



## **Oral flea and tick prevention response:**

Recently, there was an article released by NBC news that discussed the concerns of oral flea and tick medication. We understand that when reading news articles, it can be very concerning for your sweet fur babies, especially if the article is about a product that is currently being used for your fur baby.

Below is the article that we are talking about, titled “Flea, tick pills can cause nerve reactions in pets, FDA warns.” During this blog post, we will be going over information to keep your mind at ease. The comments in red below are our response to various portions of the article. Please keep in mind, that there is NO new information that has been released by the FDA since the isoxazoline products have come on the market, in regards to adverse reactions.

Pills or chews that protect dogs and cats against fleas can cause neurological problems such as stumbling or seizures, and pet owners need more warning, the Food and Drug Administration said Thursday.

The FDA [issued an alert](#) to owners and veterinarians and said it was requiring clearer labels on the products. **In the resource area of the FDA page for consumers, there is no information listed that states the FDA is requiring clearer labels on the products. At this time, all isoxazoline products have the following statement:**

- 1. NexGard (Merial): The most common adverse reaction reported was vomiting, which was a short lived adverse reaction and was self-limiting. There were two dogs in the NexGard study that had a history of seizures and experienced a seizure either the day of the medication or up to 19 days after receiving the medication.**
- 2. Simparica (Zoetis): The most common adverse effect reported was vomiting. There were some neurological signs in the study, however, the signs were associated with the dogs in the three times the recommended dose study**

and in dogs five times the recommended dose study. None of these dogs need veterinary neurological care.

3. Credelio (Elanco): The most common side effect in this study was mild weight loss. There were no clinically relevant neurological signs associated in this study up to 5x the dose.
4. Bravecto (Merck): The most common adverse effect noted during the study was vomiting. The vomiting was self-limiting and no veterinary care was required.

The flea pills and chews all contain a pesticide called isoxazoline, the FDA said. They include products sold under the brand names Bravecto, NexGard and Simparica.

“Another product in this class, Credelio, recently received FDA approval. These products are approved for the treatment and prevention of flea infestations, and the treatment and control of tick infestations,” the FDA said in a statement

“Isoxazoline products have been associated with neurologic adverse reactions, including muscle tremors, ataxia and seizures in some dogs and cats,” the FDA added. Ataxia is a lack of muscle control and can cause animals to stumble or twitch. **The association between the isoxazoline products and neurological signs have been noted in the many studies to be most common at 3x the recommended dose and at 5x the recommended dose.**

“Although most dogs and cats haven’t had neurologic adverse reactions, seizures may occur in animals without a prior history,” the FDA added. **It is known that no animal is textbook. Any animal has the potential to have a side effect (such as a seizure) when any form of medication is given to the animal. We take good care to weigh the options and do what is best for the patient prior to prescribing any medication.**

The labels on the products, sold mostly as flavored chews, already mention the risk of neurological side effects, and the risks have been reported by consumer groups. It is just important for vets and owners to get more information, the FDA said. **After researching some of the consumer group’s websites, no information was found supporting the concern of neurological effects on pets.**

“The FDA carefully reviewed studies and other data on Bravecto, Credelio, NexGard and Simparica prior to approval, and these products continue to be safe and effective for the majority of animals,” the agency said. **The FDA does extensive research on medications prior to the release for consumers. All of these brands have gone through extensive research and have been proven effective and safe for animals. Once again, you can never be sure if your fur baby will have a reaction to any medication. But we do our best to make sure that we avoid this at all cost.**

“The agency is asking the manufacturers to make the changes to the product labeling in order to provide veterinarians and pet owners with the information they need to make treatment decisions for each pet on an individual basis.” **Since the release of these products, the manufacturers have labeled these products as “use caution in dogs with a history of seizures.” We do our best, if one of your fur babies has a history of seizures, to**

make you aware of the potential side effect as well as put your fur baby on the appropriate medication. Please note that the isoxazoline drug class has not been listed on the FDA's website Adverse Drug Experience report as of 9/21/18 at 9:35 am. (<https://www.fda.gov/AnimalVeterinary/SafetyHealth/default.htm>)

There are good reasons to use flea products.

Fleas and ticks carry a range of diseases, including plague and Lyme disease, which can affect animals and their owners. Pets can develop allergies or sensitivities to the bites, and lose large patches of fur as a result. They can also become susceptible to worms and other parasites if they suffer allergic reactions to flea bites. **This is also possible for any fur baby that does not have allergic reactions to fleas and ticks.**

The FDA said hundreds of pesticides are on the market to protect against fleas and ticks. They include "spot-on" products applied to an animal's skin, flea sprays, powders and collars. Many can cause nausea, vomiting and neurological side effects. **This statement is true, there are plenty of flea and tick preventions out there. Like previously stated, all medications have the potential to cause an adverse reaction. Please, before you purchase any flea and tick prevention, contact us or your primary veterinarian for advise on the best products.**

It is important to make sure that the right product is used, the FDA said.

"Flea treatments meant for dogs can be deadly if given to cats instead. It is important to use only flea and tick products specifically designed for cats, and to administer the proper dosage," the FDA cautions. **Not all animals are created equally. Some flea and tick prevention can be toxic to our sweet cats. It is recommended that you apply the appropriate prevention as instructed on the label provided by us or your primary veterinarian.**

Products containing permethrin are safe for dogs but can be toxic to cats. **This is a true statement. Permethrin is a compound that acts as an adulticide insecticide/miticide. That means it kills adult fleas, ticks, lice and certain mites.**

"If you have both dogs and cats in your household, you should be aware that using a permethrin 'spot-on' product on a dog may cause illness in a household cat," the FDA noted. **The most common scenario for cats being exposed to permethrin is an accidental exposure at a high concentration that is meant for dogs.**

The FDA and the Environmental Protection Agency have warned about [potential dangers of spot-on flea products](#) and required makers to include clearer labels.

"If your pet experiences a bad reaction from a spot-on product, immediately bathe the pet with mild soap, rinse with large amounts of water, and call your veterinarian," the FDA advises.

The isoxazoline products are designed to interfere with the insect nervous system. They were not believed to interfere as much with the nervous systems of mammals. **While the research is still not available, it is believed that the isoxazoline drug class does not interact with mammalian nervous system. Once again, you cannot predict which animal will have an adverse reaction to medication.** Earlier this year, one group of researchers [proposed](#) testing them in people to protect against mosquito and other insect bites.

**If you have any questions or concerns about any oral flea and tick prevention, please do not hesitate to call our office and speak with one of our team members at 336-887-2606.**

Sources:

1. <https://www.nbcnews.com/health/health-news/flea-tick-pills-can-cause-nerve-reactions-pets-fda-warns-n911536>
2. <https://www.fda.gov/AnimalVeterinary/ResourcesforYou/AnimalHealthLiteracy/ucm620940.htm>
3. <https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm620934.htm>
4. <https://www.fda.gov/AnimalVeterinary/SafetyHealth/default.htm>
5. <https://www.fda.gov/AnimalVeterinary/SafetyHealth/RecallsWithdrawals/default.htm>
6. <https://www.epa.gov/pets/epa-evaluation-pet-spot-products-analysis-and-plans-reducing-harmful-effects>

Blog by:

Dr. Jessica M. Slater  
St. George's University, CVM c/o 2016