

PROTECTION MEASURES AGAINST MOSQUITO BITES

An initiative of the
“Identification and Distribution
of Mosquito Vectors of Medical
Importance on the island of
Cyprus (ID-Vec)” project
Technical Committee on Health

Mosquito species are an infamous nuisance to humans and they have the ability to affect our quality of life, outdoor working conditions, athletic and leisure activities. Even just one mosquito entering your house can ruin your whole evening while enjoying a movie or can lead to poor sleep due to buzzing near your ear all night.

By way of viruses and parasites, some mosquito species also carry the risk of transmitting diseases to humans through biting, making them a public health concern. Mosquitoes can act as vectors of malaria, yellow fever, Chikungunya, West Nile fever, dengue fever, filariasis, Zika and other arboviral diseases.

“*Disease vector is any agent which carries and transmits an infectious pathogen into another living organism*”^[1]



DID YOU KNOW THAT YOU COULD BE BREEDING MOSQUITOES IN YOUR OWN HOME?

The mosquito life cycle consists of four stages: egg, larva, pupa, and adult. Female mosquitoes bite animals and humans in order to produce eggs. Our blood provides them with the nutrients necessary for developing eggs. In a few days' time, eggs are either deposited directly on water, on surfaces of water-holding containers or the ground. Because mosquitoes need water for the first three stages of their life cycle, it is essential to monitor standing water sources^[2]. These can be:

- ✘ Standing water in rain gutters, old tires, buckets, plastic covers, toys, manholes, or any other container where mosquitoes can breed.
- ✘ Water in bird baths, fountains, wading pools, rain barrels and potted plant trays.
- ✘ Temporary and/or swimming pools, rock pools.
- ✘ Channels, marches, riverbanks floodwater.

HOW TO ELIMINATE MOSQUITO BREEDING SOURCES FROM YOUR HOME ^[3]

- ✓ Eliminate standing water from all sources – natural and artificial.
- ✓ Clean debris from rain gutters to allow proper drainage.
- ✓ Empty and/or change the water in potted plant trays, bird baths, fountains, and wading pools at least once a week to prevent mosquito development.
- ✓ Check around air conditioner units and avoid puddles.
- ✓ Eliminate seepage from cisterns, cesspools, and septic tanks.
- ✓ Drain or fill temporary pools of water with sand.
- ✓ Keep swimming pool water treated and circulating.
- ✓ Cover unused containers that can collect rainwater when not in use.
- ✓ Drill holes in the bottom of tire swings to allow any water to drain.
- ✓ Fill in tree holes and hollow stumps that hold water with sand.

References

- [1] Last, James, ed. (2001). A Dictionary of Epidemiology. New York: Oxford University Press. p. 185. ISBN 978-0-19-514169-6. OCLC 207797812.
- [2] Success in Mosquito Control: An Integrated Approach. Mosquito Control. CDC and EPA. Last updated 2016. <https://www.epa.gov/mosquitocontrol/success-mosquito-control-integrated-approach>
- [3] Tips to Prevent Mosquito Bites. Repellents: Protection against Mosquitoes, Ticks and Other Arthropods. CDC and EPA. Last updated 2019. <https://www.epa.gov/insect-repellents/tips-prevent-mosquito-bites>
- [4] healthywa.wa.gov.au/FighttheBite
- [5] <https://www.iamat.org/country/cyprus/insect-bite-prevention#>

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HOW TO PROTECT YOURSELF FROM MOSQUITO BITES

PHYSICAL MEASURES^[5]

“Prevent mosquitoes from coming close to you in the first place.”

- ✓ Install window and door screens if they are not already in place. Completely cover baby carriers and beds with netting.
- ✓ Ensure that all door and window screens do not have tears or holes and that they are tightly fitted.

PERSONAL PROTECTION

- ✓ A mosquito's first choice for biting is your bare, unprotected skin. When going outside, especially at times when mosquitoes are active, make sure you wear appropriate clothing that is difficult for the mosquitoes to penetrate. Wear light-colored, loose-fitting, long-sleeved shirts and long pants.
- ✓ Insect repellents containing DEET or picaridin are the most effective.^[4] | Always follow the instructions on the label.

HOW TO CONTROL MOSQUITO LARVAE

At the larval stage, mosquitoes are concentrated, less mobile and easily accessible.

HABITAT MANAGEMENT^[2]

- ✓ Involvement of the community is essential to these interventions, especially in urban areas. | Citizens and residents of high-risk areas of mosquito-borne diseases can be proactive in eliminating standing water or alerting the competent authorities about their presence to conduct mosquito control.
- ✓ Successful control efforts are those combining breeding source removal with other means of control.

What would happen if we used a magic wand to get rid of all the mosquitoes in the world?

“Do not forget that although they can be perceived as a nuisance, not all of them bite. Mosquitoes are a critical food source for living beings at the bottom of the food chain.”