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:

- Locally acting emetics: by local irritation of gastric mucosa. e.g. Ammonium bicarbonate, Ipecacuanha

- 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

Vomiting center (odor, smell, taste)

Chemoreceptor trigger zone (drugs, toxins)

Vestibular center

Diaphragm

Stomach
Uses of Emetics

- 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.

- 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
When Emetics should not use?

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

- Cough, a productive reflux 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 the 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
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 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

- 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 hematinsics 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
TOP 10 FOODS RICH IN IRON

IRON RICH FOOD:

- Chicken
- Liver
- Broccoli
- Dried beans/green peas
- Potatoes with skin
- Spinach
- Beef
- Iron fortified cereals
- Raisins
- Egg yolk
- Clams
- Shrimp
- Dried apricot
- Watermelon
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
How Effective is Ferrous Sulfate?

Ferrous sulfate mineral is utilized effectively in treatment of anemia caused by lack of enough iron in the body.

For More Information:
Visit: www.epainassist.com