

By Dr. Becker

Earlier in the year, after cats in two different households became ill, the FDA issued a safety alert for flurbiprofen-containing topical pain medications.¹ Flurbiprofen is a human non-steroidal anti-inflammatory drug (NSAID) applied to the skin to relieve muscle, joint, or other pain.

Five Cats Get Sick, Three Die After Exposure to Topical Flurbiprofen

The FDA's safety alert was prompted by reports of five cats that became ill after their owners applied prescription topical medications on their neck or feet. The medications contained flurbiprofen and a variety of other active ingredients including cyclobenzaprine (a muscle relaxer), baclofen, gabapentin, lidocaine, or prilocaine.

Two kitties in one family developed kidney failure but recovered with veterinary care. Three cats in another household weren't so lucky. Two of the three developed symptoms that included lack of appetite, lethargy, vomiting, bloody stools, anemia, and dilute urine. Sadly, both died despite veterinary care.

The third cat also died after the owner stopped using the medication. Veterinarians performed necropsies on all three kitties and found evidence of NSAID toxicity.

Since the pet owners applied the medicated cream or lotion to their own bodies and not directly to their cats, according to the FDA, it isn't known exactly how the cats became exposed to the medication. However, it's reasonable to assume one of three likely scenarios occurred:

- The owners applied their medications and then handled their cats without washing their hands
- The kitties licked the medication off their owners' skin
- The cats rubbed up against their owners, transferring the medication to their fur, and then ingesting it during grooming.

Cats Are Highly Sensitive to NSAIDs

Oral ibuprofen (Advil, Motrin) ranks high on the list of human medications ingested by pets. The pills

are often candy-coated, which may be the attraction since most oral NSAID poisonings involve dogs. In cats and dogs, these drugs can cause ulcers of the stomach and intestine, as well as kidney failure.

It's actually quite unusual for a cat to be brought to the vet's office with NSAID exposure. Strangely, cats are more likely to ingest human antidepressants. Cymbalta and Effexor topped Pet Poison Helpline's toxic antidepressants list in 2013. For some reason kitties are drawn to these medications, which can cause severe neurologic and cardiac effects.

Cats are more sensitive than dogs to non-steroidal anti-inflammatory drugs like ibuprofen and naproxen. As little as 50 milligrams of ibuprofen for every kilogram a cat weighs can cause problems. And because kitties are so sensitive, veterinary-specific NSAIDs like meloxicam should be used with extreme caution, if at all.

Top 10 Cat Poisons

According to the Pet Poison Helpline, the top 10 cat poisons are:²

- 1. Topical spot-on insecticides
- 2. Household cleaners
- 3. Antidepressants
- 4. Lilies
- 5. Insoluble oxalate plants (dieffenbachia, philodendron, etc.)
- 6. Human and veterinary NSAIDs
- 7. Human cold and flu medications
- 8. Glow sticks
- 9. ADD/ADHD medications (amphetamines)
- 10. Mouse and rat poison

Notice that another topical drug, this one intended for pets, is at the top of the Pet Poison Helpline list.

In 2013, four cats died from misuse of these flea and tick products. The four cats died in a four-week period after their owners treated them with spot-on products intended for dogs.

In one tragic case, the owners 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 became very ill and one began convulsing. The owners rushed them to a veterinary clinic, but neither survived.

Sadly, the owners knew the flea treatment was intended for dogs, but figured a small amount would be safe for their kitties. The veterinarian who treated all four cats 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."*

More Prescription Topical Products Dangerous to Cats (and Dogs)

In addition to anti-inflammatory pain creams, the following topical medications also pose a danger to pets:

- **Prescription steroid-based creams.** These are typically prescribed for itchy skin conditions when over-the-counter products aren't working. Common topical steroids include betamethasone, clobetasone, clobetasol, hydrocortisone, methylprednisolone, mometasone, and triamcinolone. If ingested, these products can cause the same symptoms in your pet as OTC preparations (increased thirst and urination, panting, vomiting, and diarrhea), but for a longer period of time.
- Hormone creams. Topical creams containing hormones such as estrogen, progesterone, or testosterone can be absorbed through your pet's skin in addition to being ingested. These compounds are endocrine disruptors that can cause changes such as mammary gland enlargement, and in sterilized females, signs of estrus and false pregnancy.
- Vitamin A compounds. These are called retinoids, and they're prescribed to treat acne. Ingestion by a pet can cause stomach upset and in pregnant animals, birth defects in developing fetuses.
- **Calcipotriene (brand name Dovonex.)** This is a prescription ointment containing vitamin D used to treat psoriasis. Just a small amount of this ointment can be fatal to both dogs and cats; it also causes vomiting and kidney failure.
- **5-fluorouracil (brand names 5-FU and Efudex.)** This prescription lotion is used to treat a condition called solar keratosis, which is precancerous sun damage, as well as skin cancer in humans. If ingested by your pet, it can cause uncontrollable seizures, bloody vomiting and diarrhea, and bone marrow suppression. This is an incredibly dangerous product to use around animals, as the majority who ingest it cannot be saved.

There are also a number of over-the-counter topical products that are toxic for pets.

How to Prevent Exposure to Topical Products

- Prevent your pet from licking after you've applied any product to your skin. Even if you use primarily organic, non-toxic products, it's best to consistently discourage licking to keep your pet safe in all situations.
- Allow all topical products to dry or soak in completely or cover the area of application before having contact with your pet.
- Never apply a topical product meant for humans to your pet without first talking with your veterinarian.
- After applying any topical drug, over-the-counter, or prescription, wash your hands thoroughly before handling your pet. Store all such products well away from your pet.
- Contact your vet or an emergency veterinary clinic immediately if you suspect your pet may have ingested or come in contact with a potentially harmful topical product.

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[+] Sources and References

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- ¹ FDA.gov, April 17, 2015
- ² Pet Poison Helpline
- ³ Post-Gazette, September 28, 2013



Story at-a-glance

- » Five cats recently became very ill after their owners applied topical pain relief creams containing the prescription medication flurbiprofen, a non-steroidal anti-inflammatory drug (NSAID)
- Three of the five cats did not survive, and their necropsies showed evidence of NSAID toxicity
- It isn't known exactly how the cats ingested the topical medications, but it's likely they either licked their owners after the creams or lotions were applied, or their owners handled the cats after applying the medication without washing their hands

