

The background features several large, stylized, swirling shapes in light green, light purple, and light blue. Interspersed among these swirls are numerous small, yellow, starburst-like shapes, some pointing towards the center and others pointing outwards, creating a dynamic and celebratory feel.

Introduction to Pharmacology...



Historical Trends

Since the beginning people search to treat illness and cure disease the oldest known prescription found on a clay(5000 years ago).

Primitive people through the Egyptian period believe that evil spirit living in the body.

Hipocrates (fifth century) advanced idea that disease resulted from natural causes.

The arabs' interest of in medicine, pharmacy and chimistry was reflected in hospitals and schools.



Historical Trends

- Cordus wrote the first pharmacopeia
- The first london pharmacopeia appeared 1618
- In twenty first century, the emphasis on providing qaulity health care.



Definitions

علم الأدوية

- **Pharmacology:** is a science that deals with the study of the chemical substance (drug).

Study means:

What they are?

How they work?

What they do?

علم الأدوية الكيميائية

- **Drugs** are chemical substances that stimulate or inhibit cell function but do not create new function.

ما سوی وظیفه جدیده

Drugs can be used:

-In treating a disease.

-As **supplements**, as **insulin** in **type I** diabetes melitus.

-As **prophylactic agents**, as **doxycycline** in **malaria**.

-As **[Symptomatic treatment]** e.g. **aspirin** to reduce fever caused by bacterial infection.

بِعلاج احواله



تطبيقات

تسبب - منع الایجاد
بالعلاج

اخصائى
وقایع بین ماقبله مرفق

تسبب
تصرف

• **Pharmacognosy**: The study of natural drug sources.

المصادر الطبيعية للأدوية

• **Source of drugs**

Plants: such as digitalis, atropine. ^{نباتات} } Anticholinergic

Human (Genetic engineering): such as Human insulin.

Animal: heparin.

Microorganisms e.g. penicillin.

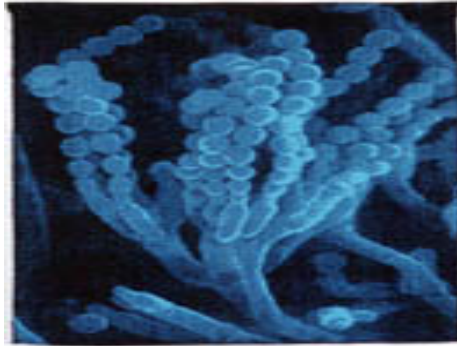
Minerals: as iron, iodine and zinc

Synthetic and chemical substance: as sodium bicarbonate, Aspirin.

Sources of drugs



Plant sources
e.g. Atropine



Microorganisms
e.g. penicillin.



Synthetic drugs
e.g. Aspirin



Genetic engineering
Human insulin

Names of Drugs

الكيميائي

The chemical name: is the name by which the chemist knows it.

E.g Acetyl salicylic acid. → Aspirin

The generic name: is given for the drug to be official name. E.g Aspirin.

عشان يكون هو الاسم الرسمي

The brand name (trade name) : is name given by the drug manufacture. E.g Rivo.

اسم الشركة

مصنوع

الوصف

Prescription

the written direction for the preparation and the administration of the drug.

صكك رسم تعريف

Classes of drugs:

Prescription only medicine (POM): A treatment that must be prescribed by a doctor and is not licensed for sale to the general public.

مو صموج

إنها تباع

e.g. antihypertensive drugs

على الريف

أدوية - الضغط

over-the-counter drugs: which can be used without a prescription.

أي أحد يقدر يأخذها

e.g. analgesics, antitussives, Laxatives and antacids.

مسكنات

أدوية الكحة

مفادات الحموضة

التأثير العلاج

منه الزهر

- **The therapeutic effect:** is the primary intended effect that is the reason the drug is prescribed such as morphine is analgesia.
- **Side effect:** secondary effect of the drug is one that unintended, side effects are usually predictable and may be either harmless. * → موضةارة متوقفة
- **Drug toxicity:** deleterious ^{مؤذ} effect of the drug on an organism or tissue, result from overdose. *
- **Drug allergy:** Unpredictable abnormal response to drugs due to antigen/antibody reaction (immunological reaction). * ^{مو مبروخ رذا بيه اول} ^{بسم قريب} ^{بسم مفاد}
- **Drug interaction:** occur when administration of one drug before or after alters effect of one or both drug.

بأفرد
علاجية

والمستخدم غير مناسب

- **Drug misuse:** Is the improper use of common medications in way that lead to [acute and chronic toxicity] for example laxative, antacid and vitamins.

لأنه هو يحتاج لها بس بأفندي

- **Drug abuse:** is an inappropriate intake of substance either continually or periodically.

lead to

- **Drug dependence:** is a persons reliance on or need to take drug or substance.

ادمان
معتاد عليه

There are two type of dependence:

- **1- Physiological dependence:** is due to biochemical changes in the body tissues. These tissues come to require substance for normal function.

- **2- Psychological dependence:** is emotional reliance on a drug to maintain a sence of wellbeing accompanied feeling of need.

معتاد

Drug habituation: denotes a mild form of psychological dependence.

تکو
کادہ بندہ

Illicit drug: also called street drug are those sold illegally.

عیر قانونی

The Dose

- The aim to give patient a dose of the drug that achieves the desired effect without causing with harmful side effect.
- **Therapeutic index**: is a measure of the danger of poisoning and the higher it is, the safer the drug is.
Aspirin (3.5), digoxin (2)
- **Tolerance**: A decreasing response to repetitive drug doses.