

KEEPING ZIKA OUT OF YOUR NEIGHBORHOOD

The enemy

Zika is carried by the Yellow Fever Mosquito, an African species, better known by its scientific name ***Aedes aegypti***.



Photo credit Mark Yokoyama

Aedes aegypti can be recognized by the combination of white bands on their black legs and the Greek lyre pattern of white lines on their chestnut-colored backs.

Aedes aegypti breed in containers of freshwater around human habitation. *Aedes aegypti* need very little water to breed – they can even breed in a discarded bottle cap. They do not breed in flowing water, fields, flooded streets, or wild areas.

Aedes aegypti likes shade and still air. They approach humans persistently and will come back and bite again if chased off. They stay close to home, so if you are getting bitten by *Aedes aegypti*, chances are they are breeding very close by, for instance in your yard or your neighbor's yard.

Tactics for keeping out Zika

1. Keep *Aedes aegypti* from breeding in your house and yard by eliminating all standing water (see checklist on other side).
2. Keep *Aedes aegypti* out of your house. Window and screens should have no gaps or holes. Move and empty your pet's water dish every day when they don't need it.
3. Avoid getting bitten outdoors. Insect repellants with DEET repel flying mosquitoes and prevent them from biting. Long sleeves and trousers help. Electric fans help – *Aedes aegypti* is a weak flyer and likes still air.
4. Don't let your neighbors down. One person can provide mosquitoes for the whole neighborhood by not taking the precautions listed here.

Why don't we just spray the little suckers into oblivion?

Hard to hit

Widespread spraying has been tried many times in many places. *Aedes aegypti* dwell in areas that are hard to reach with spray, and the population bounces right back.

Unintended consequences

Widespread insecticide use against *Aedes aegypti* has already resulted in their ability to resist the effect of the pesticide throughout the Caribbean, Brazil, and Mexico. Experts recommend reserving the potency of insecticides for localized, intensive applications at the site where disease transmission to humans has occurred.

While failing to adequately control *Aedes aegypti*, widespread insecticide spraying has caused other problems as well. The insecticides that are most effective on mosquitoes are also toxic to cats, fish, and pollinators such as butterflies & honeybees. This year, mosquito spraying was linked to a 25% rise in childhood autism. Further, some adults, including some of your neighbors, are highly sensitive to these insecticides.

Keeping mosquitoes from breeding in your yard is not a choice, it's the law.

Florida Statute 388.291 states: (emphasis added)

"Property owners in a developed residential area shall maintain their property in a manner that does not create or maintain any standing freshwater condition capable of breeding mosquitoes or other arthropods in significant numbers so as to constitute a public health, welfare, or nuisance problem. [U]pon failure of the property owner to treat, remove, or abate the condition, any affected citizen may proceed pursuant to s. 60.05 to enjoin the nuisance and may recover costs and attorney's fees if they prevail in the action"

To keep mosquitoes from breeding in your yard, eliminate standing water

“Invert, Empty, Drill, Fill, Eliminate”

- Invert** all containers.
- Empty** flowerpots & pet dishes twice a week.
- Drill** holes in plastic bins and lip of inverted bins.
- Fill** tires, unused fountains, and water-catching depressions with **sand**.
- Eliminate** bromeliads or add MosquitoBits™ to each plant every week without fail (available at Galloway Nursery or from Amazon.com).
- Eliminate** plastic drain spouts, the expandable green ones with ridges that hold water.
- Clean your gutters regularly or, better, remove them.
- Cap hollow fence posts and pipes that can collect rainwater.
- Add **mosquitofish** to unused pools, fountains, rain barrels, fish ponds, storm drains.
Ask the Mayor for some (MayorStoddard@gmail.com), or dip-net them from the local canals – they are curious and super-easy to catch.

One tablespoon of water left in place for 5 days is all that Aedes aegypti needs to breed and produce the next batch of biters.

Favored mosquito breeding spots

Inspect your house & yard and check them off ✓

- Bromeliads (true mosquito factories)
- Rain gutters
- Plastic drain spouts (the stretchy green ones)
- Bases of flowerpots
- Ornamental bowls and fountains
- Buckets
- Pet water dish (move and refill every 2 days)
- Pool cover or hot tub cover
- Boat cockpit & boat cover
- Hollow fence posts & furniture stands
- Wheelbarrow
- Birdbath
- Tires
- Lips of inverted buckets, bins, wheelbarrow
- Plastic toys
- Rain barrel
- Air conditioner water drip
- Empty drink containers or potato chip wrappers
- An empty swimming pool or fishpond
- Old blue & green recycle bins



Written by Philip K. Stoddard, Ph.D.
Mayor of South Miami &
Professor of Biological Sciences
Florida International University