET provided almost 4 hours of protection. A product with 6.65% DEET provided almost 2 hours of protection. Products with 4.75% DEET and 2% soybean oil were both able to provide roughly 1 and a half hour of protection.