controlling Mosquito breeding. make a Thorough checklist. fact: Only the female mosquito bites.

mc mosquitocontrol

Use the following checklist to evaluate your property for potential mosquito breeding.

- ☑ **Ornamental pond:** Stock with fish. Avoid spraying with garden insect sprays. Remove leaves and thin out plants. Keep water level up. Screen inlet of recirculation pump. Because chlorine kills fish, transfer fish to a container when cleaning pond. If pond is no longer desired, break holes in the bottom and fill with dirt or sand.
- ☑ **Swimming pool or spa:** Pools with green water or ones that are not properly maintained can serve as breeding grounds for mosquitoes. (Functioning pools do not pose problems.) Chlorine does not kill mosquito larvae. If a pool cover is used, keep it tightly sealed. Remove rain water from top of pool cover. Stock unused or "out-of-order" pools with mosquito fish.
- ☑ **Plastic wading pool:** Change water every week. Store indoors when on vacation or not in use.
- ☑ **Boat:** Store small boats upside down or cover to keep out the rain and water from your sprinklers.
- ☑ **Swamp cooler**
- ☑ **Animal watering trough:** Stock all large troughs with mosquito fish. Clean small troughs every week.
- ☑ **Rain gutter**
- ☑ **Containers of all sorts:** Remove and dispose of all unused containers that might collect rain water or water from your sprinklers. This includes: cans, jars, barrels, old tires, buckets, tubs, etc. Home gardeners rooting plant cuttings in vases, buckets, etc., should change water every week. Unusable containers should be stacked upside down.

Also check for standing water at the following locations:

- ☑ **Under the house**
  - Repair leaking plumbing
  - Prevent seepage from garden irrigation
  - Divert storm water away from foundations
- ☑ **At drain outlet from air conditioner**
- ☑ **Irrigation tailwater and ponding in fields**
  - Provide adequate drainage. Do not let water stand on fields longer than 3-4 days.
  - Level fields

Mosquito Control in Clark County

The Southern Nevada Health District Mosquito Control Program helps control and prevent mosquito breeding in irrigation water, gutters, subdivision drains, roadside ditches, flood channels, ravines and similar places on public right-of-ways with mosquito fish, and by using products to control larvae. The program works with city, county, state and federal agencies to permanently correct these sources.

Property owners are responsible for the control and prevention of any mosquito breeding sources located on their property. However, the Mosquito Control Program will assist property owners to work out a satisfactory correction.

For More Information

For more information about mosquito control and West Nile virus, visit the health district website at http://www.southernnevada healthdistrict.org/mosquito_control/index.htm. If you suspect mosquito breeding and need help, call (702) 759-1220 or email mosquito@snhdmail.org.

SNHD Southern Nevada Health District

Southern Nevada Health District
Mosquito Control Program
625 Shadow Lane • P.O. Box 3902, Las Vegas, NV 89127
Mosquito Control (702) 759-1220
www.southernnevadahealthdistrict.org

Are you raising MOSQUITOES in your backyard?

SOUTHERN NEVADA HEALTH DISTRICT

mosquito Life cycle.

stages Of a mosquito's life.

fact: Some fish eat mosquitoes.

chlorine Does not kill mosquito larvae.

Are you raising mosquitoes in your backyard?

Biting insects are more than a nuisance. Mosquitoes can carry diseases, such as West Nile virus, that infect humans and animals.

In order to protect yourself and your family, you need to know how mosquitoes survive and breed. Then you need to examine your yard to identify potential sources for standing (or stagnant) water, which is where mosquitoes breed.

A Quick Lesson about Mosquitoes

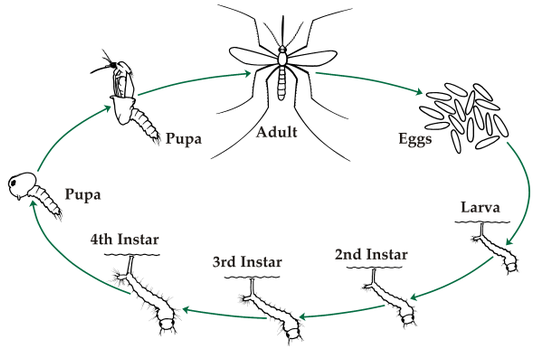
Mosquitoes must have water to complete their life cycles. They develop in the water in 7-10 days during warm weather. They never develop in grass or shrubbery although the flying adults frequently rest there during daylight hours.

Only the female bites to obtain a blood meal. The male mosquito feeds only on plant juices.

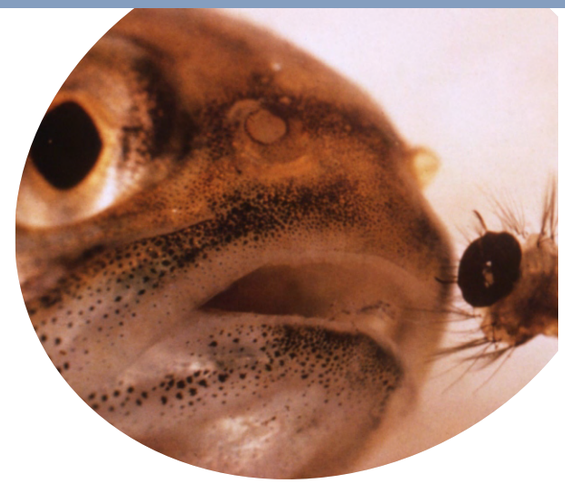
The female mosquito may live as long as three weeks during the summer and many months during the winter in order to lay her eggs in the spring.

The Mosquito Life Cycle

- **Eggs:** Some mosquitoes lay eggs in a raft containing 100 to 400 eggs or singly on the water or damp ground where water will later cover them. Within a day or two, the eggs hatch into larvae.
- **Larva:** The larva or "wriggler" comes to the surface to breathe. It sheds its skin (or molts) four times during the next several days. It grows rapidly between each molt. The stages between molts are called instars. On the fourth molt, it changes into a pupa.
- **Pupa:** The pupa or "tumbler" cannot eat. It breathes through tubes on its back. The mosquito grows inside the pupa. It becomes fully developed within about two days, at which time it splits the pupal skin and emerges as an adult.
- **Adult:** The newly emerged adult rests on the surface of the water until it is strong enough to fly away.



Graphic generously provided by Wellmark International



Fish Eat Mosquitoes

Fish help control mosquitoes because they eat the larvae. Mosquito fish (or *Gambusia affinis*) are used in ornamental ponds, unused or "out-of-order" swimming pools and animal water troughs. They require no feeding.

These fish do not lay eggs, but give birth to well developed and very active young. They breed throughout the summer and produce a new brood every four to six weeks. The young, though small, begin destroying mosquito larvae at once. Mosquito fish grow rapidly, reaching a maximum size of about two inches.

Mosquitoes have Twins

Chironomid midges look very much like mosquitoes, but they can't bite and aren't harmful. They can be a public nuisance because they develop in great numbers. They gather in swarms and when at rest they cover screen doors, windows and walls. They look much like a mosquito and develop in the same water where mosquitoes develop. However, upon a closer look, the midge:

- Does not have a biter (proboscis)
- Has a body (abdomen) longer than the wings
- Is about the size of a mosquito