

## **HEARTWORM TESTING RECOMMENDATIONS for NEWLY-RESCUED DOGS or**

## **DOGS THAT HAVE HAD LONG LAPSES BEING GIVEN HEARTWORM PREVENTION**



If you have just adopted or taken in a dog that you have rescued, congratulations for taking in a new family member. If you have recently moved to North Carolina from a cooler climate within the U.S. where you may not be giving heartworm medication or if you've been living here for quite some time, but you forget to give your dog heartworm regularly, this information is for you! If you are unfamiliar with heartworm disease, it is a potentially deadly disease that dogs can only get from mosquitos. But we can prevent the disease.

Here are the important take-aways from the information here:

-Any dog older than 7 months of age that is not currently on heartworm prevention ... or any dog that has not been given prevention in more than 6 months ... we will need to test for Heartworm Disease with a blood sample before we can provide heartworm prevention

-We strongly advise re-testing your dog in another 6 months (for the reasons described below). You will receive a reminder from us in 6 months to return for a follow-up test.

-If you are unable to bring your dog to us to re-test in 6 months, then we must re-test your dog in 1 year before we can provide heartworm medication, even if your dog has not missed any doses of prevention.

-Make sure to give your dog its chewable tablet or topical liquid heartworm prevention EVERY 30 DAYS all year- round ... or consider choosing ProHeart6 month or ProHeart 12 month injectable prevention.

Any dog older than 7 months of age that has not been tested for heartworm disease (a 10 minute blood test) will need to be tested at the earliest opportunity.

Because of the very unique and complex life-cycle of heartworms, we strongly advise re-testing your dog in 6 months following their initial test.

Why is it important to re-test if the first test indicates that my dog does not have heartworms? Let's look at the life-cycle of a heartworm and the role of mosquitos. It is far more complex than anyone can imagine.

Let's start with a dog already infected with heartworms. A mosquito bites the infected dog, and when it does, the mosquito ingests blood containing "microfilaria", tiny larvae (L1 stage) that are produced by female heartworms. Over the next 10-14 days, the microfilaria mature inside the mosquito into L2 larvae, then L3 larvae which are the infective sources of heartworm development. As a mosquito continues to bite and feed on pets (or other animals susceptible to heartworm disease), they will deposit this infective L3 larvae into other dogs.

This L3 phase is the most critical phase of development into adult heartworms. Should you lapse in giving heartworm medication by even a few days, the infective L3 larva can continue to develop. Once the L3 larvae develop, there is no heartworm prevention that will stop the further development into adult heartworms.

It helps at this point to understand that heartworm prevention works by killing the larvae that have infected your dog during the previous 30 days! It is NOT protecting against any future bites or mosquito exposure for the next 30 days. Prevention only kills the L1 larva (microfilaria), L2 larva and L3 (infective) larva.

Most of the L3 larva will mature into an L4 larva under the skin in the next 3 to 4 days. These L4 larvae migrate through body tissues and mature to immature (adolescent) adult worms over the next 45 to 70 days. These adolescent worms migrate to the heart and lungs as early as 70 days (10 weeks) following the initial mosquito bite. These adolescent worms will then develop into sexually mature worms at around 120 days (4+ months) primarily in the pulmonary artery, the large blood vessel that pumps blood from the heart into the lungs.

The female and male heartworms then mate, resulting in the microfilaria, the tiny L1 larva. These microfilaria will generally appear in the blood between 7 to 9 months following the initial mosquito bite. At this point, a biting mosquito can pick up the microfilaria from biting your dog. **Only at this point that heartworm tests can reveal if a dog has heartworm disease ~ several months after the initial bite from a mosquito.**

If we test your dog for heartworms and they test 'negative' (no evidence of heartworms at that time), you can now understand why we need to re-test: it is possible that your dog already has the disease, but our test is unable to confirm it until at least 7 months after your dog was first infected. I'm sure that now you'll recognize how crucially important it is to keep giving heartworm prevention every 30 days as directed.