Medicines In My Cabinet

Over-The-Counter Drug Safety

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The Reader Will Be Able To...

• define what an over-the-counter drug is

• recall two characteristics of an over-the-counter drug

• explain three items on a drug label

• identify three forms of medication

• recognize how to give medication to a child correctly
Overview OF OTC Drugs...

• Each day, millions of people rely on over-the-counter (OTC) medicines to treat a wide range of symptoms

• With more than 100,000 OTC products available, consumers have numerous options for treating their symptoms

• OTC drug products are those drugs that are available to consumers without a prescription
OTC drugs generally have these characteristics:

- their benefits outweigh their risks
- the potential for misuse and abuse is low
- consumer can use them for self-diagnosed conditions
- they can be adequately labeled
- health practitioners are not needed for the safe and effective use of the product
Medication Names...

• **Dose**
  – The amount of medication that is given

• **Action**
  – Effects that a medication is expected to have on the body

• **Side Effect**
  – Any action of medication other than the desired ones. Side effects may occur when the medication is taken properly

• **Generic Name**
  – a shorthand version of the drug's chemical name, structure, or formula (Acetaminophen)

• **Trade Name**
  – Is the name given by the manufacturer to make the drug stand out (Tylenol)
How Medication Is Taken

- **Oral**
  - Taken by mouth

- **Sublingual**
  - Under the tongue

- **Transcutaneous**
  - Absorbed through the skin

- **Inhalation**
  - Inhaled into the lungs

- **Per rectum**
  - Given by rectum
Medication Forms

- **Capsules**
  - Gelatin shells filled with a powdered or liquid medication

- **Tablets**
  - Often contain other medications

- **Solution**
  - A liquid mixture of one or more substances that can not be separated

- **Suspension:**
  - Medication that does not dissolve well in liquids and must be shaken before given

- **Topical Medication**
  - Applied to the surface of the skin
Medication Forms

• Gels
  – Semi-liquid substance in a gel form, given my mouth
Definitions...

- **Time Released:**
  - is not released until the covering is sufficiently dissolved to expose the medication

- **Long Lasting:**
  - a slow release of medication in the body

- **Slow Release:**
  - deliver a steady amount of medication over a longer period

- **Extended Release:**
  - have special coatings or ingredients that control how fast the drug is released from the pill into your body
Drug Label Information...

• **Active ingredient:**
  - The drug itself is the active ingredient
  - Combination products have more than one active ingredient
  - The drug's generic name is listed with the amount of drug in each tablet, capsule, or dose unit
  - The same generic drug may be sold under several different trade (brand) names

• **Uses:**
  - Symptoms or disorders for which the drug product is recommended are listed.
Drug Label Information...

- **Warnings:**
  - When the drug should not be used, when a doctor or pharmacist should be consulted (and after how long), and which factors can alter the expected response to the drug are listed, usually in four sections.

- **Directions:**
  - How much of the drug and how often to take the drug are given for different age group, because size and age, among other factors, affect how a person responds to a drug.

- **Other information:**
  - Special instructions, such as how to store the drug so that it does not deteriorate, are listed.
Inactive ingredients:

- In addition to the drug, drug products—the tablets, capsules, or other formulations that consumers buy—contain substances added to facilitate the administration of the drug, such as ingredients that provide bulk or a pleasant taste and color.

- Products with the same active ingredient may contain different inactive ingredients. Inactive ingredients are usually harmless, but some of them cause an allergic reaction in a few people, who should look for products made without those ingredients.
## Drug Facts

<table>
<thead>
<tr>
<th>Active ingredient (in each tablet)</th>
<th>Purpose</th>
</tr>
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<tbody>
<tr>
<td>Chlorpheniramine maleate 2 mg</td>
<td>Antihistamine</td>
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### 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

<table>
<thead>
<tr>
<th>Adults and children 12 years and over</th>
<th>Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children 6 years to under 12 years</td>
<td>Take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours</td>
</tr>
<tr>
<td>Children under 6 years</td>
<td>Ask a doctor</td>
</tr>
</tbody>
</table>

### 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

### More information
- on how to store the drug

### Product type

### Symptoms or diseases the drug treats

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

### 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
Active Ingredients Are Safer When You Follow Directions...

- For example, the active ingredient in OTC fever and pain medicines...
  - Acetaminophen can damage your liver, if used more than directed
  - Ibuprofen and Naproxen can damage your kidneys if used more than directed
  - Children and teenagers should not use aspirin for fever or flu. It may cause Reye’s Syndrome
Medicines Can have More Than One Active Ingredient...

• These medications are usually made to treat more than one problem

• Choose a medicine that treats only the problem you have. Extra medicine won’t help you but could cause harmful or unwanted side effects

• Here are some examples of medications that have more than one active ingredient:
  
  – Cough and cold medicines
  – Cold and flu medications
  – Some allergy medications
How Do Drug Interactions Occur ...

- There are several mechanisms by which drugs interact with other drugs, food, and other substances.

- An interaction can result when there is an increase or decrease in:
  - the absorption of a drug into the body
  - distribution of the drug within the body
  - alterations made to the drug by the body (metabolism)
  - elimination of the drug from the body
• Serious drug interactions result from a change in the absorption, metabolism, or elimination of a drug

• Drug interactions also may occur when two drugs that have similar (additive) effects or opposite (canceling) effects on the body are administered together

• For example, there may be major sedation when two drugs that have sedation as side effects are given, such as narcotics and antihistamines
How Can Drug Interactions Be Avoided?

- Give your health care provider a complete list of all medications that you are using or have used in the past few weeks. This should include over the counter medication, vitamins, food supplements and herbal remedies.

- Tell your health care provider when you add an over the counter medication or food supplement.

- Inform your health care provider about changes in lifestyle (diet, exercise, alcohol intake).

- Ask your health care provider or pharmacist about drug interactions with over the counter medications, prescription medication and food & herbal supplements.
Read The Label Each Time Before Using A Medication...

• Be sure it’s right in the 5 R’s:
  – The right medicine
  – The right person
  – The right amount
  – At the right time
  – The right way (swallow, chewable)
Problems OTC Medicine Can Treat...

• Pain and fever are two most common reasons people use OTC medicines.

• There are five active ingredients used to reduce fever and to treat mild aches and pains caused by headaches, muscle aches, backaches, toothaches and the common cold:
  – Acetaminophen
  – Aspirin
  – Ibuprofen
  – Naproxen Sodium
  – Ketaprofen

• The last four active ingredients are all members of a drug family called non-steroidal anti-inflammatory drugs
OTC Medicines Can Treat Or Prevent Other Health Problems...

- Make sure you talk to your health care provider or pharmacist before taking any OTC medicine

- Examples of other OTC medication to treat common illness:
  - Nasal congestion – Decongestants
  - Allergies – Antihistamines
  - Cough – Cough suppressants & expectorants
  - Stomach upset – Antacids and acid reducers

People with high blood pressure or heart disease need to talk to their health care provider before using decongestants
Follow the Dosing Directions..

• Never guess the dosing amounts, especially when giving medicines to children

• Every medicine has dosing directions on its label

• Label will tell you the amount of medicine to give, when to give it, and how to give it

• If a medication does not have a dose for you or your child or specifically says **DO NOT USE**, do not give that medication and call your health care provider
How To Measure Liquid Medicine

- You must measure medicines correctly
- Use the measuring spoon, cup or syringe that comes with the medicine. It will give the most exact dose
- If the medication does not come with a special measuring tool, ask the pharmacist for one
- A silverware spoon may hold the wrong amount of medicine
- Check the marking to make sure your measuring tool can measure the right dose
Most Liquid Medicines Are Measured in Teaspoons (tsp) and Milliliters (mL)

- 5 mL = 1 teaspoon (tsp)
- 15 mL = 3 teaspoons = 1 tablespoon (TBSP)
- 30 mL = 1 fluid ounce (oz)
Giving Medicine To A Child

- Use your child’s weight to find the right dose of medicine on the Drug Fact Label
- If you don’t know your child's weight, use his or her age to find the right dose
- Never guess on a dose
- If a dose for your child’s weight or age is not listed on the label or if you can’t tell how much to use, ask your health care provider or pharmacist
- DO NOT use oral cough and cold medication for children under age 4 without talking to your health care provider
- Keep all medication out of reach and sight of children
Never Use OTC Medicines To Make A Child Sleepy

- OTC medications are real medicines that should be taken seriously and only used to treat a child’s specific symptoms.

- OTC medications should never be used with the intent of sedating a child or making a child sleepy and can cause harm if used in that manner.
Time For A Medicine Cabinet Checkup...

- Be sure to look through your medicine supply at least once a year
- Always store medicines in a cool, dry place or as stated on the label
- Throw away any medication that is past the expiration date
- To make sure no one takes the wrong medicine, keep all medications in their original containers
Proper Disposal Of All OTC Medication

- Don’t flush
- Take old medication to collection day events
- Mix with something undesirable such as coffee grounds or cat litter or dirt
- Tape up container
- Toss in the garbage
Movie On How To Dispose Of OTC Medication...

Video Demonstration for Safe Disposal of Medicines

Responsible Medication Disposal Sguardes Lives and Protects The Environment

SMART DISPOSAL
A Prescription for a Healthy Planet

American Pharmaceutical Association
PRMA
When To Call Poison Control...

• If someone may have been poisoned or if you have questions about poisons and poison prevention call:

  1-800-222-1222

• If the person who is poisoned can't wake up, is having trouble breathing or is having seizures

  CALL 9-1-1

• Most poisonings are not life threatening and can be handled at home with the help of a specialist, saving you time and money

Source: Indiana Poison Center
Things To Remember…

• Talk to your health care provider before you take OTC medications

• Stay with one pharmacy, do not hop from pharmacy to pharmacy

• Know what prescription medication you are talking

• Read all the information on the medication label

• Ask the pharmacist if you have any questions about your or your child’s medication
Checklist For Over-the-Counter Medicine...

• Checklist for Choosing Over-the-Counter Medicine for Adults:

• Checklist for Choosing Over-the-Counter Medicine for Children:
Other Resources...

- **FDA**

- **Herbs, Botanicals & Other Products**
  - [www.mskcc.org/aboutherbs](http://www.mskcc.org/aboutherbs)

- **National Center for Complementary & Alternative Medicine**

- **WebMD**
  - [http://www.webmd.com/drugs/index-drugs.aspx](http://www.webmd.com/drugs/index-drugs.aspx)