



***Biting Insects and Ticks Can
Impact Health and Comfort***

***Take Personal Protection
Measures To Help Reduce
The Risk Of Contracting
Insect- And Tick-Borne Diseases***

WHAT YOU NEED TO KNOW ABOUT:

Insect Repellent Selection

Proper Use of Repellents

**Reducing exposure to
Insect- and Tick-Borne Diseases**

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

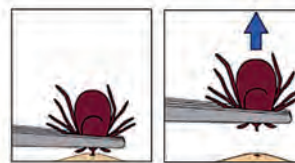
Biting Insects and Ticks Are Everywhere

You don't have to travel abroad, trek deep into the woods or go fishing in Alaska to come into contact with biting insects and ticks. Mosquitoes, ticks, fleas and chiggers can be found much closer to home. Backyards, playgrounds, neighborhood swimming pools, parks, recreation areas, athletic fields, the beach, and tennis courts—all are prime locations for close encounters of the "biting" kind.

To help reduce the incidence of insect and tick bites and potential exposure to diseases they may carry, experts suggest the following:

- Use insect repellent containing an EPA-registered active ingredient like DEET, carefully following all label directions.
- Avoid heavily wooded, high-grass areas and standing water.
- Dress in light-colored clothes to discourage mosquitoes and to enable you to spot ticks more easily.
- For additional protection against ticks:
 - 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.
 - The federal Centers for Disease Control and Prevention (CDC) recommend using a DEET-based repellent with a concentration of 20% or more for protection for up to several hours from ticks.
 - Products available for application specifically to clothing are effective but should *never* be used on your skin. Follow label directions for their use as these are insecticides, not repellents. They kill insects and ticks on contact.
 - 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, groin, and armpits. Once inside, shower as soon as possible and do another tick check.
 - Immediately put your clothing in the clothes dryer on "high" to kill ticks hitchhiking on your clothing. (Ticks will survive a trip through the washing machine.)
 - Remove attached ticks with tweezers. (See illustration.) DO NOT use petroleum jelly, hot matches, dishwashing liquid or other improper methods. Kill ticks by putting them in a small container with alcohol.

- Treat insect and tick bites with a topical first aid product. If rashes or flu-like symptoms occur within 14 days, seek medical attention.



Frequently Asked Questions

What is DEET?

DEET (N, N-diethyl-m-toluamide) is the active ingredient in the most widely-available insect repellents. It is registered for use by the U.S. Environmental Protection Agency (EPA). It has been used in repellent products for 60 years and is one of the most thoroughly-researched consumer products ingredients on the market today.

What does EPA registration mean?

Registration occurs only after the EPA determines that the active ingredient in the repellent product meets standards for effectiveness and is unlikely to affect human health or the environment when the product is used according to label directions.

How widely is DEET used?

Consumers have used DEET-based products for decades, with billions of applications. About 30 percent of Americans use DEET repellents annually.

Which DEET concentration should I use for mosquitoes?

DEET-based insect repellents are available in concentrations from five percent (5%) to 100 percent. Higher concentrations provide longer periods of

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Which concentrations work best for ticks?

The CDC recommends only those repellents that contain DEET, noting that higher concentration products (20% or more) give longer lasting protection than lower concentration products.

How can I determine what the concentration is?

Each product has a list of ingredients that shows the percentage ("concentration") of DEET it contains. This is on the front of each product.



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

Yes. The CDC suggests applying sunscreen first. Once it dries on the skin, apply repellent. Reapply sunscreen lavishly and often. Reapply repellent only when bugs start biting you again.

Applying Insect Repellents

DO:

- Apply evenly to all exposed skin and, for ticks, to clothing as directed on the product label. (Use aerosols or pump sprays for skin and for treating clothing.) Direct sprays onto the skin—don't randomly spray around yourself. Use liquids, creams, lotions, towelettes or sticks to apply more precisely to exposed skin.
- Smooth products evenly over exposed skin to assure coverage.
- After your outdoor activity, wash repellent-treated skin with soap and water.
- Always keep insect repellents out of the reach of young children.
- Apply to children by putting the repellent on your own hands, then smoothing it evenly onto the child's exposed skin.

DON'T:

- Don't apply to eyes, lips or mouth or over cuts, wounds or irritated skin.
- Don't over apply or saturate skin or clothing. More is not better.
- Don't apply to skin *underneath* clothing unless mosquitoes can bit through the fabric.
- Don't apply more frequently than directed on the product label.
- Avoid repellent application on hands of young children who put their fingers in their mouths and/or rub their eyes.





Bites from infected ticks, mosquitoes and other insects can inject dangerous viruses, bacteria and parasites into your body. These disease-causing organisms can cause rashes, fever, vomiting, seizures, paralysis, permanent brain damage, and sometimes death. In the case of Zika virus, preventing bites is crucial for helping to avoid devastating outcomes to babies whose mothers are infected during pregnancy. So, using the personal protection strategies suggested in this brochure is an important first step in helping to keep your family healthy and happy.

Please see www.deetonline.org for more information.



Tips For Parents

- Do not randomly spray repellent around your child. Instead, apply repellent to your hands, then smooth it evenly onto your child's exposed skin. There's no need to apply beneath clothing. Follow label directions.
- Do not apply repellent to your child's mouth, hands or eyes.
- Keep repellents out of the reach of young children. Children should not apply repellent to themselves or others until they can read and understand product label instructions.
- Do not assume that insects are not biting your children just because they are not biting you. You may need to reapply repellent to your youngsters, as needed.
- Always check children for ticks and insect bites after time spent outdoors.
- Apply repellent sparingly and take additional preventative measures. (See tips in this brochure under "Insects Are Everywhere.")

What Experts Say

- Experts recommend using repellents formulated with DEET to help protect against bites that can lead to insect- and tick-borne disease such as West Nile fever, Zika, Lyme disease, and Rocky Mountain Spotted fever. (See www.deetonline.org for more expert comments.)
- The American Academy of Pediatrics issued guidance in 2003, noting that products containing up to and including 30 percent DEET can be used on children as young as two months of age.

Travel Outside the U.S.

Travelers outside the U.S. may be exposed to a variety of insect- and tick-borne diseases including malaria, chikungunya, dengue fever and other illnesses transmitted by mosquitoes and ticks. Zika virus is particularly dangerous for unborn children. Travel clinic sites offer valuable disease-prevention information. Travelers are encouraged to taking DEET-based repellents along on their trip and to follow other CDC guidance for personal protection measures. www.cdc.gov/zika

Mosquito-Borne Diseases

Mosquitoes can carry an array of serious, sometimes deadly diseases — among them West Nile fever, Zika, malaria, eastern equine encephalitis, dengue fever and yellow fever. According to the Centers for Disease Control and Prevention (CDC), the number of mosquito-borne disease cases is growing. West Nile virus now endemic throughout the U.S. Zika virus is found in tropical and subtropical parts of the world, with more cases being reported in the U.S. There are no approved human vaccines to help prevent mosquito-borne illness, and no cures, so taking personal responsibility for your protection and protection of your family is important. www.cdc.gov/ncidod/diseases/list_mosquitoborne.html

Tick-Borne Diseases

Ticks can carry serious diseases that can cause permanent (chronic) health problems and can sometimes be fatal without prompt treatment. According to the Centers for Disease Control and Prevention (CDC), nearly 300,000 cases of Lyme disease are reported every year in the U.S. It, anaplasmosis and babesiosis are carried by the deer tick. Other ticks carry Rocky Mountain spotted fever, ehrlichiosis, tularemia and/or several newly-identified tick-borne diseases. Detected early, many tick-borne diseases can be treated effectively 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/ticks/diseases/ or www.deetonline.org. Maps show where tick-borne diseases are most prevalent.



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