

# TOXIC TRIVIA

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## Spring/Summer Safety

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### Electronic Cigarettes

E-Cigarettes are being marketed as a safe alternative to “real” cigarettes. They supposedly are safer for the smokers and second-hand breathers because they don’t contain tobacco and they don’t have the byproducts of burning tobacco, such as carbon dioxide and tar. The “smoke” they release is reportedly a water vapor that contains no byproducts of tobacco. Therefore they supposedly don’t cause lung cancer or emphysema, asthma, or reactive airway disease, as “real” cigarettes have been demonstrated to do.

The way e-cigarettes work is: they are filled with a clear liquid, most usually containing propylene glycol and nicotine. This liquid is heated by an ion battery and vaporized and the smoker inhales the vapor, thus introducing the nicotine into his or her body. Therefore the smoker gets the “benefits” of nicotine, without the disadvantages of the previous delivery system (burning tobacco), which is known to be toxic. It is currently unknown, because it hasn’t been adequately studied, whether there are adverse effects associated with inhaling nicotine vapor.

E-cigarette liquids come in a variety of different candy type flavors which are appealing to young people, including chocolate, cherry, coffee, apple, caramel, and mint. Whether these appealing flavors would encourage younger people to smoke e-cigarettes is still open to question. Certainly the e-cigarette liquid itself has the potential to be appealing to children, because it smells like it’s “flavor”. Unfortunately the fluid is a

strongly concentrated solution of nicotine, holding up to 24 mg of nicotine per cartridge. That is enough nicotine to cause serious problems for a child that ingests even a swallow of the fluid! Nicotine toxicity results in some classic symptoms – typically the child is pale, cold, clammy, vomiting, shaking, tachycardic and hypertensive, followed by hypotensive and bradycardic. Confusion, weakness, seizures and paralysis can follow.

Any child that ingests e-cigarette liquid needs to be evaluated in the Emergency Department, and most likely needs to be transported there by EMS. You would not induce emesis, although they are likely to be vomiting spontaneously. Close monitoring of vital signs and level of consciousness, with supportive care, would be the primary emphasis until EMS arrived.

A child who was smoking an e-cigarette would be treated just like a child who was smoking a “real” cigarette for the first time. They might feel nauseated or vomit, might look pale or “green”, and might be dizzy or shaky for a bit. Rest, reassurance and sipping on sweet fluids would be the treatments of choice. We wouldn’t expect any serious problems to ensue if that was all they had done, although they probably would be unhappy for a bit. As always, Indiana Poison Center is available 24/7/365 to assist you with these, and any poison exposure, patient. Please call us at 1-800-222-1222 for fast, friendly and individually calculated patient information!

### Spring Cleaning — HOW do you safely dispose of Old & Unused Medicine??

Flushing medication down the sink or toilet is common, but that may be bad for the environment. The long-term effect of medication on the environment is unknown at the moment, but there is a

potential for harm. Throwing medication away with the trash may cause less pollution, but there is a risk that other people or animals may get hold of it. Privacy may also be a concern if containers have labels with names and other personal information. Incineration is best, but is not easily available and although some hazardous waste programs may accept drugs, they cannot accept controlled substances. Some pharmacies are willing to take drugs back – check to see if the pharmacy you use is one of them.

In the meantime, until a solution is reached, the following steps can be taken to more safely dispose of expired and unused medication (important: if you are taking an antibiotic, you should finish all the medicine with nothing leftover):

Keep medication in original containers with child-resistant lids firmly in place.

Remove labels before getting rid of the medication or use a permanent marker to cover any personal information on labels.

If throwing away liquids, place the liquids in a plastic bag that can be sealed in case of leaks. Wrap glass bottles to prevent breakage.

Mix medications with items such as cat litter or coffee grounds so people will be less likely to take them.

Add a small amount of water to pills or capsules to at least partly dissolve them.

Place medication inside a package such

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Five questions located within to test your poison knowledge – answers can be found on page 4.

Good Luck!!!



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as a box that doesn't show what's inside. Put medication in the trash as close to pick-up time as possible; do not place in a recycle bin.

## Human Medication and Pets - not a good combination!

Animals, just like humans, can be at risk for poisoning. If you are a pet owner, it's wise to know in advance what to do if *your* pet is poisoned. IPC handles *human* poisoning cases and reminds everyone that animals and humans may react differently to medications and other products. Specialists at IPC are experts in their field and for pets, the specialists to call are your vet or the Animal Poison Control Center (APCC).

In 2007, the APCC received 89,000 calls related to pets ingesting human over-the-counter and prescription medications. All pet owners need to be aware that **medication meant for humans may be harmful to animals**. At the same time, *pet* medication may cause problems if taken unintentionally by a *human*. Giving pets over-the-counter (OTC) human medications is, in general, not a good idea. Animals metabolize drugs differently than humans do. The ability of an animal to handle a drug can also vary from species to species. ***It is always wise to consult a vet before giving any type of medicine to an animal.***

## What types of human medication are harmful to pets?

Keeping in mind that many medications may be harmful for animals, the ASPCA has a top 10 list of medications that poison pets.

- NSAIDs (non-steroidal anti-inflammatory drugs) like ibuprofen or naproxen are the most common cause of pet poisoning in small animals, and can cause serious problems even in minimal doses. Pets

1. Eating the seeds of which plant, used in culinary creations, can result in a false positive test for opiates in the consumer?

are extremely sensitive to their effects, and may experience stomach and intestinal ulcers. Cats may experience kidney damage.

- Antidepressants can cause vomiting and lethargy. Certain types can lead to serotonin syndrome - a condition marked by agitation, elevated body temperature, heart rate and blood pressure, disorientation, vocalization, tremors and seizures.
- Acetaminophen - Cats are especially sensitive to acetaminophen, which can damage red blood cells and interfere with the ability to transport oxygen. In dogs, it can cause liver damage and, at higher doses, red blood cell damage.
- Methylphenidate - Medications used to treat ADHD (Attention Deficit Hyperactivity Disorder) in people act as stimulants in pets and can dangerously elevate heart rates, blood pressure and body temperature, as well as cause seizures.
- Fluorouracil is an anti-cancer drug used topically to treat minor skin cancers and solar keratitis in humans. It has proven to be rapidly fatal to dogs, causing severe vomiting, seizures and cardiac arrest. Chewing on discarded cotton swabs used to apply the medication can cause these effects.
- Isoniazid - Often the first line of defense against tuberculosis, isoniazid is particularly toxic for dogs because they don't metabolize it as well as other species. It can cause a rapid onset of severe seizures that may ultimately result in death.
- Pseudoephedrine is a popular decongestant in many cold and sinus products, which acts like a stimulant if ingested by pets. In cats and dogs, it causes elevated heart rates, blood pressure and body temperature as well as seizures.
- Anti-diabetics medicines - Many



oral diabetes treatments - including glipizide and glyburide - can cause a major drop in blood sugar levels of affected pets. Clinical signs of ingestion include disorientation, lack of coordination and seizures.

- Vitamin D derivatives - Even small exposures to Vitamin D analogues like calcipotriene and calcitriol can cause life-threatening spikes in blood calcium levels in pets. Clinical signs of exposure (including vomiting, loss of appetite, increased urination and thirst due to kidney failure) often don't occur for more than 24 hours after ingestion.
  - Baclofen is a muscle relaxant that can impair the central nervous systems of cats and dogs. Some symptoms of ingestion include significant depression, disorientation, vocalization, seizures and coma, which can lead to death.

## What to do if Your Pet is Poisoned –Guidelines from the ASPCA Animal Poison Control Center

If you suspect that your pet may be poisoned, don't wait for symptoms to appear. An animal may appear normal for several hours or days after being poisoned.

- Collect any material involved. This will help your vet and/or APCC specialists to determine what poison or poisons are involved.
- If you need to take your pet to a local veterinarian, be sure to take the product's container with you. Also, collect in a sealable plastic bag any material your pet may have vomited or chewed.
- Call the ASPCA Animal Poison Control Center, 888-426-4435. **(\*\*There is a \$66 consultation fee for this service.\*\*)**

Be ready with the following information:

- The species, breed, age, sex, weight and number of animals involved.
- The animal's symptoms.

- Information regarding the exposure, including the agent (if known), the amount of the agent involved and the time elapsed since the time of exposure.
- Have the product container/ packaging available for reference.

**If the animal is having seizures, losing consciousness, is unconscious or is having difficulty breathing, telephone ahead and take your pet immediately to your local veterinarian or emergency veterinary clinic.**

Keep the telephone number of the ASPCA Animal Poison Control Center, **888-426-4435** - as well as that of your local veterinarian, in a prominent location. The ASPCA Animal Poison Control Center hotline operates 24 hours a day, 7 days a week, at 888- 426-4435. There is a \$65 consultation fee, payable by credit card, for this service. This includes follow-up consultation should you or your vet need further assistance with your pet's case.

Invest in an emergency first-aid kit for your pet. The kit should contain:

- A fresh bottle of hydrogen peroxide, 3 percent USP (to induce vomiting if instructed to do so by your vet or the APCC)
- A turkey baster, bulb syringe or large medicine syringe (to administer peroxide)
- Saline eye solution
- Artificial tear gel (to lubricate eyes after flushing)
- Mild grease-cutting dishwashing liquid (for bathing an animal after skin contamination)



2. The plant known as "Bitter Cassava" contains toxic cyanide compounds but, when properly treated, it becomes edible. What is the common Cassava plant product found on sale in most northern supermarkets?

## Pesticides

There are more than 1,400 different pesticide ingredients used in over 45,000 pesticide formulations available today. We use pesticides in our homes, in our workplaces and in our communities, said Dr. James Mowry of the Indiana Poison Center. Proper use of pesticides can help us enjoy the benefits while limiting the dangers of their use.



Pesticide exposure can occur through contact with the skin, by inhalation, or by ingestion. Poisonings from these chemicals may be immediate or long term from repeated exposures. While there are many different types of pesticides, symptoms of exposure to commonly used pesticides may include skin, eye, and lung irritation, headache, dizziness, nausea, vomiting, diarrhea, salivation, muscle weakness, tremors and/or seizures.

### Some safety tips on using pesticides include:

- Read the label carefully and follow the directions for mixing and use to the letter.
- Always use protective clothing (avoid leather and canvas), gloves, long sleeves and pants, and goggles or a face shield. Remember to remove contact lenses because they can absorb the pesticide and trap them in your eyes.
- Check your equipment with water first for leaking hoses, connections, or dripping nozzles.
- When spraying outdoors, make sure

3. Of the 3,000 known species of snakes in the world, approximately what percent are venomous: 10%, 25%, or 33%?

all pets and people are out of that area.

- When applying, check for wind movement. To minimize overspray, apply only on days with no wind or light breeze. Never spray upwind or on hot days to reduce the risk of vaporization.
- When spraying indoors, close all windows, turn off all ventilation, cover items to protect them from contamination i.e., eating utensils, food, pet dishes, etc. Again, remove pets and people from the area. After spraying, keep the area closed for the amount of time specified on the label and then ventilate the area until the chemical has dried and the area is odor free.

Once the project is completed, clean your equipment immediately, keeping your protective clothing on while cleaning. Then remove and clean the protective clothing. Wash your skin with soap and water. Remember to wash your protective clothing separate from other clothing to prevent contamination.

The best way to store pesticides is to put them on high shelves out of a child's reach or better yet, in a locked cabinet or tackle box with a combination lock. Always store pesticides in the original container with the original label intact. Never leave mixtures in open jars. Even a small amount of residue in the container can become a toxic dose for the small and curious child.

4. In the early days of baseball, some pitchers used to color the ball with the juice of a toxic plant, to darken it. What plant materials did they use?



For a poison emergency, or to request poison prevention materials call 1-800-222-1222

### Wild Mushrooms –Safe To Eat?

When it comes to mushroom picking, many people prefer to browse the produce section in the grocery store. Those mushrooms that we buy at the store represent only a few of the many edible species. If you are someone who enjoys the great outdoors, you may have contemplated going on a mushroom hunt. Before you venture out into nature though, there are some important things to know about mushrooms.

All mushrooms are fungi, but not all fungi are mushrooms. To the uninitiated, the word “mushroom” conjures up pictures of white-capped umbrella shaped objects. In fact mushrooms come in many other shapes and colors. Several thousand species of wild mushrooms grow in North America – an overwhelming number for mushroom hunters who are just starting out. Identifying mushrooms depends on many factors, including not only physical characteristics but also the location where the mushroom grows.

Wild edible mushrooms can be found everywhere. They grow in yards, fields, parks and



forests and there is no easy rule on how to distinguish edible from poisonous mushrooms.

Old wives tales abound regarding how to know if a wild mushroom is safe to eat. The following list provided by the Forest Service, U.S. Department of Agriculture, Rocky Mountain Region, Lakewood, Colorado represents some of the myths about how to choose mushrooms that are safe to eat.

It is **FALSE** that:

- Poisonous mushrooms tarnish a silver spoon or coin.
- A mushroom is safe to eat if you can peel it.
- All mushrooms growing on wood are safe to eat.
- A clove of garlic will turn black if cooked with poisonous mushrooms.
- Mushrooms that animals eat are safe for humans to eat.
- Poisonous mushrooms will be detoxified by par boiling, drying, salting, or pickling.
- All mushrooms growing in fields are safe to eat.
- White mushrooms are not poisonous because they are “pure”.

*The only sure way to tell if a mushroom is safe to eat is by positive identification.*

Mistaking the identity of a mushroom is the most common cause of mushroom poisoning. For this reason, a field guide can be a useful tool to pack for mushroom hunting. However, pictures and descriptions can only take you so far. The best, and safest choice, is only to hunt for wild mushrooms in the company of an experienced mycologist (mushroom expert).

5. You are watching an NCAA basketball game between Richmond and Georgia Tech. Which 2 venomous creatures are represented by the team names?

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**Answers to Quiz:**

1. Poppy Seeds
2. Tapoca
3. 10%
4. Tobacco Juice
5. The Spiders (Richmond) vs. The Yellow Jackets (Georgia Tech)