

Insect Repellent Use and Safety

from the Centers for Disease Control and Prevention, April 22, 2005

adapted from http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect_repellent.htm

Using Repellents Safely

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.

- Use enough repellent to cover exposed skin or clothing. Don't apply repellent to skin that is under clothing. Heavy application is not necessary to achieve protection.
- Do not apply repellent to cuts, wounds, or irritated skin.
- After returning indoors, wash treated skin with soap and water.
- Do not spray aerosol or pump products in enclosed areas.
- Do not apply aerosol or pump products directly to your face. Spray your hands and then rub them carefully over the face, avoiding eyes and mouth.

Q. How should products containing DEET be used on children?

A. No definitive studies exist in the scientific literature about what concentration of DEET is safe for children. No serious illness has been linked to the use of DEET in children when used according to the product recommendations. The [American Academy of Pediatrics](#) (AAP) Committee on Environmental Health has recently updated their recommendation for use of DEET products on children. They say: "Insect repellents containing DEET (N,N-diethyl-*m*-toluamide, also known as N,N-diethyl-3-methylbenzamide) with a concentration of 10% appear to be as safe as products with a concentration of 30% when used according to the directions on the product labels."

The AAP and other experts suggest that it is acceptable to apply repellent with low concentrations of DEET to **infants over 2 months old**. Other guidelines cite that it is acceptable to use repellents containing DEET on children over 2 years of age.

Repellent products that do not contain DEET are not likely to offer the same degree of protection from mosquito bites as products containing DEET. Non-DEET repellents have not necessarily been as thoroughly studied as DEET, and may not be safer for use on children.

Parents (and providers *) should choose the type and concentration of repellent to be used by taking into account

- the amount of time that a child will be outdoors,
- exposure to mosquitoes, and
- the risk of mosquito-transmitted disease in the area.

***note for Child Care Providers:** before applying insect repellents to children, be sure to refer to **North Carolina Child Care Rules** 10A NCAC 09 .1720(c)(1)(A-E), .1720(c)(7)(A-G), .0803(1)(a-e) and .0803(7)(a-g). Click on **Chapter 9: Child Care Rules** at this site: <http://nrc.uchsc.edu/STATES/NC/northcarolina.htm>

Persons who are concerned about using DEET or other products on children may wish to consult their health care provider for advice. The National Pesticide Information Center (NPIC) can also provide information through a toll-free number, 1-800-858-7378 or npic.orst.edu.

Always follow the recommendations appearing on the product label when using repellent.

- **Do not allow young children to apply insect repellent to themselves;** have an adult do it for them. Keep repellents out of reach of children.
- **When using repellent on a child,** apply it to your own hands and then rub them on your child. Avoid children's eyes and mouth and use it sparingly around their ears.
- **Do not apply repellent to children's hands.** (Children may tend to put their hands in their mouths.)
- **Do not apply repellent to skin under clothing.** If repellent is applied to clothing, wash treated clothing before wearing again.

Using repellents on the skin is not the only way to **avoid mosquito bites**.

- Infants, children and adults can **wear clothing with long pants and long sleeves** while outdoors.
- DEET or other **repellents** such as permethrin **can also be applied to clothing** (don't use permethrin on skin), as mosquitoes may bite through thin fabric.
- **Mosquito netting** can be used over infant carriers.
- Finally, it may be possible to reduce the number of mosquitoes in the area by **getting rid of containers with standing water** that provide breeding places for the mosquitoes.

For more information on DEET and the use of insect repellents, please visit the full article at http://www.cdc.gov/ncidod/dybid/westnile/qa/insect_repellent.htm

For additional resources on this topic:

[How to Use Insect Repellents Safely from EPA](http://www.epa.gov/pesticides/factsheets/insectrp.htm)
<http://www.epa.gov/pesticides/factsheets/insectrp.htm>