

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**



Characteristics Of OTC Drugs...

- **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



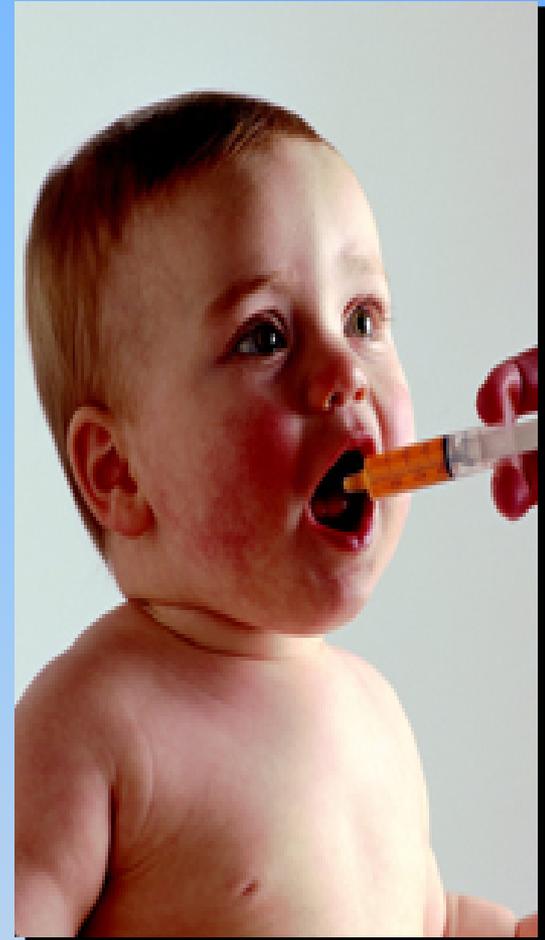
Medication Names...

- **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**



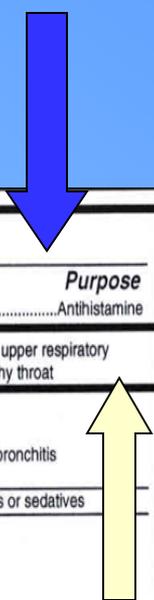
Definitions...

- **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 Facts

Active ingredient (in each tablet)	Purpose
Chlorpheniramine maleate 2 mg.....	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 using this product
■ drowsiness may occur ■ 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 breast-feeding, 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

Drug Facts (continued)

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

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



<i>Drug Facts</i>	
<i>Active Ingredients</i>	<i>Purpose</i>
Menthol 1.5%	Analgesic
<i>Uses</i>	
■ For the temporary relief of minor aches and pains of muscles and joints associated with arthritis, strains and simple backache.	
<i>Warnings</i>	
■ For external use only. Do not use on wounds, damaged or irritated skin.	
■ Avoid contact with eyes or mucous membranes. Do not bandage tightly.	
■ Stop use and ask a doctor if condition worsens, or if symptoms persist more than seven days or clears up then reoccurs within a few days.	
■ Keep out of reach of children. If swallowed, get medical help or contact a Poison Control Center right away!	
<i>Directions</i>	
■ Adults and children 6 years of age or older, apply to affected area not more than 3 or 4 times daily. Children under 6 years of age, ask your doctor.	
<i>Inactive Ingredients</i>	
water, aloe barbadensis leaf juice, salix alba (willow) bark extract, methyl salicylate, dimethyl sulfone, arnica montana flower extract, mineral salts, emu oil, SD alcohol 40, sorbitol, grape seed oil, camphor, tea tree oil, yucca schidigera extract, citrus aurantium dulcis peel oil, tabebuia impetiginosa bark extract, camellia sinensis leaf extract, glucosamine HCL, centaurea cyanus flower extract, anthemus nobilis flower extract, chrysanthemum parthenium extract, calendula, tilia cordata flower extract, copper gluconate, sodium lauryl sulfate, capsicum resin, carbomer, crieethanolamine, benzophenone-3, diazolidinoyl urea, methylparaben, propylparaben.	

Drug Label Information...

- **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



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Drug Facts

Therapeutic substance in drug

Active ingredient (in each tablet) **Purpose**
Chlorpheniramine maleate 2 mg Antihistamine

Product type

Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:
■ sneezing ■ runny nose ■ itchy, watery eyes
■ itchy throat

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

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.

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

More information on how to store the drug

Directions	
Adults and children 12 years and over	Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours
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Children under 6 years	Ask a doctor

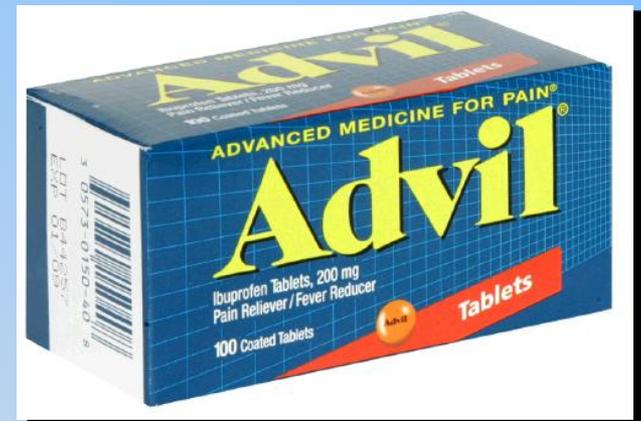
Other information Store at 20-25° C (68-77° F)
■ Protect from excessive moisture

Other things in the drug, such as colors or flavorings

Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch

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



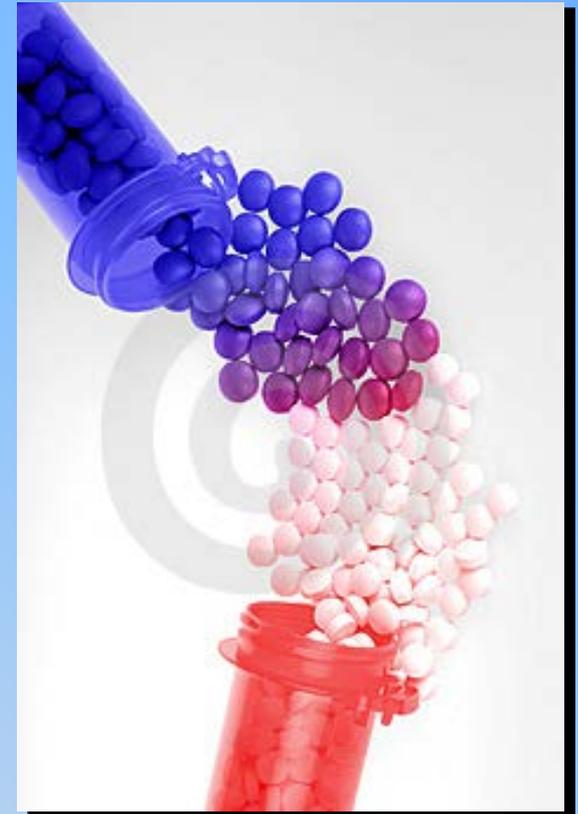
Medicines Can have More Than One Active Ingredient...

- **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**

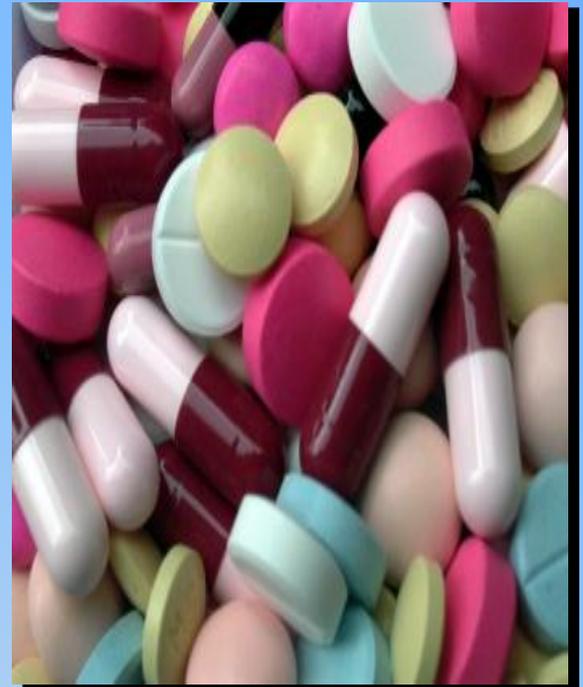


How Do Drug Interactions Occur ...

- **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

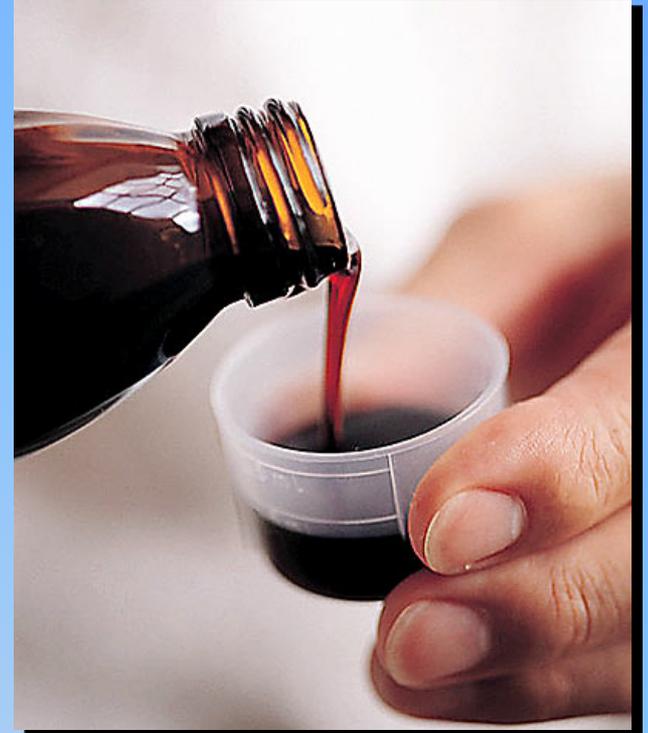
Follow the Dosing Directions..

- **Never guess the dosing amounts, especially when giving medicines to children**
- **Every medicine has dosing directions on it's 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 Saves Lives and Protects the Environment



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

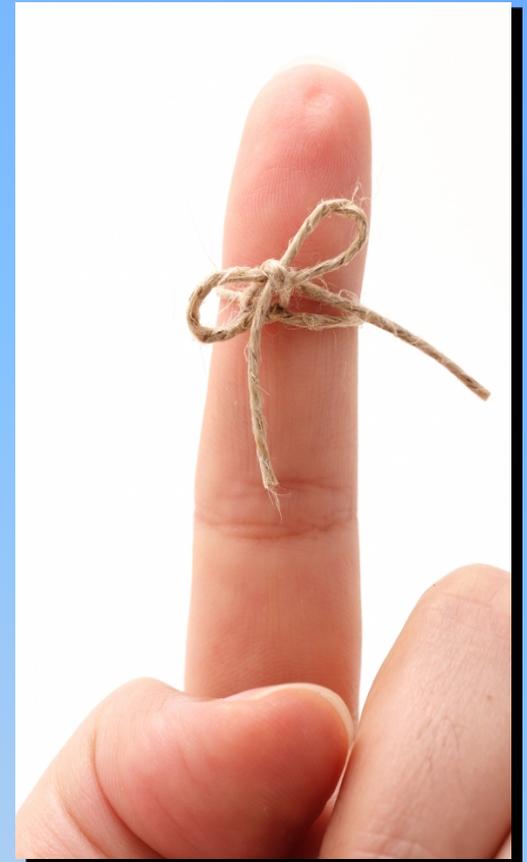
CALL 9-1-1

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



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 taking**
- **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:**
 - <http://www.fda.gov/downloads/Drugs/EmergencyPreparedness/BioterrorismandDrugPreparedness/UCM133407.pdf>
- **Checklist for Choosing Over-the-Counter Medicine for Children:**
 - <http://www.fda.gov/downloads/Drugs/EmergencyPreparedness/BioterrorismandDrugPreparedness/UCM133418.pdf>

Other Resources...

- **FDA**

- www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm111085.htm

- **Herbs, Botanicals & Other Products**

- www.mskcc.org/about/herbs

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

- <http://nccam.nih.gov/health/>

- **WebMD**

- <http://www.webmd.com/drugs/index-drugs.aspx>

