

What Can You Do!

A successful mosquito control program requires a partnership between the Town of Nantucket and residents and visitors. The Department of Public Works will take appropriate measures as described earlier. But we need your help in eliminating mosquito larvae around your home. You can help to control mosquito larvae and pupae by doing the following:

1. Eliminate standing water from flower pot saucers, children's toys, watering cans and buckets
2. Clean bird baths and change the water
3. Empty water that collects in folds of tarps used to cover boats, wood piles etc.
4. Assure that water does not collect around drain pipes and exterior faucets
5. Each month apply a larvicide such as Mosquito Dunks® to standing water that cannot be tipped or drained
6. Clean debris from roof gutters to assure water flow
7. Recycle or store old tires where they cannot collect water
8. Filter or aerate ornamental ponds or stock with fish
9. Store canoes or boats upside down or cover with a tarp
10. Post this list prominently in your house

Coping with Adult Mosquitoes

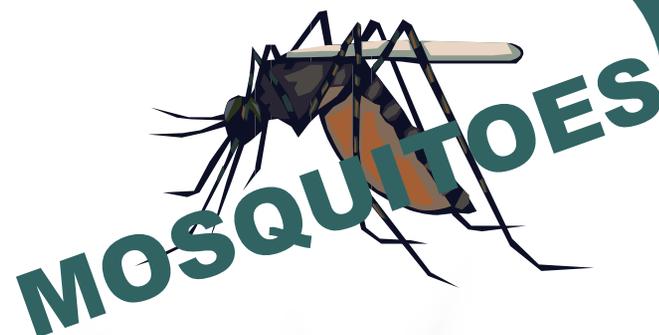
Application of a barrier spray to your yard will provide temporary relief from mosquitoes; Many products are available in hardware and garden stores and that repels and kills adult mosquitoes. Apply to shrubs and plants. Any thing that is applied should be used in strict accordance with label instructions. Commercial enterprises may be hired to spray insecticides or other products to repel or kill mosquitoes. Be sure that applications are protective of bees and shellfish.

Personal Protective Measures

Deet-based repellents are effective products that repel mosquitoes and ticks for as long as five hours for products with a 25% formula. They are available as aerosols, pump sprays or wipes and may be used on children over two months of age; Deet is recommended by the U. S. Center for Disease Control.

When applying Deet and other repellents, do not spray the face – spray the repellent on your hands and wipe on the face, avoiding eyes and the mouth; use sparingly around the ears. Children should not use the repellent themselves, and it should not be applied to children's hands as they may put their hands in their mouths. Label instructions should be carefully followed.

Other repellents include Picardin, Oil of Lemon Eucalyptus and IR3535. Some people report success in repelling mosquitoes by spraying Listerine, and some gardeners pin a couple of sheets of Bounce dryer sheets to their clothing to repel mosquitoes!



ANNOYANCE, HEALTH PROBLEM, ECONOMIC DETRIMENT

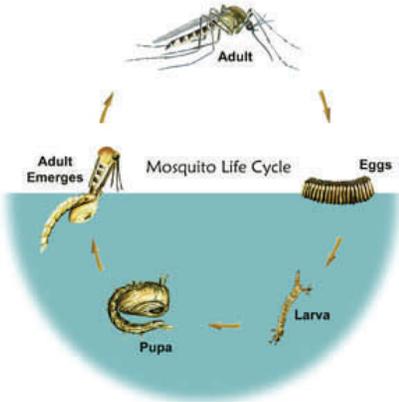
Mosquito infestations in parts of Nantucket are extremely bothersome, can drive visitors away, are economically detrimental to businesses, and reduce the quality of life for residents.

Some mosquitoes transmit serious diseases such as Eastern Equine Encephalitis and West Nile Virus.

Pets are affected as well. A mosquito bite can transmit Heartworm which is expensive to treat and can be fatal.

Preventive medicine is available from your veterinarian.

The Mosquito's Life Cycle



- **Eggs:** Mosquitoes deposit their eggs in rafts of 100 to 400 eggs on the surface of water. A half cup of water is enough to cause a serious mosquito problem. Within a few days, the eggs hatch into larvae.
- **Larva:** The larva comes to the surface of the water to breathe through a tube called a siphon. It sheds its skin several times during the next few days. On the fourth molt, the larva becomes a pupa.
- **Pupa:** The pupa is similar to a cocoon that remains in the water and breathes through two tubes on its back. The adult mosquito develops in the pupal case over two days when it breaks through the pupal skin and emerges as an adult.

Resolving the Problem

- *The key is reducing the mosquito population in a variety of means:*
- **Inspection:** Sites known as mosquito breeding grounds are checked for the presence of mosquito larvae. Also, searching for new larval habitats such as artificial containers of water, and developing mosquito habitats such as water in ditches that is no longer running.
- **Pest Threshold:** This refers to the level of mosquitoes that may cause annoyance or damage. While some tolerance level of pests may be acceptable in low population areas, zero tolerance is desirable in areas of high population density or where dealing with salt marsh mosquitoes.
- **Application:** Source reduction (removal of standing water) is the application of choice. Education of residents and visitors is an important element of source reduction. Opening ditches to maintain water flow is another aspect of source reduction. Where necessary, larvicide or pupacide is applied to standing water to eliminate larvae and pupae.
- **Monitoring:** Adult mosquitoes are monitored with the weekly use of carbon dioxide light traps. Mosquitoes collected from the traps are counted and identified by species.
- **Surveillance:** Trapped mosquitoes are tested by the Massachusetts Department of Public Health for West Nile Virus and Eastern Equine Encephalitis.

What are the Elements of Nantucket's Mosquito Control Program?

The Town will follow an Integrated Pest Management plan. All pest management decisions will be made after conducting surveillance and determining that mosquito populations have reached an action threshold. The integrated plan will combine multiple pest control measures in an environmentally responsible manner and may include surveillance, source reduction, ditch maintenance, water management, application of larvicide and pupacide and education.

Larvicides to be used are "essentially nontoxic" according to the EPA, and will not harm humans, animals, birds, other insects, fish, shellfish, plants or the environment. Unless there is a serious public health threat, pesticides and aerial and truck spraying will not be employed. Private property owners will be permitted to opt out of testing and treatment.

