

Understanding Drugs and Medicines

Drugs

Chapter 9: Sec. 1 & 2

Pp. 218-226



Objectives

- List three qualities that make a drug useful as a medicine.
- Name the two sources of all drugs.
- Identify four different types of medicines and their effects on the body.
- Identify five different ways that drugs can enter the body.
- Describe why some drugs are considered drugs of abuse.
- Differentiate between prescription medicines and over-the-counter medicines.



Do Now

- Complete the assigned worksheet.



Motivation

Differentiating What Medicines Can Do

Develop definitions for each term:



- PREVENT

CURE

RELIEF

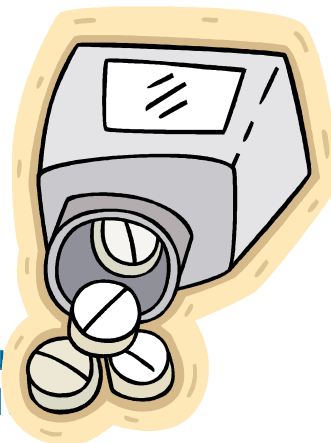
Think of medications that fit in each category.

What Are Drugs?

- What do aspirin, caffeine, cortisone, and cocaine all have in common?
- A DRUG is any substance that causes a change in a person's physical or psychological state.



Ifill-Roseau
Lifetime Heal



Some Drugs Are Medicines

- A MEDICINE is any drug that is used to cure, prevent, or treat illness or discomfort.



- A good medicine must have the following qualities:
 - Effectiveness
 - Safety
 - Minor side effects
 - Common side effects include headache, sleepiness, or diarrhea.

Some Drugs Are “Drugs of Abuse”

- **Drug Use**

- Taking a drug correctly for a legitimate medical reason.

- **Drug Misuse**

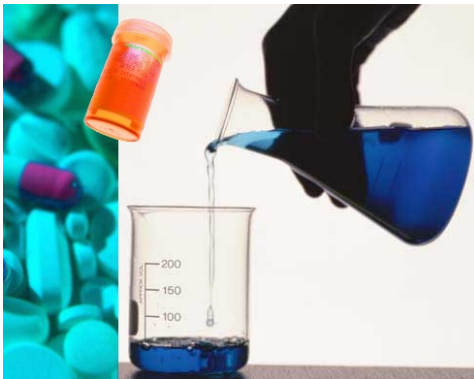
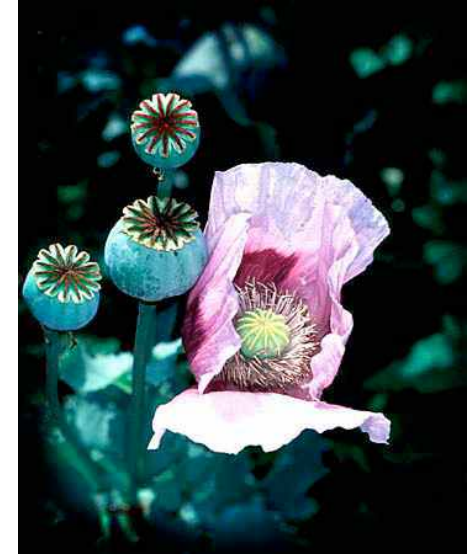
- Taking a legal drug inappropriately.

- **Drug Abuse**

- Taking a legal drug in such a manner that some aspect of the user’s life is damaged (mental, physical, social relationships, occupational performance).
- Taking any illegal drug for any purpose (for mind-altering affects).

Where Do Drugs Come From?

- Natural sources
 - Plants, animals, and fungi
- Laboratories
 - Chemicals



Types of Medicines



- **Prescription (Rx)**

- A written order from a doctor for a specific medicine.

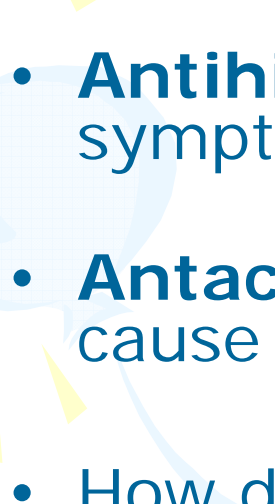
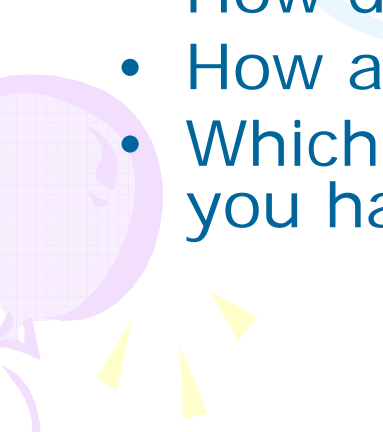
- **Over-the-counter (OTC) medicines**

- Medicines that can be bought without a prescription



Classification

(Refer to table 1, pg. 220)

- **Analgesics:** relieve pain
 - Aspirin, acetaminophen, and ibuprofen
 - **Antihistamines:** helps relieve minor allergy symptoms
 - **Antacids:** work against stomach acids which can cause heartburn
 - How do vaccines differ from antibiotics?
 - How are analgesics and antihistamines alike?
 - Which medicine or medicines would you use if you have a minor rash?
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How Drugs Enter Your Body

- Implanted pumps
- Inhalation
- Injection (skin, vein, or muscle)
- Transdermal patches
- Ingestion
- Topical application

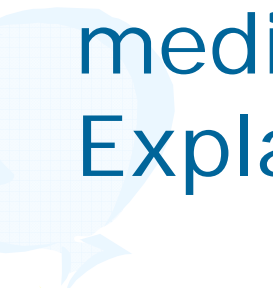



Name the delivery method of the following drugs:

- a. Asthma inhaler c. cup of coffee
b. Nicotine patch d. sunburn lotion e. tetanus shot





Closure

- Identify the best method for a doctor to give a medicine to a patient if the medicine is required to act quickly. Explain your answer.
 - State the reason why some drugs are considered drugs of abuse.
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Activity #1

- Write a 30-second PSA explaining why even OTC medicines should be used carefully, and the potentially deadly effects of their abuse.
 - Using table 1 on page 220, list popularly known brand names for each medicine.
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Activity #2

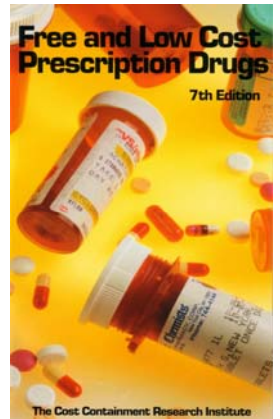
- Brainstorm and make a list of different illnesses for which there is no curative medication (such as colds, AIDS, diabetes, cold sores, etc.)
 - Choose one of the illnesses from the list
 - Pretend you are a scientist at a pharmaceutical company and that have just designed a medication that can cure the disease.
 - Write a one-minute commercial advertising the new medication
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Approving Drugs for Medical Use

- In 1906, a government agency called the Food and Drug Administration (FDA) was created to control the safety of food, drugs, and cosmetics.
- Testing a Drug
Develop the drug—test it (animals-human volunteers)—clinical trials—FDA approval

Prescription Medicines (Rx)

- Why Do I Need to Follow a Prescription?
 - The medicine may not work or may be harmful
- What Information Does a Prescription Have?
 - The dose
 - When you should take the medicine
 - How often you should take the medicine
 - The length of time you should take the medicine
- Misuse of Prescription Medicines
 - **Psychoactive** medicines and drugs affect the brain and change how we perceive, think, or feel.



Over-the-Counter (OTC) Medicines

- Benefits of OTC Medicines
 - Treat common illnesses, injuries, and disorders.
- Choosing an OTC Medicines
 - Decide what kind of OTC will work for you.
 - Read the label
 - Decide whether you want generic or a brand-name medicine.
 - A generic medicine is made by a company other than the company that developed the original medicine.
 - Active ingredient is the chemical component that gives a medicine its action.



O-T-C Drugs

- Misuse of OTC

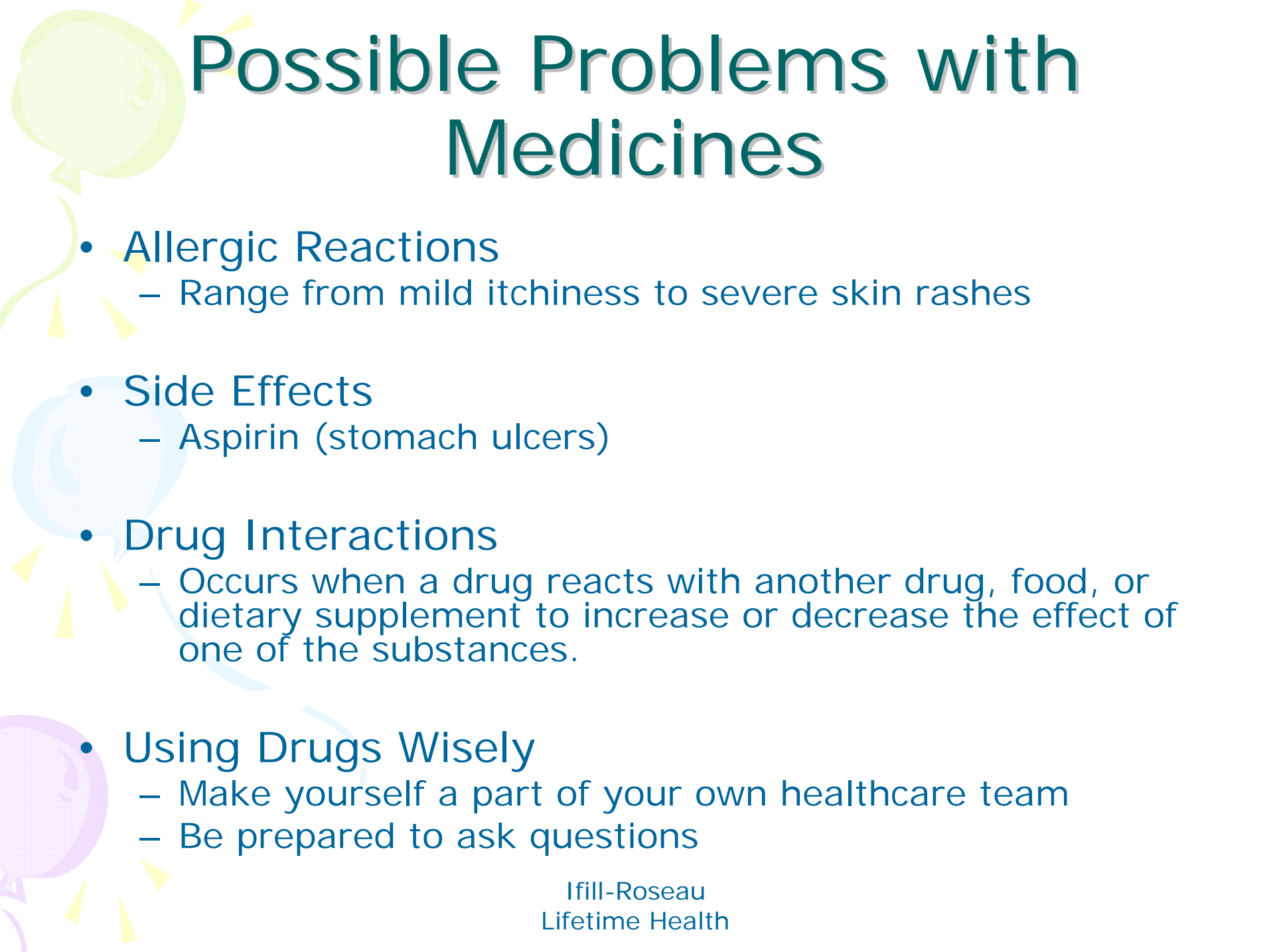
- Long-term use of OTC medicines can cover up pain or discomfort that is your body's way of telling you something is wrong.



- Herbal Remedies and Dietary Supplements

- Do not have to be approved by the FDA before they are sold





Possible Problems with Medicines

- Allergic Reactions
 - Range from mild itchiness to severe skin rashes
- Side Effects
 - Aspirin (stomach ulcers)
- Drug Interactions
 - Occurs when a drug reacts with another drug, food, or dietary supplement to increase or decrease the effect of one of the substances.
- Using Drugs Wisely
 - Make yourself a part of your own healthcare team
 - Be prepared to ask questions



Closure

- Compare Rx medicines to OTC medicines.