



LESSON 1: Comparing Over-the-Counter and Prescription Medicine

Students will learn the difference between over-the-counter medicine and prescription medicine, as well as the safety precautions of each.

Students will compare over-the-counter medicine and prescription medicine.

Grades: 5 and 6

Duration: 40 minutes

Pre-instructional Planning

OBJECTIVES

Students will:

- Define over-the-counter (OTC) medicines and prescription medicines
- Understand the similarities and differences between OTC medicines and prescription medicines
- Learn how to responsibly use medicine

MATERIALS

- Over-the-Counter vs. Prescription Medicines printable
- OTC Medicine Safety Pre-Assessment Quiz printable
- OTC Medicine Safety Answer Key printable
- Over-the-Counter Medicine Safety Classroom Poster printable
- Medicine Safety for Families Newsletter printable
- Empty fever reducer medicine bottle with dosing cup
- Paper

- Pen or pencil
- **Optional:** Computer with Internet access

During Instruction

SET UP

1. Before each lesson in the OTC Medicine Safety program, inform students that they should never take medicine without the supervision of a parent or trusted adult.
2. Make copies of the printables for each student in your class.

LESSON DIRECTIONS

Step 1: Assess students' knowledge of medication before you begin. Explain that research shows students in their age range are beginning to self-medicate; and without the information and comprehensive understanding that they need to make safe choices about medicine, kids can easily do more harm than good. Tell students that it's important to have an understanding of safe medicine use before they become more responsible for their own self-care. Have students complete the OTC Medicine Safety Pre-Assessment Quiz printable. Save the completed quizzes, as students will complete the same quiz for a post-program comparison.

Step 2: Begin a class discussion by asking students to brainstorm a list of symptoms they have had when they were not feeling well. (Answers may include: upset stomach, headache, fever, cough, etc.)

Step 3: Then invite students to share a personal story that describes what happens when they get sick. (Answers may include: go to the doctor, take medicine, rest, drink water or juice, stay home from school, etc.)

Step 4: Discuss how there are many different ways that doctors treat sickness, one of which is recommending medicine. Medicines fall into two main categories: OTC or prescription. These categories are defined as follows:

Over-the-counter (OTC) medicine: Medicine that is bought in a pharmacy, drugstore, or supermarket and obtained without the need for a doctor's prescription.

Prescription (Rx) medicine: Medicine that is specially ordered for you by a doctor or other qualified healthcare practitioner, available only from the pharmacist.

If students need more support, ask them to brainstorm different medicines they are familiar with. As a class, decide whether each medication belongs in the OTC or Rx category. Make sure the list includes OTC medicines that students may not think of as medicines, such as cough drops and eye drops.

Step 5: At the front of the class, display and identify each of these components: a sample of an OTC bottle of fever reducer, the age-appropriate dosing device (child dosing cup), the sealed bottle PDF, the medicine label PDF, and the Over-the-Counter Medicine Safety Classroom Poster printable.

Step 6: Describe how every medicine is unique and has a certain set of characteristics that enable it to treat specific symptoms. Have students recall a time when they had to take medicine. Ask students:

- What measuring tools or devices has your parent or a trusted adult used to give you liquid medicines?
- Has anyone ever taken medicine without the permission of a trusted adult? If so, why?
- Have you ever read the Drug Facts label on an OTC medicine container?

Step 7: Explain how every medicine comes with dosing directions, and that dosing instructions on OTC medicines appear on the Drug Facts label. **Reinforce the importance of always communicating with a trusted adult before taking any medicine.** The purpose of these instructions is to help make sure that the medicine is taken correctly. When we do not follow instructions, the medicine may not work the way it is meant to, it can make you feel worse, or it can even hurt you. You may have allergic reactions or experience side effects like dizziness or nausea. Sometimes when you mix certain foods with a medicine, the medicine does not work properly.

Step 8: Organize the class into groups of five or six. Distribute the Over-the-Counter vs. Prescription Medicines printable and have teams complete it. Discuss their answers as a class and invite any follow-up questions about the lesson.

Step 9: Distribute the Medicine Safety for Families Newsletter printable and encourage the students to continue the discussion at home.

LESSON EXTENSIONS

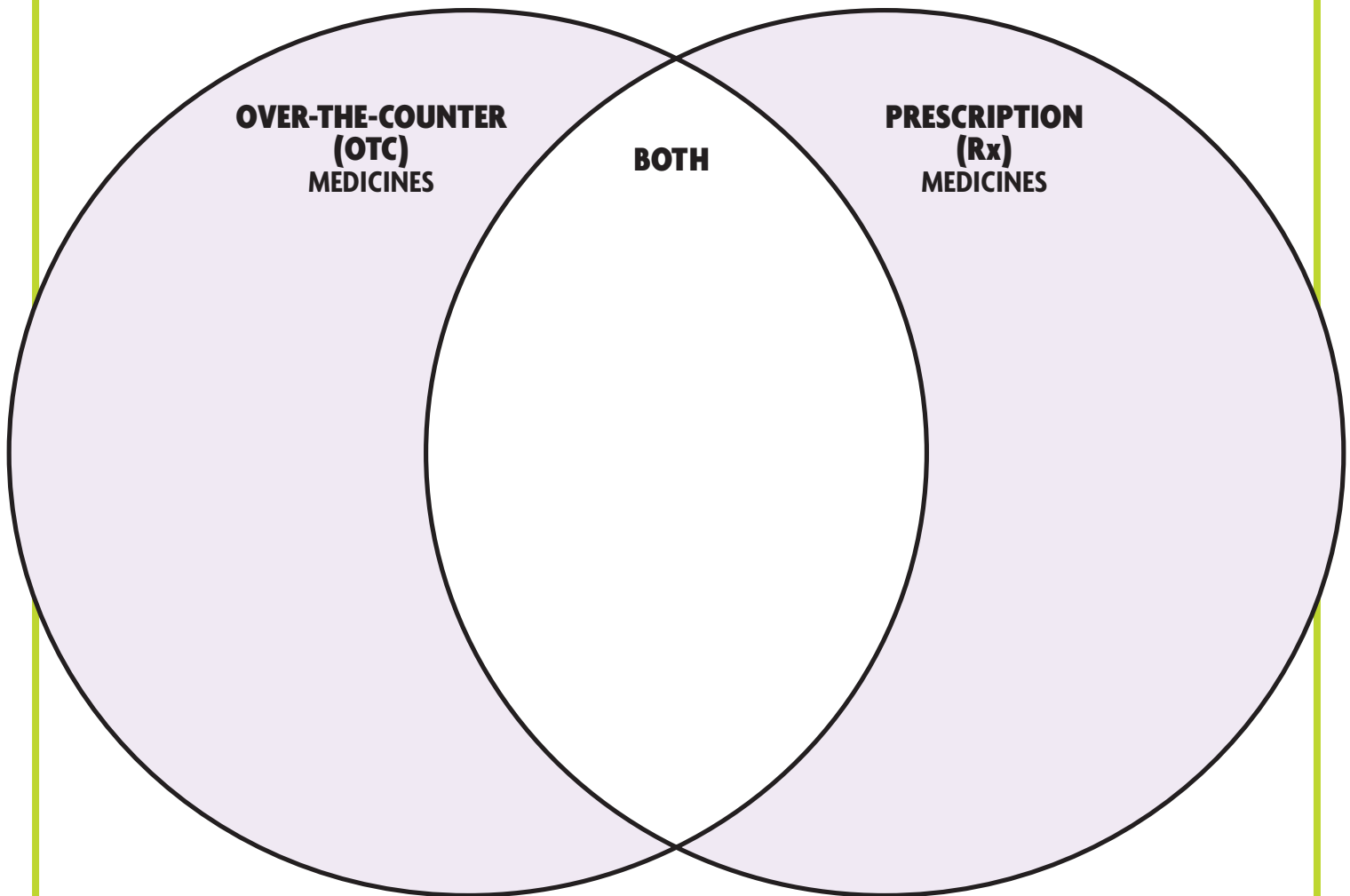
Provide students with the following prompt:

How does a medicine become approved for over-the-counter use? Are there any medicines that used to be available by prescription only but are now available over-the-counter? Research the answers to these questions, and write a paragraph describing your findings.

STUDENT WORKSHEET 1

Over-the-Counter vs. Prescription Medicines

Directions: Sort the statements by number in the correct place in the Venn diagram.



About Medicines: Rx, OTC, or Both?

- | | | | |
|---|--|---|--|
| 1. Children should use only with permission of a parent or trusted adult. | 3. Prescribed by a doctor or nurse practitioner for one person. | 5. Can buy without a doctor's prescription. | 7. A healthcare professional or your local poison center can answer questions about this medicine. |
| 2. Should only be used by the person for whom the medicine was ordered. | 4. The medicine label, including the directions, must be read and followed carefully before use. | 6. Dangerous to misuse or abuse. | |

Did you know? In 2015, America's poison centers managed about 630,000 medicine exposure cases involving children, tweens, and teens.

OTC MEDICINE SAFETY PRE-ASSESSMENT

TYPES OF MEDICINE

What type of medicine is best described by each statement below?

Q1. This is medicine a doctor orders for you, and is available only from a pharmacist. *Check only one.*

- ☐ Prescription medicine
- ☐ Over-the-counter (OTC) medicine
- ☐ Not sure

Q2. This is medicine bought in a drugstore, pharmacy, or supermarket without having to get a doctor's permission. *Check only one.*

- ☐ Prescription medicine
- ☐ Over-the-counter (OTC) medicine
- ☐ Not sure

PLEASE LET US KNOW IF YOU THINK THE FOLLOWING STATEMENTS ARE TRUE OR FALSE.

Q3. Please check one answer per row.	True	False	Not Sure
If you use a household or kitchen spoon to measure liquid medicines, you can be sure you will get the right dose.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You can't be harmed by over-the-counter medicines. After all, you can buy them without a doctor's prescription.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's okay to take two medicines with the same active ingredient at the same time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's okay to use someone else's prescription medicine if you have the same symptoms he or she had when he or she got it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's okay to take your leftover prescription medicine later if you get sick again.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's okay to take more medicine than what is directed on the label if you are very sick.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In a medicine, an active ingredient is what relieves a person's symptoms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The <i>Drug Facts</i> label tells you what symptoms the medicine treats.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The <i>Drug Facts</i> label gives you the dosage information (how much medicine to take).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE LET US KNOW IF YOU THINK THE FOLLOWING STATEMENTS ARE TRUE OR FALSE.

Q4. Please check one answer per row.	True	False	Not Sure
A pharmacist can answer questions about over-the-counter medicines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All medicines have an expiration date.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Children should not use prescription medicine without the permission of their parent or a trusted adult.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medicine should be kept in a place where children can't reach it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OTC MEDICINE SAFETY PRE-ASSESSMENT *CONTINUED*

<i>Q4. Please check one answer per row.</i>	True	False	Not Sure
If you and your friend are the same age, it will be safe for you to take the same dose of an over-the-counter medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prescription medicine cannot be bought without a doctor's permission.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE LET US KNOW IF YOU THINK THE FOLLOWING STATEMENTS ARE TRUE OR FALSE.

<i>Q5. Please check one answer per row.</i>	True	False	Not Sure
Children over 12 can take over-the-counter medicine without a parent's permission if they carefully read the label.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medicine should be stored in the container it came in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
One gulp from a bottle of liquid medicine is exactly one tablespoon of medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Over-the-counter medicines can be dangerous when misused.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prescription medicine can be found on the shelves in some stores.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prescription medicine is meant to be used by one person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE LET US KNOW IF YOU THINK THE FOLLOWING STATEMENTS ARE TRUE OR FALSE.

<i>Q6. Please check one answer per row.</i>	True	False	Not Sure
The local poison center is a good place to call if someone has taken too much medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medicine should be kept on the kitchen counter so you remember to take it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking more medicine than directed will help you feel better faster.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking more than one medicine with the same active ingredient will help you feel better faster.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you have questions about an over-the-counter medicine you have not taken before, you should ask a friend who has taken it before.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You can call the poison center even if it isn't an emergency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ANSWER KEY

► STUDENT WORKSHEET 1

1. Both
2. Prescription
3. Prescription
4. Both
5. OTC
6. Both
7. Both

► STUDENT WORKSHEET 2

1. Answers might include: mentions of reasons that someone should not take the drug, such as an allergic reaction to the product or any of its ingredients; other products that should not be used while using this product; or other reasons why a person should not take the product. It's important that a person read this information before taking medicine because it can help avoid preventable side effects.
2. Yes. Side effects may include drowsiness and/or excitability, particularly for children.
3. Answers may include: A doctor should be consulted before use of this product if you have liver or kidney disease, and for the purposes of administering to children under 6 years of age. A doctor should be consulted if allergic reaction or overdose occurs.
4. The "Directions" section.
5. 1-800-222-1222

► STUDENT WORKSHEET 3

1. At 8 a.m. the next day. After that, no more doses should be given until after 8 p.m.
2. a. 2.5 mL
b. 2.5 mL
3. Utilizing anything other than the dosing device that is packaged with the medicine can result in an inaccurate dose.

4. A *Drug Facts* label might suggest that people contact a doctor before use for a variety of reasons. These reasons may include factors such as age, health conditions, or other medicines they are taking that may require special instruction or may make the medicine inappropriate for certain people.
5. Answers could include a discussion of the information provided on the *Drug Facts* label; use of proper dosing devices; the consequences of not using proper dosing devices; communicating the importance of understanding dosing information.

► STUDENT WORKSHEET 4

[Freeform writing. Answers will vary.]

► STUDENT WORKSHEET 5

Any response that identifies medication stored in a location that is not up, away, and out of sight would be acceptable. The medication storage errors shown in the picture are as follows:

1. Bottle of cough medicine on the counter and a teaspoon with a trace of medicine visible on spoon
2. Medicine left out on the nightstand with dosage cup
3. Allergy medicine on the table next to vase
4. Toiletry bag hanging low from doorknob inside closet
5. Medicine bottles visible and accessible inside cabinet below kitchen sink
6. Open purse with multivitamin bottle sticking out of the top

OTC MEDICINE SAFETY

ANSWER KEY

(Continued)

PRE-ASSESSMENT QUIZ, POST-ASSESSMENT QUIZ

Q1. PRESCRIPTION MEDICINE

Q2. OVER-THE-COUNTER (OTC) MEDICINE

Q3.

If you use a household or kitchen spoon to measure liquid medicines, you can be sure you will get the right dose.	FALSE
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You can't be harmed by over-the-counter medicines. After all, you can buy them without a doctor's prescription.	FALSE
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It's okay to take two medicines with the same active ingredient at the same time.	FALSE
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It's okay to use someone else's prescription medicine if you have the same symptoms he or she had when he or she got it.	FALSE
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It's okay to take your leftover prescription medicine later if you get sick again.	FALSE
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It's okay to take more medicine than what is directed on the label if you are very sick.	FALSE
--	--------------

In a medicine, an active ingredient is what relieves a person's symptoms.	TRUE
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The <i>Drug Facts</i> label tells you what symptoms the medicine treats.	TRUE
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The <i>Drug Facts</i> label gives you the dosage information (how much medicine to take).	TRUE
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Q4.

A pharmacist can answer questions about over-the-counter medicines.	TRUE
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All medicines have an expiration date.	TRUE
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Children should not use prescription medicine without the permission of their parent or a trusted adult.	TRUE
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Medicine should be kept in a place where children can't reach it.	TRUE
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If you and your friend are the same age it will be safe for you to take the same dose of an over-the-counter medicine.	FALSE
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Prescription medicine cannot be bought without a doctor's permission.	TRUE
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(Continued)

OTC MEDICINE SAFETY

ANSWER KEY

(Continued)

PRE-ASSESSMENT QUIZ, POST-ASSESSMENT QUIZ

Q5.

Children over 12 can take over-the-counter medicine without a parent's permission if they carefully read the label.	FALSE
Medicine should be stored in the container it came in.	TRUE
One gulp from a bottle of liquid medicine is exactly one tablespoon of medicine.	FALSE
Over-the-counter medicines can be dangerous when misused.	TRUE
Prescription medicine can be found on the shelves in some stores.	FALSE
Prescription medicine is meant to be used by one person.	TRUE

Q6.

The local poison center is a good place to call if someone has taken too much medicine.	TRUE
Medicine should be kept on the kitchen counter so you remember to take it.	FALSE
Taking more medicine than directed will help you feel better faster.	FALSE
Taking more than one medicine with the same active ingredient will help you feel better faster.	FALSE
If you have questions about an over-the-counter medicine you have not taken before, you should ask a friend who has taken it before.	FALSE
You can call the poison center even if it isn't an emergency.	TRUE



OVER-THE-COUNTER MEDICINE SAFETY

UNDERSTANDING THE LABEL

The *Drug Facts* label helps you understand the medicines that you take and how to take them safely. All medicines should be taken with the direct supervision of a parent or trusted adult.



ACTIVE INGREDIENTS

The ingredients in the medicine that make it work.



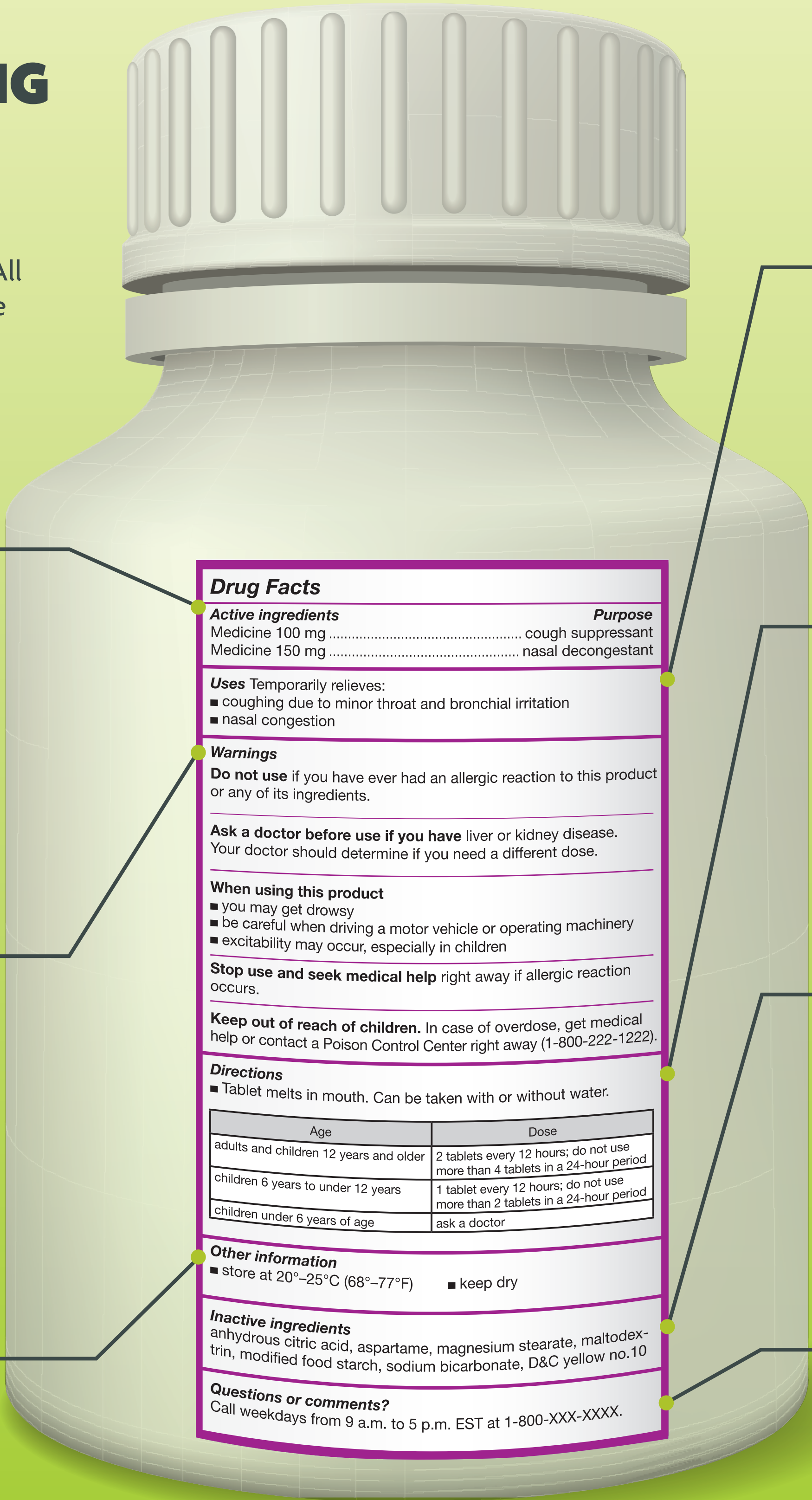
WARNINGS

Safety information, including side effects, the questions you should ask a doctor before taking the medicine, and which medicines to avoid using at the same time.



OTHER INFORMATION

How to store the medicine.



USES

Describes the symptoms that the medicine treats.



DIRECTIONS

Indicates the amount or dose of medicine to take, how often to take it, and how much you can take in one day.



INACTIVE INGREDIENTS

Ingredients not intended to treat your symptoms (e.g., preservatives, flavorings).



QUESTIONS OR COMMENTS?

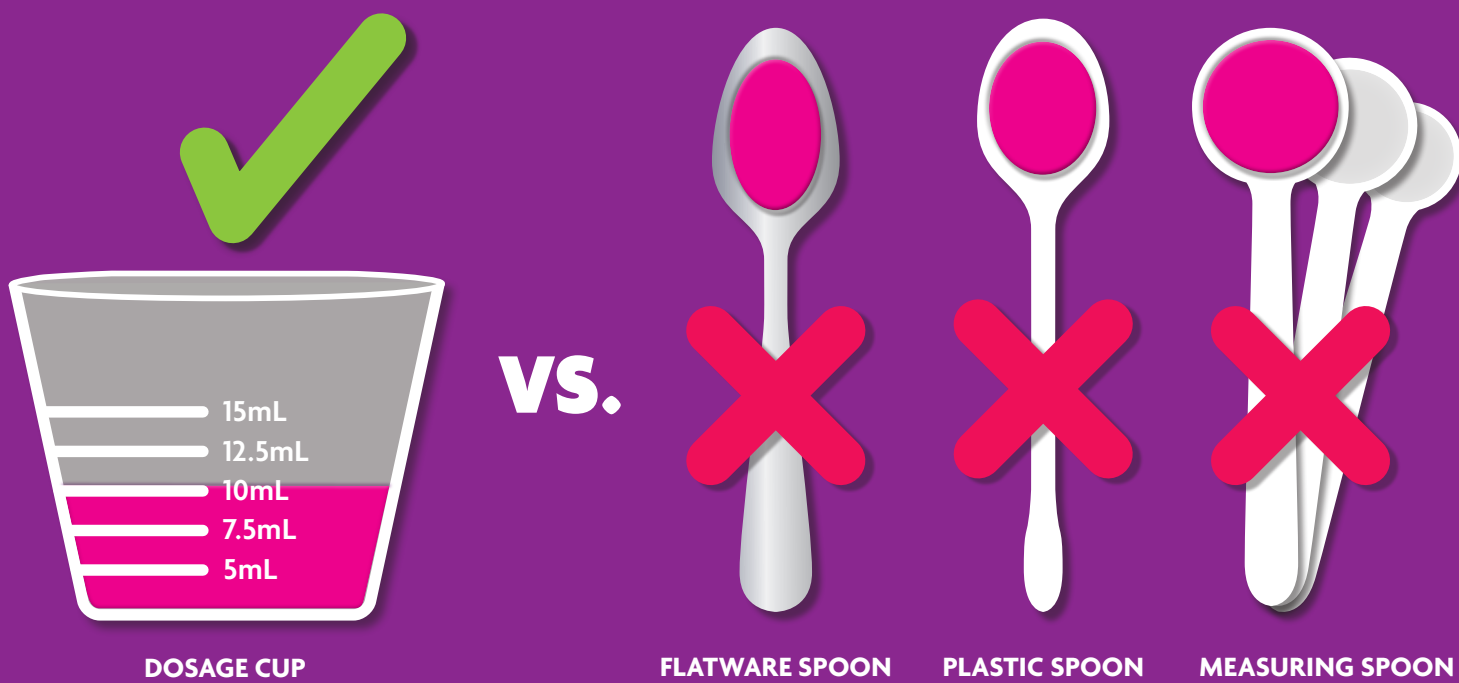
Call the company if you have questions about a specific medicine.



This is not an actual *Drug Facts* label.

MEASURE IT CORRECTLY

To get an exact measurement, it is important to only use the dosing device that is provided with the medicine. The *Drug Facts* label tells you how much medicine you should take based on your weight and/or age. Take only one medicine with the same kind of active ingredient at a time.



FACT: Household spoons come in various shapes and sizes, which means they hold different amounts of liquid.

ASK FOR HELP

Always talk with a parent or trusted adult to learn more about the responsible use of all medicines. Other resources include doctors, nurses, and pharmacists as well as your local poison control center.

In 2018, America's poison control centers managed

1.23 MILLION

exposure cases involving children, teens, and teens. About half of these exposures involved various medicines.¹

Poison Help
1-800-222-1222

DID YOU KNOW?

Poison control centers are staffed with experts including doctors, nurses, and pharmacists who can help answer questions about medicines or can provide help over the phone if you come in contact with a poison. Calls are free and private.

¹Source: American Association of Poison Control Centers' National Poison Data System. Data covers ages 0-19.



OVER-THE-COUNTER MEDICINE SAFETY FOR FAMILIES

Over 20,000 kids per year need medical help
due to medicine mistakes or misuse.*

Download more **FREE** resources:
ymiclassroom.com/otcmedsafety-families



Support for the development of this education
material was provided by

Johnson & Johnson CONSUMER INC.

*AAPCC National Poison Data System query parameters: 2011–2016 annual average, ages 0–19, all unintentional and intentional misuse reasons for pharmaceutical exposure, cases en route to a healthcare facility or treatment recommended by a specialist in poison information, all outcomes.

**All program materials
are FREE.**



Keeping Your Children Medicine-Safe

As children get older, they often start to take on more responsibility—at home, at school, and even with their health. That is why it's so important for families to help children learn how to make safe choices.

Over-the-counter (OTC) medicines can be purchased from a store without a doctor's prescription, but they still need to be treated with the same amount of care! It is important to read and follow the *Drug Facts* label every time.

Medicine Action Plan

Create a medicine action plan to help keep everyone safe and healthy! Have your child check off each item as you complete it together.

- ☐ Which adults should your child talk to if he or she is sick and may need medicine?
Provide options if a primary caregiver is unavailable.
- ☐ Where will medicines be stored in your home? Remember that they should be up, away, and out of sight!
- ☐ How will you make sure that each medicine and the dosing device it comes with are kept together?
- ☐ How will your family make sure that the child safety caps are locked on all medicines?
- ☐ How will you make sure that visitors keep all of their medicines out of children's reach and sight?
- ☐ Program the Poison Help number into your phone: **1-800-222-1222**. Bookmark the Interactive Poison Help Website: **poisonhelp.org**.

Get to Know Your Medicine Label

Work as a family to learn more about the children's OTC medicines that you have in your home. Answer these questions together:

- ▶ What are the active ingredients?
- ▶ Are any side effects listed (under "Warnings")?
- ▶ Where is the poison control number on this label?
- ▶ What is the correct dose for your child to take if he or she is sick?
- ▶ How frequently should your child take the medicine if he or she is sick?
- ▶ Is the dose or frequency different for a younger sibling?
- ▶ What type of medicine dosing device came with the medicine? (Make sure it is stored with the medicine!)



Get free, confidential answers to your medicine questions by calling



Medicine Storage and Disposal, Safe Use, and Misuse

Using the correct dose of medicine is a science—too little won't be effective, and too much could be harmful. It's also important to make sure that medicines are stored up, away, and out of sight, as well as disposed of properly (see bit.ly/fda-disposal).

Play the **Hidden Home Hazards** game as a family to learn about safe storage.

Medicine Safety Hunt

How safe is each room in your home? Work together as a family to make sure that all types of health-related items are up and away in a safe location. Look for all of the following:

- ▶ Liquid medicines
- ▶ Pills
- ▶ Medicated creams
- ▶ Cough drops
- ▶ Eye drops
- ▶ Vitamins
- ▶ Supplements
- ▶ Prescription medicines
- ▶ Other healthcare products or potentially dangerous products, such as detergent pods

1. Are all medicines up, away, and out of sight?
2. Is the medicine dosing device stored with the medicine?
3. When disposing of a medicine, do you follow the U.S. Food and Drug Administration's guidelines?
4. Is any medicine past its expiration date?

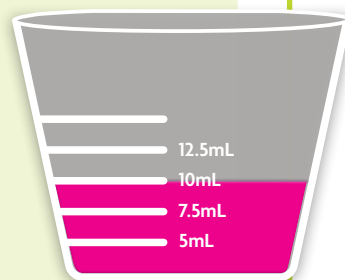
What Should You Do?

As a family, read each of the following scenarios about OTC medicines. Is this situation safe? Is this misuse? How should the characters handle the situation?

- ▶ Nikita has a headache. Last time she had a headache, her dad gave her some ibuprofen. He isn't home from work yet, so Nikita goes to the medicine cabinet and takes a couple of the pills without talking to her dad.
- ▶ Ruben is taking a dose of cough syrup under his mom's supervision. He forgot the dosing device in the cabinet, so he

grabs a spoon from the kitchen drawer to measure his dose of medicine.

- ▶ Every day, Angelica takes a once-a-day allergy medicine. Her mom always reminds her at breakfast. Today, though, it doesn't seem to be working. At lunchtime, Angelica takes another dose of the medicine so she will feel better faster.



Dosage Cup

the Poison Help number, 1-800-222-1222, or visit poisonhelp.org.



Our OTC Medicine Safety Checklist

- ☐ Read and follow the *Drug Facts* label every time.
- ☐ Measure carefully. Keep the medicine and the dosing device it comes with together. Never use household spoons to measure medicine.
- ☐ Check that all medicines, vitamins, and supplements are stored up, away, and out of sight of young children. Keep prescription medicines locked away.
- ☐ Ensure that the child safety caps are locked on all medicines.
- ☐ Remind visitors to keep luggage, purses, or anything else that might have medicines in it out of children's reach and sight.
- ☐ Medicines should only be taken with the supervision of an adult or trusted guardian. Communicate with other caregivers to prevent double-dosing errors.
- ☐ Make sure your children know that using OTC and prescription medicines incorrectly can cause harm.
- ☐ Program the Poison Help number into your phone: **1-800-222-1222**.
- ☐ Bookmark the Interactive Poison Help Website: **poisonhelp.org**.

Emergency Contacts

Post these numbers in a prominent place in your home. Remember to save them into your cell phone in case of emergency.

Family Doctor Name: _____

Phone Number: _____

Pharmacy Name: _____

Phone Number: _____



Poison Help Number: **1-800-222-1222**

Open 24 hours a day *every day of the year*. Calls are fast, free, and confidential.

Interactive Poison Help Website: **poisonhelp.org**

All of these resources and more are available for FREE:
ymiclassroom.com/otcmedsafety-families