

TOXIC TRIVIA

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How to Use Medicine Safely

Volume 30, No. 3
Fall 2011

How to avoid common poison mistakes

Follow these tips from the **Indiana Poison Center** to help reduce the risk of poisoning:

1. Avoid medicine mix-ups

It's easy to give a child, or an adult for that matter, the wrong dose – or the wrong medicine – when your day gets busy. Here's how to make sure the right person gets the right dose of the right medicine at the right time:

- Keep a schedule or checklist in a visible place so you can note when medicine's been given.
- Keep each family member's medicine in a different place (including any pets).
- Read the label *every time* before giving any medicine (or taking your own medicine).

2. Keep harmful products out of sight

Young children will put everything they find into their mouth and they like to imitate older kids and adults. When they see you take medicine, spray on perfume, or use a cleaning product, they want to try those things too.

- Medicines, toiletries and household cleaners should be kept **locked away** from children.
- Take medicine where children can't watch.

- Don't remove a pill from its container until you're ready to take it and don't leave it sitting on a counter top or table where a child might find it.

things that are good to eat or drink. For this reason, never transfer potentially dangerous items such as medicines or cleaners to empty food or drink containers. To prevent someone swallowing

something that looks safe but is actually dangerous:

- Keep all products in their original, labeled containers.
- Store food and drinks in a separate place, away from Medicine, cleaners and other potentially harmful items. Keeping the original container also means that the instructions stay with the product, so you can use it the correct way.

How to get help

No matter how hard you try, poisonings can and do still sometimes happen. If you think someone may have been poisoned, call the Indiana Poison Center at **1-800-222-1222**. Poison doesn't always act quickly so don't wait for symptoms to develop – call the poison center **immediately**. Specially trained poison experts are available 24 hours a day, every day, to provide help.

Calls are always free and confidential and a trip to the doctor can often be avoided by following the poison center's instructions. If you do have a true medical emergency and need to go to an emergency department, the poison center will call ahead so staff are prepared and know how to quickly help you when you arrive at the hospital.

Be safe. Be sure. Read the label.

POISON
Help
1-800-222-1222

Did you take the wrong medicine? Did you take too much? Call your Poison Center. Expert advice is available 24/7.

- If you drop a pill, stop everything until you find it. You may not be able to readily see the pill but your child or pet may have no trouble spotting it and swallowing it.

3. Keep products in their original containers

Many harmful products closely resemble

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Toxic Trivia

Test your poison knowledge with these 5 tricky questions!



Answers are on page 4 - good luck!

POISON
PREVENTION

TOXIC-

1. Australia is home to many poisonous sea creatures, including the world's only poisonous starfish. What is the name of this starfish?

How to store medicine

Where do you store your medicine? If your answer is in the bathroom, then read on for some information that might just change your mind.

Both prescription and over-the-counter medicines can be affected by extreme temperatures. For this reason, pharmaceutical manufacturers recommend most of their products be stored at a controlled room temperature of 68 to 77 degrees. This is the range in which manufacturers guarantee product integrity, although anywhere from 58 to 86 degrees is still acceptable. Keep in mind that during heat waves and cold weather, storage locations can go above or below those ranges, causing medicines to physically change and possibly lose potency. For example, Hydrocortisone cream can separate and become useless when subjected to heat.

For patients with chronic illnesses such as diabetes or heart disease, a damaged dose of medicine, like insulin or nitroglycerin, can cause real problems. At the same time it's important to realize that even common medicines can break down and that **you can't always tell just by looking at a pill or liquid that a problem has occurred.**

Any type of diagnostic test strip, like those used to test for blood sugar levels, pregnancy, or ovulation, is extremely sensitive to humidity. If moisture sticks to the strips, it can possibly give a false reading. Thyroid, birth control and other medicines that contain hormones are especially sensitive to temperature changes. These types

of medicine are often protein-based and when protein gets hot, it changes properties – think of an egg that cooks when it gets hot.

Special care needs to be taken with insulin, seizure medicines and anticoagulants. Heat can cause problems but so too can extreme cold. Drugs like insulin can lose their effectiveness if they freeze. The same goes for any suspended medication that has to be shaken before use.

Follow these tips to store your medicines safely:

- Keep medicines in a cool, dry place. The medicine cabinet in your bathroom may be the worst place to store medicine, because of high humidity. Moisture is a particular problem for quick-dissolve tablets. Choose a storage space like a hallway linen closet, bedroom closet or kitchen cabinet away from the stove. Consider where to store medicine carefully if there are young children in your home. Remember that children climb, so putting medicine up high is not a reliable way to keep children safe.
- Keep medicine in its original packaging to help protect it from extreme temperatures. If you take pills out of their original containers to put them in daily pill box reminders, store the boxes in a cool, dry place.
- Keep unopened bottles of insulin in the refrigerator, since it can easily degrade if it freezes or gets too hot. Open bottles can be kept at room temperature,



Open bottles can be kept at room temperature, which also makes injections more comfortable.

- Avoid extreme temperatures that can occur in a parked car during summer or winter weather. Keep medicines in a purse or a separate bag when you travel. When you leave the car, take the medicines with you. Don't leave prescriptions in your car after picking them up at the pharmacy – take the medicine home as soon as possible. If you need to store emergency medicines like an EpiPen or a dose of insulin in your car, ask your pharmacist to recommend a cold pack to keep the medicine at the right temperature.
- When traveling by air, always put your medicines in your carry-on luggage. Baggage holds are not controlled for temperature and can easily become freezing or scorching hot.



- Never take any medication that has changed color or consistency, regardless of the expiration date. Check for any unusual smell. Discard pills that stick together, are chipped or are harder or softer than usual. **If you're unsure about any medication, check with your pharmacist before taking it.**

2. 'Blackjack disease' is a skin condition found in card players who are in prolonged contact with the green felt on card tables. Which toxic substance in the felt causes this?

- Never flush unused medicines down the toilet, where they might make their way into the water supply. Check with your local waste management district to see if they take unwanted medicine. If they don't, they may be aware of a local medicine take back event or another location that accepts medicine. If you have no other alternative, mix the pills or liquid with coffee grounds, cat litter or another material that makes them unpalatable, then put the mixture in the trash. For tips on how to more safely dispose of medicine in the trash, go to: www.iuhealth.org/poisoncontrol.



Preventing unintentional overdose

Many over-the-counter (OTC) liquid medicines come with some kind of measuring device, specifically designed to help deliver the right dose. These devices typically have markings on them to show what dose is being given. Markings appear as teaspoons (tsp), table-



spoons (tbsp), or milliliters (mL). It's important to understand that **kitchen spoons do not hold the same amount as measuring spoons designed to be used for medicine.** Always ask a pharmacist for the correct device to measure medicine – never guess or use a kitchen spoon.

3. In September 1994, professional tennis player Vitas Gerulaitis died from poisoning by which toxic gas?

Problems can occur even when appropriate measuring devices are used. The Food and Drug Administration (FDA) has received numerous reports of unintentional overdose caused, in part, by markings that are not clear or are inconsistent with directions on packages. This problem has especially affected young children.

On May 4, 2011, the FDA issued guidance to firms that manufacture, market, or distribute OTC liquid medicines. This guidance calls for companies to provide

measurement devices with markings that are both clear and easy to understand.

What can I do to avoid overdosing?

- **Always follow the directions on the label exactly** – never guess how to use medicine. If you're not sure, check with a pharmacist or doctor.
- **Know the "active ingredient"** in the medicine (what makes the medicine work). This ingredient is always listed at the top of the label. If you're using more than one OTC medicine at the same time, check the "active ingredient" on all the labels so you don't take the same ingredient more than once. If you're not sure, always check with your pharmacist or doctor before taking any medicine. If you need to call the

Drug Facts

Therapeutic substance in drug	Active ingredient (in each tablet) Chlorpheniramine maleate 2 mg	Purpose Antihistamine
	Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies: ■ sneezing ■ runny nose ■ itchy, watery eyes ■ itchy throat	
	Warnings Ask a doctor before use if you have ■ glaucoma ■ a breathing problem such as emphysema or chronic bronchitis ■ trouble urinating due to an enlarged prostate gland Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives	
When not to use this drug, when to stop taking it, when to see a doctor, and possible side effects	When using this product ■ You may get drowsy ■ Avoid alcoholic drinks ■ Alcohol, sedatives, and tranquilizers may increase drowsiness ■ Be careful when driving a motor vehicle or operating machinery ■ Excitability may occur, especially in children	
	If pregnant or breastfeeding, ask a health professional before use. Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.	
	Directions	
	Adults and children 12 years and over	Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours
	Children 6 years to under 12 years	Take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours
	Children under 6 years	Ask a doctor
More information on how to store the drug	Other information Store at 20-25° C (68-77° F) ■ Protect from excessive moisture	
	Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch	

Product type

Symptoms or diseases the drug treats

Read carefully: how much to take, how often to take it, and when to stop taking it

Other things in the drug, such as colors or flavorings

4. Which popular drink, originally invented as a medicine in 1885, contained minute amounts of cocaine until 1929?

Indiana Poison Center for a poison emergency, the specialist will ask you to read the active ingredients from the label of the product involved. This is important information that will help the poisoned person to be treated appropriately.

Transdermal Patches

Transdermal patches that deliver medicines can pose a danger to children if not handled or disposed of properly. These patches are adhesive pads placed on the skin that deliver timed-release doses of medicine into the bloodstream. Drugs such as nicotine replacement, nitroglycerin and powerful painkillers like lidocaine and fentanyl are available in medicated patches and can be poisonous to children.

In order to release medicine consistently, patches contain as much as 20 to 30 times the amount that will actually be absorbed by the skin. When they are removed, some patches still contain as much as 95 percent of the total amount of the drug originally in the patch. The combination of a powerful drug and the large amount needed to be effective makes them dangerous for children. Children can not only choke on patches if they swallow them, but they can also overdose from the large amounts of drug that remain in used patches. Large amounts of the drug can get into the body just by licking, sucking or holding the patches. That’s why it’s so important for parents and caregivers to keep medicated patches out of the reach of children and to dispose of them safely after use.

The following are examples of calls to poison centers about children who have become ill from medi-



cated patches:

- A family member threw away a patch used to treat high blood pressure. A child pulled it out of the trash and chewed and sucked on it, causing severe drowsiness and a slow heartbeat. The child required treatment.
- A child pulled a patch off his father’s arm. The father didn’t realize what had happened until the child became ill and needed medical treatment.
- A child stepped on a motion-sickness patch that a family member thought he had tossed in the trash but that had instead landed adhesive-side up on the floor. The child developed a racing heartbeat, dizziness and hallucinations and was hospitalized.

The **Indiana Poison Center** recommends the following steps to keep children safe from medicated patches:

- Always keep medicines locked up, out of the reach of children.
- If a patch comes off your skin and sticks to the skin of another person, remove the patch from his or her skin immediately, wash the skin with soap and water, and call the Indiana Poison Center immediately.
- Follow the specific disposal instructions on the drug label or patient information that comes with the medicine.
- Fold used patches in half with the adhesive inside and then place the folded patches into a sealed container out of the reach of children.

5. Which country is home to the nine most poisonous arachnids and ten most poisonous snakes in the world?

- Put the sealed container out with the trash as close to pickup time as possible.
- If you think a child has been exposed to a medicated patch, call the Indiana Poison Center at **1-800-222-1222** immediately.

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Contact Barbara Cole at 317-962-9248 or bcole@iuhealth.org if you have questions regarding duplication of information.

Answers to Toxic Trivia Quiz

1. *The Crown of Thorns Starfish.*
2. Chromium
3. Carbon monoxide
4. Coca-Cola
5. Australia

To see a color copy of “Toxic Trivia” go to: www.iuhealth.org/poisoncontrol