

# Mosquito Control

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In addition to being a nuisance, mosquitoes can also transmit diseases such as Heartworm disease in dogs and cats, and West Nile virus in many species.

To control mosquitoes and reduce the chances of you and your pets being bitten, there are three things you need to do:

1. Eliminate breeding sites
2. Reduce exposure
3. Use repellents



## Eliminate Breeding Sites

One of the most important things to remember is that mosquitoes need stagnant water to reproduce. No water, no reproduction. Control, then, is based on removing standing water, which can serve as a breeding site.

- Destroy or dispose of tin cans, old tires, buckets, unused plastic swimming pools or other containers that collect and hold water. Do not allow water to accumulate in the saucers of flowerpots, cemetery urns, or in pet dishes for more than 2 days.
- In areas where standing water cannot be avoided, use products that contain the insect growth regulator (IGR) methoprene. This stops the development of juvenile mosquitoes into adults.
- Clean debris from rain gutters and remove any standing water under or around structures, or on flat roofs.
- Check around faucets and air conditioner units and repair leaks or eliminate puddles that remain for several days.

- Change the water in birdbaths and wading pools at least once a week.
- Reduce mosquito breeding in ornamental ponds.
  - Stock ornamental ponds with top feeding predacious minnows. [Mosquito fish](#), for example, can eat 100 to 500 larvae per day. [Koi](#) or [goldfish](#) can be added to larger ponds.
  - Treat the pool with biorational larvicides (*Bacillus thuringiensis* subsp. *Israelensis*, (*Bti*)). These products include [Mosquito Dunks](#) and [Microbe-Lift Liquid Mosquito Control](#). They will not harm plants or fish, but they will help eradicate mosquito larvae.
  - Add a feature such as a [waterfall](#), [fountain](#), or [aerator](#). These options will not only enhance its beauty, but will also prevent it from becoming a breeding ground for mosquitoes, since they prefer to breed in stagnant, not moving water.
- Eliminate seepage from cisterns, cesspools, and septic tanks.
- Eliminate standing water around animal watering troughs. Flush livestock water troughs twice a week.
- Check for trapped water in plastic or canvas tarps used to cover boats, pools, etc. Arrange the tarp to drain the water.
- Irrigate lawns and gardens carefully to prevent water from standing for several days.
- Repair potholes in driveways and private roads.
- Fill any tree holes with sand.

## Reduce Exposure to Adult Mosquitoes

- Mosquitoes are a favorite food for bats and birds, so placing [bat houses](#) and [bird houses](#) in your area is a great way to decrease the mosquito population naturally, without any toxic chemicals.
- Keep pets indoors during peak mosquito hours, which are dawn and dusk.
- Install or repair window and door screens so that mosquitoes cannot get indoors.
- Reduce light at night since light tends to attract mosquitoes.
- Adult mosquitoes prefer to rest where it is cool, dark, and damp, so keeping grass cut and weeds and brush under control, may encourage mosquitoes to

find shelter elsewhere.

- Some products can be used throughout the yard. USE EXTREME CAUTION with these products. Take care to not spray when or where runoff could go into lakes or rivers. Read the label on all insecticides thoroughly and apply them as directed. Remember, these chemicals may kill beneficial insects as well as those we do not wish to have around.
- Consider a [mosquito trap](#). These devices emit various combinations of vibrations, carbon dioxide, scent, heat, and moisture, which attract mosquitoes and other insects. A vacuum device then sucks the insects into a net or cylinder where they are trapped and die.

## Use Repellents

Repellents are chemical substances that mosquitoes will avoid. Repellents can be useful as a way to reduce the risk of being bitten. Because repellents are potentially toxic, be sure to read the label carefully and use the product according to the manufacturer's recommendations.

- **Natural repellents for the environment:** Products containing oil of sandalwood or citronella, such as Mosquito Sticks, outdoor candles, torches, and coils are used to repel mosquitoes outdoors. When burned, these products produce a smoke that repels mosquitoes. Unfortunately, they are only effective when used under windless conditions.
- **Permethrin-containing repellents for clothing:** Repellents containing permethrin are recommended for use on articles such as clothing, shoes, bednets, and camping gear. Permethrin repels and kills mosquitoes as well as ticks and other arthropods. DO NOT use permethrin products on human skin.
- **Repellents for pets:** There are several mosquito repellents available for pets. NOTE: Human repellents containing DEET are not recommended for pets and should be avoided. Additionally, since no repellent is 100% effective, heartworm preventatives are still necessary even if a mosquito repellent is used.
  - To protect your dog, look for repellents formulated especially for pets that contain either permethrins or pyrethrins, such as [Flys Off® Mist Insect Repellent](#).
  - To protect your cat, look for products specially formulated for cats, such as [Bio Spot® ACTIVE CARE Flea & Tick Spray for Cats](#).  
**NOTE: Permethrins are NOT safe for cats.**

Controlling mosquitoes in your environment is a daunting task. But by eliminating breeding sites and reducing your exposure to adult mosquitoes, along with using appropriate repellent products, you can offer yourself and your pets the best protection possible.

Learn what every pet owner needs to know about heartworm prevention: visit our [Special Heartworm Disease Information Section!](#)