Citrus Oil Toxicity in Dogs and Cats

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Toxin
Citrus Oil Extract (Limonene and Linalool).

Source
Citrus oil extracts such as those found in insecticidal sprays, dips, shampoos, insect repellents, food additives, and fragrances.

General Information
d-Limonene and linalool are citrus oils with insecticidal properties. These are metabolized in the liver resulting in liver damage or failure.

Toxic Dose
Cats are more sensitive than dogs. The toxic dose for ingestion of d-limonene in dogs is 308 grams per pound of body weight. If cats are treated with dog products, the result may be fatal. Linalool exposure causes more severe clinical signs for a longer duration than d-limonene. If the product also contains piperonyl butoxide, the toxic effects of citrus oil extracts may be increased.

Signs
Strong citrus smell to the skin, drooling, depression, weakness, hypothermia, trembling, ataxia, falling, low blood pressure, and dermatitis especially severe in the scrotal and perineal areas. Death may occur.

Immediate Action
In cases of dermal exposure, bathe pet with liquid dish soap and warm water repeatedly until the citrus smell is gone. Dry thoroughly and do not allow the pet to become chilled. Seek veterinary attention for dermal exposure or ingestion.

Veterinary Care
General treatment: Gastric lavage is performed and activated charcoal is administered, if the citrus oil was ingested. Vomiting is not induced because aspiration is a risk. Bathing is repeated in cases of dermal exposure.

Supportive treatment: Administer IV fluids, keeping the patient warm, and treat any other symptoms.

Specific treatment: Unavailable.

Prognosis
Usually good to excellent, however, deaths have occurred and are more common in cats.

Keep this and all other medications out of the reach of children and pets.

If you think your pet has been poisoned...
Contact your veterinarian or one of the Animal Poison Hotlines (listed below) if you think your pet may have accidentally received or been given an overdose of the medication.
**ASPCA National Animal Poison Control Center
1-888-4ANI-HELP (1-888-426-4435). $65.00 per case, billed to caller's credit card.
Follow-up calls can be made for no additional charge by dialing 888-299-2973.
There is no charge when the call involves a product covered by the Animal Product Safety Service.
**Pet Poison Helpline - 24-hour service available throughout North America for pet owners and veterinary professionals who require assistance with treating a potentially poisoned pet.
1-800-213-6680 ($35.00 per incident). Staffed 24-hours a day.

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