



**Liz Bolton, DVM**  
**Cat Clinic of Greensboro**

the self-defensive (aka “grumpy”) cats and endeavors to work with them to make their veterinary experience as pleasant and feline friendly as possible. Dr. Bolton’s commitment to highest quality care applies not only to her patients but also to their owners. She is steadfast in her belief that veterinarian and owner must work as a team to provide the happiest and healthiest life possible to the felines entrusted to her care.

When not at work, Dr. Bolton can be found reading, watching movies and theater, playing board games, and traveling. She shares her home with rescue cats from geriatric (Mr. Bananas) to juvenile (Lee and Kara).

Dr. Liz Bolton is an associate veterinarian at the Cat Clinic of Greensboro. While she loves all animals, she has always felt a special affinity for cats. Upon graduating from NCSU College of Veterinary Medicine in 2007, Dr. Bolton spent several years in small animal emergency/critical care medicine and general practice. Dr. Bolton has been dedicated to exclusively feline practice since 2010.

Dr. Bolton’s interests within feline medicine include internal medicine, geriatrics, and dentistry. She has extra love for

## FELINE Heartworm Disease

Heartworms are transmitted to our feline (and canine) friends when bitten by an infected mosquito. The mosquito injects an immature larval stage of the heartworm when it bites. That heartworm larva then develops inside our cats, dogs, and ferrets until it is fully grown. At that point, the adult heartworm tends to lodge inside the blood vessel traveling between the heart and lungs. Signs of disease may include respiratory distress (open mouth breathing, blue gums), cough, or lethargy. However, cats often show no signs of disease until they are very sick. Unfortunately, collapse or sudden death is often the first sign of heartworm disease in cats. Therefore, it is critical that we keep our kitties protected with monthly medication.

Heartworm medication works by targeting the larval stage of the heartworm during those first months after a mosquito bite causes infection in a pet. Once the heartworm is full grown, treatment is much more invasive. However, our monthly preventatives work to kill heartworms when they are still larvae, thus preventing their progression to adulthood.

While mosquitoes may be seen as outdoor pests, we all know that they can sneak into homes and other inside places. Therefore, even fully indoor kitties should be on heartworm prevention. If your cat goes outside (even just on the screened porch), then she REALLY

should be on heartworm prevention. The American Heartworm Society reports that recent studies show the incidence of heartworm infection is now similar in dogs and cats.

The reality in North Carolina is that we see a lot of heartworm disease. Cats, dogs, and ferrets are all susceptible. Luckily, cats have several options for prevention that are easy to give and include flavor chews such as Heartgard or topical liquids such as Revolution or Advantage Multi. These medications are given once monthly and also protect against some intestinal parasites, fleas, ticks, and ear mites. Your veterinarian can help you choose the product that’s best for your kitty. Let’s make sure our cats are just as protected against this disease as our dogs!!

## TRUE OR FALSE:

**1. One heartworm can kill a cat.** TRUE

Unfortunately, given the small size of feline hearts and blood vessels, one adult worm living in the pulmonary artery (which runs between the heart and lungs) can create enough inflammation and turbulent blood flow to cause sudden death in a cat.

**2. Only outdoor cats are at risk for heartworm infection.** FALSE

Heartworm larvae are passed by mosquitos, which can live in both indoor and outdoor environments. Mosquitos can easily enter houses or enclosed patios. It only takes one bite from an infected mosquito to pass heartworm larvae to your cat.

**3. Feline heartworm disease is easy to treat.** FALSE

Cats are unable to tolerate the anaphylactic, or “shock”, reaction that occurs when worms are killed via the treatment (melarsomine injection) often used in dogs. Surgical removal of the heartworms can be attempted by a cardiac surgeon. However, this option is generally only considered in cats where the worm burden is so high that patient health is already significantly compromised. Therefore, while it may be successful, this procedure is considered risky at best.

**4. Feline heartworm disease is expensive to treat.** TRUE

Diagnostics and treatment for clinical heartworm disease can easily cost several thousand dollars.

**5. Feline heartworm disease is easy to prevent.** TRUE

Monthly heartworm treatment is affordable and easy to give. Options for treatment include flavored chewable tablets or topical medication. Some commonly recommended products include Heartgard chews, Revolution topical, and Advantage Multi topical. All of these products provide the added benefit of protection against some intestinal parasites. Furthermore, the topical medications also prevent external parasites such as fleas and ear mites.

**6. Feline heartworm disease is expensive to prevent.** FALSE

A year’s supply of Heartgard monthly chews costs less than \$100 (less than \$10/month).

Want more information? Check out the American Heartworm Society website: [www.heartwormsociety.org/pet-owner-resources](http://www.heartwormsociety.org/pet-owner-resources).



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