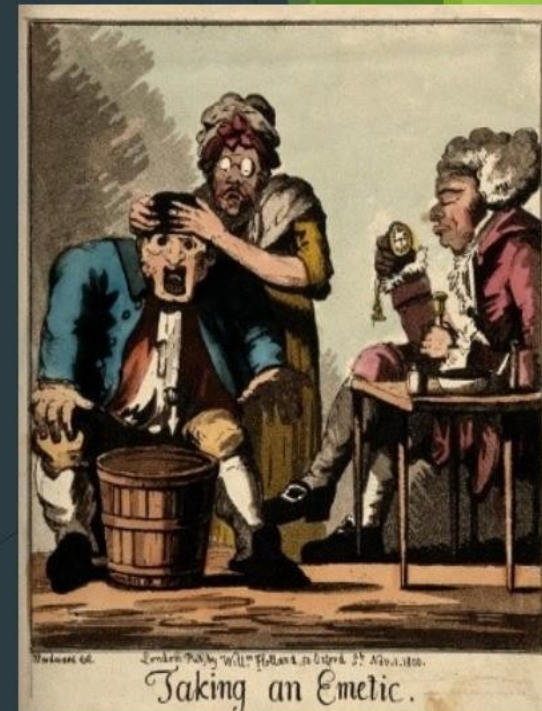


# Emetics

These are the drugs which give rise to forced emesis by which the **contents of the stomach get expelled** through the oral cavity.

They are very important in cases of **Poisoning**.



# Mechanism of action

## **The emetics act by 2 types:**

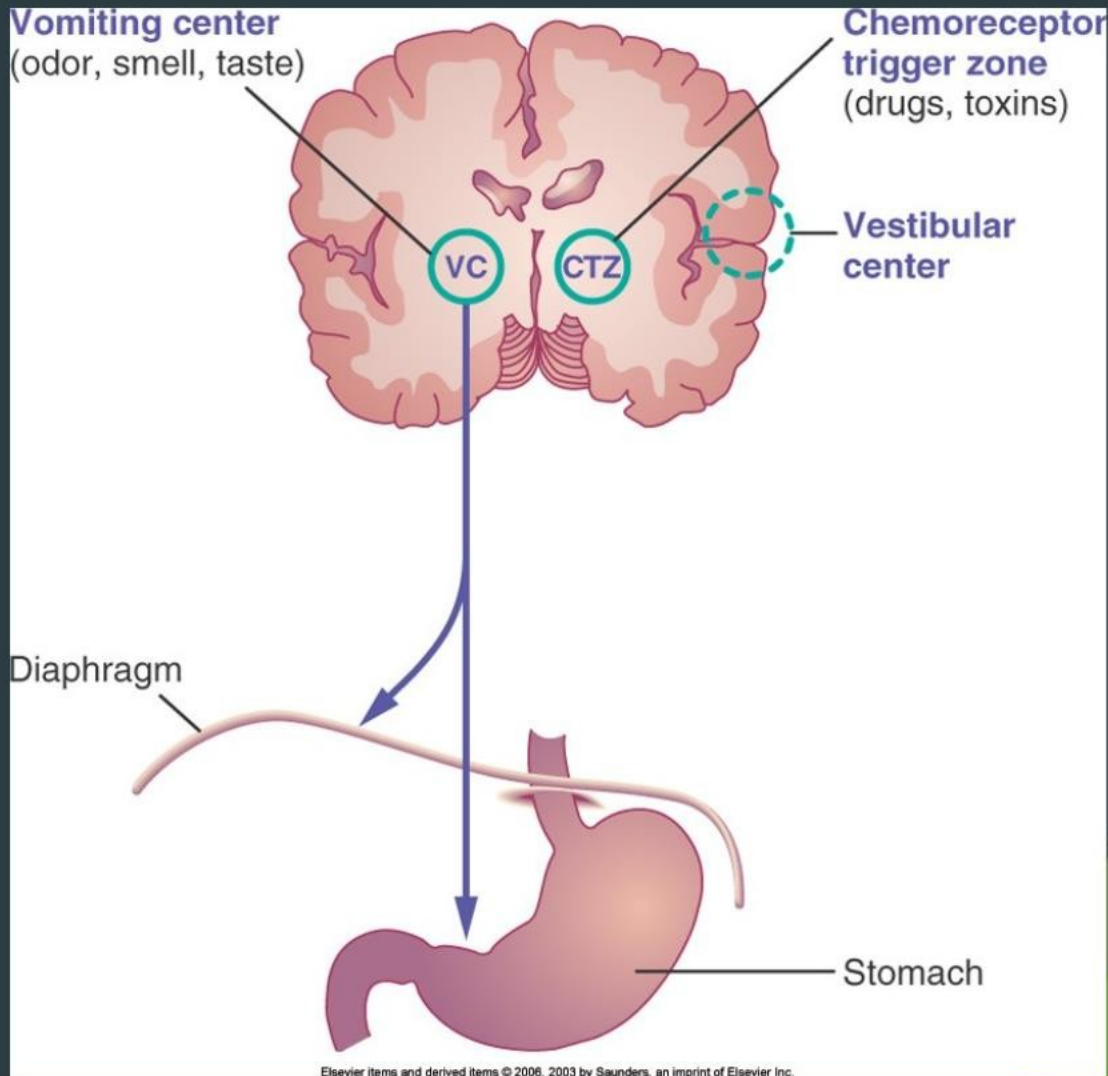
**1. Locally acting emetics:** by local irritation of gastric mucosa.

e.g. Ammonium bicarbonate, Ipecacuanha

**2. Centrally acting emetics:** directly on the Chemoreceptor Trigger Zone (CTZ) in the floor of IV th ventricle in medulla

e.g. Apomorphine & Morphine

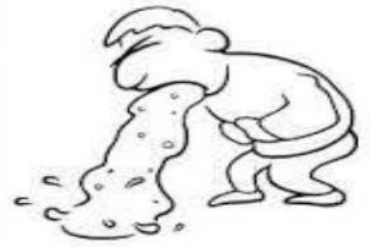
# Cerebral Centers Affecting Vomiting



# Uses of Emetics

1. Vomiting is primarily considered to be a respiratory function, its ultimate result would cause the evacuation of the stomach thus emetics produces a reflux action by which **TOXIC substances gets expelled in case of poisoning.**
2. Emetics are sometimes added to cough preparations in low doses to **stimulate flow of respiratory tract secretions.**

# Natural Emetics



▣ **Salt water • Warm water** – mild emetic • 2 spoonful of common salt in 1 pint of warm water

▣ **Mustard seed** • 1 table spoonful ground mustard seeds in half-pint of warm water • Strong coffee is one of the best domestic stimulants, especially after a narcotic poison



# Inorganic Emetics

1. **Copper Sulphate**
2. **Sodium Chloride**
3. **Zinc Sulphate**
4. **Sodium Potassium Tartrate**

# When not to use Emetics????

- ▣ In Corrosive poisoning – acid and alkali (why?)
- ▣ In CNS stimulant poisoning
- ▣ To unconscious patients



# Expectorants

- **Cough** , a productive reflex help to expel irritant matter from the respiratory tract.
- It may be **Productive Or Non Productive.**





# Expectorants

Expectorants are “Drugs that help in **removing sputum from the respiratory tract** either by:-

□ **increasing the fluidity** (or reducing the viscosity) of sputum

**OR**

□ **increasing the volume of fluids** that have to be expelled from the respiratory tract by coughing.”



# Classification of Expectorants

According to their mechanism of action...

- 1) Sedative expectorant
- 2) Stimulant expectorant

# Sedative Expectorants

□ These are stomach irritant expectorants which are able to produce their effect through stimulation of gastric reflexes.

e.g. Bitter drugs – Ipecac, Senega, Indian Squill

□ **Inorganic Compounds** – Antimony potassium tartrate, **Ammonium chloride**, Sodium citrate, **Potassium iodide**

# Stimulant Expectorants

- These are the expectorants which bring about a **stimulation of the secretory cells of the respiratory tract** directly or indirectly.
- Since these drugs stimulate secretion, more fluid in respiratory tract and sputum is diluted.

e.g. - Eucalyptus, lemon, anise - Active constituents of oil like terpine hydrate, anethole



THINK  
BEFORE YOU eat



# Anti-Dotes

▮ **Poison**, any substance that when introduced into or absorbed by a living organism causes illness or death.

▮ **Anti-Dotes** is an agent which counteract as poisons

# Classification of **Anti-Dotes**

- **Physiological**:-Producing opposite effects to that of poison  
e.g, Sodium nitrite in Cyanide poisoning
- **Mechanical**:- Prevent Absorption of Poison  
e.g, Activated Charcoal
- **Chemical**:- Change chemical nature of poison.  
e.g, Sodium thiosulphate in cyanide poisoning.

# Inorganic Anti-Dotes

In Cyanide Poisoning

**Sodium nitrite & Sodium thiosulphate**

In Lead Poisoning

*Sodium Calcium Edetate & Dimercapol*



# Astringents

- Astringents is a **substance that cause the contraction or shrinkage of tissue** that dry up secretions
- Astringent act as **protein precipitant**.
- Astringents is applied to skin, mucous membrane and does not destruct the tissue.
- **Zinc oxide** and **calamine** are astringents used in lotions, powders and ointments.

# Use of Astringents

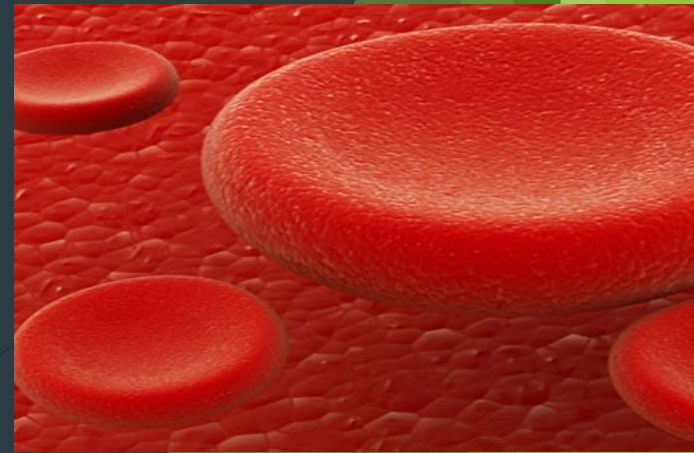
- ✓ If you suffer from **oily skin**, **astringent** can help improve your skin's appearance by minimizing pores and drying up oily skin.
- ✓ **Astringent** is usually applied after cleansing, but before moisturizing.
- ✓ The alcohol-based product can also help **remove bacteria** and leftover traces of cleanser or makeup.
- ✓ An **astringent** is also used to **improve blood circulation and tighten the skin** besides ... One such example is the Stolin Gum **astringent** aimed at total **oral** hygiene.

# Inorganic Astringents

- ✓ Salt of Iron, Zinc, Manganese, Iron and Bismuth.
- ✓ Aluminium Sulphate
- ✓ Alum
- ✓ Zinc Chloride
- ✓ Zinc Sulphate
- ✓ Zirconium Oxide
- ✓ Zirconium Silicate

# Haematinics

- **Haematinic** - a medicine that **increases the hemoglobin** content of the blood;  
OR
- A hematinic is a **nutrient required for the formation of blood cells** in the process of hematopoiesis.
- The main hematinics are **iron, B12, and folate**.



# Anaemia



- ✓ Anemia is a medical condition in which the red blood cell count or hemoglobin is less than normal.
- ✓ Anemia is caused by either a decrease in production of red blood cells or hemoglobin, or an increase in loss (usually due to bleeding) or destruction of red blood cells.

# IRON



- Total Iron in human body is 2.5-5 gm.
- Iron tablets can help restore iron levels in your body. If possible, you should take iron tablets on an empty stomach, which helps the body absorb them better.
- Iron supplements may cause constipation or black stools.

- **Dietary Source:-**

- Red meat, pork and poultry
- Seafood, Beans
- Dark green leafy vegetables, Dried fruit, breads and pastas
- Peas, egg yolk, Milk Apple

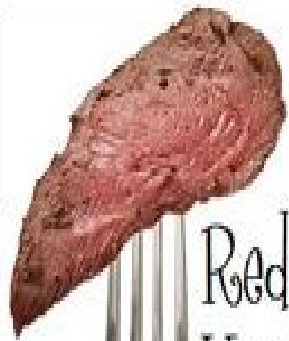




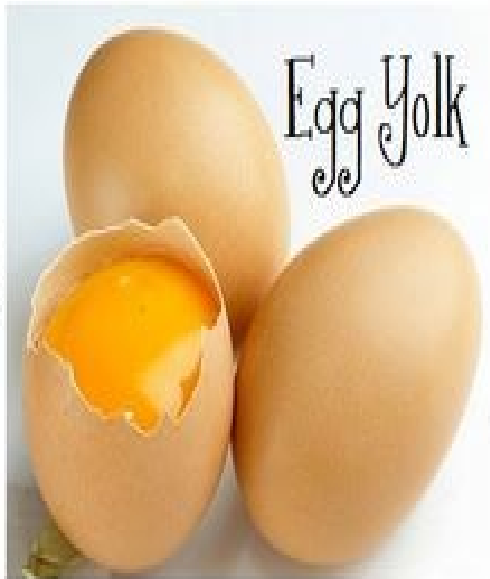
Iron-Rich Foods



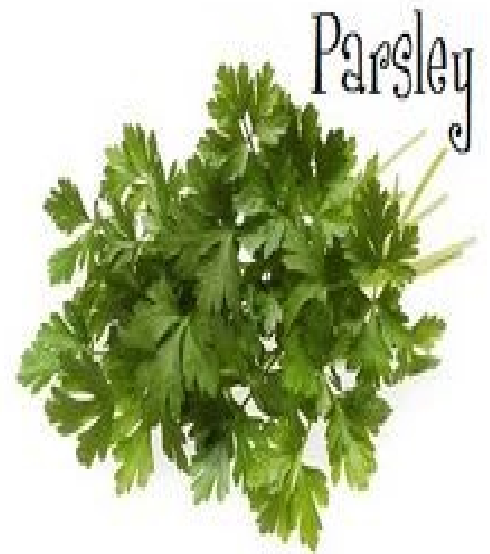
Artichoke



Red Meat



Egg Yolk



Parsley



Spinach



Potato



Beans



Broccoli

# Distribution of Iron in Body

- ✓ Haemoglobin : 66 %
- ✓ Iron stored as Ferritin and Haemosiderin : 25 %
- ✓ Myoglobin in Muscles : 3 %
- ✓ Parenchymal iron : 6 %



# Inorganic Haematinics

- Ferrous Sulphate
- Ferrous Gluconate

Thank  
you  
!