

# CHEMISTRY IN EVERYDAY LIFE

## ANTACIDS

- Neutralizes excess acid.
- Cimetidine, Ranitidine,  $Mg(OH)_2$



## ANTI-HISTAMINE

- Prevents Effects of Histamine.
- Bromopheniramine, Terfenadine.



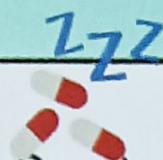
## TRANQUILIZERS

- Relieves anxiety and stress.
- Iproniazid, Phenezine, Chlordiazepoxide, Meprobamate, Equanil (Hypertension & Depression).



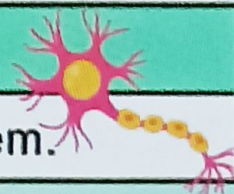
## BARBITURATES

- Sleep Inducing agents
- Veronal, Amytal, Nembutal, Luminal, Valium, Serotonin.



## ANALGESICS

- Pain Relievers without affect to nervous system.



### NARCOTICS

- Morphine (Opiates from *Opium poppy*)
- Codeine
- Heroine

### NON-NARCOTICS

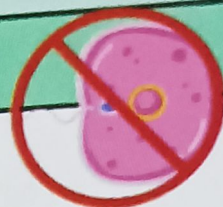
- Paracetamol (Antipyretic - Reducing fever)
- Aspirin (Inhibits- prostaglandins - Prevents Arthritis, Blood clotting, Heart attacks)





- Zwitter ion is neutral despite having charges.
- Shows amphoteric behaviour (acidic/basic)
- Only Glycine is neutral

## ANTIFERTILITY



- Conception of Fertility
- Norethindrone, Ethynylestradiol (Novestrol)

## ANTISEPTICS

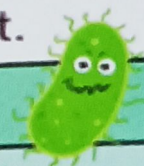


- Prevent growth of microorganisms - Furacine, Soframycin,
- Dettol (Chloroxylenol + Terpineol) , Tincture of iodine (2-3 % solution of Iodine in water- alcohol mixture ), Iodoform, Boric acid for eyes.



## DISINFECTANT

- Kill micro-organisms, cannot be applied to living tissues - Cl (0.2-0.4ppm) & SO<sub>2</sub>; 0.2% solution of phenol is an antiseptic while 1% is disinfectant.



## ANTIBIOTICS

**Classification-** Based on Control of microbial diseases

BACTERICIDAL	BACTERIOSTATIC
<ul style="list-style-type: none"> <li>• Drugs that kill organisms</li> <li>• Penicillin, Ofloxacin, Aminoglycosides</li> </ul>	<ul style="list-style-type: none"> <li>• Drugs that inhibit growth of organisms</li> <li>• Erythromycin, Tetracycline , Chloramphenicol</li> </ul>

**Classification-** Based on Spectrum of action

BROAD SPECTRUM	NARROW SPECTRUM
<ul style="list-style-type: none"> <li>• act on wide range of bacteria - Ampicillin , Amoxycillin.</li> </ul>	<ul style="list-style-type: none"> <li>• Mainly acts on one type of bacteria - Penicillin-G</li> </ul>



## Artificial Sweetening Agents (ASA)

- Ortho-sulphobenzimide (**Saccharin**, First ASA )
- Alitame > Sucralose > Saccharin > Aspartame

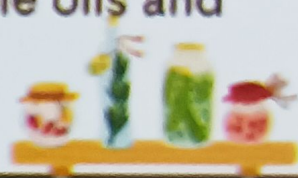
← **Sweetness** →

- Aspartame is methyl ester of dipeptide formed from aspartic acid and phenylalanine.



## FOOD PRESERVATIVES

- Most common : table salt, sugar, vegetable oils and sodium benzoate.
- Others : sorbic acid and propanoic acid



## SOAPS

- **Saponification** : Soaps containing Na Salts are formed by heating fat (glyceryl ester of fatty acid) + aq. NaOH
- Glycerol formed is removed by fractional distillation.
- Soap forms insoluble scum with hard water containing  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  ions.

## SYNTHETIC DETERGENTS

- Can be used in both soft and hard water.



## ANIONIC DETERGENTS

- Sodium salts of sulphonated long chain alcohols or hydrocarbons.
- Used for household work & in Toothpaste
- **Sodium dodecylbenzenesulphonate**
- **Sodium Lauryl sulphate**





## CATIONIC DETERGENTS

- Quarternary ammonium salts of amines with acetates, chlorides or bromides as anions.
- used in hair conditioners.
- **Cetyltrimethylammonium bromide**



## NON IONIC DETERGENTS

- Non-ionic detergents do not contain any ion in their constitution.
- Esters formed by polyethylene glycol and stearic acid.
- Liquid dishwashing detergents are non-ionic type



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