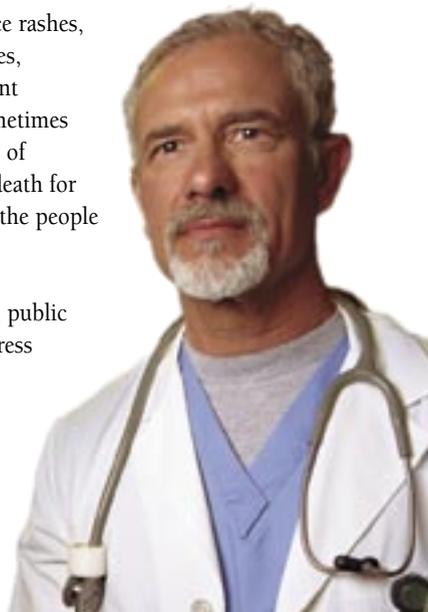


The CDC reports that ticks, mosquitoes, lice, fleas and other insect pests cause illness, suffering and death worldwide. Its experts suggest learning which insects are problems here at home, how to keep them away, and what to do if you are bitten.

West Nile virus, Lyme disease, encephalitis, malaria, dengue fever, Rocky Mountain spotted fever and others diseases occur across the United States, with the number of reported cases growing annually. Much more than just annoying, bites from infected mosquitoes and ticks can inject dangerous viruses and parasites into your body. These diseases have been known to produce rashes, fever, vomiting, seizures, paralysis and permanent brain damage, and sometimes are fatal. Some strains of encephalitis result in death for 10 percent or more of the people who contract them.

While a serious threat, public health professionals stress that insect- and tick-borne diseases can be controlled and avoided by following the commonsense strategies in this brochure.



## Travel Outside the U.S.

Travelers outside the U.S. are exposed to many exotic tick- and insect-borne diseases, so it's imperative to take additional precautions to ensure a healthy, happy trip. Each year thousands die from malaria, West Nile virus, dengue fever and other illnesses spread by mosquitoes. There is valuable disease-prevention information for travel to foreign countries on many Internet sites, which typically recommend packing DEET-based repellents when venturing to regions with insect- and tick-borne diseases.



## Mosquito-Borne Diseases

Mosquitoes can carry an array of serious, sometimes deadly diseases — among them West Nile virus, malaria, encephalitis, dengue fever and yellow fever.

According to the Centers for Disease Control and Prevention, the number of mosquito-borne disease cases is growing in this country.

Thousands of Americans are infected with a mosquito-borne disease every year, most commonly West Nile virus.

There are no approved human vaccines to prevent many forms of encephalitis. Active strains of encephalitis include La Crosse, St. Louis, eastern equine and western equine.

## Tick-Borne Diseases

Ticks can spread serious diseases that cause permanent (chronic) health problems.

Lyme disease, human granulocytic ehrlichiosis and babesiosis are all carried by the deer tick. Another tick species carries Rocky Mountain spotted fever, and new tick-borne diseases continue to emerge.

According to the Centers for Disease Control and Prevention:

- Nearly 20,000 cases of Lyme disease are reported every year in the U.S. with up to ten times as many cases unreported and undiagnosed. This number is growing as Lyme spreads.
- Lyme disease can last a lifetime and cause permanent disability.
- Detected early, Lyme disease can be treated with antibiotics, but health experts suggest prevention as a first line of defense for you and your family.

For more information, visit [www.cdc.gov](http://www.cdc.gov) or [www.aldf.com](http://www.aldf.com).



**CSPA**  
Consumer Specialty Products Association

*For more information please contact:*  
**DEET Education Program**  
**Consumer Specialty Products Association**  
900 17th St., N.W., Suite 300  
Washington, D.C. 20006  
1-888-NO-BITES (662-4837)  
<http://www.deetonline.org>

KA-8-08

# More Than a Nuisance... Insects and Ticks Can Impact Health and Comfort

**Enjoy the outdoors with fewer  
bug bites and reduced risk of  
insect- and tick-borne disease.**



**WHAT YOU NEED TO KNOW ABOUT:**  
**Insect Repellent Selection**  
**Proper and Effective Use of DEET-Based Repellents**  
**Insect Repellents and Sunscreens**  
**Insect- and Tick-Borne Diseases**

**[www.deetonline.org](http://www.deetonline.org)**

*A public education program of the Consumer  
Specialty Products Association.*

## Insects Are Everywhere

You don't have to go on safari, trek deep into the woods or take up fishing in the North Country to come into contact with biting insects and ticks. Mosquitoes, ticks, fleas and chiggers can be found much closer to home.

Backyard decks, swings and sandboxes, neighborhood swimming pools, park recreation area, sports fields, the beach and tennis courts—all are prime locations for close encounters of the “biting” kind.

### What can you do to reduce the incidence of insect and tick bites and the possible exposure to illness?

Experts suggest the following:

- Use an EPA-registered insect repellent containing DEET, as recommended by the Centers for Disease Control and Prevention. These products are among the most effective.
- Carefully read and follow all label directions for application and use.
- Dress in light-colored clothes to discourage mosquitoes and to enable you to spot ticks more easily.
- Wear collared, long-sleeved shirts and long pants with cuffs. Tuck your shirt into your pants and the pant cuffs into your socks or boots for maximum protection from ticks.
- For best protection against ticks, use a DEET-based product with a 15% or higher concentration. There are other products available for application specifically to clothing for tick protection.
- Avoid heavily wooded, high-grass areas and standing water.
- Look for ticks before you return indoors. Some are only the size of a pinhead. Check your clothing and around the scalp, nape of the neck, behind ears and knees, and armpits.
  - Remove ticks completely with tweezers. DO NOT attempt to remove ticks by using petroleum jelly, hot matches or other improper methods, which can increase the chance of infection. Flush any live ticks down a drain. Dead ticks can go into household trash.
  - Treat insect and tick bites with a topical antibiotic. If rashes or flu-like symptoms occur within the next few weeks, seek medical attention immediately.

### Tips for parents

- Parents should apply repellent on their own hands and then smooth it on the child's exposed skin.
- Do not apply repellents containing DEET to a child's mouth, hands or eyes.
- Keep insect repellents out of the reach of small children and carefully follow label directions when using repellents.
- Children under age 12 should not apply these products to themselves or others.
- Do not assume that, just because insects are not biting you, they are not biting the children. You may need to reapply repellent to your youngsters as needed.
- Always check children for ticks and insect bites after time spent outdoors.

Products containing DEET are “the most effective” repellents available and should be used when necessary to protect against insect- and tick-borne disease. Additional recommendations from the AAP include:

- Products containing up to and including 30 percent DEET can be used on children at least two months old. [Federal regulators say that all concentrations can be used by people of all ages when label directions are followed.]
- Apply DEET-based repellents sparingly and use additional preventative measures (see tips in this brochure under “Insects Are Everywhere”).
- If bitten by any insect or tick, treat the bite site with a topical antibiotic. If rashes or flu-like symptoms occur within the next few weeks, seek medical attention immediately.



## Frequently Asked Questions:

**Q.** *What is DEET?*

**A.** DEET (N, N-diethyl-m-toluamide) is the active ingredient in the most widely available insect repellents that are formulated to be applied to the skin.

**Q.** *Does DEET have government approval?*

**A.** DEET is registered by the Environmental Protection Agency for use according to label instructions. Registration occurs only after determining that products meet the strictest standards for effectiveness and after assessing risks to human health and to the environment.

**Q.** *How long has DEET been available to consumers and how widely is it used?*

**A.** Consumers have used DEET-based products for nearly 50 years with billions of applications. About 30 percent of Americans use DEET repellents each year. Use on children accounts for about 30 percent of DEET insect repellent applications.

**Q.** *Which DEET concentration should I use?*

**A.** DEET-based insect repellents have a variety of concentrations based on a variety of uses. Generally, the longer you are outside, the higher concentration you should use. Higher concentrations also are recommended for all outdoor activities in regions with large populations of biting insects or ticks. Other factors are the type of activity and geographic location. Federal regulators have determined that all concentrations can be used by people of all ages when label directions are followed.

**Q.** *How can I determine what the concentration is?*

**A.** Each product has a list of ingredients that shows the percentage or concentration of DEET it contains.

**Q.** *Can I use a DEET insect repellent and sunscreen at the same time?*

**A.** The use of separate sunscreen and repellent *may* reduce the effectiveness of either or both the sunscreen and repellent. Combination repellent/sunscreen products help avoid this problem and ensure that the products effectively deliver both benefits (UV protection and insect repellency). Keep in mind that the duration of UV protection is quite variable among individuals, so UV protection may or may not last as long as the repellent will. Despite this, combination products should be used primarily as repellents and reapplied only when needed for insect protection.

## When Applying Insect Repellents

### Do

- Apply to all exposed skin areas and/or clothing as directed on the product label. Use aerosols or pump sprays for skin and for treating clothing. These products provide even application.
- Use liquids, creams, lotions, towelettes or sticks to apply more precisely to exposed skin.
- After your outdoor activity, wash repellent-treated skin with soap and water.
- Always keep insect repellents out of the reach of small children.

### Don't

- Don't apply to eyes or lips or over cuts, wounds or irritated skin.
- Don't over-apply or saturate skin or clothing.
- Don't apply to skin under clothing.
- Don't apply more often than directed on the product label.