

## DOG HEARTWORM

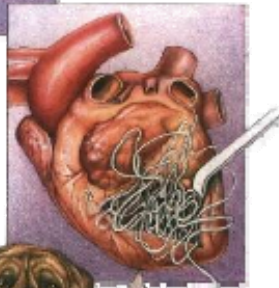
Canine heartworm disease is a clinical condition in dogs caused by a roundworm, *Dirofilaria immitis*, which resides within the dog's heart and lungs. This disease, a serious and possibly fatal veterinary problem, is associated with dogs, coyotes and foxes. Canine heartworm is transmitted by the bite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

The adult worm lives in the right side of the heart and the adjacent large blood vessels and lungs, where it

**Infected Mosquitoes deposit heartworm larvae into the animal's hemolymph by puncturing the animal's skin.**

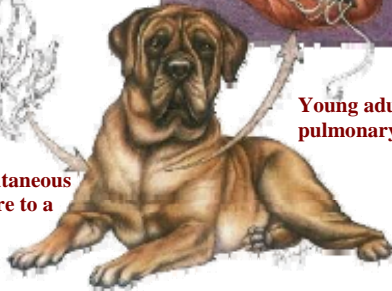


**Mature females release microfilariae into the bloodstream where they are picked up by mosquitoes.**



**Young adults migrate to the pulmonary arteries and heart.**

**Larvae migrate to subcutaneous tissues where they mature to a young-adult stage.**



may attain a length of 6 to 12 inches.

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 treehole 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 through the spring and summer; however unseasonable rain may extend this period.

**For more information on heartworm contact your veterinarian**

## THE WESTERN TREEHOLE MOSQUITO (*Aedes sierrensis*)

**AND**



## DOG HEARTWORM (*Dirofilaria immitis*)

## The Treehole Mosquito

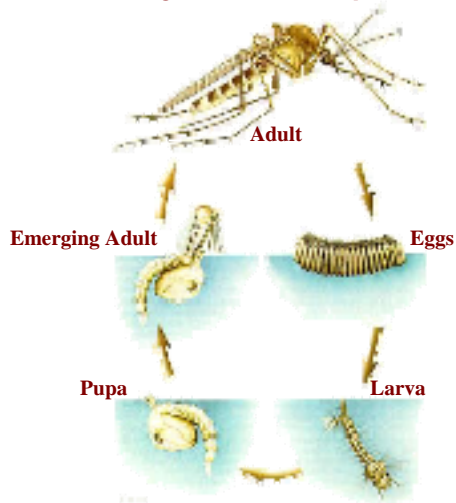
The treehole mosquito received its name because the immature stages are frequently found in water contained in rot holes of trees such as oak, olive, madrone, eucalyptus and other local species.

They are frequent pests in residential and recreational areas where large numbers of trees are present.

As vicious biters, they are a severe nuisance and transmit dog heartworm in California.

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

### Life Cycle of Mosquitoes



## Control

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



**This picture shows a treehole at the base of an Oak tree. Water can collect in these holes providing suitable habitat for the treehole mosquito.**

### Residents should:

- Examine trees on property for holes, cavities or crotches that can hold water.
- Contact a tree surgeon or local nursery if holes are found, to determine the best way to correct the problem.
- Pruning, draining or filling in holes with dirt or similar material should be performed to eliminate sources.
- 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 where this mosquito is found.

### **READ & FOLLOW ALL PESTICIDE AND REPELLANT DIRECTIONS CAREFULLY**

Remember... Eliminating standing water is the best method to prevent and control treehole mosquitoes.

The cooperation of every resident will help reduce the problem of treehole mosquitoes.

### **FOR MORE INFORMATION ON TREEHOLE MOSQUITOES CONTACT: Shasta Mosquito & Vector Control District**

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Anderson, CA  
(530) 365-3768

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[contact@shastamosquito.org](mailto:contact@shastamosquito.org)

