



NON-CHEMICAL TIPS

- Use mosquito netting over infant carriers. Choose mosquito netting made of cotton (first choice) or nylon.
- Avoid areas where insects nest or congregate, such as garbage cans, stagnant pools of water, uncovered foods and sweets, and gardens.
- Dress in light weight clothing that covers skin, such as long pants and long sleeves.
- Avoid clothing with bright colors or flowery prints (they seem to attract insects).
- Don't use scented/fragranced soaps, perfumes, or hair sprays because they are inviting to insects (in addition to being unhealthy when inhaled).

TIPS FOR SAFE BUG REPELLENT APPLICATION

- Bug repellents should not be used on children younger than six months of age.
- DEET-containing repellents (30% concentration or lower) should not be applied more than once a day.
- Do not allow children to handle repellents; apply the product to your own hands first.
- Avoid applying DEET on children's hands or anywhere near the mouth to avoid possible ingestion.
- After returning indoors, wash your child's treated skin and clothes with soap and water or bathe them.
- Opt for bug repellents that are in the form of sticks, lotions or direct sprays as aerosols increase the amount of repellent inhaled.
- Avoid combination products, (bug spray + sunscreen).
- Read and follow the directions on the label!

WHAT IS DEET?

N,N-diethyl-m-toluamide, commonly referred to as DEET, is the active ingredient in most bug repellents found on the shelves at stores, such as Target or Walmart. DEET is a multi-purpose insect repellent that can be applied directly to the skin. It works in repelling any insects that may be potentially carrying disease. DEET was registered for use by the general public in the U.S. in 1957.

Is DEET Safe?

According to the EPA, insect repellents containing DEET do not present a health concern to the general public. However, DEET is meant to only be applied onto the skin. Caution must be taken to avoid breathing, swallowing or getting the multipurpose insect repellent into eyes because DEET is toxic if inhaled, or ingested. As always, consumers should carefully follow all label instructions to avoid any possible exposure side effects.



ALTERNATIVES TO DEET

There are both natural and synthetic alternatives to DEET that are currently on the market. Some alternative chemical methods include:

Picaridin (KBR 3023), which is available in concentrations of 5% to 10%. Picaridin generally has a duration of action similar to DEET. Some of the Avon Skin-So-Soft products contain picaridin such as, Avon Skin-Soft Bug Guard Plus Picaridin. Picaridin has not raised as many concerns about neu-rotoxicity (harm to the brain) as DEET, but it also has not had as much safety testing.

Oil of lemon eucalyptus products can also repel insects and have been tested by the EPA for effectiveness; however, these products have not been adequately tested on children under 3 years old and should not be used on children under the age of three, pregnant women and nursing mothers. It is also less effective than DEET and picaridin in defending against Aedes mosquitoes that transmit the Zika virus.

Products that use botanical extracts such as: lemon grass, citronella, peppermint, geraniol, and rosemary. However, these, may contain allergens in highly concentrated forms and their effectiveness varies greatly. The EPA does not require that products containing botanicals be tested for safety or effectiveness. Thus, there is not a lot of available data to confirm the effectiveness of botanicals products in keeping bugs away.

INTEGRATED PEST MANAGEMENT (IPM)

IPM strategies can help reduce the amount of unwanted bugs in and around your home or child care facility. To learn effective IPM tools read EHCC's IPM FAQ and Factsheet.

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