

The adult worm lives in the right side of the heart, adjacent large blood vessels and lungs where it may attain a length of 6-12 inches. This picture describes how these worms can restrict blood flow in a dog's heart.



Many other mosquito species feed on dogs, but the "Western Treehole Mosquito" is the most common carrier of heartworm.

The outward symptoms of the disease are not noticeable in most cases, until reduced blood flow caused by adult worms damages the heart, lungs, liver and kidneys. Advanced symptoms of heartworm may include: rapid tiring, shortness of breath, chronic soft dry cough, listlessness and weight loss.

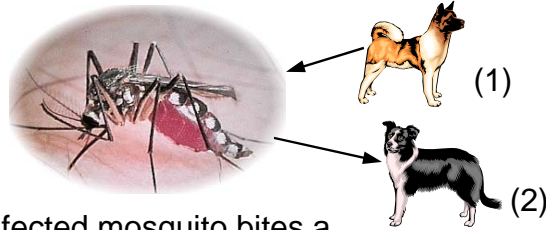
If you live in or travel to areas where tree-hole mosquitoes occur, check with your veterinarian regarding treatment and prevention. Drugs are available to prevent the disease. And it is curable if diagnosed in the early stages.

In California, the time of highest risk for dogs to contract heartworm is March through August however, unseasonable rain may extend this period.

As always, when concerned about your dog's health or desiring more information on dog heartworm, contact your local veterinarian.

## DOG HEARTWORM LIFE-CYCLE

A dog already infected with heartworm is bitten by a mosquito and infects the mosquito with microfilariae (very small worms). (1)



The infected mosquito bites a different dog and infects it. (2)

The microfilariae work their way to the heart and adjacent large blood vessels, through the blood stream, where they continue to grow. As adults they reproduce more microfilariae...

And (3)

...the cycle continues.



For More Information Contact:

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MVCAC Public Information Sub-Committee: August 2003  
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# THE WESTERN TREEHOLE MOSQUITO

(*Ochlerotatus sierrensis*)



Adult Treehole Mosquitoes are small, dark-bodied with white markings on the back and legs

# And DOG HEARTWORM

(*Dirofilaria immitis*)



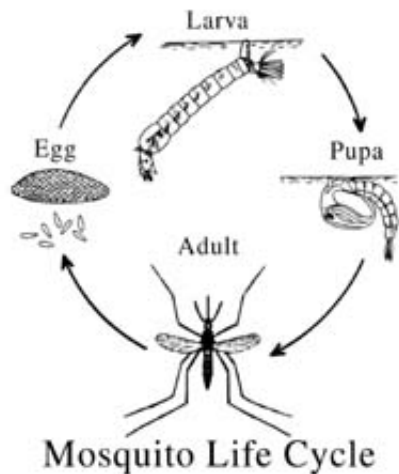
The treehole mosquito (*Ochlerotatus sierrensis*) receives its name because the immature stages are frequently found in water contained in rot-holes of trees, such as oak, laurel, madrone, eucalyptus and other local tree species. They will occasionally breed in artificial containers such as roof gutters, tires, cans and buckets.

They are frequently pests in residential and recreational areas March thru August, where large numbers of trees are present.

As vicious biters, they can be a severe nuisance and are the vector of dog heartworm in California.

Treehole mosquitoes prefer to feed outdoors, but sometimes enter homes during the mid-morning or late afternoon. Like all species of mosquitoes, only the female takes a blood-meal (bites).

## LIFE CYCLE OF MOSQUITOES



## CONTROL

It is not possible for your mosquito control district to eliminate all treehole mosquitoes because of the many potential sources and the difficulty in locating them.

### Residents Should

- Examine trees on property for holes, cavities or crotches that can hold water.



Tree hole in walnut tree

- If holes are found, contact a tree surgeon or local nursery, to determine the best way to correct the problem.



- Check and clean out gutters that collect plant debris and trap water.



- Empty, turn upside down, or throw away containers that collect water, such as; cans, buckets and old tires.



- Use insect repellents if it is necessary to be in an area during mosquito activity.



## DOG HEARTWORM

Canine heartworm disease is a clinical condition in dogs caused by a roundworm, *Dirofilaria immitis*, which resides within the dog's heart and lungs. This disease, a serious and possibly fatal veterinary problem, is associated with dogs, coyotes, and foxes. Canine heartworm is transmitted by the bite of an infected "Western Treehole Mosquito."