

## Mosquito Habitat Control

One thing the experts agree on is that our first line of defense against West Nile Virus should be to reduce the conditions that mosquitos need to reproduce. We call this habitat control. If we don't have mosquitoes, the disease cannot be spread to humans or wildlife. Habitat control is the lowest cost, least toxic, most effective way to lower your risk of contracting the disease. The City urges everyone to reduce the areas near your home where mosquitos can breed.

Mosquitos can breed in very small amounts of standing water in as little as five days. After mating, adult female mosquitos will take a blood meal by biting a human or an animal. She will then lay eggs in or near standing water. Once the eggs hatch, the mosquito larvae will live in the water until they develop into adults. The best way to control mosquito habitat is to eliminate all standing water that the mosquitos need to breed. Because some species of mosquito only need very small amounts of water, citizens must be diligent in removing or fixing places where water can collect.

Here are some examples of items that can provide mosquito breeding habitat:

- buckets, toys, and other items in yards;
- untreated swimming pools;
- pet food and water bowls;
- bird baths;
- garbage cans and recycle containers;
- outdoor potted plants with saucers;
- plastic corrugated drainage pipe, even if buried underground;
- fish ponds or other artificial water ponds;
- gutters and downspouts that don't drain completely;
- beds of pickup trucks.

There are a number of things you can do to reduce mosquito habitat. All of them involve: 1) reducing the number of places where water can collect; 2) cleaning out water containers that you must have outdoors at least every five or seven days; 3) keeping mosquitos from getting to the standing water, or 4) finding a way of eliminating mosquito larvae before they mature into adults.

There are many easy ways to reduce mosquito habitat around your home. The easiest way is to place all toys, plant pots, buckets, or other items where water cannot collect in them. You can also use items such as fiberglass window screening, the same material that is used in your windows, to keep mosquitos away from standing water in items that must stay outside, such as certain plant pots and corrugated drainage pipes. Fiberglass screening can be purchased in rolls at hardware stores and can be cut to size with scissors. It can be secured to plant pots and to corrugated pipes, downspouts, and other items with specially sized clamps or duct tape. In limited circumstances, standing water can be treated with a safe type of pesticide.

Here are some suggestions for reducing mosquitos:

- T It is best to remove or all toys, buckets, and other items where water can collect or be sure to dump them out after each rain.
- T Drill 1/4 inch drain holes in garbage/recycle containers that may collect water. Our City recycle containers have holes, but they are not in the very bottom of the container so water can still collect unless you drill holes on the very bottom.
- T Leave outdoor potted plants without saucers or secure fiberglass screening around them so mosquitos cannot get in or out of the saucer. Cut a piece of fiberglass screening large enough to cover the bottom of the saucer and go up the sides of the plant pot so that mosquitoes can't get into the saucer. Duct tape can be used to secure the screening.
- T Thoroughly clean out birdbaths and children's pools at least every five days.
- T Does your fish pond have fish? If not, you can purchase fish, even inexpensive goldfish, to live in the pond and eat the mosquito larvae. Monitor fish ponds to be sure no larvae are living in the water. Larvae are 1/8 to 1/4 inch long and will wiggle in the water.
- T Fix any gutters and downspouts that do not drain properly.
- T Secure fiberglass screening around ribbed/corrugated drain pipes. Dryer clamps (developed for clothes dryer hoses and available in hardware stores) can be used to secure the screening. Duct tape might also work—check after a heavy rain to be sure the force of rainwater does not push the screening off the pipe.
- T Do your gutters or sump pump pipes empty into a corrugated pipe? Secure fiberglass screening to both pipes so the mosquitos can't get into the corrugated pipe. Automobile hose clamps can be used to secure the screening on smaller pipes. Duct tape may also work—be sure it is tight.
- T If your pickup truck has a bed liner, rainwater can collect in the bed. Even cars and other vehicles can have small spots under the hood or trunk lid where rainwater can collect. Drive your car or truck around the block within five days of each rainfall to drain this water.

As a last resort, you can treat bird baths or fish pools with *Bacillus thurengensis israelensis* (Bt-i) or drain them. Bt-i can be purchased at reputable garden centers. Bt is a naturally occurring bacterium. Bt-i is a specialized strain of Bt which is best for attacking mosquito larvae. The Bt-i that we have seen comes in a “donut” shape and is good for up to 30 days.<sup>1</sup> Do not treat any natural body of water, including wet spots in your yard, with any pesticide, including Bt or Bt-i. You must first obtain a toxic materials permit from the Maryland Department of the Environment before treating natural bodies of water, even wet spots in your yard. (410-631-3323)

The most prudent way to reduce your risk of becoming infected with West Nile virus is by reducing mosquito habitat. This helps reduce the spread of mosquito-borne diseases and makes your time in your yard more comfortable, too!

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<sup>1</sup>If there are dogs in the neighborhood, watch to be sure they don't eat the Bt-i “donuts.” The Bt-i won't hurt the dog, but it won't be very effective in killing mosquito larvae if it is inside the dog.