

Essential Standard

- 7.ATOD.1 - Understand the health risks associated with alcohol, tobacco, and other drug use.

Clarifying Objectives

- 7.ATOD.1.4 – Predict consequences of abuse of over-the-counter medicines from information provided by the manufacturers of these medicines.

OVER-THE-COUNTER Medication

Medicines and remedies which may be purchased without a doctor's prescription.



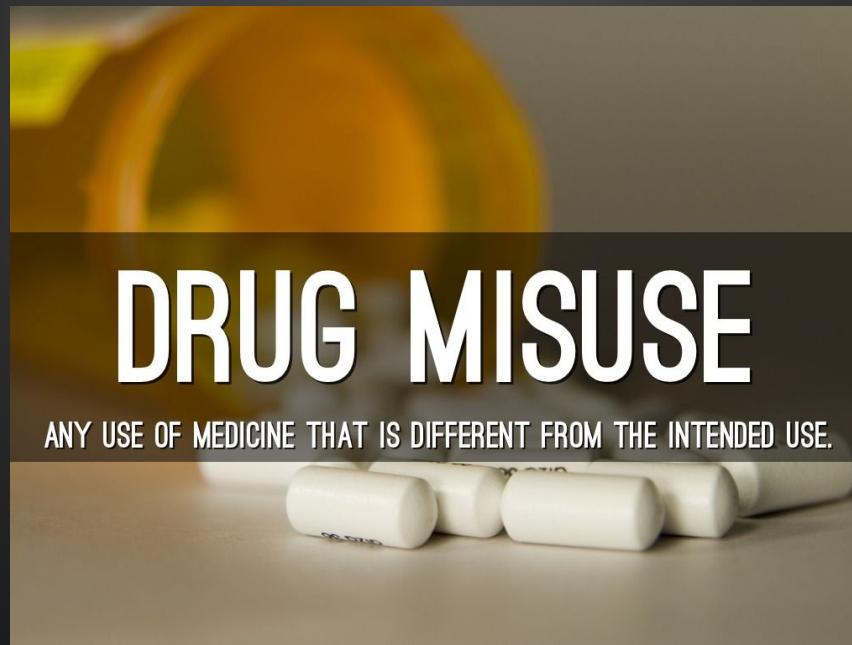
PRESCRIPTION Medicine

Drug products which may have greater side-effects and therefore need to be prescribed by a physician



Drug Misuse

Using a drug for other than its intended purpose or by someone other than person for whom the drug is intended



Drug Abuse

Drug use which is physically, socially, legally, or emotionally harmful to self or others





*No drug is
perfectly safe.

A drug powerful
enough to do good
is powerful enough
to do harm.*

Martin Minty

United Streaming

- Abusing Medications and Inhalants
- D.A.R.E. Rx and OTC Drug Abuse

Statement of Objectives:

- *We hear in the news about illegal drugs and the abuse of substances. We also know there are legal drugs (medications) which can improve health. Some people have been harmed by drugs which were legal and taken for health purposes.*
- *Today we will study over-the-counter medicines and their potential for harm. By the end of the lesson, you will be able to tell the difference between use, misuse, and abuse of medicines.*

Teacher Input:

- Read to students the story of the Tylenol Tampering Scare of 1982 (Appendix 3).

TYLENOL TAMPERING SCARE OF 1982

In 1982, seven people in the Chicago area died because of product tampering. Someone had placed on store shelves bottles of Extra-Strength Tylenol with capsules laced with cyanide. The amount of poison was thousands of times stronger than what was needed to kill a human.



The makers of Tylenol, Johnson and Johnson, took action to alert the population through the media and took all the products off their shelves. The company lost millions of dollars, but thought it was more important to protect the public's health and safety.

In addition, the company researched methods to keep their medicines safer and invented many of the "tamper-proof" features we see on medicines today. It takes a few more seconds to open the product, but we can tell if someone has tampered with the medicines we have purchased.

When you first open an over-the-counter product, what safety features are there? (tape over lid of package, plastic around seal of top of bottle, foil seal on mouth of bottle)

Drug companies must test their products, and the Food and Drug Administration must approve these medicines. Because of these regulations, we know most drugs are safe and effective. This is true only if the person for whom they are intended takes them correctly. Listening to the doctor or pharmacist and reading drug labels are our best defense against a harmful effect from a medicine.

Companies and federal agencies are charged with making certain drugs are safe as well as effective. Tylenol set the standard for responding to a crisis by developing tamper-proof packaging so the crime of product tampering could not happen again. It is extremely important that consumers (average citizens who use the products) do so carefully.



- Some of the differences between prescription and over-the-counter medicines are the packaging, labeling, and warnings for safe use.
 - Even though prescription medicines are usually stronger, the labels have less information for the user.
 - That is because it is assumed the physician will counsel the patient on proper and safe use of the drug.

Learn to

Drug Facts

Active ingredient

Uses

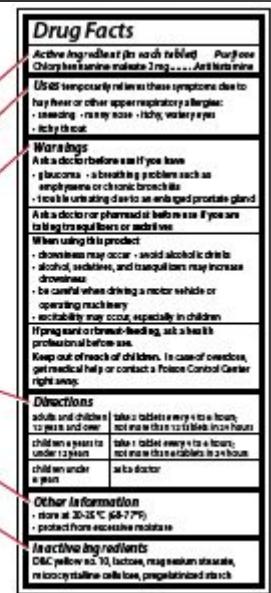
Warnings

Directions

Other information

Inactive ingredients

Read Labels



Drug Facts

Therapeutic substance in drug

Active ingredient (in each tablet) Purpose

Chlorpheniramine maleate 2 mg Antihistamine

When not to use this drug, when to stop taking it, when to see a doctor, and possible side effects

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 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

The consumer has responsibility to be educated about medicines.

The labels include information about when and how to take the medicine, the dosage, and what to do if side effects are experienced.

Understanding an OTC label...

Always READ the label

What's on a label?

- Active Ingredient - amount of active ingredient per unit
- Uses - Symptoms or diseases the product will treat or prevent.
- Warnings - When not to use the product; conditions that may require advice from a doctor before taking the product; possible interactions or side effects; when to stop taking the product and when to contact a doctor; if you are pregnant or breastfeeding, seek guidance from a healthcare professional; keep product out of children's reach.
- Inactive Ingredients - Substances such as colors or flavors
- Purpose - Product action or category (such as antihistamine, antacid, or cough suppressant.)
- Directions - Specific age categories, how to take, how much, how often, and how long
- Other Information - How to store the product properly, and required information about certain ingredients (such as the amount of calcium, potassium, or sodium the product contains)
- The expiration date - (date after which you should not use the product).
- Lot or batch code - (manufacturer information to help identify the product).Name and address of manufacturer, packer, or distributor.
- Net quantity of contents - (how much of the product is in each package).
- What to do if an overdose occurs

How to take medicine safely

1. If you feel worse after taking a medicine, tell your doctor right away.
2. Double-check that you have the right medicine.
 - a. If you get the same prescription filled more than once, check that it's the same shape, size, and color as the last time. If not, be sure to ask the pharmacist about it.
3. Read the label and follow directions. Ask if you have questions.



4. **Take medicines exactly as prescribed.**
 - a. If the instructions say take one tablet four times a day, don't take two tablets twice a day.
It's not the same.
5. **Ask if the medicine is likely to affect everyday tasks** such as driving or concentrating in school.
6. **Don't take more medication than is recommended.**
 - a. It won't make you heal faster or feel better quicker. In fact, an overdose of medication can make you sick.
7. **Always follow your doctor's or pharmacist's instructions.**
 - a. For instance, he or she may tell you to take a medicine with food to help lessen the stomach upset it can cause or instead to take the medicine on an empty stomach so as not to interfere with the medicine's absorption into your body.



8. Never share prescription medicine with anyone else, even if that person has the same thing as you do.
 - a. Today's medications are very complex, and the dosages tend to be precisely prescribed for each person's needs. Either under-dosing or overdosing can be harmful. Additionally, someone else's body may react differently to the same medication (for example, if the person has an allergy to one of the components of the medication).
9. If you're already taking a medication but also want to take something you can buy over-the-counter, ask the pharmacist.
 - a. There could be a bad interaction between the medications.
10. Remember that drinking alcohol can dramatically worsen the side effects of many medications.
11. Be sure to tell your doctor if you are pregnant or might be pregnant.
 - a. Certain medications can be harmful to the baby.

12. Always tell your doctor and pharmacist if you're taking any other medicines or any herbal supplements so that he or she can check for any interactions between the medications.
13. Even if you get sick with what you think is the same old thing, don't decide on your own that you know what's wrong and take some leftover medicine.
 - a. Taking that medicine for a different disease might not work — and it can even be harmful. Talk to your doctor first.
14. Take antibiotics for the full length of the time prescribed, even if you start to feel better, so that all the germs are killed and the infection doesn't bounce back.
15. Keep medicines in their original labeled containers, if possible.

16. **Don't use medicine that has expired**, especially prescription medicine.
17. **Medicines should not be stored in your bathroom** because heat and humidity can affect the potency of the drug.
 - a. Most medicines should be kept at room temperature and away from sunlight. Some must be refrigerated. Check with your pharmacist or doctor if you aren't sure.
18. Make sure all **medicines are stored safely and out of the reach** of younger brothers or sisters and pets.
19. **If you have any allergies, tell your doctor and pharmacist** before they start you on a new medicine.
20. **If you get a rash, start itching, vomiting, or have trouble breathing after starting a medication, tell your parents immediately.**
 - a. Breathing difficulty, breaking out in hives, or suddenly developing swelling of the tongue, lips, face, or other body parts may be signs of a severe allergic reaction — get emergency medical care right away.



OTC Medicine Quiz

Guided Practice:

- Ask students to pair up for the next activity. Provide each pair of students with an empty medicine bottle or package. Distribute copies of How to Read an OTC Label. Ask them to complete the information about the product assigned to them.
- After sufficient time, ask each group to name the product and tell its purpose. Explain, *OTCs are usually recommended to alleviate symptoms rather than to cure the problem. A good example might be a product for the common cold. The person taking the product would experience less sneezing and coughing, but would still have a cold.*
- Continue going over the worksheet, asking for two or three groups to give examples of warnings, contraindications, and possible side effects. Re-emphasize it is the responsibility of the consumer of the product to be well-educated and responsible in his or her use of the drug.



How to Read an OTC Drug Label

Look for these instructions.

Information:	
<ul style="list-style-type: none">• Name• Symptoms• Quantity of contents• Active ingredients• Name and place of business	
Directions:	
<ul style="list-style-type: none">• Amount of each dose• How frequently to be taken• How taken (by mouth, with water)	
Warnings:	
<ul style="list-style-type: none">• Total dose each day• Limit on length of treatment• Possible side effects (drowsiness, constipation)• Circumstances requiring MD's supervision	
Contraindications:	
<ul style="list-style-type: none">• Drug interactions• For people with special problems	
"If symptoms persist, . . ."	
<p>Example: if symptoms do not go away by a specified time, see your doctor. (OTCs are intended to relieve symptoms.)</p>	

Drug Facts

Active ingredient (in each tablet)

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Independent Practice:

- Provide each student with a copy of OTC Use and Abuse (Appendix 6). Have students answer the questions and call on them for responses.



OTC Use and Abuse

Decide whether the following scenarios are examples of drug use or abuse. If the answer is abuse, what are possible consequences and what should the person have done differently? Include using resources such as parents, pharmacists, or physicians.

Use or Abuse?	A Better Plan!
<p>A college student is old enough to drink alcohol. She has been taking a cold remedy for two days. She drinks three beers and decides the alcohol with the cold medicine will help her sleep.</p> <p><i>Possible consequences:</i></p>	
Use or Abuse?	A Better Plan!
<p>A seventh grader is staying the weekend with a friend. The friend suggests they check out the medicine cabinet in the parents' bedroom. The suggestion is made to take one of each pill to see what might happen.</p> <p><i>Possible consequences:</i></p>	
Use or Abuse?	A Better Plan!
<p>A student has had diarrhea for a couple of hours. He decides to double the dosage of an antidiarrheal to see if the problem will go away faster.</p> <p><i>Possible consequences:</i></p>	

Closure:

- *Today we learned the difference between proper use and abuse of over-the-counter medicines. Consumers share equal responsibility with drug companies, physicians, pharmacists, and government agencies for the safe use of medicines.*