

PUBLIC HEALTH : West Nile virus (WNV)

Debunking mosquito Repellent myths

This fact sheet provides basic information only. It must not take the place of medical advice, diagnosis or treatment. Always talk to a healthcare professional about any health concerns you have - and before you make any changes to your diet, lifestyle and treatment.

Scientific evidence, speculation and lore abound when it comes to repelling mosquitoes - we've all heard our share of myths and home remedies that can prevent mosquito bites. However, you should use caution before trusting in these remedies. Comment from experts on some of these myths is outlined below, but they commonly agree that none of these home remedies are as effective as covering up and wearing a federally registered insect repellent such as products containing DEET (N, N-diethyl-m-toluamide).

Myth 1 - Fabric softener sheets

Touted as great for babies, this home remedy was introduced as a solution to the issue of not being able to apply DEET to infants. While it may sound like a friendly way to fight off mosquitoes, no known scientific studies have been done that show it to be effective at preventing mosquito bites. The best protection for infants and toddlers is to keep them covered in light-coloured, loose-fitting clothing and drape netting over prams or strollers.

Myth 2 - Bananas, garlic and other foods

It is said that if you eat bananas, you will attract mosquitoes, whereas if you eat garlic you will repel them. While your pores can emit scents, no studies suggest these attract or repel mosquitoes. Mosquitoes are attracted to carbon dioxide and strong fragrances from soaps, lotions, deodorants, hair care products and perfumes.

Sources :

- [University of Florida, Institute of Food and Agricultural Sciences](#)
- Fradin, M.S. and Day, J.F., Comparative efficacy of insect repellents against mosquito bites;
- [New England Journal of Medicine \(2002\), Vol. 347 : 13-18.](#)

Myth 3 - Vitamin B-1 and plant derived essential oils

Thousands of plants have been tested as potential sources of insect repellents, however none of the plant-derived chemicals tested to date demonstrate the effectiveness and duration of federally

registered insect repellents that contain DEET. There is no scientific evidence to indicate that Vitamin B-1 is effective in preventing mosquito bites.

Sources :

- [Fradin, M.S. \(1998\), Annals of Internal Medicine, Vol. 128 : 931-940;](#)
- [Fradin, M.S. and Day, J.F. \(2002\), Vol. 347 : 13-18.](#)

Myth 4 - Skin care products

From babies to adults, some people have been using common skin care products (e.g., bath oils) in the hopes that mosquitoes will be kept at bay. However, a study published in the July 4, 2002 issue of The New England Journal of Medicine stated that the insect repellent ingredient ("IR3535") found in common skin care products afforded shorter protection times than DEET-containing products.

Sources :

- [University of Florida, Institute of Food and Agricultural Sciences;](#)
- [Fradin, M.S. and Day, J.F. \(2002\), Vol. 347 : 13-18.](#)

Myth 5 - Bug zappers & electronic devices

Researchers have found that while bug zappers do attract and kill thousands of insects within a 24-hour period, mosquitoes comprise only 6.4 per cent of a five-day insect catch and only half of the mosquitoes killed were females - the ones that bite humans. Numerous scientific studies have also shown that electric devices that emit high-frequency sounds have not been proven to significantly reduce exposure to mosquito bites.

Sources :

- University of Florida study, UF/IFAS Florida Medical Entomology Laboratory, Dr. Jonathan F. Day, Ph.D, July 1997;
- [Pennsylvania West Nile Control Program.](#)

Myth 6 - Citronella

Citronella is the trendiest product currently used to repel mosquitoes. According to Health Canada, citronella oil repellents registered in Canada protect people against mosquito bites for less than one hour. Citronella should not be used on children under two years of age. Products containing citronella, such as candles, are only effective at repelling mosquitoes at very close range and when wind is minimal.

Sources :

- [Health Canada;](#)
- [Fradin, M.S. and Day, J.F. \(2002\), Vol. 347 : 13-18.](#)

Myth 7 - Citrosa plants, marigolds, etc.

There are no known plants that, when planted near houses, prevent mosquitoes from entering the building or from biting humans that pass by them.

Source :

- [Citrus County Mosquito Control District of Florida.](#)

Myth 8 - Bats & purple martins

Research shows that bats and Purple Martins are selective feeders and mosquitoes make up a very small percent of their diet. If given a choice, both these winged animals will dine on larger insects.

Source :

- [Pennsylvania West Nile Control Program.](#)