

PYRETHRIN TOXICITY IN CATS

When “good things” go *WRONG*.

Did you know an ingredient commonly found in many flea and tick control products sold every day on store shelves can be fatal to your cat? Actually, many flea and tick topicals, shampoos, and collars advertised as “all-natural” products are not always safe for cats. This is because of the ingredient PYRETHRIN (PERMETHRIN, or other related synthetic chemicals called PYRETHOIDS, like allethrin, etofenprox, resmethrin and sumethrin).



What is Pyrethrin?

Pyrethrins are technically derived from Chrysanthemum plants (“mums”) and do kill fleas, ticks, and other insects. Permethrin is the common synthetic version that lasts longer and is widely used as an insecticide. Currently, pyrethroids are the most common type of household insecticide used because of low mammalian toxicity and high efficacy against mosquitos. Pyrethroids are used in agriculture, animal facilities, greenhouses, malaria control, lice products, and commercial flea products. In fact, they account for 25% of the world’s pesticide market.

Caution with permethrins in cats is advised – what’s the risk?

Since dogs are less susceptible to permethrin toxicity, canine products typically contain 45-60% permethrin while feline products considered to be safe by the manufacturer contain less than 0.1% – a big difference in chemical strength.

How do cats become exposed to pyrethrin/pyrethroid insecticides?

Unfortunately, the most common way is due to owner error. Some cat owners mistakenly or purposely apply a dog flea and tick product (a high concentration pyrethrin/pyrethroid product) to their cats. Canine/dog flea and tick topical spot-on products containing pyrethrins or pyrethroids should never be used on a cat without consulting your veterinarian. Double and triple-check what you are applying to, or using around, your cat at all times! Never apply a “small dog” flea and tick medication or shampoo to a cat.

Cats can also be exposed if they live in close contact with a dog (grooming each other, sleeping next to each other, etc.) that’s recently been treated with a high concentration pyrethrin/pyrethroid flea and tick preventative designed for canines. Your best bet is to separate your dog from your cat until that product is completely dry.

Environmental pest control practices also commonly use these products. Cat parents should be cautious if their pets are to be in that environment.

Symptoms of pyrethrin poisoning

typically begin to appear immediately after a cat has encountered the chemical. However, in some cases, symptoms can take up to 72 hours to emerge.

PYRETHRIN/PYRETHROID TOXICITY IN CATS IS SERIOUS AND LIFE-THREATENING. Symptoms can include all or any of the following:

Excessive salivation/drooling	Agitation / restlessness	Vomiting
Hiding	Incoordination /difficulty jumping, standing or walking	Seizures
Shaking	Twitching or Tremors	
Dyspnea (difficulty breathing)	Hypothermia or hyperthermia	

Topical Exposure

Watch for skin and ear twitching. If your cat has gotten too much of a pyrethrin-containing insecticide on its skin and is suffering from a relatively mild case of pyrethrin poisoning, it will exhibit signs of twitching or muscle contractions. Specifically, these will likely take the form of: cats flicking or twitching their ears, shaking or flicking their paws, or contracting the muscles along their abdomen.

Ingestion

If the cat has ingested pyrethrin, it will more likely be drooling heavily (hypersalivation). Depending on the amount of pyrethrin the cat has ingested, it may also vomit. Cats who have ingested pyrethrin can also have diarrhea. It's possible for cats to ingest insecticide applied to their body or neck and (ingested while grooming). In these cases, symptoms may include both of twitching and vomiting.

Watch for muscle tremors and seizures. In severe cases of pyrethrin poisoning, cats will exhibit uncontrollable bodily muscle tremors, which may turn into seizures. If your cat experiences a seizure, rush it to an animal hospital immediately. Cats with severe cases of pyrethrin poisoning can also have trouble breathing. Some may show signs of temporary blindness. **Severe pyrethrin poisoning in cats - if left untreated - can be fatal.**

Is there an antidote for pyrethrin/pyrethroid poisoning in cats?

No. There is no antidote for pyrethrin or pyrethroid poisoning. However, quick and effective treatment with decontamination, monitoring, and supportive care help minimize the extent and severity of signs.

If you suspect that your cat is having a reaction to a pyrethrin, bring your cat to your regular or emergency veterinarian immediately along with the product package and explain how the cat was exposed. The sooner you seek treatment, the better the prognosis and outcome for your pet!

How does my veterinarian diagnose pyrethrin/pyrethroid poisoning?

Your veterinarian will make a presumptive diagnosis if there is a known or possible history of exposure to a product containing a pyrethrin or pyrethroid, coupled with signs described above. Again, bring insecticide packaging with your cat. This will better assist your veterinarian in making their assessment of your cat's pyrethrin poisoning. Without access to the medication and its packaging, your vet will not know the exact percentages of pyrethrin in the insecticide.

How does my veterinarian treat severe pyrethrin/pyrethroid poisoning?

Once your cat is stable, your veterinarian may start by bathing your cat with a liquid dish soap to prevent further exposure. If clinical signs/symptoms have developed, treatment will be based on the symptoms and route of exposure (skin, ingested, etc.). Cats who have developed neurological signs (e.g., twitching, tremors, seizures) will likely require hospitalization for typically 48 - 72 hours for monitoring and any supportive care. In addition, your veterinarian's team will carefully monitor the cat's temperature for any elevated or lowered readings; bloodwork tests will be performed and blood sugar and kidney functions will be closely monitored until your pet is stable.

What is the prognosis for recovery if a cat has severe pyrethrin/pyrethroid poisoning?

If your veterinarian has a chance to provide prompt, early treatment, the prognosis is generally good. However, if the cat has developed neurological signs that are uncontrolled, develops clotting problems, kidney failure, severe seizures, or develops hyperthermia, the prognosis is typically poor.

How can I protect my cat from this poisoning?

Rule number one: never apply a dog flea product to a cat. Use the appropriate weight range for your cat. Besides being more sensitive to pyrethrin, cats constantly groom themselves, which make them have a much higher chance of ingesting product that is placed anywhere on their body. To prevent accidental exposure, read the directions for any product carefully before use. Keep your cat separate from any dogs that have been treated for 12-24 hours. This allows the product to dry thoroughly. Keep your cat away from any areas (indoors and out) that have been treated with pyrethrin or pyrethroid products until it has completely dried. If you have a flea infestation, please call your veterinarian about proper and safe treatment for your pets and environment.

Pet Poison Helpline is a 24/7 resource for pet owners & veterinary professionals that require assistance treating a potentially poisoned pet. There is a fee of \$65 per incident that includes follow-up consultations for the duration of the case.

Find more info online at petpoisonhelpline.com



800.213.6680
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