Desert Hills
ANIMAL CLINIC
Family Healthcare for your Pet

Bryan Neidigh, DVM
Cheryl Rahal, DVM ACVIM
Jason Gold, DVM

ETHYLENE GLYCOL POISONING (Antifreeze)

What is Ethylene Glycol?

Ethylene glycol is a liquid that tastes sweet and is odorless, colorless, and water soluble. It is commonly found in automobile antifreeze, but is also in some detergents, fixatives use by taxidermists, and some paints, lacquers, pharmaceuticals, polishes and cosmetics. It is a very common compound, and because it tastes sweet, it is frequently ingested by dogs and cats.

Ethylene glycol is also deadly poisonous. A surprisingly small amount can be fatal to a dog or cat. A cat can ingest a fatal dose just by licking antifreeze off its paws after walking through a puddle of it where a car's cooling system leaked. Four ounces of automobile antifreeze can cause complete kidney failure in a 60 pound dog, while less than two teaspoons is enough to be fatal to a ten pound cat.

What are the Symptoms of Ethylene Glycol Poisoning?

Within 30 minutes (up to 12 hours) of ingestion of ethylene glycol, the pet will act as if it is drunk. It may wobble, become depressed, vomit, develop muscle twitching, seizure or go into a coma. Dogs sometimes appear to recover, only to die 24 to 72 hours later from the poisonous effects.

Cats will often mask the illness signs until treatment is too late. Because of their rapid metabolism rate, cats must be treated within minutes of ingesting the product to even have a slight chance of recovery. Cats tend to go off by themselves when they are sick, so owners are often unaware there is a problem.

Ethylene glycol is metabolized in the liver and the byproducts are harmful to brain cells and destroy the kidney cells.

How is Ethylene Glycol Poisoning Diagnosed?

Sometimes it is difficult to tell what has happened to a sick pet. The history and symptoms can be suggestive. There are special tests that can help if it is suspected, including a blood test and certain crystals found in the urine.

How is It Treated?

THIS IS AN EMERGENCY! Early on the treatment consists of elimination of the ingested product by inducing vomiting and administering absorbants to prevent further uptake from the stomach.
A specific antidote (4-methylpyrazole) can be given in the dog, while intravenous ethyl alcohol (ethanol) is used in either the cat or dog. Intravenous fluid therapy is also important to support kidney function. The pet may even require a form of dialysis if it is going to survive.

Is My Pet Going to Live?

Unless caught very early, most cats will die. In the dog, the prognosis depends on the quantity of antifreeze ingested and the time elapsed from ingestion to the beginning of treatment.

Prevention is Better than Treatment

Be aware that any source of ethylene glycol including antifreeze may be attractive to your pets. Watch for leaks from automobile radiators and improper storage of flushed materials or new antifreeze. Making your neighbors aware of the potential problem, may save *your* pet's life! The best prevention is to keep your pets in an enclosed, safe environment. Malicious poisonings unfortunately occasionally do happen.

Special instructions: _____

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Thank you for this opportunity to serve you!

Desert Hills Animal Clinic 1039 E. Carefree Hwy, Suite A, Phoenix, AZ 85085
623-581-1558 623-581-1577 (fax) www.dhanimalclinic.com