High-Yield Pathology Guide: Parasitology & Liver Function Tests 🦠🔬

This guide covers **Ascaris lumbricoides, Enterobius vermicularis, Ancylostoma duodenale**, and **Liver Function Tests (LFTs)** with **morphological features, staining properties, clinical relevance, and interpretation of abnormalities.**

1️⃣ Ascaris Lumbricoides (Roundworm)

💡 **Mnemonic: "A-SCAR-is" (Leaves scars in lungs - Loeffler's Syndrome)**

Morphology of Ova

- **Shape**: Oval to round
- **Size**: 45-75 µm
- **Outer Layer**: Thick, **bumpy, mammillated coat ("Corticated egg")**
- **Unfertilized Egg**: Larger, elongated, thin shell
- **Fertilized Egg**: Thick shell, round shape
- **Staining**:
  - Iodine staining: Dark brown
  - Acid-fast stain: Negative

Clinical Features

- **Intestinal obstruction (Common in children)**
- **Pulmonary migration → Loeffler's Syndrome** (Eosinophilia, cough, infiltrates)
- **Malnutrition, vitamin A deficiency**

Diagnosis

- **Microscopy of stool**: Ova detection
- **Serology**: Not commonly used

2️⃣ Enterobius Vermicularis (Pinworm)

💡 **Mnemonic: "ENTER-anus" (Fecal-oral & Perianal itching at night)**

Morphology of Ova

- **Shape**: **Oval, flattened on one side**
- **Size**: 50-60 µm
- **Outer Layer**: Thin, smooth shell
- **Staining**:
  - Iodine staining: Pale yellow
  - Acid-fast stain: Negative

Clinical Features

- **Nocturnal perianal itching** (Female worm lays eggs at night)
- **Restless sleep (Common in children)**
- **Mild gastrointestinal upset**

Diagnosis

- **Scotch Tape Test**: Ova stick to tape from perianal region
- **Microscopy**: Stool examination

3️⃣ Ancylostoma Duodenale (Hookworm)

💡 **Mnemonic: "Ancylostoma = Anemia" (Blood loss leads to iron deficiency anemia)**

Morphology of Ova

- **Shape**: Oval
- **Size**: 60-75 µm
- **Outer Layer**: Thin, **smooth shell** with **blastomeres** inside

- **Staining:**
  - Iodine staining: Light brown
  - Acid-fast stain: Negative

Clinical Features

- **Iron-deficiency anemia** (Chronic blood loss)
- **Ground itch (Skin penetration at site of entry)**
- **Larva migrates to lungs → Cough, eosinophilia**
- **Malnutrition, protein loss**

Diagnosis

- **Microscopy of stool**: Detection of ova
- **Eosinophilia in blood test**

4️⃣ Liver Function Tests (LFTs)

💡 **Mnemonic: "BAPA" (Bilirubin, Aminotransferases, Proteins, ALP/GGT)**

Test	Normal Range	Increased In	Decreased In
Total Bilirubin	0.2 - 1.2 mg/dL	Hemolysis, Liver disease	Liver failure
ALT (Alanine Aminotransferase)	7 - 56 U/L	Hepatitis, Liver injury	Severe liver failure
AST (Aspartate Aminotransferase)	10 - 40 U/L	Hepatitis, Alcoholic liver disease	Severe liver failure
ALP (Alkaline Phosphatase)	44 - 147 U/L	Biliary obstruction, Bone disease	Malnutrition
GGT (Gamma-Glutamyl Transferase)	9 - 48 U/L	Alcoholic liver disease	Not commonly decreased
Albumin	3.5 - 5 g/dL	Dehydration	Liver disease, Nephrotic syndrome

Test	Normal Range	Increased In	Decreased In
Prothrombin Time (PT/INR)	11 - 13 sec	Liver failure, Vitamin K deficiency	Not commonly decreased

Interpretation of Abnormal LFTs

- **Hepatitis (Viral or Toxic):** ↑ ALT, ↑ AST, normal ALP
- **Alcoholic Liver Disease: AST > ALT (2:1 ratio)**
- **Cholestasis (Biliary obstruction):** ↑ ALP, ↑ GGT
- **Cirrhosis & Chronic Liver Disease:** ↓ Albumin, ↑ PT/INR

Final Mnemonic Recap 🎯

- 🦠 **Ascaris**: Thick, bumpy shell **("Corticated egg")**
- 🦠 **Enterobius**: **"Pin" shaped egg, flattened on one side**
- 🦠 **Ancylostoma**: **Smooth oval egg with blastomeres**
- 🏥 **LFTs**: "BAPA" for **Bilirubin, Aminotransferases, Proteins, ALP/GGT**

📖 High-Yield Pharmacology Guide: Peptic Ulcer, Anti-Emetics, and Infectious Diseases

This guide covers **prescription writing** for:

- **H. pylori-associated Peptic Ulcer Disease** (Triple & Quadruple Therapy)
- **Anti-emetics** (Motion sickness, morning sickness, post-op, chemo-induced vomiting)
- **Amoebic Dysentery**
- **Enteric Fever (Typhoid Fever)**
- **Ascariasis (Roundworm infection)**

Each section includes **prescription format**, **mechanism of action**, and **clinical pearls**.

1️⃣ H. Pylori-Associated Peptic Ulcer Disease 🦠

💡 **Mnemonic: "C.A.M" for Triple Therapy & "B.A.C.T." for Quadruple Therapy**

📜 Triple Therapy (First-line for 14 days)

> **Rx:**
>
> - **Clarithromycin 500 mg BID**
> - **Amoxicillin 1 g BID** *(or Metronidazole 500 mg BID if allergic to penicillin)*
> - **Omeprazole 20 mg BID** *(or any PPI)*

📜 Quadruple Therapy (If resistance or failure of triple therapy)

> **Rx:**
>
> - **Bismuth subsalicylate 525 mg QID**
> - **Metronidazole 500 mg TID-QID**
> - **Tetracycline 500 mg QID**
> - **Omeprazole 20 mg BID**

📌 **Duration:** 10-14 days

📌 **Mechanism of Action:**

- **Clarithromycin:** Inhibits bacterial protein synthesis
- **Amoxicillin:** Inhibits bacterial cell wall synthesis
- **Metronidazole:** DNA disruption
- **Bismuth:** Mucosal protection + bactericidal

📌 **Alternative:** Levofloxacin-based therapy (if resistant)

2️⃣ Anti-Emetics 🤢

📜 Motion Sickness (Vestibular cause)

> **Rx:**
>
> - **Scopolamine 1.5 mg transdermal patch** (Apply 4 hours before travel, replace every 3 days)
> - **OR** Dimenhydrinate 50 mg **TID** *(if patch unavailable)*

📌 **Mechanism:** Blocks **muscarinic & H1 receptors** in the vestibular system

---

📜 Morning Sickness (Pregnancy)

> **Rx:**
>
> - **Pyridoxine (Vitamin B6) 10-25 mg TID**
> - **Doxylamine 12.5 mg TID** *(If symptoms persist)*

📌 **Alternative:** Metoclopramide or Ondansetron (if severe)

📜 Post-Operative Nausea & Vomiting (PONV)

> **Rx:**
>
> - **Ondansetron 4 mg IV/PO TID PRN**
> - **OR** Granisetron 1 mg IV once

📌 **Mechanism: 5HT3 receptor antagonist**

📜 Chemotherapy-Induced Vomiting

Rx:

- **Aprepitant 125 mg PO before chemo** (Neurokinin-1 antagonist)
- **Ondansetron 8 mg IV/PO before chemo**
- **Dexamethasone 8 mg IV**

📌 **Triple therapy for highly emetogenic chemo (cisplatin-based)**

3️⃣ Amoebic Dysentery (Entamoeba histolytica) 💩

💡 **Mnemonic: "M.T." (Metronidazole + Tinidazole)**

Rx:

- **Metronidazole 500 mg TID for 7-10 days**
- **Diloxanide furoate 500 mg TID for 10 days** *(For cyst eradication)*

📌 **Mechanism:** DNA disruption (Metronidazole), Luminal cyst killing (Diloxanide)

📌 **Severe cases:** Add **IV hydration** and **electrolytes**

4️⃣ Enteric Fever (Typhoid Fever) 🦠

💡 **Mnemonic: "C.A.C." (Ceftriaxone, Azithromycin, Ciprofloxacin)**

📜 Prescription

Rx:

- **Ceftriaxone 2 g IV QD for 10-14 days** *(Severe cases)*
- **OR Ciprofloxacin 500 mg BID for 7-10 days** *(If no resistance)*
- **Azithromycin 1 g PO QD for 7 days** *(Mild cases)*

📌 **Mechanism:** Inhibits bacterial cell wall (Ceftriaxone), DNA gyrase (Ciprofloxacin)

📌 **Supportive Care:** IV fluids, antipyretics, adequate nutrition

5️⃣ Ascariasis (Roundworm Infection) 🪱

💡 **Mnemonic: "M.A.P." (Mebendazole, Albendazole, Pyrantel pamoate)**

> **Rx:**
>
> - **Albendazole 400 mg PO Single dose**
> - **OR Mebendazole 100 mg BID for 3 days**

📌 **Mechanism:** Inhibits glucose uptake in worms → Death

📌 **Alternative:** Pyrantel pamoate **(Paralytic effect on worms)**

📌 **Severe infestation:** May need **surgical removal if intestinal obstruction**

💡 Summary Table for Quick Revision 📑

Condition	Drugs	Duration
H. pylori PUD	Triple (C.A.M.) / Quadruple (B.A.C.T.)	10-14 days
Motion Sickness	Scopolamine patch / Dimenhydrinate	3 days (patch)
Morning Sickness	Pyridoxine ± Doxylamine	PRN
PONV	Ondansetron 4 mg IV	PRN
Chemo Vomiting	Aprepitant + Ondansetron + Dexamethasone	Before chemo
Amoebic Dysentery	Metronidazole + Diloxanide	7-10 days
Typhoid Fever	Ceftriaxone IV / Ciprofloxacin PO	10-14 days
Ascariasis	Albendazole / Mebendazole	Single dose or 3 days

🚀 Final Mnemonic Recap 🎯

- **PUD: C.A.M.** (Triple), **B.A.C.T.** (Quadruple)
- **Motion Sickness: Scop** (Scopolamine)

- **Morning Sickness: P-D** (Pyridoxine + Doxylamine)
- **Post-op Vomiting: O-G** (Ondansetron + Granisetron)
- **Amoebiasis: M.T.** (Metronidazole + Tinidazole)
- **Typhoid: C.A.C.** (Ceftriaxone, Azithromycin, Ciprofloxacin)
- **Ascariasis: M.A.P.** (Mebendazole, Albendazole, Pyrantel)

📖 High-Yield Community Medicine Guide

This guide covers:
✅ **Protein-Calorie Malnutrition (PCM)** (Kwashiorkor vs. Marasmus)
✅ **Public Health Importance of PCM**
✅ **Food Fortification & Adulteration**
✅ **My Food Plate & Food Pyramid**

Each section includes **definitions, differentiations, clinical features, and public health relevance**.

1️⃣ Protein-Calorie Malnutrition (PCM) 🍚

💡 **Mnemonic: "Kwashi has Calories, Maras has Muscle wasting"**

📝 Identify the Model

PCM is categorized into two clinical models:

1. **Kwashiorkor** (Protein deficiency)
2. **Marasmus** (Calorie & protein deficiency)

🔍 Differences Between Kwashiorkor & Marasmus

Feature	Kwashiorkor	Marasmus
Cause	**Protein deficiency** despite adequate calories	**Severe calorie & protein deficiency**
Age Group	**1-3 years** (after weaning)	**<1 year** (breastfeeding failure)
Edema	**Present (pitting)**	**Absent**
Muscle Wasting	**Mild** (fat preserved)	**Severe** (skin & bones)
Hair Changes	**Flag sign** (alternating light & dark bands)	**Sparse, thin hair**
Skin Changes	**Flaky paint dermatosis**	**Dry, wrinkled skin**
Apathetic child?	**Yes**	**No (irritable, hungry)**
Liver Changes	**Enlarged, fatty liver**	**None**
Mortality Risk?	**Higher (due to infections)**	**Moderate**

📌 **Both cause immune suppression, leading to infections**

📢 Public Health Importance of PCM

🔴 **Impact:**

- Affects **growth, cognitive development, and immunity**
- Increases **child mortality & morbidity**
- Leads to **delayed school performance & productivity loss**

✅ **Preventive Strategies:**

1. **Exclusive breastfeeding** (first 6 months)
2. **Nutritional education** for mothers
3. **Supplementary feeding programs (UNICEF, WHO, ICDS in India)**
4. **Food fortification** (Iron, Vitamin A, Iodine)

2️⃣ Food Fortification & Food Adulteration 🍞🥛

🔹 Food Fortification (Adding Nutrients)

💡 **Mnemonic: "F.I.S.H." (Fortification Includes Salt, Iron, & Health)**

🔹 **Definition:** Adding **micronutrients** to food to prevent deficiencies

🔹 **Examples:**

✅ **Salt** → Iodine (Prevents goiter)

✅ **Milk** → Vitamin D (Prevents rickets)

✅ **Wheat Flour** → Iron, Folic Acid (Prevents anemia, NTDs)

✅ **Rice & Oil** → Vitamin A (Prevents night blindness)

🔹 **Importance:**

- Reduces **hidden hunger** (micronutrient deficiency)
- Cost-effective for **large-scale prevention**

🔻 Food Adulteration (Adding Harmful Substances)

💡 **Mnemonic: "M.O.L.D." (Milk, Oils, Lentils, Dairy)**

🔻 **Definition:** Adding **inferior, toxic, or non-food substances** to food for profit

🔻 **Common Adulterants:**

❌ **Milk** → Detergent, starch

❌ **Vegetable Oil** → Argemone oil (causes dropsy)

❌ **Dal (Lentils)** → Metanil yellow (causes cancer)

❌ **Tea** → Iron fillings

🔻 **Health Risks:**

- **Cancer (carcinogens)**
- **Kidney & liver damage**
- **Food poisoning**

✅ **Prevention:** Strict **FSSAI regulations, public awareness** campaigns

---

3️⃣ My Food Plate & Food Pyramid 🍽️

💡 **Mnemonic: "Go Grow Glow" (Carbs, Proteins, Vitamins & Minerals)**

📌 Identify the Model

1. **Food Pyramid (Older Model)** 📶
    - **Divided into levels** (Carbs at bottom, Fats at top)
    - Used for **general dietary guidelines**
    - **Downside:** Too **rigid & generalized**
2. **MyPlate (New Model)** 🍽️
    - More **visual, practical**
    - **Balanced sections:**
        - **1/2 plate:** Fruits & Vegetables
        - **1/4 plate:** Proteins
        - **1/4 plate:** Whole grains
        - **Dairy** (on the side)

📊 Components of My Food Plate

Category	Examples	Function
Grains (1/4 plate)	Brown rice, oats	Energy source
Proteins (1/4 plate)	Fish, eggs, beans	Growth & repair
Fruits & Vegetables (1/2 plate)	Apples, spinach	Vitamins, minerals, fiber
Dairy (Side)	Milk, yogurt	Calcium for bones
Fats (Minimal)	Nuts, olive oil	Brain function, hormones

✅ **Public Health Importance:**

- Reduces **obesity, diabetes, heart disease**
- Promotes **balanced, mindful eating**

📌 **Extra Tip:** Always **limit processed foods & sugary drinks!**

🚀 Final Summary & Quick Recap

Topic	Key Points
PCM (Kwashiorkor vs. Marasmus)	**Kwashiorkor:** Protein deficiency, **Marasmus:** Calorie deficiency
Public Health Impact of PCM	Increases child mortality, stunts growth, weakens immunity
Food Fortification	Iodized salt, Iron in wheat, Vitamin A in rice
Food Adulteration	Common in milk, oil, dal, tea → Cancer, kidney failure
Food Pyramid vs. MyPlate	MyPlate is modern, balanced, & easier to follow

---

🚀 High-Yield Community Medicine Guide

This guide covers:

✅ **Health Education & Message Formulation**
✅ **Housefly & Arthropods as Disease Vectors**
✅ **Aedes aegypti & Disease Transmission**
✅ **Autoclave & Sterilization**

Each section includes **definitions, models, diseases, prevention, and control strategies**.

1️⃣ Health Education 📢

💡 **Mnemonic: "4 A's of Health Education"**
1️⃣ **Assessment** (Identify the problem)
2️⃣ **Awareness** (Educate the public)
3️⃣ **Action** (Encourage behavior change)
4️⃣ **Adoption** (Sustain long-term habits)

📌 Identify a Health Education Message Based on a Scenario

A **health education message** is a clear, concise **public health statement** that raises awareness and promotes **preventive action**.

🔹 **Example Scenarios & Messages:**

Scenario	Health Education Message
Dengue outbreak	"Avoid stagnant water – Stop mosquito breeding, stop dengue!" 🦟🚫
Malnutrition in children	"Breastfeed exclusively for 6 months – A healthy start for life!" 👶🥛
HIV/AIDS Awareness	"Use protection, stay safe – Prevent HIV!" 🛑🩸
Hand Hygiene in Hospitals	"Wash hands, save lives!" ✋🧼
Smoking & Lung Cancer	"Smoking kills – Quit now for a healthier future!" 🚭

✅ A good health education message is:
✔ Short & impactful
✔ Simple language
✔ Action-oriented
✔ Scientific & evidence-based

2️⃣ Housefly & Arthropods as Disease Vectors 🦟

💡 **Mnemonic: "F.L.I.E.S" (Housefly Diseases)**

- Food poisoning (**Salmonella, E. coli**)
- Leprosy
- Infant diarrhea (**Rotavirus**)
- Eye infections (**Trachoma**)
- Skin infections (**Myiasis**)

📌 Housefly (Musca domestica) Model & Disease Transmission

🔹 **Model Identification:** A **gray-colored insect** with **red compound eyes** and **hairy legs** 🪰

🔹 **Mode of Disease Transmission:**

✅ **Mechanical Transmission:** Flies pick up pathogens from garbage, feces, or sewage and transfer them to food.

🔹 **Diseases Caused:**

- **Bacterial:** Cholera, Typhoid, Dysentery
- **Viral:** Poliovirus
- **Parasitic:** Intestinal worms

🛡️ Control Measures

🔹 **Personal Hygiene:**

- Cover food, wash hands before eating
- Use **fly-proof latrines**

🔹 **Environmental Control:**

- Proper **garbage disposal**
- **Insecticides (DDT, Malathion)**
- **Fly traps & UV light fly killers**

3️⃣ Aedes aegypti & Disease Transmission 🦟

💡 **Mnemonic: "D.C.C.Z" (Aedes-borne Diseases)**

- **D**engue Fever
- **C**hikungunya
- **C**on genital Zika Syndrome
- **Z**ika Virus

📌 Model Identification & Features

🦟 **Aedes aegypti (Mosquito Model):**

✅ Black mosquito with **white stripes ("Tiger Mosquito")**

✅ **Daytime biter** (morning & evening)

✅ Breeds in **clean stagnant water** (flower pots, tires)

📢 Diseases Caused & Symptoms

Disease	Symptoms
Dengue Fever	High fever, severe body pain ("Breakbone Fever"), rash, bleeding
Chikungunya	Severe joint pain, fever, rash
Zika Virus	Birth defects (Microcephaly in babies)
Yellow Fever	Jaundice, kidney failure, death

🛡️ Control Measures

🔹 **Personal Protection:**

✅ Wear **long-sleeved clothing**

✅ Use **mosquito nets & repellents**

🔹 **Environmental Control:**

✅ **Remove stagnant water** (weekly cleaning of containers)

✅ **Biological control** (Guppy fish in water bodies)

✅ **Fogging with insecticides**

4️⃣ Autoclave & Sterilization 🔬♨️

💡 **Mnemonic: "S.T.E.A.M" (Autoclave Basics)**

- **S**team at high temperature

- **T**ime-controlled process
- **E**liminates all microbes
- **A**n essential hospital tool
- **M**edical instruments sterilization

📌 Autoclave Model & Uses

🚀 **Identify the Model:**
✅ **A cylindrical steel chamber** with pressure & temperature gauges
✅ Uses **moist heat (steam) under high pressure**

🔹 **Types of Items Sterilized in an Autoclave:**
✅ **Surgical Instruments** (Scissors, Forceps)
✅ **Glassware** (Flasks, Pipettes)
✅ **Lab Cultures & Waste Disposal**
✅ **Dressings & Gowns**

🛠️ Steps of Instrument Sterilization

💡 **Mnemonic: "C.L.E.A.N" (Sterilization Process)**
1️⃣ **C**lean the instruments (Remove organic material)
2️⃣ **L**oad the autoclave (Place in perforated trays)
3️⃣ **E**nsure proper pressure (121°C, 15 psi, 15 minutes)
4️⃣ **A**llow cooling before opening
5️⃣ **N**ever touch sterile instruments with bare hands

✅ **Sterilization Confirmation:** Use **autoclave tape** (turns black when sterilized)

🚀 Final Summary & Quick Recap

Topic	Key Points
Health Education Message	Should be short, clear, action-driven (e.g., "Wash hands, save lives!")
Housefly as a Vector	Causes cholera, typhoid; Prevent with sanitation, fly traps
Aedes Mosquito	Transmits Dengue, Zika, Chikungunya; Prevent by removing stagnant water
Autoclave	Uses steam to sterilize surgical instruments (121°C, 15 psi, 15 min)

🔥 This guide gives a high-yield breakdown with mnemonics for quick recall! Let me know if you need more details. 🚀

🚀 High-Yield Forensic Medicine Guide

This guide covers:
✅ **Corrosive Poisons** (Acids & Alkalis)
✅ **Vitriolage (Acid Attack) Case Presentation**
✅ **Irritant Poisons** (Common household & industrial poisons)
✅ **Metallic & Non-Metallic Poisons**
✅ **Vegetable & Animal Poisons**

Each section includes **definitions, examples, fatal doses, symptoms, management, and forensic aspects.**

1️⃣ Corrosive Poisons 🧪

💡 Mnemonic: "A.B.C. (Acids, Bases, Concentrated)"
Corrosives **destroy tissues** by **chemical action**, causing **burns & perforation** of mucosa.

Type	Examples	Fatal Dose	Effects
Acids	Sulfuric acid (H_2SO_4), Hydrochloric acid (HCl), Nitric acid (HNO_3)	5-10 ml	Coagulative necrosis, white eschar

Type	Examples	Fatal Dose	Effects
Alkalis	Sodium hydroxide (NaOH), Potassium hydroxide (KOH), Ammonia	10-20 ml	Liquefactive necrosis, deep tissue damage

---

📌 Vitriolage (Acid Attack) – Case Presentation

🚨 **Scenario:** A **22-year-old female** presented with **extensive facial burns, deep ulcers, and contractures** after an **acid attack by an assailant.**

✅ **Key Features:**

- **Severe pain, blistering, and tissue destruction**
- **Black necrotic areas (Sulfuric acid) / Yellow burns (Nitric acid)**
- **Corneal damage → Blindness**
- **Esophageal strictures (if swallowed)**

✅ **Forensic Importance:**

- **Considered a criminal offense** under **attempted murder laws**
- **Acid sale regulations** enforced in many countries

✅ **Management:**
1️⃣ **Immediate irrigation** with copious water
2️⃣ **Pain relief (NSAIDs, opioids)**
3️⃣ **Antibiotics for secondary infection**
4️⃣ **Skin grafting & reconstructive surgery**

2️⃣ Irritant Poisons 🧴

💡 **Mnemonic: "PIES (Pesticides, Insecticides, Edibles, Spices)"**

Type	Examples	Fatal Dose	Effects
Inorganic	Arsenic, Mercury salts	100 mg (Arsenic)	Severe gastroenteritis, garlic odor breath
Organic	Ricin, Castor beans	0.1 mg/kg	Hemorrhagic gastritis, hypotension
Mechanical	Glass powder, Sand	Variable	Perforation, hemorrhage

✅ **Management:**

1️⃣ **Gastric lavage with potassium permanganate ($KMnO_4$) (for organic irritants)**

2️⃣ **Activated charcoal**

3️⃣ **IV fluids & electrolyte correction**

3️⃣ Metallic & Non-Metallic Poisons ⚙️

💡 **Mnemonic: "M.L.A.T (Mercury, Lead, Arsenic, Thallium)"**

📌 Metallic Poisons

Poison	Sources	Effects
Lead (Pb)	Paint, Batteries	Blue gum line, Anemia, Wrist drop
Mercury (Hg)	Thermometers, Pesticides	Tremors, Gingivitis, Renal failure
Arsenic (As)	Pesticides, Rat poison	Garlic odor breath, Mee's lines
Thallium (Tl)	Rodenticides	Alopecia, Burning feet syndrome

✅ **Forensic Importance:**

- **Arsenic is a slow poison (resembles cholera)**
- **Lead poisoning common in battery factory workers**

✅ **Management:**

- **Chelation therapy (Dimercaprol, EDTA)**
- **Activated charcoal (if recent ingestion)**

📌 Non-Metallic Poisons

💡 **Mnemonic: "S.C.P. (Sulfur, Carbon, Phosphorus)"**

Poison	Sources	Effects
Phosphorus	Fireworks, Rodenticides	Garlic odor breath, Liver necrosis
Cyanide	Industrial fumes, Almonds	Cherry red skin, Bitter almond smell
Carbon monoxide	Car exhaust, Fire smoke	Cherry red lips, Hypoxia

✅ **Management:**

- **100% Oxygen + Hyperbaric therapy (for CO poisoning)**
- **Hydroxocobalamin (for Cyanide poisoning)**

4️⃣ Vegetable & Animal Poisons 🌿🐍

💡 **Mnemonic: "D.O.C (Dhatura, Opium, Cannabis)"**

📌 Vegetable Poisons

Poison	Source	Effects
Dhatura (Datura stramonium)	Thorn apple seeds	Mydriasis, Hallucinations, Dry mouth
Opium (Papaver somniferum)	Poppy plant	Respiratory depression, Pinpoint pupils
Cannabis (Marijuana, Bhang)	Cannabis plant	Euphoria, Psychosis

✅ **Management:**

- **Gastric lavage with $KMnO_4$**
- **Naloxone (for Opium overdose)**

📌 Animal Poisons

💡 **Mnemonic: "S.R.S. (Snake, Rabies, Scorpion)"**

Poison	Source	Effects
Snake venom (Cobra, Viper)	Snake bite	Neurotoxicity (Cobra), Hemorrhage (Viper)

Poison	Source	Effects
Rabies (Lyssavirus)	Infected dog bite	Hydrophobia, Paralysis
Scorpion venom	Scorpion sting	Severe pain, Autonomic storm

✅ **Management:**

- **Anti-venom (for snake bites & scorpion stings)**
- **Rabies vaccine + HRIG (for rabies exposure)**

🚀 Final Summary & Quick Recap

Category	Examples	Fatal Effects	Management
Corrosives	Acids (Sulfuric), Alkalis (NaOH)	Burns, Esophageal perforation	Water irrigation, Pain management
Irritants	Arsenic, Mercury, Castor Beans	Severe gastroenteritis, Shock	Gastric lavage, IV Fluids
Metallic Poisons	Lead, Mercury, Arsenic	Neurotoxicity, Anemia	Chelation therapy (Dimercaprol, EDTA)
Non-Metallic Poisons	Phosphorus, Cyanide, CO	Liver failure, Cyanosis	Oxygen, Hyperbaric therapy
Vegetable Poisons	Dhatura, Opium, Cannabis	Hallucinations, Respiratory depression	Naloxone, Activated charcoal
Animal Poisons	Snake venom, Rabies, Scorpion	Neurotoxicity, Hydrophobia	Anti-venom, Rabies vaccine

---