

AVOIDING & REPELLING MOSQUITOES AND OTHER BITING NASTIES

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DO MOSQUITOES AND BITING FLIES LIKE YOU?

The reasons mosquitoes are attracted to humans are very complex. We know for certain that the carbon dioxide you exhale is a very important attractant for all biting insects. We know there are other chemicals in your breath as well as on the surface of the skin, such as the lactic acid produced by muscle movement that can also be attractive.

The color and texture of skin and clothing may also be important. Certain soaps, perfumes, lotions, hair treatment and other personal care products also have chemicals in them that are attractive to mosquitoes and other insects.

AVOIDING MOSQUITOES

The obvious way to avoid mosquitoes is to stay indoors during peak biting activity, specifically at dusk and dawn. This is especially good advice if there is an outbreak of a disease carried by mosquitoes. When you are outdoors you can avoid mosquitoes by staying away from shaded, humid areas where there is little wind. Mosquitoes are less likely to bite you in open, sunny and breezy areas. If you are bothered by a few mosquitoes, you can often protect yourself by wearing long pants and a long-sleeved shirt. The more skin you cover the fewer bites you will get. Light colored clothes make you less attractive, loose fitting clothes make it more difficult for insects to bite you.

REPELLING MOSQUITOES

Best of the lot – DEET. It has long been known that the most effective insect repellents are those which contain DEET. DEET is the abbreviation for the chemical N, N-diethyl-meta-toluamide. DEET has been sold in the United States since 1956 and is used by 50-100 million people each year. It repels mosquitoes, no-see-ums, fleas, ticks, gnats, horse flies, deer flies, yellow flies and chiggers. Repellents containing DEET are available as pump sprays, aerosols, lotions, creams, soaps, and sticks. In general, the inexpensive products contain less than 10% DEET, while the more expensive ones are at least 20% DEET. There are at least 40 products containing from 5% to 95% DEET that can be purchased. Products with more than 35% DEET are available, most often, through camping and outdoor supply stores. Which one do you choose, and why? If a little DEET is good; is a lot of DEET better? Not necessarily. In tests done by the Army, repellents with 30-40% DEET worked twice as well as repellents with 75% DEET.

SELECTING A REPELLENT WITH DEET

Read the label. Determine the amount (percent) of DEET it contains. The label will not usually read DEET, instead it will list N, N-diethyl-meta-toluamide under the ACTIVE INGREDIENTS. The concentration of DEET you need may differ from someone else's needs. Just as some people are more attractive to mosquitoes than others; some people need higher concentrations of DEET, or need to apply it more often, than others. Products with 10% to 35% DEET are usually sufficient. Use the lowest concentration that is effective for you.

Next, check to see if it is a controlled release formula or, in their words, long-lasting. Finally, compare the amount of product (ounces) and type of application: lotion, spray, stick. Lotions provide the most even coverage; sprays are more convenient but require greater care in applying. Before using any product, READ THE ENTIRE LABEL.

SIDE EFFECTS OF DEET

While DEET is an effective repellent, high concentrations can make you feel unpleasantly oily and can melt plastic, wax crystals and paint finishes. It is safe on nylon, cotton, and wool; it can, however, damage rayon, acetate and spandex. Test an inside seam of polyester/cotton blends to see if DEET affects them. DEET can also irritate eyes and sensitive skin or dry it out. Some people are allergic to DEET. Infants and children tend to be more sensitive to DEET than adults. To minimize the adverse reactions to DEET:

- Apply repellent sparingly and only to exposed skin.
- Apply repellent to clothing to reduce DEET absorption through the skin.
- Avoid using products with DEET concentrations above 50%, particularly on children and infants.
- Do not inhale or ingest repellents or get them into the eyes or wounds or irritated skin.
- Avoid applying repellent to portions of children's hands that are likely to have contact with the eyes or mouth.
- Wash repellent-treated skin after coming indoors.
- If a suspected reaction to insect repellent occurs, wash treated skin and call a physician. Take the repellent container to the physician.

WHAT IF I AM SENSITIVE OR ALLERGIC TO DEET?

There are a few repellents that do not contain DEET that can be applied to the skin. Products with citronella (an oil extract from lemon-scented grass) or eucalyptus can be purchased frequently in health-food or camping/outdoor stores. Avon's Skin-So-Soft®, is widely used as a repellent but is not as effective for all people. These are good choices for children, although they must be reapplied more frequently. All of these chemicals are much less effective than DEET.

WHAT IF I DON'T LIKE TO WEAR REPELLENT

When it is impractical or undesirable to wear repellent, it is much more difficult to avoid mosquito bites. There are a variety of repellent plants, candles, coils, and area repellents (crystals that you spread on the ground) that contain citronella, pyrethrums (extract of chrysanthemum) or a similar synthetic compound, on the market. These have very limited use. While they **SHOULD NOT BE USED INDOORS**, they may help in screened-in porches, around pools or patios where there is very little air movement.

NO-NO'S

There are some products on the market that we know are not effective repellents or mosquito control devices. The popular and expensive bug zappers are not effective in controlling biting insects. Yes, they kill mosquitoes, but they also kill beneficial insects, often in greater numbers. The lights of the zappers attract more mosquitoes into your yard than if you didn't have it.

Birds and bats, while desirable for other reasons, will not reduce the number of mosquitoes in your yard. Even the National Purple Martin Association rejects the idea that martins will control mosquitoes.

There is no scientific evidence that eating garlic, vitamins, onions or any other food stuff will make you more repellent to mosquitoes, thus, they cannot be recommended. The attractant level of an individual is based on a very complex interaction of the many chemicals you exhale, perspire or wear. It may be that some foods may make you more attractive or repellent to mosquitoes. If it works for you, or you think it works for you, use it.

For more information...

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