



## Veterinary Specialty of the Day: Toxicology

Some veterinarians and veterinary technicians undergo further training to specialize in a specific field of medicine. Veterinarians who specialize in Toxicology are trained to identify poisonous substances and to treat poisoning in animals.

There are many foods and chemicals that humans use that happen to be toxic, or poisonous, to pets. Many pets will accidentally eat something toxic not knowing it is dangerous for their health. Veterinary toxicologists educate pet owners and the public about which substances have a toxic effect on animals and how to keep animals safe from accidental poisoning.

## Discussion Question

- Why is it important for veterinarians to know which foods and chemicals are poisonous to pets?

## Veterinary toxicologists are trained to...



### Identify Poisons

There are many different substances that are toxic to pets, including certain human foods, medicine, and other household products.



### Understand the Effects of Different Poisons

Different toxins can affect different parts of an animal's body, such as their stomach, liver, or kidney. The dose, or amount of poison, may also affect the animal differently.



### Treat Poisoning

If an animal swallows or is exposed to a toxin, they will need to be treated right away to flush the poison out of the body, receive an antidote, or prevent further ingestion of the toxin.

# Children's Resources: Veterinary Toxicology

## Common Pet Poisons - Food

The following foods are poisonous to pets. Some of the food items listed are perfectly fine for people to eat (unless they have an allergy) but are dangerous to a pet's health. Never feed your pet human food and make sure your caregiver keeps dangerous foods out of their reach!

### Chocolate



Chocolate may be a delicious dessert for humans, but it's poisonous to dogs, especially the darker and less sweet the chocolate is.

### Grapes & Raisins



Grapes and raisins are poisonous to dogs and can cause their kidneys to fail. Dogs should never be fed grapes and raisins or food that might contain them.

### Avocados



Avocados contain a chemical called persin which is toxic to birds and large animals such as cows, goats, and sheep. Pet birds should never be given avocado to eat.

### Raw Dough



Raw or unbaked dough with yeast can be dangerous if a dog or a cat ingests it because the dough can expand in the stomach.

### Onions & Garlic



Onions, garlic, chives, and leeks are all part of the same plant family, and while they add delicious flavor to our meals, they are toxic to both cats and dogs.

### Gum or Candy



Certain sugar-free gums and candy contain a sweetener called xylitol, which is toxic to dogs. Even if the candy doesn't contain xylitol, you should never feed it to your pet.

### Macadamia Nuts



Not only are macadamia nuts poisonous to dogs, they also contain a lot of oil which can be dangerous for your dog as well as oils are high in fat.

### Caffeine



Caffeine is a chemical in coffee, tea, and other products that gives humans a boost of energy. However, it can be dangerous for dogs and cats to ingest.

# Children's Resources: Veterinary Toxicology

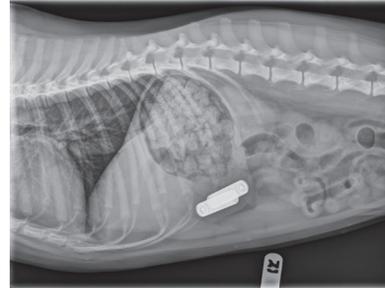
## Common Pet Poisons - Household Items

The following items should only be handled safely by adults and kept out of your pet's reach.

### Batteries



Be careful that your pet doesn't accidentally chew or swallow a battery! Batteries can be found in many household items, such as the TV remote or a cell phone.



X-ray of a pet that swallowed a battery

### Cleaning Products



While we need cleaning products, such as laundry detergent or spray cleaners, to keep a tidy home, these items contain dangerous chemicals that are toxic if ingested.

### Flowers



Not all flowers or plants are toxic to pets, but flowers such as lilies, azaleas, daffodils, and tulips are. If someone brings home a beautiful bouquet, make sure it's pet-safe!



X-ray of a pet that swallowed a penny

### Pennies



Pennies are not actually made of copper — they contain the metal zinc, which can leak into an animal's bloodstream if swallowed and damage blood cells.

### Pesticides



Pesticides are sprays used to kill pests, such as insects or rodents, that invade a home or garden. Pesticides should be stored safely away from pets.

### Medications



While both people and animals need medicine from time to time, it should always be kept out of your pet's reach. A pet can accidentally eat a poisonous medication or ingest a dose that is too much for their body to handle.

## Activities



### PreK - Kindergarten

#### Identify Poisons

*Materials: photos of household products, photos of safe foods, crayon/marker*

- If you have a young child at home, they should not have access to dangerous items that they might mistake for food. Additionally, you can help your child identify toxic household products and teach them to stay away in case they encounter them in someone else's home.
- Print out photos of different toxins, such as laundry detergent, spray cleaners, or pill bottles. Then, print out photos of safe foods to eat. If you would like to use a worksheet that has already been prepared, check out this lesson plan from Health Smart Virginia:  
[https://healthsmartva.pwnet.org/uploads/rteeditor/file/Poison\\_Prevention\\_Lesson.pdf](https://healthsmartva.pwnet.org/uploads/rteeditor/file/Poison_Prevention_Lesson.pdf)
- Hold up each photo to your child and ask them if it is safe or dangerous. For each poison identified, have your child draw a big X on the photo.



### 1<sup>st</sup> - 5<sup>th</sup> Grade

#### Toxin Poster

*Materials: poster board or paper, markers/colored pencils/crayons, list of toxic foods for pets (Page 2)*

- If you have a family pet, your child can create a poster to hang up on the refrigerator that lists different types of toxic foods for pets. That way, all family members will know to be extra careful whenever reaching for some chocolate or grapes for a snack.
- You can use the list provided in this resource on Page 2 or you and your child can research different foods that are toxic to your pet depending on the type of animal you have in the home.

## Activities



### 9<sup>th</sup> - 12<sup>th</sup> Grade

#### Career Exploration: Veterinary Toxicology

*Materials: computer/tablet/phone with internet access*

- The field of veterinary medicine is huge and there are many job opportunities available to those interested in pursuing a career in the field.
- If your child is interested in a career in toxicology, encourage them to research the various job opportunities and programs that exist.
- Need a place to start? Check out this FAQ page on veterinary toxicologists: [https://www.abvt.org/content.aspx?page\\_id=22&club\\_id=213361&module\\_id=395388](https://www.abvt.org/content.aspx?page_id=22&club_id=213361&module_id=395388)

#### References:

<https://www.aaha.org/your-pet/pet-owner-education/ask-aaha/Household-Toxins/>

<https://www.abvt.org/>

<https://www.aspca.org/pet-care/animal-poison-control>

<https://www.merckvetmanual.com/toxicology/toxicology-introduction/overview-of-veterinary-toxicology>

<https://www.merckvetmanual.com/special-pet-topics/poisoning>

<https://www.petpoisonhelpline.com/>