

# Spring Time Toxins Newsletter



Tips from Pet Poison Helpline to Help Keep Your Pet Safe!

Spring is just around the corner. Plant bulbs are just as excited to break through the ground to add some color to our yards as we are to see some greenery! That said, we need to be aware of the potential dangers spring plants can bring to our pets. Here is a list of some of the most common spring plants and their toxicities... so you know how to pet-proof your garden and keep your pet safe!

## Tulips and Hyacinth

Tulips contain allergenic lactones while hyacinths contain similar alkaloids. The toxic principle of these plants is very concentrated in the bulbs (versus the leaf or flower), so make sure your dog is not digging up the bulbs in the garden. When the plant parts or bulbs are chewed or ingested, they can result in tissue irritation to the mouth and esophagus. Typical signs include profuse drooling, vomiting, or even bloody diarrhea, depending on the amount consumed. There is no specific antidote, but with supportive care from the veterinarian (including rinsing the mouth, anti-vomiting medication, and possibly subcutaneous fluids), animals do quite well. With large ingestions of the bulb, more severe symptoms such as an increase in heart rate and changes in respiration can be seen, and should be treated by a veterinarian.



## Daffodils

These flowers contain lycorine, an alkaloid with strong emetic properties (something that causes vomiting). Ingestion of the bulb, plant, or flower can cause severe vomiting, diarrhea, abdominal pain, and even possible cardiac arrhythmias or respiratory depression. Crystals are found in the outer layer of the bulbs, similar to hyacinths, which cause severe tissue irritation and drooling. Daffodil ingestions can result in more severe symptoms so if an exposure is witnessed or symptoms are seen, we recommend seeking veterinary care for further supportive care.

## Lilies



There are dangerous and benign lilies out there, and it is important to know the difference. Peace and Calla lilies contain oxalate crystals that cause minor signs, such as tissue irritation to the mouth, tongue, pharynx, and esophagus – these result in drooling and vomiting. The more dangerous, potentially **fatal** lilies are true lilies (*Lilium* species) and these include Tiger, Asiatic, Easter and Japanese Show lilies – all of which are highly toxic to cats! Even small ingestions (such as the pollen or 2-3 petals or leaves) can result in kidney failure. If your cat is seen consuming any part of a lily, bring your cat (and the plant) immediately to a veterinarian for medical care. The sooner you bring in your cat, the better and more effectively he or she can be treated. Decontamination (like inducing

vomiting and giving toxin binders like activated charcoal) are imperative in the early stage, while intravenous fluid therapy, kidney function monitoring tests, and supportive care can greatly improve the prognosis. If the cat has already developed kidney failure, the prognosis becomes poor.

## Crocus

There are two Crocus plants: one that blooms in the spring (*Crocus* species) and the other in the autumn (*Colchicum autumnale*). The spring plants are more common and are part of the *Iridaceae* family. These ingestions can cause general gastrointestinal upset including vomiting and diarrhea. These should not be mistaken for Autumn Crocus, part of the *Liliaceae* family, which contain colchicine. The Autumn Crocus, also known as Meadow Saffron, is highly toxic and can cause severe vomiting, gastrointestinal bleeding,

liver and kidney damage, and respiratory failure. Signs may be seen immediately but can be delayed for days.

### **Lily of the Valley**

The *Convallaria majalis* plant contains cardiac glycosides, which will cause symptoms similar to digitalis (foxglove) ingestion. These symptoms include vomiting, diarrhea, a drop in heart rate, severe cardiac arrhythmias, and possibly seizures. Pets with any known exposure to this plant should be examined and evaluated by a veterinarian and treated symptomatically. Poisoning has occurred in pets and children that have consumed the water from a vase of these flowers.

### **In Addition...Fertilizers and Other Garden Goodies**

As gardening work begins, be aware of those the other products being added to the soil. While most fertilizers or plant foods are not very toxic (resulting in minor gastrointestinal irritation when consumed), some products can be fatal without treatment. Here are a few ingredients to be aware of so you know what toxins and symptoms to watch out for:

- **Blood meal** – This is dried, ground, and flash-frozen blood and contains a large amount of nitrogen. While it's a great organic fertilizer, if ingested, it can cause vomiting and diarrhea. More importantly, it can result in severe pancreatitis, which is inflammation of the pancreas. Some types of blood meal are also fortified with iron, resulting in iron poisoning, so make sure to know what is in your bag of blood!
- **Bone Meal** – This is made up of defatted, dried, and flash-frozen animal bones that are ground to a powder. This "bone" is also what makes it so palatable to your dog so make sure to keep your pet from digging in it and ingesting the soil. While this also makes a great organic fertilizer, it can become a problem when consumed in large amounts as the bone meal forms a large, cement-like ball foreign body in the stomach. This "ball" can obstruct the gastrointestinal tract and may require surgical removal.
- **Systemic rose and plant products** – Some of these fertilizer mixes contain disulfoton or other types of organophosphates (OPs). As little as one teaspoon of 1% disulfoton can kill a 55 lb dog, so be careful! Organophosphates can result in severe symptoms including SLUD signs (an acronym for salivation, lacrimation, urination, and defecation), seizures, difficulty breathing, hyperthermia, and death. Thankfully, an antidote is available for OPs (atropine).
- **Herbicides/Insecticides** – Most ready-to-use herbicides or insecticides (typically those that come in a spray bottle) do not pose a significant risk for poisoning in dogs and cats unless a large amount was ingested. Fish can be very sensitive to these chemicals so avoid use around outdoor ponds. It is always best to speak to a trained medical professional if there are any questions.
- **Iron** – This is commonly added to fertilizers and can result in iron poisoning (from ingestion of elemental iron which is not necessarily the amount reported on the label). Determining the amount of elemental iron ingested can be very confusing. When in doubt, have a veterinary professional at Pet Poison Helpline assist you to determine if the amount ingested was toxic or not. Large ingestions can result in bloody vomiting and diarrhea, cardiac, and liver effects.

The best thing any pet owner can do is to become educated on household toxins (both inside the house and out in the garden) in order to pet-proof your house appropriately. Make sure to keep all gardening and lawn products in labeled, tightly sealed containers out of your pet's reach. If you think your pet has been poisoned, contact your veterinarian or **Pet Poison Helpline** at **800-213-6680** with any questions or concerns.

**Resources:** Pet Poison Helpline, an animal poison control center based out of Minneapolis, is available 24 hours, seven days a week for pet owners and veterinary professionals that require assistance treating a potentially poisoned pet. The staff provides treatment advice for poisoning cases of all species, including dogs, cats, birds, small mammals, large animals and exotic species. As the most cost-effective option for animal poison control care, Pet Poison Helpline's fee of \$49 per incident includes follow-up consultation for the duration of the poison case. Pet Poison Helpline is available in North America by calling 800-213-6680. Additional information can be found online at [www.petpoisonhelpline.com](http://www.petpoisonhelpline.com).