



# The Future of Veterinary Medicine Makes Headlines

## A RESPONSE FROM OUR EDITORIAL TEAM

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*It was the 1950 movie Born Yesterday that made famous the quote, “Never do nothing you wouldn’t want printed on the front page of The New York Times.” While it wasn’t the front page, veterinary medicine found itself in the Business Section of that very publication just a few short weeks ago.*

*On February 23, David Segal’s article, **High Debt and Falling Demand Trap New Vets**, brought public attention to some of the challenges facing veterinarians and the industry as a whole. In short, the article:*

- *Outlined the trials and tribulations of a “typical” new graduate during her first year of clinical practice*
- *Cited industry “experts” and quoted employment and industry data about falling demand for veterinary care*
- *Painted a gloomy picture for the future of veterinary medicine and those choosing to pursue it as a career.*

### Did the Veterinary Community Respond?

The article created a stir both within and outside veterinary circles. Dr. Deborah Kochevar, Dean of Tufts University’s Cummings School of Veterinary Medicine and President of the Association of American Veterinary Medical Colleges (AAVMC) responded to the article with an open letter to the veterinary medical community, acknowledging some of the issues raised but also countering other conclusions, citing data from an AAVMC survey of recent graduates.

### Was The New York Times Article Right?

It’s not our job to determine that answer. As with many commentaries written by those with a limited understanding of an industry, the article based many of its conclusions on inaccurate or skewed perspectives. In fact, several inaccuracies were corrected in a later issue of the newspaper.

However, the article does identify several, very real challenges that exist in our vital branch of health care. The article, Dr. Kochevar’s response, and ensuing dialogue in many circles effectively raises awareness of several issues that are front and center to veterinarians across this industry.

### What Challenges Will Define Our Future?

Today’s challenges and issues will have a long-lasting effect on the industry, including:

- Is truly objective data available about the economic climate of veterinary medicine?
- For today’s veterinary students, are the costs of veterinary education out of control?

- Are increased class sizes and the emergence of new schools really dictated by market demand or, instead, attempts to increase tuition revenues in times of budgetary contraction?
- Is there an over or under supply of veterinarians in the market?
- Does the growth of foreign training institutions truly influence the supply of veterinarians in the U.S.? Does that negatively impact today's market?
- How do we, as an industry, bring veterinary medicine to underserved areas of this country?
- What is the impact of the increasing percentage of female veterinarians in the workplace?
- How do our responses to these issues impact consumers' views of our industry?

### Can My Voice Be Heard?

The *Today's Veterinary Practice* team would like to explore these questions and, therefore, we are planning to bring together individuals from all walks of veterinary medicine—private practice, academia, industry, government, practice development/finance—for our first **Challenges & Opportunities in Veterinary Medicine** roundtable.

We want you, the reader and today's practitioner, to have a voice in this session: Please send your comments and questions to [tmeredith@todaysveterinarypractice.com](mailto:tmeredith@todaysveterinarypractice.com) or [editorinchief@todaysveterinarypractice.com](mailto:editorinchief@todaysveterinarypractice.com), which will allow our roundtable participants to address the issues most important to you.

We look forward to bringing you a comprehensive overview of this roundtable event in a future issue of *Today's Veterinary Practice!* ■

### READ ALL ABOUT IT

- **High Debt and Falling Demand Trap New Vets, *The New York Times*, February 23:** [nytimes.com/2013/02/24/business/high-debt-and-falling-demand-trap-new-veterinarians.html?pagewanted=all&\\_r=0](http://nytimes.com/2013/02/24/business/high-debt-and-falling-demand-trap-new-veterinarians.html?pagewanted=all&_r=0)
- **Dr. Deborah Kochevar's response to the article:** [aavmc.org/events/?id=52](http://aavmc.org/events/?id=52)
- **Survey of Recent DVM Graduates of Schools and Colleges of Veterinary Medicine in the United States:** [aavmc.org/data/images/research/aavmc%20data%20reports/aavmcsurveyofrecentdvmgraduates.pdf](http://aavmc.org/data/images/research/aavmc%20data%20reports/aavmcsurveyofrecentdvmgraduates.pdf)
- **Corrections, *The New York Times*, March 3:** [nytimes.com/2013/03/03/pageoneplus/corrections-march-3-2013.html?pagewanted=all](http://nytimes.com/2013/03/03/pageoneplus/corrections-march-3-2013.html?pagewanted=all)

# Heartgard® Plus

(ivermectin/pyrantel)

## CHEWABLES

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

**INDICATIONS:** 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*).

**DOSAGE:** HEARTGARD® Plus (ivermectin/pyrantel) should be administered orally at monthly intervals at the recommended minimum dose level of 6 mcg of ivermectin per kilogram (2.72 mcg/lb) and 5 mg of pyrantel (as pamoate salt) per kg (2.27 mg/lb) of body weight. The recommended dosing schedule for prevention of canine heartworm disease and for the treatment and control of ascarids and hookworms is as follows:

Dog Weight	CheWables Per Month	Ivermectin Content	Pyrantel Content	Color Coding On Foil Backing and Carton
Up to 25 lb	1	68 mcg	57 mg	Blue
26 to 50 lb	1	136 mcg	114 mg	Green
51 to 100 lb	1	272 mcg	227 mg	Brown

HEARTGARD Plus is recommended for dogs 6 weeks of age and older.  
For dogs over 100 lb use the appropriate combination of these chewables.

**ADMINISTRATION:** Remove only one chewable at a time from the foil-backed blister card. Return the card with the remaining chewables to its box to protect the product from light. Because most dogs find HEARTGARD Plus palatable, the product can be offered to the dog by hand. Alternatively, it may be added intact to a small amount of dog food. The chewable should be administered in a manner that encourages the dog to chew, rather than to swallow without chewing. Chewables may be broken into pieces and fed to dogs that normally swallow treats whole.

Care should be taken that the dog consumes the complete dose, and treated animals should be observed for a few minutes after administration to ensure that part of the dose is not lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

HEARTGARD Plus should be given at monthly intervals during the period of the year when mosquitoes (vectors), potentially carrying infective heartworm larvae, are active. The initial dose must be given within a month (30 days) after the dog's first exposure to mosquitoes. The final dose must be given within a month (30 days) after the dog's last exposure to mosquitoes.

When replacing another heartworm preventive product in a heartworm disease prevention program, the first dose of HEARTGARD Plus must be given within a month (30 days) of the last dose of the former medication.

If the interval between doses exceeds a month (30 days), the efficacy of ivermectin can be reduced. Therefore, for optimal performance, the chewable must be given once a month on or about the same day of the month. If treatment is delayed, whether by a few days or many, immediate treatment with HEARTGARD Plus and resumption of the recommended dosing regimen will minimize the opportunity for the development of adult heartworms.

Monthly treatment with HEARTGARD Plus also provides effective treatment and control of ascarids (*T. canis*, *T. leonina*) and hookworms (*A. caninum*, *U. stenocephala*, *A. braziliense*). Clients should be advised of measures to be taken to prevent reinfection with intestinal parasites.

**EFFICACY:** HEARTGARD Plus Chewables, given orally using the recommended dose and regimen, are effective against the tissue larval stage of *D. immitis* for a month (30 days) after infection and, as a result, prevent the development of the adult stage. HEARTGARD Plus Chewables are also effective against canine ascarids (*T. canis*, *T. leonina*) and hookworms (*A. caninum*, *U. stenocephala*, *A. braziliense*).

**ACCEPTABILITY:** In acceptability and field trials, HEARTGARD Plus was shown to be an acceptable oral dosage form that was consumed at first offering by the majority of dogs.

**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.**

In case of ingestion by humans, clients should be advised to contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.

Store between 68°F - 77°F (20°C - 25°C). Excursions between 59°F - 86°F (15°C - 30°C) are permitted. Protect product from light.

**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.

**HOW SUPPLIED:** HEARTGARD Plus is available in three dosage strengths (See DOSAGE section) for dogs of different weights. Each strength comes in convenient cartons of 6 and 12 chewables.

For customer service, please contact Merial at 1-888-637-4251.



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