



## Side Effects from Common Flea and Tick Products

Isoxazoline based products used for prevention and treatment of fleas, ticks, and mites (Bravecto, Bravecto Plus, Nexgard, Simparica, Simparica Trio, Credelio, Revolution Plus) are gaining popularity. Many traditional (and even some holistic) veterinarians are strongly recommending the use of the isoxazoline class of products. Unfortunately, as the number of animals being given these products has risen, so has the number of pet owners reporting neurological and other adverse reactions.

### **What side effects are possible when using these drugs?**

Neurological side effects or adverse reactions can range from barely noticeable to severe. Adverse reactions to these compounds appear to affect animals randomly, although those with certain chronic diseases, the young and elderly, and animals that are immune-compromised or have the genetic mutation of the MDR1 gene seem to be at higher risk. [A survey of pet owners](#) showed that adverse reactions are common.

Some adverse reactions that my clients have seen include:

- Aggression
- Personality changes
- Seizures
- Disorientation
- Wobbling or unstable gate
- Sensitivity to touch
- Abnormal vocalizations
- Urinary or fecal incontinence
- Death

I have seen these adverse reactions happen immediately after administration, but I have also worked with cases where the pet parent noticed these reactions days, weeks, or even months later. Sometimes the reactions don't occur until multiple doses of the medication have been given.

Other side effects that have been reported include:

- Liver failure
- Kidney failure
- Dry eye
- Clotting disorders

- Internal hemorrhage
- Skin disease and itching
- Vomiting
- Diarrhea
- Inappetence
- Drooling

## What should I do if I believe my pet is having an adverse reaction?

First and foremost, take your pet to the veterinarian immediately if you believe your animal is having an adverse reaction. Many pet owners like that some of these products come in tablet form which makes for easy administration. The problem with this form of administration (oral ingestion) with any medication is that once something is ingested by the animal, it cannot be removed easily unless the patient is presented within an hour of dosing. In my clinics, I did see some emergency cases where a pet would come in experiencing a severe reaction to a topical flea or tick medication; in those cases, one piece of my treatment protocol would be bathing the animal to remove as much of the medication as possible. We do not have this option with medications that are given orally.

These animals need to have their liver and kidneys detoxed, then supported. In my book, [Yin & Yang Nutrition for Dogs](#), you can use the Liver Support, Liver Draining, Blood Tonic, and Kidney diets.

I also suggest the following supplements:

- Milk Thistle 50-100mg per 25lbs twice daily (you can also use [Hepato Support](#) or [Liver Tonic](#))
- [NAC](#) 500mg twice daily for 2 weeks then once daily for two weeks
- Chlorella 25mg twice daily for 3 weeks
- The Chinese Herb Di Tan Tang for seizures 0.5 gm per 20 pounds body weight twice daily until the pet has been free of seizures for at least three months
- Liposomal Glutathione 100mg daily for a week
- Curcumin 100mg once daily for a week
- Broccoli Sprouts 100mg once daily for a week
- Gaba Aminobutyric Acid 100mg once daily for a week
- Add asparagus and dandelion greens or root to the diet. Dark leafy greens such as kale, beet tops, and spinach may be helpful.
- Epsom salt/baking soda baths to pull out toxins
- [MCT Oil](#) 1/2 teaspoon per 10 pounds or 1/2 tablespoon per 30 pounds of body weight. Start slowly.

Some pet parents have continued these supplements for longer periods of time with no adverse effects if the pet is still experiencing symptoms. If your pet is experiencing seizures, I have [additional suggestions](#).

## Report the incident to the FDA and the manufacturer!

It is also important to report the adverse reactions to the FDA and the manufacturer of the medication that was given. The FDA continues to monitor adverse drug event reports for these products and encourages pet owners and veterinarians to report adverse drug events. You can do this by reporting to the drugs' manufacturers, who are required to report this information to the FDA, or by submitting a report directly to the FDA.

- To report suspected adverse drug events for these products and/or obtain a copy of the Safety Data Sheet (SDS) or for technical assistance, contact the appropriate manufacturers at the following phone numbers:
  - Merck Animal Health (Bravecto, Bravecto Plus): 800-224-5318
  - Elanco Animal Health (Credelio): 888-545-5973
  - Boehringer Ingelheim (Nexgard): 888-637-4251
  - Zoetis (Simparica, Simparica Trio, Revolution Plus): 888-963-8471
- If you prefer to report directly to the FDA, or want additional information about adverse drug experience reporting for animal drugs, see [How to Report Animal Drug and Device Side Effects and Product Problems](#).
- Pet owners and veterinarians who have additional questions can contact AskCVM@fda.hhs.gov or call 240-402-7002.

## What are the long term effects?

With the cases I have seen so far, some animals are able to make a full recovery while others will experience side effects forever. Using my protocol, I have been able to help improve the quality of life of many animals, but it is important to remember that the damage done may be permanent. Some of my clients now have to deal with seizures or other neurological side effects for the rest of their pet's life.

With any animal that had any level of neurological or internal adverse reaction to these medications, I recommend keeping them as far away from chemicals as possible for the rest of their lives. This means using [natural flea and tick prevention](#), asking for vaccine titers (blood tests to determine whether your pet has immunity to disease), or getting exemptions instead of [vaccinations](#). These pets need to be fed a [high-quality, species-appropriate diet](#) made with human-grade ingredients.