

SPINOSAD

BRAND NAME: COMFORTIS, TRIFEXIS

AVAILABLE IN
140 mg, 240 mg, 560 mg,
810 mg, and 1620 mg
CHEWABLE TABLETS

BACKGROUND

In older times, flea control was a very labor-intensive process involving sprays, dips, foggers, yard sprays, powders and more. As technology progressed, products became safer and more convenient culminating in a whole “next generation” of products starting with Program® in 1995, and Advantage® and Frontline® not long after. For the first time, flea control could be performed once a month in the simple form of a chewable tablet or smear of topical oil. These products were extremely effective and still are but there was room for improvement yet.

The best flea product would kill fleas so quickly that they would not be able to bite nor lay eggs but would still be safe for the pet and convenient to use. Unfortunately, no flea product is fast-killing enough to kill a flea before its first bite but pet safety has been mastered and it is certainly possible to kill fleas before they can lay eggs.

Comfortis®, with active ingredient spinosad, was released late 2007 by the Eli Lilly veterinary division (now Elanco) to fill the need for an ultra-fast flea killing tablet that lasts an entire month. The pill was originally released for dogs only but as of 2012 it has since been approved for cats. Spinosad is also available in another Elanco product called Trifexis®, which combines spinosad and milbemycin oxime, a broad spectrum dewormer so as to provide heartworm prevention, intestinal parasite protection and flea control in one tablet.

Spinosad works by activating nicotinic acetylcholine receptors in the flea nervous system causing an overload of the flea nervous system. The flea seizes to death.

Spinosad is derived from bacteria and is non-synthetic. It is considered to be a "green" insecticide and is approved for use on produce to be labeled as organic.

HOW THIS MEDICATION IS USED

Spinosad is given once a month orally to kill fleas. It is not helpful against other parasites though at higher (non-commercial) doses it will also kill ticks. Spinosad is used topically in humans to kill lice. There is a product called Trifexis® which combines spinosad with a broad spectrum dewormer (milbemycin oxime) so as to cover fleas as well as heartworm, roundworms, hookworms, and whipworms.

Oral spinosad should be given on a full stomach. This mitigates the chief side effect (nausea) and also facilitates absorption of spinosad into the bloodstream so as to effect the most rapid possible flea kill.

Spinosad is approved for dogs or cats 14 weeks of age and older. The product combined with milbemycin oxime is approved for dogs 8 weeks of age or older as long as they weigh at least 5 lbs. The product is beef-flavored so as to be accepted by the pet as a treat.

Fleas begin to die 30 minutes after the pill is given and all fleas should be dead by 4 hours.

Spinosad is a prescription drug. It is not available without a valid doctor-patient relationship or at retail outlets.

SIDE EFFECTS

During initial testing 12% of dogs vomited after taking spinosad the first time with an additional 5% showing reduced appetite and another 5% having diarrhea. These numbers dropped with subsequent uses of the medication. Obviously, if a given pet seems to be intolerant to the medication, another flea control product should be selected. That said, one way to mitigate the upset stomach is to give half of the dose in the morning on the day of administration and the other half in the evening.

INTERACTIONS WITH OTHER DRUGS

Spinosad is felt to be safe in conjunction with all other flea control products and heartworm preventives. There is one interaction that bears mentioning: spinosad can increase the risk of ivermectin side effects when ivermectin is used at the high doses required to treat skin parasites such as demodectic mange. Low doses of ivermectin used in commercial heartworm prevention products are not problematic for this interaction.

It should be mentioned that numerous non-FDA approved ivermectin doses have been circulated on the internet allowing people to save money by using large animal formulations of ivermectin rather than those manufactured for dogs and cats. This practice rarely involves ivermectin doses comparable to those in the small animal products, certainly involves doses that could be toxic to ivermectin-sensitive individuals, and most certainly involves doses that could be toxic if combined with spinosad. For more details on circumstances leading to ivermectin toxicity, please see the ivermectin page in our pharmacy library.

CONCERNS AND CAUTIONS

Comfortis® tablets are beef flavored but contain pork protein. They should not be a problem for pets with beef allergy but could be a problem for a pet with a pork allergy, rare as that might be.

Spinosad is best not used in pregnant or nursing females. During initial testing spinosad was given to pregnant and nursing mother dogs at doses slightly above the recommended dose. Problems observed included loss of litter during pregnancy, poor weight gain of puppies, and vomiting. Problems did not occur after puppies reached age 14 weeks. Spinosad has not been evaluated for pregnancy or lactation in the cat.

Trifexis® (spinosad in combination with milbemycin oxime) is approved for puppies age 8 weeks and older. Comfortis® (spinosad alone) is approved for puppies and kittens 14 weeks of age and older.

Initial testing included use in dogs with pre-existing seizure disorders with doses higher than the recommended dose. Some of these dogs broke with seizures. It is unknown whether or not this was caused by the product. For this reason, dogs with seizure disorders should probably use a different flea control product.

The dose for spinosad is slightly different for cats versus dogs so that the strength of the tablet needed for a cat does not always correspond to the tablet for a dog of the same weight.

When spinosad was approved for feline use, Elanco did not make a new formulation for cats; they simply changed the labeling of the boxes to reflect which size tablet should be given to which size cat. This means that the tablets were designed as chewables for dogs. They are large tablets as far as a cat is concerned; it may be necessary to give the tablets in pieces.

Vomiting is the most common side effect of spinosad. This side effect can be mitigated by breaking the pill in half and giving each half 12 hours apart. If vomiting occurs within one hour of administration, the dose should be repeated. After one hour, enough spinosad should have been absorbed and re-dosing is not necessary.

If a monthly dose is skipped or given later, this affords fleas the luxury of survival, reproduction, and biting the pet. If one seeks to eradicate a flea infestation, it is important not to be late on the dose.

Product should be stored at room temperature and protected from light.

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Additional drug and general pet care information can be found on our world wide web site:

<http://www.marvistavet.com>