

From the desk of Dr. Amber M. Smith



# April

## Carrot Oat Applesauce Treats for Dogs

### Ingredients

- 1/2 cup quick oats
- 1/2 cup unsweetened applesauce
- 1/2 cup (about 1 large) carrot finely grated
- 1/2 cup all-purpose flour

### Instructions

1. Preheat the oven to 350 degrees and cover a baking tray with parchment paper or a silicone baking mat.
2. Mix all four ingredients in a medium bowl.
3. Use a tablespoon to drop clumps of the mixture on to the baking tray. Shape if you wish.
4. Bake for 18-20 minutes, until treats are set.

Store in the refrigerator for 5 to 7 days.

*April is National Heartworm prevention month! Here at VMSH we recommend year round heartworm prevention! Come by and pick up your supply today!\**

*\*Be sure your pet has had a recent heartworm test before starting your pet on heartworm prevention. We recommend yearly heartworm tests even if you have kept your pet on prevention year round.*



## Prevention vs Treatment: The costs and dangers associated with not giving your pet year round heartworm prevention

We here at VMSH decided to break down how much it would cost to treat heartworm disease once in a dog. We want to compare the cost of treatment to one year's worth of heartworm prevention. Our example patient will be a 3 year old neutered male 40 lb mixed breed with no known health problems. He is a happy pet and was just adopted by new owners. The owners decide not to keep their new dog on heartworm prevention year round because they believe that it is just too expensive, he will be an indoor dog mostly, and believe he will not be exposed to a lot of mosquitos. They return one year later for his yearly vaccines, fecal, and heartworm test. His heartworm test comes back positive and they decide to treat him. The treatment protocol for heartworms by the American Heartworm Society is as follows:

1. Confirm positive test result with additional testing. False positives can happen which is why secondary testing is part of the protocol.
2. If positive, the patient may need x-rays of the lungs and heart to stage how far along the heartworm disease has progressed.
3. The patient will be placed on strict exercise restriction. Higher activity levels in heartworm positive patients have been shown to increase chances of sudden death. The patient will need to be on exercise restriction for the entire duration of treatment.
4. On the first day of treatment, the patient will be given a dose of heartworm prevention and observed closely for signs of anaphylactic reaction. Heartworm prevention is given to prevent any new baby heartworms from reaching adulthood and to give any immature adult heartworms time to mature so that the next treatment steps are effective. At the same time the patient will be started on Doxycycline to help disrupt heartworm transmission and help lower the damage done by soon to be dead heartworms. They will be on the medication for 4 weeks..
5. On the 30<sup>th</sup> day of treatment, the patient is given another dose of heartworm prevention.
6. On the 60<sup>th</sup> day of treatment, the patient is given a dose of melarsomine (the only approved treatment for heartworms in dogs), started on a steroid, given another dose of heartworm prevention, and is placed on further exercise restriction with leashed walks to go to the bathroom outside and strict cage rest.
7. On the 90<sup>th</sup> day of treatment, another melarsomine dose is given as well as another round of steroids is started. Another heartworm prevention pill is given that day as well.
8. On the 91<sup>st</sup> day of treatment, another melarsomine dose is given. Cage rest and strict exercise restriction is still in place for at least the next 6 to 8 weeks.
9. On the 120<sup>th</sup> day, the patient is tested for the presence of baby heartworms in their bloodstream. If there are some found, the patient is given a dose of heartworm prevention that will kill the baby heartworms. At this time, a year-round heartworm prevention regime is established for the patient.
10. On the 271<sup>st</sup> day, another heartworm test will be run to determine if the patient is free of heartworms.

After over 9 months of treatment and appropriate confinement, our patient has tested negative on his heartworm test. His owners have spent about over the course of the 9 months well over \$1,500 to treat the heartworms and have had to keep him from being an active, happy dog. One year of prevention with either Heartgard Plus or Interceptor Plus costs around \$130 here at VMSH. They could have purchased over 10 years' worth of heartworm prevention in the 9 months they spent treating him for heartworm disease. And even though he is now free of heartworm disease, he could get it again if not kept on prevention year round. He also now has permanent damage to his lungs and heart from the heartworm infection that could affect him later in life and shorten his lifespan.