

# What are Natural Mosquito Repellents?

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It's no secret that mosquito bites can transfer a number of diseases to humans and animals, the most common of which are malaria, dengue fever, and encephalitis (inflammation of the brain).

Before you whip out a can of mosquito-repelling spray during your next camping trip, you should know that many conventional brands contain DEET, a powerful pesticide that has been linked to a number of health problems such as skin rashes, dizziness, and even seizures.

According to recent studies by researchers at Duke University, regular and prolonged exposure to DEET via topical application, especially when used together with other pesticides or chemicals, causes significant brain cell death and behavioral changes in laboratory rats.

The American Academy of Pediatrics recommends that children under six years of age are not exposed to repellents that contain more than 10 percent DEET. The Academy also recommends that infants less than two months old are not exposed to any DEET whatsoever.

DEET is thought to work by blocking insect receptors that are used to detect carbon dioxide and lactic acid on or around human and animal targets.

Rather than expose yourself to the toxic effects of DEET and other pesticides, I encourage you to try some or all of the following natural measures to prevent mosquito bites:

- Strive to wear light-colored clothing. Many mosquitos use their vision to locate targets from a distance; dark clothing and rich foliage are excellent attractants.
- Try not to be outdoors when you are hot. You release more carbon dioxide when you are hot, and carbon dioxide is a major attractant of mosquitos.
- Try not to be outdoors after an intense workout. Vigorous exercise can result in significant lactic acid build-up in your muscles, and lactic acid is a strong attractant of mosquitos.
- Don't eat salty foods. Eating salty foods can cause you to produce higher-than-normal amounts of lactic acid.
- Avoid using products with fruity or floral fragrances. These fragrances are mosquito attractants.
- Wipe off perspiration on a regular basis. Perspiration attracts mosquitos via the chemicals contained within.

Perspiration increases the humidity around your body, which also attracts mosquitos.

- If possible, stay away from pools of water. Even mud puddles and moist plants attract mosquitos.
- Use any of the following natural plant oils as natural mosquito repellents:
  - Lemon Eucalyptus Oil
  - Citronella Oil
  - Cinnamon Oil
  - Rosemary Oil
  - Peppermint Oil

These natural plant oils typically need to be re-applied on a regular basis, as they wear off more quickly than conventional bug sprays.

A widely available product called Repel Lemon Eucalyptus has been shown through a number of studies to be an extremely effective mosquito repellent. Bite Blocker is another commercially available natural mosquito repellent that has tested well.

- Be aware of the following factors that can lower repellent effectiveness:
  - Use of sunscreens
  - Dilution by rain or swimming
  - Absorption into skin
  - Quick evaporation due to wind and/or high temperatures