

Spot-On Flea/Tick Chemicals: Just One Drop Can Kill Your Pet

by Dr. Karen Shaw Becker

Despite the constant drumbeat from veterinary drug manufacturers, conventional veterinarians, and increasingly, print and broadcast ads promoting flea and tick preventives, these chemicals aren't as harmless as their advocates would have us all believe. This is especially true for cats, and in fact a few years ago in the Pittsburgh, PA area, in a four-week period four cats died after being treated with spot-on products intended for dogs.

In one tragic case, the pet parents noticed fleas on both their cats, so they applied "just a drop" of a topical spot-on flea treatment on each kitty. Within hours both cats were very sick and one was having convulsions. The owners immediately took both kitties to a veterinary clinic, but neither survived.

The cats' guardians knew the flea treatment was intended for dogs, but figured a small amount would be safe for kitties. The practice manager at the veterinary clinic where all four cats were taken said, "I am very upset that the warning on the canine flea topical — 'Do not use on cats' — is so very small. I wish it said 'This product could kill your cat' in very large letters."

Spot-on Flea/Tick Chemicals Have a Dubious History

Nine years ago in April 2009, the Environmental Protection Agency (EPA) issued an advisory on approximately 70 spot-on flea and tick control products due to a dramatic increase (50 percent) in reports of adverse events during 2008.

Reactions included skin irritation, skin burns, seizures and death. When I first wrote about the advisory back in 2010, there had been over 44,000 reports of adverse reactions, including 600 deaths. In March 2010, the EPA published the results of a year-long study of spot-on products. Their findings included the following:

- Most adverse reactions were seen in dogs weighing between 10 and 20 pounds.
- Reactions in mixed breed dogs were most commonly reported, however, the Chihuahua, Shih Tzu, Miniature Poodle, Pomeranian, Dachshund, Maltese, Yorkshire Terrier and Bichon Frise seem particularly at risk.

- Products containing cyphenothrin and permethrin were especially problematic for small breed dogs.
- Most incidents occurred in dogs under 3 years old, likely at their first exposure to a spot-on product.
- Adverse reactions for both dogs and cats were primarily skin-, gastrointestinal (GI) tract- and nervous system-related. Skin reactions included redness, itching, hair loss, sores and ulcers. Gastrointestinal symptoms included vomiting, diarrhea and excessive salivation. Reported nervous system symptoms included lethargy, nervousness, ataxia (movement problems), tremors and seizure.
- A number of adverse reactions in cats were the result of the cat either being treated with a product intended for dogs, or through exposure to a treated dog. Cats treated with products intended for dogs had an especially high rate of serious reactions and fatalities.
- Inert ingredients in spot-on products were generally assumed to contribute to toxicity.
- Dosage ranges were considered to be too wide in some cases.
- Product labeling was identified as needing a revamp in many cases.

Based on their findings, the EPA determined that spot-on product labels needed to provide clearer warnings against using treatments meant for dogs on cats. The agency also recommended that manufacturers lower recommended dosages for some pets to prevent over-medicating.

Flea/Tick Preventives Still a Problem 9 Years After EPA Issued Its Warnings and Recommendations

Unfortunately, there are still clearly issues with spot-on products, based on a veterinary client handout I just read titled “Don’t use your dog’s flea and tick medicine on your cat!” The handout warns:

“Many prescription and over-the-counter flea and tick medications that are labeled for dogs (usually ones you apply topically rather than have your dog swallow) contain a synthetic compound called permethrin, which is safe for dogs but toxic to cats. If a product containing permethrin is mistakenly applied to a cat or eaten by one, it can cause seizures, coma and even death.”

The handout explains that flea and tick products containing permethrin have warnings to never use them on cats, "... but these warnings are sometimes small and hard to read." It also suggests storing flea and tick products for dogs separately from cat products, since "... they have similar packaging and small print," making it easy "... to grab the wrong product by mistake."

The handout also recommends keeping dogs who've just received a flea/tick preventive away from cats, "... as even close contact with permethrin can harm your cat."

My Recommendation: Avoid Chemical Flea/Tick Preventives Altogether

There are safe, nontoxic alternatives for flea and tick control for pets, and they don't have side effects, unlike virtually all forms of chemical pesticides. It's important to realize that just because a chemical spot-on product is applied to the outside of your pet doesn't mean it can't make its way inside. Any substance applied to your pet's coat and skin can be absorbed into the body. Alternatives I recommend include:

- A safe, natural pest deterrent (see both dog and cat recipes below)
- Cedar oil (specifically manufactured for pet health)
- Natural, food-grade diatomaceous earth, topically
- Fresh garlic (work with your integrative or holistic veterinarian to determine a safe amount for your pet's body weight)
- Feed a nutritionally balanced, species-appropriate diet (the healthier your dog or cat is, the less appealing she'll be to parasites; also, a biologically appropriate diet supports a strong immune system)
- Bath and brush your pet regularly and perform frequent full-body inspections to check for parasite activity (if you spend a lot of time outdoors, it's important to check your pet and yourself for ticks every night during tick season)
- Use a flea and tick comb to naturally exfoliate your pet's skin while pulling off or exposing pests (absolutely nothing takes the place of physically checking for ticks)
- Make sure both your indoor and outdoor environments are unfriendly to pests

All-Natural Homemade Pest Deterrent for Dogs

You can make an all-natural pest deterrent for your dog very easily at home. It will help him avoid a good percentage of the pests he encounters, though not all of them. The recipe: mix 8 ounces of pure water with 4 ounces of organic, unfiltered apple cider vinegar and 10 drops of neem oil.

Neem oil is not an essential oil. It's expelled or pressed oil, and is effective because fleas and ticks hate it. It's also great for to use with pets who are very sensitive to odors. Catnip oil can also be used as a pest deterrent, since it has been proven to be as effective as diethyltoluamide (DEET), the mosquito and tick spray humans use that has a number of toxic side effects.

If you want to add some extra punch to your dog's pest deterrent recipe, go with five drops of lemon, lemongrass, eucalyptus or geranium oil. I use geranium oil quite a bit because I find it very effective. In fact, I use it in my Dr. Mercola natural flea and tick products. If you have a dog who comes in contact with ticks, adding the extra punch of one of the essential oils I listed can be very beneficial.

You can store your homemade pest deterrent in the fridge, which is what I do. Before your dog goes outside mist him with it, being careful to avoid the eyes. The active ingredients, especially the oils in the recipe, dissipate in about four hours, so you may need to reapply it several times throughout the day.

All-Natural Homemade Pest Deterrent for Cats

My recipe for cats is very similar to the one for dogs. Mix 8 ounces of pure water with 4 ounces of organic, unfiltered apple cider vinegar, plus 10 drops of neem oil and 10 drops of catnip oil. Cats and essential oils can be tricky, so we want to leave essential oils out of the kitty recipe.

Neither neem nor catnip oil are truly essential oils — they're distillates, so we're safe using those. Catnip oil works to deter mosquitoes as well. Cats aren't prone to heartworm, which is a mosquito-borne disease, but dogs are.

As a bonus, these recipes also make your dog or cat smell wonderful! Sometimes I add five drops of organic vanilla to my dog and cat sprays to make the spray smell extra good. Many people swear vanilla is also naturally repelling to pests, as professional organic pest companies often use vanilla as a base for many of their outdoor lawn and garden formulas.

You can use these sprays during flea season, tick season and all summer long, and feel good that you're not using pesticides on your pet.