

CHEMISTRY IN EVERYDAY LIFE

DRUGS :

Chemical compounds used for the treatment of diseases are called drugs or medicines.

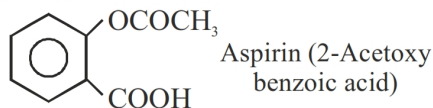
TYPE OF DRUGS:

1. Antipyretics :

Chemical substances used to bring down body temperature in case of high fever. e.g. Paracetamol, Aspirin.

2. Analgesics :

Drugs used for relieving pain. Some analgesics have antipyretic properties too e.g. Aspirin, Ibuprofen, analgin. The structure of aspirin is:



3. Tranquilizers :

Drugs used for treatment of stress, mild and severe mental diseases by inducing a sense of well being, also called psychotherapeutic drugs.

Hypnotic tranquilizers : sleep producing tranquilizers are barbiturates

4. Antiseptics and Disinfectants

Antiseptics : Chemicals which kill or prevent the growth of micro organisms and are harmless to human living tissue. e.g. Dettol (Mixture of chloroxylenol and terpineol)

5. Anti fertility drugs :

Steroids are active ingredients of the oral contraceptive pill functioning as anti fertility agent. Oral contraceptive pill controls the female menstrual cycle and ovulation and prevents pregnancy.

The birth control pill is a mixture of synthetic estrogen and progesterone derivatives.

⇒ Mifepristone is a synthetic steroid that blocks the effects of progesterone and is used “morning after pill” in many countries.

6. Antihistamines (Anti-allergic drugs) :

Drugs which combat the effects of histamine, a chemical released by certain cells of the body during allergic reaction.

They help cure allergies like skin rashes, conjunctivitis (inflammation of conjunctiva of eye), rhinitis (inflammation of nasal mucosa), sneezing, nasal discharge, itching of eyes, nose and throat. Antiallergic drugs are diphenhydramine, chlorpheniramine, and promethazine.

7. Antibiotics :

A substance (produced wholly or partly by chemical synthesis), which in low concentration inhibits the growth or destroys microorganisms by intervening in their metabolic cycle.



Bactericidal antibiotics	Bacteriostatic antibiotics
Penicillin	Erythromycin
Aminoglycosides	Tetracycline
Ofloxacin	Chloramphenicol

8. Sulpha drugs :

Acts against disease causing microbes, e.g. sulphanilamide, sulphadiazine, sulphaguanidine.

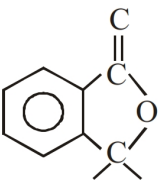
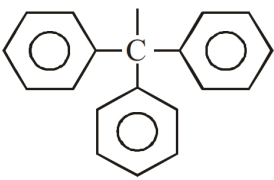
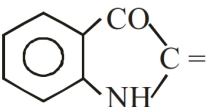
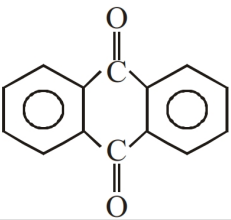
9. Antacids :

Chemicals which remove excess acid and secretion pH to appropriate level in stomach. Antacids are used to cure acid gastritis, e.g., magnesium hydroxide, magnesium carbonate, magnesium trisilicate, aluminium hydroxide gel, sodium bicarbonate, aluminium phosphate, omeprazole, lansoprazole.

DYES

A dye is a coloured substance that can be applied in solution or dispersion to a substrate, giving it a coloured appearance. The substrate may be fibre, paper, leather, hair, fur, plastic, wax, and foodstuff. Earliest known dyes-indigo (a blue dye) and alizarin (a red dye).

CLASSIFICATION OF DYES BASED ON CONSTITUTION

Class of the Dye	Functional group present	Name of the Dye
AzO	—N=N—	Aniline yellow Orange-I Methyl orange Congo red
Nitro	—NO ₂	Martius yellow
Phthalein		Phenolphthalein
Triphenyl methane		Magenta, Malachite green
Indigoid		Indigo
Anthraquinoid		Alizarin

