



■ Overview

Heartworm disease is caused by *Dirofilaria immitis*, a parasitic worm transmitted by mosquitoes. Adult worms — which can reach 12 inches in length — live in the heart, lungs, and associated blood vessels of infected dogs, causing progressive lung disease, heart failure, and organ damage. Treatment is available for dogs but expensive, lengthy, and physically demanding. Prevention is simple, inexpensive, and nearly 100% effective.

■ **Cats cannot be treated for heartworm** — there is no approved treatment. Infected cats may die suddenly from respiratory failure. Prevention is the only protection. Even indoor cats should receive monthly heartworm prevention.

■■ Warning Signs

Heartworm disease in dogs progresses in stages — early infection is often silent:

Class I (Mild): No symptoms or mild, occasional cough. Often detected only on routine testing.

Class II (Moderate): Mild-to-moderate cough, fatigue after moderate activity.

Class III (Severe): Persistent cough, exercise intolerance, difficulty breathing, weight loss.

Class IV (Caval Syndrome): Life-threatening: cardiovascular collapse, dark urine, sudden weakness. Emergency surgical intervention required.

In cats: coughing, wheezing, vomiting, difficulty breathing, or sudden death. Signs often mimic asthma (HARD — Heartworm-Associated Respiratory Disease).

■ Life Cycle — How Infection Happens

Mosquito bites an infected animal → ingests microfilariae (baby worms) → microfilariae develop into infective larvae (L3) inside the mosquito → mosquito bites your pet → L3 larvae enter through the bite wound → larvae migrate through tissues over 6 months → adult worms establish in the pulmonary arteries and heart. Adult worms can live 5–7 years in dogs, 2–3 years in cats. A single dog can harbor hundreds of worms.

✓ Monthly prevention kills the larvae at the L3/L4 stage — before they reach the heart. This is why consistent, year-round prevention is so effective. Missing even one month leaves a window for infection to establish.

■ Prevention Products



■ Prevention Products

Heartgard Plus (ivermectin + pyrantel)	Dogs	Monthly oral chew	Kills heartworm larvae + controls roundworms and hookworms
Interceptor Plus (milbemycin + praziquantel)	Dogs	Monthly oral chew	Heartworm + all common intestinal parasites including tapeworms
Simparica Trio (sarolaner + moxidectin + pyrantel)	Dogs	Monthly oral chew	Heartworm + fleas + ticks + intestinal parasites — comprehensive single pill
Revolution Plus (selamectin + sarolaner)	Cats	Monthly topical	Heartworm + fleas + ticks + intestinal parasites for cats
Advantage Multi (imidacloprid + moxidectin)	Dogs & Cats	Monthly topical	Heartworm + fleas + intestinal parasites
ProHeart 6 / ProHeart 12	Dogs	Injectable (6 or 12 month)	Long-acting injectable prevention — excellent for pets who resist pills

■ Testing Protocol

- All dogs should be tested annually (antigen blood test) before starting or renewing prevention
- Newly adopted dogs of unknown history: test before starting prevention
- Puppies: begin prevention as early as 8 weeks; test at 7 months of age (first test when adults could be detected)
- Cats: antigen + antibody test together for highest sensitivity
- A positive test in a dog on prevention does not mean the product failed — infection may predate the prevention or the test detected a dying/dead worm

■ Treatment (Dogs Only)

Treatment involves a 3-injection protocol with melarsomine (Immiticide) administered over approximately **120 days**: a stabilization period with doxycycline and preventive medication, followed by an initial injection, a 30-day rest period, then two final injections given 24 hours apart — all combined with strict exercise restriction throughout. The dying worms can cause pulmonary embolism — activity restriction for the full treatment period is critical. Cost typically ranges from \$1,000–\$3,000 depending on disease class and location. Class IV requires surgical extraction before medical treatment.

■■ Exercise restriction is non-negotiable during heartworm treatment. A dog that runs, jumps, or plays during treatment can die from worm fragments causing pulmonary embolism. Strict crate rest for 4–8 weeks is required.

■ **Schedule your pet's next wellness exam today.** Preventive care catches disease early — before symptoms appear, before treatment becomes complex, and before costs escalate. The exam your pet skips is the one that misses something important.



■ Final Summary

Heartworm prevention costs dollars per month. Treatment costs thousands and carries real medical risk. Give prevention year-round, test annually, and never let a month lapse.

■ Related XVC Guides:

- [Flea & Tick Prevention](#) · [Parasite Prevention Overview](#)
- [Annual Wellness Exams](#) · [Heart Disease](#) · [Preventive Care Timeline by Age](#)



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