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## DEET

### INSECT REPELLENT USE AND SAFETY

#### Which mosquito repellent works the best?

The most effective repellents contain DEET (N,N-diethyl-m-toluamide). The more DEET a repellent contains, the longer time it can protect you from mosquito bites. In a recent study, a product containing 6.65% DEET provided protection for almost 2 hours, while a product containing 23.8% DEET provided protection for about 5 hours. Choose a repellent that provides protection for the amount of time you will be outdoors. You can re-apply a product if you are outdoors for a longer time than expected.

#### How does DEET work?

Mosquitoes are attracted to people by skin odors and carbon dioxide from breath. DEET repels the mosquito by making the person unattractive for feeding. DEET does not kill mosquitoes; it just makes them less able to locate us.

#### Why does CDC recommend using DEET?

DEET's most significant benefit is its ability to repel potentially disease-carrying insects and ticks. DEET is the most effective and best-studied insect repellent available. Only products containing DEET offer long-lasting protection after a single application.

#### Is DEET safe?

DEET has been in use for 40 years and extensively studied. The Environmental Protection Agency (EPA) has reviewed the data on DEET and reports that normal use of DEET does not present a health concern to the general U.S. population. Products containing DEET are very safe when used according to the directions.

#### How should products containing DEET be used on children?

The American Academy of Pediatrics recommends using products with a low concentration of DEET, (10% or less), on children ages 2-12 years. According to the Centers for Disease Control and Prevention, some experts suggest that it is acceptable to apply repellent with low concentrations of DEET to infants over 2 months old. Parents should choose the type and concentration of repellent (10% or less) taking into account the amount of time a child will be outdoors, exposure to mosquitoes, and the risk of mosquito-transmitted disease in the area. Individuals who are concerned about using DEET on children should consult their health care provider.

#### Is DEET safe for pregnant or nursing women?

There are no reported adverse events following use of repellents containing DEET in pregnant or breastfeeding women.

#### Are there any risks due to using repellents containing DEET?

Use of these products may cause skin reactions in rare cases. If you suspect a reaction to the product, discontinue use, wash the treated skin, and call your local poison control center. To reach a Poison Control Center near you dial 1-800-222-1222. Cases of serious reactions to products containing DEET have been related to misuse of the product such as swallowing and using on broken skin. Always follow the directions on the product label.

#### How to use DEET products safely:

- Read and follow directions on the product label.
- Do not apply repellent to cuts, wounds, or irritated skin.
- Do not allow young children to apply insect repellent.
- Do not apply to hands or near eyes or mouth of young children.
- To apply to face, spray on hands first and then rub on face. Do not spray directly onto face.
- Do not use under clothing.
- After returning indoors, wash treated skin with soap and water.
- Do not spray in enclosed areas. Avoid breathing a repellent spray and do not use it near food.
- Avoid applying DEET products to infants; instead, cover your baby's carriage or playpen with mosquito netting when outside.
- Pet owners should not use human repellents that contain DEET on animals. Some animals are more sensitive than people to direct application of DEET products. Check with your veterinarian for the appropriate products to protect your pet.
- Store insect repellent away from children's reach, in a locked utility cabinet or garden shed.

#### DEET Resource websites:

[www.cdc.gov/ncidod/dvbid/westnile/ga/insect\\_repellent.htm](http://www.cdc.gov/ncidod/dvbid/westnile/ga/insect_repellent.htm)  
Centers for Disease Control and Prevention  
Insect Repellent Use and Safety

[www.epa.gov/pesticides/factsheets/chemicals/deet.htm](http://www.epa.gov/pesticides/factsheets/chemicals/deet.htm)  
Environmental Protection Agency's DEET fact sheet

[www.mayoclinic.com](http://www.mayoclinic.com)  
To DEET or not to DEET?

[www.npic.orst.edu/factsheets/DEETgen.pdf](http://www.npic.orst.edu/factsheets/DEETgen.pdf)  
National Pesticide Information Center  
DEET fact sheet