**Medicines** are drugs that are used to treat or prevent disease or other conditions

**Drugs** are substances other than food that change the structure or function of the body or mind

All medicines are drugs but not all drugs are medicines

Medicines can be sorted into 4 broad categories: medicines that:

* Help prevent disease
* Fight pathogens, or infectious agents that cause disease
* Relieve pain
* Help maintain or restore health and regulate the body’s systems
One main purpose of medicines is to prevent diseases before they occur. There are 2 types of preventive medicines:

**Vaccines**

A *vaccine* is a preparation introduced into the body to stimulate an immune response. These medicines contain weakened or dead pathogens that stimulate your body to produce specific antibodies against those pathogens. Once the antibodies are produced, they give your body long-lasting protection against these specific pathogens in the future.

**Antitoxins**

These extracts of blood fluids contain antibodies and act more quickly than vaccines. They are produced by inoculating animals, such as sheep, horses, or rabbits, with specific toxins that stimulate the animals immune system to produce antibodies. In humans, the injections of antitoxins neutralizes the effect of toxins.
Medicines That Fight Pathogens

Antibodies are a class of chemical agents that destroy disease causing microorganisms while leaving the patient unharmed.

Antivirals and Antifungals

- Antiviral medicines often only suppress the virus; they don’t kill it
- Antifungals can cure or suppress infections such as athletes foot or ringworm
Medicines That Relieve Pain

Probably the most common medicines are analgesics or pain relievers.

Analgesics range from comparatively mild medicines such as aspirin to strong narcotics, such as the opium-based morphine and codeine.

Because of its widespread use, many people don’t realize that aspirin can be dangerous:

• Aspirin can irritate the stomach
• Can cause dizziness and ringing in the ears
Medicines that maintain or restore health enable many people with chronic disease to function at increased level of wellness. Some medicines include these:

- **Allergy medicines**
  Many people rely on antihistamines and other medications to reduce sneezing, itchy or watering eyes, runny nose that often accompany allergies

- **Body regulating medicines**
  Some medicines maintain health by regulating body chemistry.
  Cardiovascular medicines are taken to regulate blood pressure, normalize irregular heartbeats or regulate other functions of the cardiovascular system

- **Antidepressants and antipsychotic medicines**
  These medicines help normalize brain chemistry. Proper medication can help people with depression, schizophrenia and mood disorders live healthy, productive lives

- **Cancer treatment medicines**
  These medicines reduce rapid cell growth and help stop the spread of cancer cells.
Medicines and the Body

Medicines can have a variety of effects on individuals, or can cause different reactions.

Most medicines cause **side effects**, reactions to medicines other than the one intended.

**Synergistic effect**
Is an interaction of two or more medicines that results in a greater effect than when the medicines are taken alone. One medicine increases the strength of the other.

**Additive Interaction**
Occurs when medicines work together in a positive way.

**Antagonistic interaction**
Occurs when the effect of one medicine is canceled or reduced when taken with another medicine.
Other Problems

A person may experience other problems when taking medicines:

**Tolerance**

a condition in which the body becomes used to the effect of a medicine. The body then requires increasingly larger doses of the medicine to produce the same effect.

**Withdrawal**

occurs when a person stops using a medicine on which he or she has a chemical dependence. Symptoms of withdrawal include nervousness, insomnia, severe headaches, vomiting, chills, and cramps.
Prescription medicines

the FDA has ruled that certain medicines cannot be used without the written approval of a licensed physician.

Over-the-counter (OTC)

This group includes a wide variety of medicines that you can buy without a prescription.

Although FDA considers it safe to use these medications without medical supervision, any drugs can be harmful if not used properly.
Medicine Misuse

Examples of medicine misuse include

- Giving a prescription medicine to a person for whom it was not prescribed or taking another person’s medicine
- Taking too much or too little of a medicine or taking a medicine for a longer or shorter period than prescribed
- Discontinuing use of a medicine without informing the health care professional
- Mixing medicines