

HEARTWORM DISEASE IN DOGS

HOW DO DOGS GET HEARTWORMS?

Heartworms are spread by mosquitoes infected with heartworm larvae. If an infected mosquito bites an unprotected dog, the chances are almost 100% the dog will become infected. And once your dog is infected, he or she can also become a source of heartworm infection to other pets.

WHAT HAPPENS IF MY DOG GETS HEARTWORMS?

When an infected mosquito bites your dog, the tiny heartworm larvae left behind are too small for you to see—but they're mobile. Over the next couple of months, the growing heartworms make their way

through your dog's skin layers, then enter the bloodstream. Their final destination: the blood vessels, heart and lungs. Here heartworms make themselves at home and grow bigger still.

Within just six months after becoming infected, your dog could be harboring heartworms that are up to 12 inches long—or even longer.

Once mature, heartworms living inside your dog can also mate and reproduce. And if mosquitoes feed on your infected dog, within just a few weeks they can spread new heartworms to other animals.

The damage from heartworms is progressive, and so are the signs of

1 It starts with a dog—or a coyote or wolf—with heartworms. Heartworms mate inside infected dogs and produce **millions** of microscopic babies that live in the bloodstream.

2 When a mosquito bites an infected dog, heartworm babies are sucked up along with her blood meal.

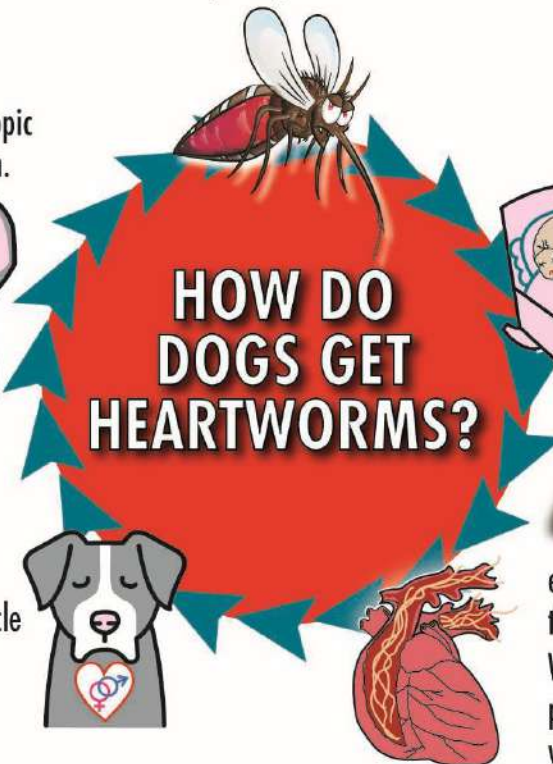
3 For the next **10-14** days, the mosquito provides a nursery for the heartworm babies in her body. The babies develop into larvae and travel to the mouthpiece of the mosquito.

The next stop?
Your pet.

5 By **6** months after infection, heartworms are mature and **12 inches** or more long. They begin mating, starting the cycle all over again. And they continue to live and produce offspring for up to **7** years.

4 When the infected mosquito bites a pet, the heartworm larvae enter through the bite site, making their way to the bloodstream. Within **7-10** weeks, they reach the pulmonary arteries, heart, and lungs, where they can cause serious disease.

HOW DO DOGS GET HEARTWORMS?





Here's what heartworms look like. These spaghetti-like worms can grow to be a foot long and clog your dog's arteries and organs.

disease. The first sign is often a mild, nagging cough. You may also notice that your dog doesn't want to run and play like he or she used to. Appetite loss and fatigue can set in. As the disease advances, your dog can develop heart failure, which leads to fluid build-up and a swollen belly.

While less common, a life-threatening condition called "caval syndrome" can occur when large numbers of heartworms interfere with the function of heart valves. Difficulty breathing, pale gums and dark, discolored urine are signs of an emergency that requires immediate veterinary attention.

HOW CAN I KNOW IF MY DOG HAS HEARTWORMS?

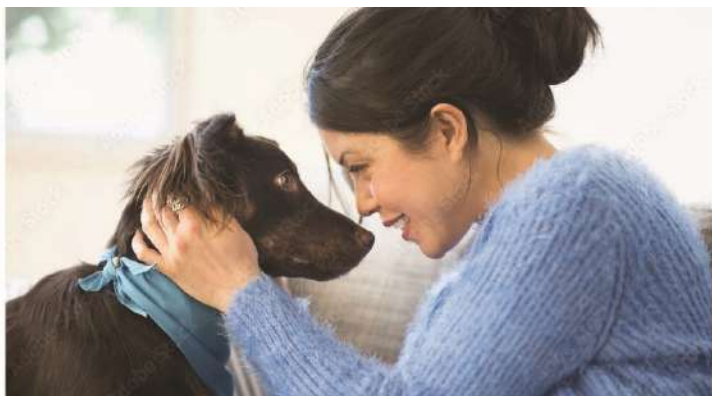
A simple test that requires just a few drops of blood is used to diagnose heartworms. Your veterinarian will want to test your dog if he or she shows signs of heartworm but will also recommend routine heartworm testing at your dog's annual or semi-annual checkup.

Your dog should have an annual heartworm test even if he or she is on heartworm prevention.

MUST-KNOW FACTS ABOUT HEARTWORM TESTING

- ♥ All dogs 7 months of age and older should be tested before beginning a heartworm prevention program.
- ♥ Heartworm tests, which are highly accurate, detect adult worms (heartworms are adults at 6-7 months of age).
- ♥ If you adopt a dog with an unknown medical history, have him or her tested for heartworms right away. Even if the test is negative, your veterinarian will want to retest your dog several months later to be sure a heartworm infection isn't present.
- ♥ If you miss a dose—or doses—of your dog's heartworm preventive, be sure to tell your veterinarian. Your dog should have a heartworm test six months after the missed dose.
- ♥ If your dog tests positive for heartworms, your veterinarian will need to run one or more additional tests to confirm the infection AND to learn if your dog is a likely source of heartworm infection for other pets. This is important for both your dog's health and for the protection of other dogs and cats in your community.

A simple test that requires just a few drops of blood is used to diagnose heartworms.



Keeping your dog on year-round heartworm prevention is one of the best ways to love him.

HOW CAN I PROTECT MY DOG FROM HEARTWORMS?

Here's the good news: it's easy, effective, affordable, and safe. You and your veterinarian also have many options to choose from. Whether you prefer giving a flavored, chewable pill or applying a spot-on topical medication at home every month—or having your veterinarian give your dog a preventive injection once or twice a year in the office—heartworm preventives come in a wide variety of brands and formulations. As a bonus, many heartworm preventive products for dogs protect them from other parasites like fleas, ticks, and intestinal worm at the same time.

No matter which preventive product you choose, the best way to protect your pet against heartworms is to give the preventive year-round. You can also reduce your dog's exposure to mosquitoes by keeping him or her indoors during peak mosquito times AND by using a mosquito repellent approved for use on dogs.

WHAT IF MY DOG GETS INFECTED WITH HEARTWORMS?

In spite of the many effective options available for heartworm prevention, more than a million dogs in the U.S. become infected every year. If this happens to your dog, or you happen to

MUST-KNOW FACTS ABOUT HEARTWORM PREVENTION

- ♥ If you have a new puppy, start him or her on heartworm prevention by the time he or she is 8 weeks old. Medication dosages vary by weight, so you and your veterinarian will need to adjust the dosage as your pup grows.
- ♥ Always give your dog a proven, FDA-approved heartworm preventive.
- ♥ Give your dog's preventive on the same day of the month, every month—it's the best way to create a healthy habit. If you forget or give the medication late, you could put your dog at risk of infection. So be sure to tell your veterinarian if this happens.
- ♥ It's almost impossible to predict when you will see the first—or last—mosquito of the season. Keep it simple and maintain your dog on prevention year-round.

adopt a dog that has a heartworm infection, get your dog treated as soon as possible. Heartworm disease is a progressive and life-threatening disease. The longer heartworms live inside your dog, the more damage they can do to blood vessels and organs.

Dogs treated for heartworm disease require multiple medications and multiple trips to the veterinarian over a period of several months. You will also need to carefully follow your veterinarian's instructions. Dogs undergoing heartworm treatment need to avoid activity and exercise before, during and after treatment to prevent serious complications.

MUST-KNOW FACTS ABOUT HEARTWORM TREATMENT

- ♥ While effective and necessary, treatment is expensive. A single course of treatment costs many times the cost of heartworm prevention.
- ♥ Your dog may require multiple follow-up heartworm tests after treatment to be sure the heartworms have been eliminated. Your veterinarian may also need to run other diagnostic tests to know how advanced the infection is or how many worms are involved.
- ♥ Keep your dog on heartworm prevention after he or she has been treated. You don't want them to become infected again!

For more in-depth information about heartworm disease, as well as its prevention, diagnosis, and treatment, visit the American Heartworm Society website at heartwormsociety.org.



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MUST-KNOW FACTS ABOUT HEARTWORM DISEASE

- ♥ Heartworm disease is one of the most common—and **most deadly**—diseases in dogs.
- ♥ More than a million dogs in the U.S. are infected with heartworm disease each year, even though it can be **easily prevented**.
- ♥ Dogs with heartworm can be found in all **50 states**.
- ♥ Heartworms are **spread by mosquitoes**. If you see, swat at, or have been bitten by mosquitoes where you live, that means your dog is at risk.
- ♥ While heartworm disease in dogs can be treated, **treatment** can be costly and time consuming. **Prevention** is easy *and* affordable.



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