

HEARTGARD® Plus (ivermectin/pyrantel)

The Hidden Risks of Roundworm Infection

A Testimonial By Jennifer Ronan
Boston, Massachusetts



A Mother's Perspective On Zoonosis

● I never imagined that taking Christopher to a neighborhood playground could make him sick. But 2 years ago, I learned that the most innocent of places can hold hidden dangers if you are unaware.

I was proud of the care I gave my son. We ate healthy foods and had yearly checkups, and I made sure Christopher's vaccinations were current. At each visit to the pediatrician, he received a clean bill of health. The annual exam a few days after his fourth birthday was no different. "You have a healthy son," the doctor told me. And he was – everything checked out perfectly.

Since optometrists suggest that children have their first eye exam by age 4, I covered all our bases, and I took Christopher to Dr. David Milliken for his first eye exam a few weeks after his checkup.

That was the day our quiet world was shaken. I watched Dr. Milliken begin the exam, and within minutes it was evident to me that Christopher could not see out of his left eye. The optometrist then confirmed the devastating news that Christopher was, in fact, partially blind in his left eye.

Two days later, Christopher was diagnosed with toxocariasis by Dr. Tatsuo Hirose, one of the best retinal specialists in the country. He confirmed that Christopher had contracted ocular larva migrans, a serious health condition in which one or more roundworm larvae become trapped in the eye, causing a dense scar in the retina.

Dr. Hirose conducted a series of tests and performed an examination, but he wasn't able to determine the exact source of disease transmission. Ben, our black Labrador, and Maggie, our yellow Lab, were eliminated as possible infection sources, as was our calico kitty, Amelia – all of our pets were on a heartworm preventive that controls and treats roundworm and hookworm. In addition, our dogs and cat never tested positive for the presence of worms during their annual checkups.

After many questions about our daily routines and Christopher's play habits, the ophthalmologists concluded that Christopher had contracted ocular larva migrans from playing in a public sandbox or playground. It was very likely the park within our lakefront neighborhood in North Carolina, near the swim and tennis club where the kids used to hunt for Easter eggs and visit with Santa Claus. The park had a sandbox and swing set, and a

safe green lawn for soccer games – but it was a place that could easily harbor roundworm-infected animal waste. We'll probably never know the exact transmission mode, but the park seemed the likeliest source, given our habits and routine.



We knew that roundworms could be transmitted from pets to people. But we didn't know or even suspect the serious consequences of a zoonotic disease.

Not once, in all the hours Christopher and I spent building castles in the sandbox and playing ball in the park, did I consider this neighborhood play area – or other public places like school playgrounds, parks, and sandboxes – a potential hazard for our son. Parenting books taught us about protecting our children from fire hazards and household dangers, encouraged us to lock up poisonous cleaning solutions and to use safety caps on medicine bottles, and taught about normal hygiene to protect against spreading germs. But not one book mentioned the precautions to take when playing in a sandbox in a neighborhood park or in your own backyard. Before Christopher's infection we'd heard of roundworms – and we knew that they could be transmitted from pets to people. But we didn't know or even suspect the serious consequences of a zoonotic disease. Christopher's experience changed all that. Now, our goal is to educate others about the dangers and the prevention of toxocariasis.

When we talk to people about toxocariasis, some say, "Roundworm infection is so rare. Why should we even focus on this topic?" But I think the answer is clear: Better-informed pet owners can help transform roundworm infection from a rare condition to a nonexistent condition.

Today, Christopher is a normal kindergartner, learning to write his letters and numbers, doing karate, and enjoying time with his family and friends. However, his lost vision will never be restored.

We are a pet-loving family, and Christopher's experience didn't change that. Our children have benefited enormously from the bonds they've formed with our pets and we wouldn't change that for anything. But what we will change is our awareness of hidden dangers. We will be even more vigilant now in treating our pets for roundworms and hookworms.

I urge you to ask your veterinarian about the risks of these diseases and how to avoid transmission. Be aware of the dangers of zoonotic diseases and do all you can to protect your pets, yourselves, and others. ♥

Heartgard®
(ivermectin/pyrantel) **Plus**

Heartgard[®] (ivermectin/pyrantel) **Plus**

CHEWABLES

Caution: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

HEARTGARD[®] Plus (ivermectin/pyrantel) Chewables is indicated for use in dogs to prevent canine heartworm disease by eliminating the tissue stage of heartworm larvae (*Dirofilaria immitis*) for a month (30 days) after infection and for the treatment and control of ascarids (*Toxocara canis*, *Toxascaris leonina*) and hookworms (*Ancylostoma caninum*, *Uncinaria stenocephala*, *Ancylostoma braziliense*).

PRECAUTIONS: All dogs should be tested for existing heartworm infection before starting treatment with HEARTGARD Plus which is not effective against adult *D. immitis*. Infected dogs must be treated to remove adult heartworms and microfilariae before initiating a program with HEARTGARD Plus.

While some microfilariae may be killed by the ivermectin in HEARTGARD Plus at the recommended dose level, HEARTGARD Plus is not effective for microfilariae clearance. A mild hypersensitivity-type reaction, presumably due to dead or dying microfilariae and particularly involving a transient diarrhea, has been observed in clinical trials with ivermectin alone after treatment of some dogs that have circulating microfilariae.

Keep this and all drugs out of the reach of children.

ADVERSE REACTIONS: In clinical field trials with HEARTGARD Plus, vomiting or diarrhea within 24 hours of dosing was rarely observed (1.1% of administered doses). The following adverse reactions have been reported following the use of HEARTGARD: Depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions and hypersalivation.

SAFETY: HEARTGARD Plus has been shown to be bioequivalent to HEARTGARD, with respect to the bioavailability of ivermectin. The dose regimens of HEARTGARD Plus and HEARTGARD are the same with regard to ivermectin (6 mcg/kg). Studies with ivermectin indicate that certain dogs of the Collie breed are more sensitive to the effects of ivermectin administered at elevated dose levels (more than 16 times the target use level) than dogs of other breeds. At elevated doses, sensitive dogs showed adverse reactions which included mydriasis, depression, ataxia, tremors, drooling, paresis, recumbency, excitability, stupor, coma and death. HEARTGARD demonstrated no signs of toxicity at 10 times the recommended dose (60 mcg/kg) in sensitive Collies. Results of these trials and bioequivalency studies support the safety of HEARTGARD products in dogs, including Collies, when used as recommended.

HEARTGARD Plus has shown a wide margin of safety at the recommended dose level in dogs, including pregnant or breeding bitches, stud dogs and puppies aged 6 or more weeks. In clinical trials, many commonly used flea collars, dips, shampoos, anthelmintics, antibiotics, vaccines and steroid preparations have been administered with HEARTGARD Plus in a heartworm disease prevention program.

In one trial, where some pups had parvovirus, there was a marginal reduction in efficacy against intestinal nematodes, possibly due to a change in intestinal transit time.



®HEARTGARD is a registered trademark, and ™ the Dog & Hand logo is a trademark, of Merial. ©2004 Merial Limited, Duluth, GA. HGD-CSA-4-08-JRATL.