

**Animal Health Advisory:
Mosquito Control Strategies - Protecting both People and Pets
11.15.2024**

Key Points:

- The Los Angeles County Department of Public Health has confirmed twelve human cases of locally acquired dengue, spread by the bite of the *Aedes* mosquito.
- The growth of the invasive *Aedes* mosquito populations in LA County increases the potential transmission of not only dengue in humans, but also heartworm in pets.
- Strengthening mosquito control across LA County is crucial. LA County residents should dump standing water inside and outside of properties at least once a week to prevent mosquito breeding.

Dear Veterinary Colleagues:

Mosquito-borne diseases are increasingly a concern for humans and animals in LA County. Dengue (aka Dengue fever or Breakbone Fever) has recently become a mosquito-borne disease of concern for people here.

Since September 9, 2024, there have been 12 confirmed human cases of locally-acquired dengue in LA County. This is in addition to the 2 cases of dengue infection in Pasadena and 1 case in Long Beach in 2023. These residents had no history of travel to places where dengue is common prior to their symptoms. Dengue is primarily transmitted from an infected human to another human through the bite of an *Aedes* mosquito. Dengue is not known to make dogs, cats, or most other common pets ill. However, many species of non-human primates can become infected, become ill, and serve as a source for infecting more mosquitoes. Although *Aedes* mosquitoes have become common in LA County over the past 10 years, cases of locally acquired dengue had not been reported before 2023. All previously reported dengue cases in LA County have been associated with travel to a country where dengue was endemic.

These cases are a stark reminder for all LA County residents of the importance of mosquito control to lower the risk of mosquito-borne diseases and to prevent further transmission of pathogens, such as dengue. Residents are asked to take protective measures against mosquitoes, and to help eliminate standing water where mosquitoes breed. [The Greater LA County Mosquito and Vector Control District](#) (GLACVCD) has increased mosquito trapping, identification, testing and abatement in the affected neighborhoods to reduce the risk of additional spread.

For pets in LA County, heartworm disease is another mosquito-borne pathogen of concern carried by *Aedes* mosquitos. *Dirofilaria immitis* causes heartworm disease in dogs and is considered mildly zoonotic as infected mosquitos carrying heartworm larvae can infect people (rare) and cause pulmonary disease ([dirofilariasis](#)). Between 2022-2023, veterinarians reported 78 cases of heartworm in animals with many cases having no symptoms at the time of diagnosis. Additionally, 10.3% of these cases were locally acquired, meaning the animal had no known history of travel outside of Southern California before becoming infected. The increasing *Aedes* mosquito population can serve as a potential vector source for heartworm transmission to both people and pets.

Mosquito control is a crucial part of heartworm prevention that may be easily overlooked. Therefore, we are requesting that all animal health professionals in LA County educate animal owners about the basic steps of mosquito control for protecting both animal and human health. **Make mosquito control messaging a standard part of your heartworm prevention program.**

Veterinarians should continue to advise clients about standard heartworm testing and prevention options for pets. [The American Heartworm Society](#) (AHS) recommends year-round administration of heartworm preventives to pets along with annual testing. [Guidelines published by the AHS](#) also recommends a specific treatment protocol for heartworm-positive dogs and advises against the 'slow kill' method of treatment due to evidence of heartworm resistance to commonly used heartworm preventives. Note that cases of heartworm disease in animals in Los Angeles County are reportable to Veterinary Public Health using the [Heartworm Reporting Form](#).

Mosquito Control Strategies:

- Become a mosquito fighter! Teach animal owners about *Aedes* mosquitoes and how to eliminate the standing water where they breed. Share this brochure widely: [Invasive Aedes Mosquitoes](#). Link to it on your website and print it as needed to hand to clients.
- People should wear mosquito repellent to prevent mosquito bites. EPA-registered repellents containing DEET, picaridin, IR3535, 2-undecanone, para-menthane-diol, and oil of lemon eucalyptus are the longest lasting and most effective. These repellents are proven safe and effective, even for pregnant and breastfeeding women.
- Wear long sleeved clothing and pants when outside. Dress children in clothing that covers arms and legs. Cover strollers and baby carriers with mosquito netting.
- Keep mosquitoes out of the house: Ensure that doors and windows have tight-fitting screens to keep out mosquitoes. Repair or replace screens with tears or holes.
- **Prevent mosquito breeding: Eliminate standing water at least once a week where mosquitoes can lay eggs.**
 - **Dump standing water** in flowerpots, saucers, birdbaths, and other outdoor containers. Empty items that hold water inside and outside of your home once a week, or drill holes in them so the water can drain. Discard outdoor debris and trash. ***Aedes* mosquitos can breed in just a bottle cap full of water.**

- **Cover water storage containers** such as buckets and rain barrels. For containers with no lid, use fine-gauge wire mesh with holes smaller than an adult mosquito. Fine gauge wire mesh should also be placed over all entry points into rain barrels and cisterns, since mosquitoes can and will fly through pipes to access standing water, including that in underground cisterns.
- **Clean and maintain swimming pools and spas** regularly and drain water from pool covers.
- **Throw away old items in your patio or yard that can hold water**, e.g., old car tires and children's toys.
- **Do not leave water outside for wildlife.**
- **Call 2-1-1 or [your local vector control](#) to report persistent mosquito problems.** Some agencies offer free inspections to help find the source of mosquitos at your home and if necessary, can provide treatment.

Please visit our VPH webpage for more information about [dengue](#) and [heartworm](#)). Please contact us with any questions by email: vet@ph.lacounty.gov, or by phone: 213-288-7060 (Monday-Friday, 8am-5pm).

Resources:

- Los Angeles County Department of Public Health (LAC DPH) Dengue:

<http://publichealth.lacounty.gov/acd/VectorDengue.htm>

- LAC DPH Press Release: Public Health Investigating One Additional Case of Locally Acquired Dengue – September 25, 2024:

<http://publichealth.lacounty.gov/phcommon/public/media/mediapubHPdetail.cfm?cur=cur&prid=4829&row=25&start=1>

- LAC DPH Press Release: Public Health Investigating Fifth Case of Locally Acquired Dengue– October 2, 2024:

<http://publichealth.lacounty.gov/phcommon/public/media/mediapubhpdetail.cfm?prid=4841>

- Greater LA County Mosquito and Vector Control District (GLACVCD):

<https://www.glamosquito.org/>

- CDC Current Dengue Outbreak:

<https://www.cdc.gov/dengue/outbreaks/2024/index.html#:~:text=What%20to%20know,in%20the%20continental%20United%20States.>

- American Heartworm Society: <https://www.heartwormsociety.org/>

Sincerely,

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Please do not reply, this email box is not monitored. Email vet@ph.lacounty.gov if you need AHAN-related assistance. To sign up for future Animal Health Alerts or to view previously released AHANs, please visit <http://publichealth.lacounty.gov/vet/AHAN.htm>.