

Mosquitoes must have standing water to develop.....



EGGS: Female mosquitoes deposit eggs singly or in rafts on the water surface. Some mosquito species lay eggs on surfaces that are likely to be

flooded, in the future. Such locations would be marshes or tree holes.



LARVAE: After a seasoning period, the eggs hatch and larvae emerge. There are four larval stages of development. Because of their characteristic movement through the water, larvae are commonly referred to as wigglers. When at rest, the larvae float to

the water surface where they can breathe. The last larval stage is marked by a metamorphosis (change) into pupae.



PUPA: Since the pupae do not feed, they have little need to move in the water column except to move to escape predators. The pupae or tumblers can be identified by their tumbling movement through the water. They usually rest at the

surface of the water where they can breathe. In this non-feeding stage, within its protective shell, the mosquito transforms into a winged-adult insect. When the adult is fully developed, the back of the pupal case slits open to enable the adult to emerge.



ADULTS: After emergence, the adults rest on the water surface. Following a brief period, they take flight in search of a mate and food. Females need to drink blood in order to produce eggs. Many

females find their hosts by "sniffing out" the carbon dioxide (CO₂) in their hosts' breaths! The males do NOT drink blood. Their only source of nutrition is from plant nectar and naturally occurring moisture on plants.

The District Program

The San Mateo County Mosquito Abatement District is an independent, special district funded by a property tax voted in by individual cities.

We provide the following services for District residents:

**Mosquito Control
Yellowjacket Control
Insect and Tick Identification
Vector-borne Disease
Surveillance
Community Education**

**IF YOU HAVE
MOSQUITOES
AND ARE UNABLE
TO LOCATE
OR ELIMINATE THE
SOURCES, TELEPHONE
YOUR DISTRICT OFFICE
FOR ASSISTANCE**

(650) 344-8592

www.smcmad.org

Facts about MOSQUITOES in California



*San Mateo County
Mosquito Abatement District*

*"An Independent
Special District
Working for You!!!"*

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Burlingame, CA 94010
Tel: 650.344.8592
Fax: 650.344.3843**

Mosquitoes are your responsibility...

There are 20 different species of mosquitoes in San Mateo County. They all have their own preference for types of standing water (dirty vs. clean water), hosts (bird blood vs. human blood), and time of day to bite (day vs. dusk). Our certified Technicians depend on this kind of information to find mosquito breeding sources.

MOSQUITO SOURCES

TREEHOLES

Rot holes in many tree species, such as oak, madrone, olive or eucalyptus, are sources where the western tree hole mosquito, *Aedes sierrensis*, can develop. To avoid mosquito production, the accumulated water should be drained or the tree hole modified. This can be done by drilling a hole in the base of the rot cavity. If drainage is impractical, the hole can be filled with gravel or sand. If valuable trees are involved, correction by a qualified tree surgeon may be desirable.



CONTAINERS

Any container that holds water may become a mosquito source. To prevent mosquito production, discard or empty and invert all water-holding containers. Reusable containers should be stored upside down.



OTHER SOURCES....

Catch basins, water troughs, flower pots, leaking faucets, broken pipes, impounded water, roof gutters, septic tanks, water under buildings.

PONDS, POOLS AND BIRDBATHS

Change water weekly in bird baths and wading pools. When not in use, plastic wading pools should be emptied and inverted. Swimming pools should be filtered continuously, and provided with tight fitting covers when not in use. Ponds and large ornamental pools should be stocked with mosquito eating fish.



The District provides **free** mosquito fish (*Gambusia affinis*) to homeowners for use in ornamental ponds, pools, or other permanent water sources.



OUR OBJECTIVE

Some mosquitoes exist as an annoyance while others are capable of transmitting diseases. It is the District's objective to provide an effective abatement program primarily directed toward the prevention or elimination of aquatic mosquito breeding sources.

OUR APPROACH

Under the California Health and Safety Code, mosquito abatement districts are granted powers to take necessary action for elimination of mosquitoes and their sources. To implement the program objectives, District personnel make routine inspections of mosquito sources. When mosquito production is found, appropriate action is taken to control or eliminate the problem. Much of this activity is not readily observable to the general public.

YOUR RESPONSIBILITY

Chapter 5 of the California Health and Safety Code provides that any mosquito production site declared to be a nuisance must be abated by the property owner. In event that correction is not affected within the time limits set, the District shall abate the nuisance and take appropriate measures to prevent reoccurrences of the problem. The cost of abatement on private property shall be repaid to the District, if deemed suitable by the District governing board.