



Lecture 13:

Detoxification

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You Are What You Eat!

You Are What You Absorb!



You Are What You Do Not Eliminate!

Elimination equals illumination!

Detoxification

Detoxification (Detox) is the process of clearing toxins from the body, or neutralizing or transforming them, as well as clearing excess mucus and congestion.

Detoxifying systems are:

- 1) Liver
- 2) Colon
- 3) Lungs
- 4) kidneys
- 5) Lymph channels
- 6) Skin



Toxins to Be Removed From the Body:

Internal Toxins:

Excess Hormones

Metabolic by-Products

Microorganisms

External Toxins:

Alcohol

Drugs

Contaminants

Pollutants (e.g. Dioxin)

Pesticides

Herbicides

Food Preservatives

Food Additives

Food Colorings

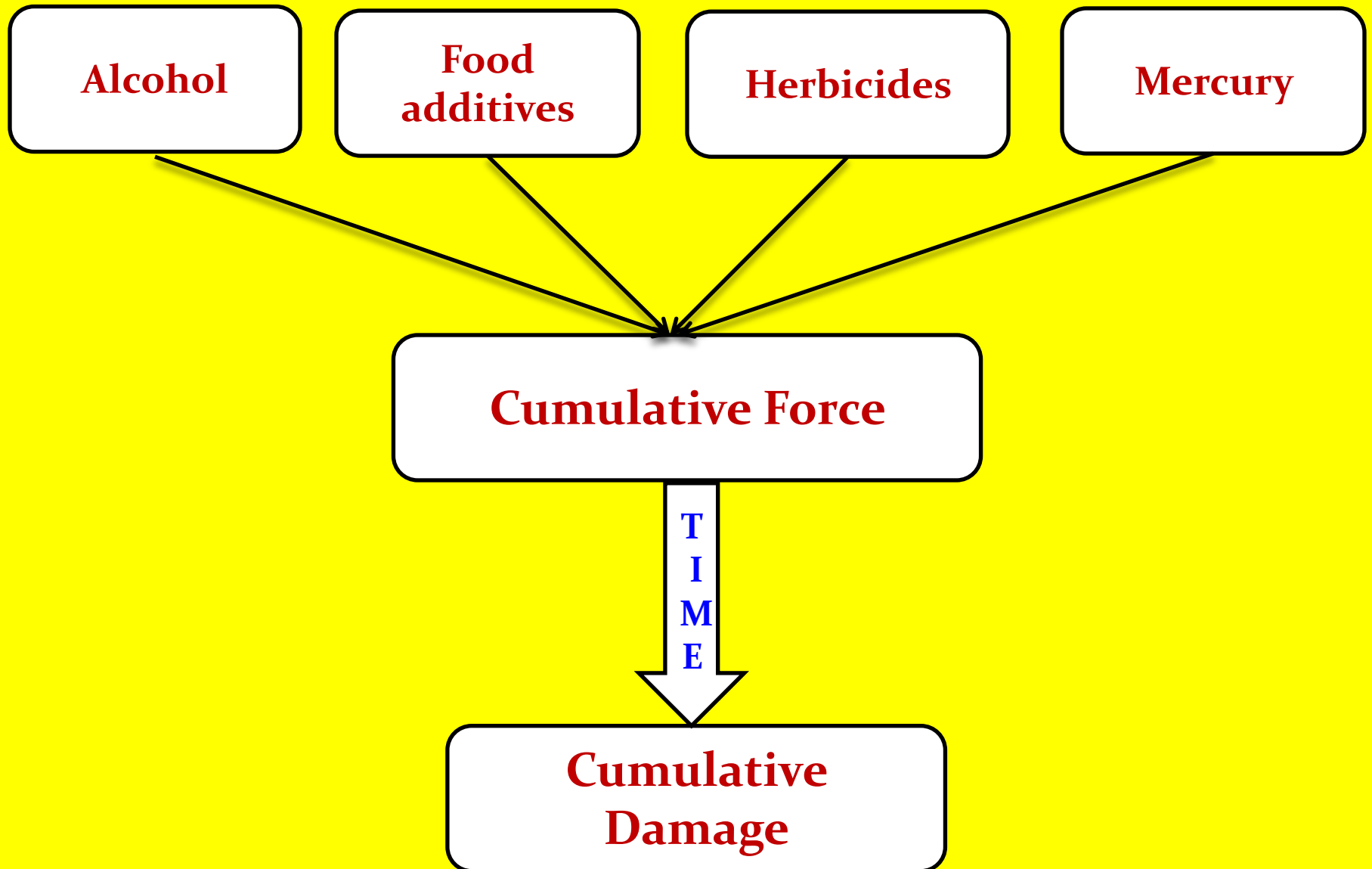
Heavy Metals

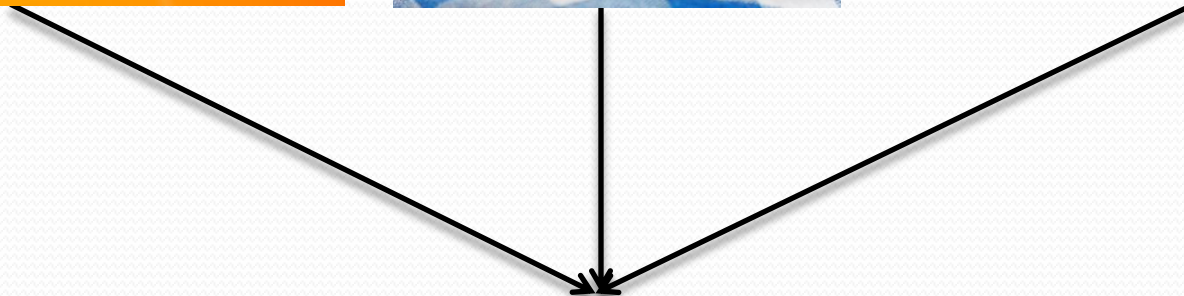
Nicotine



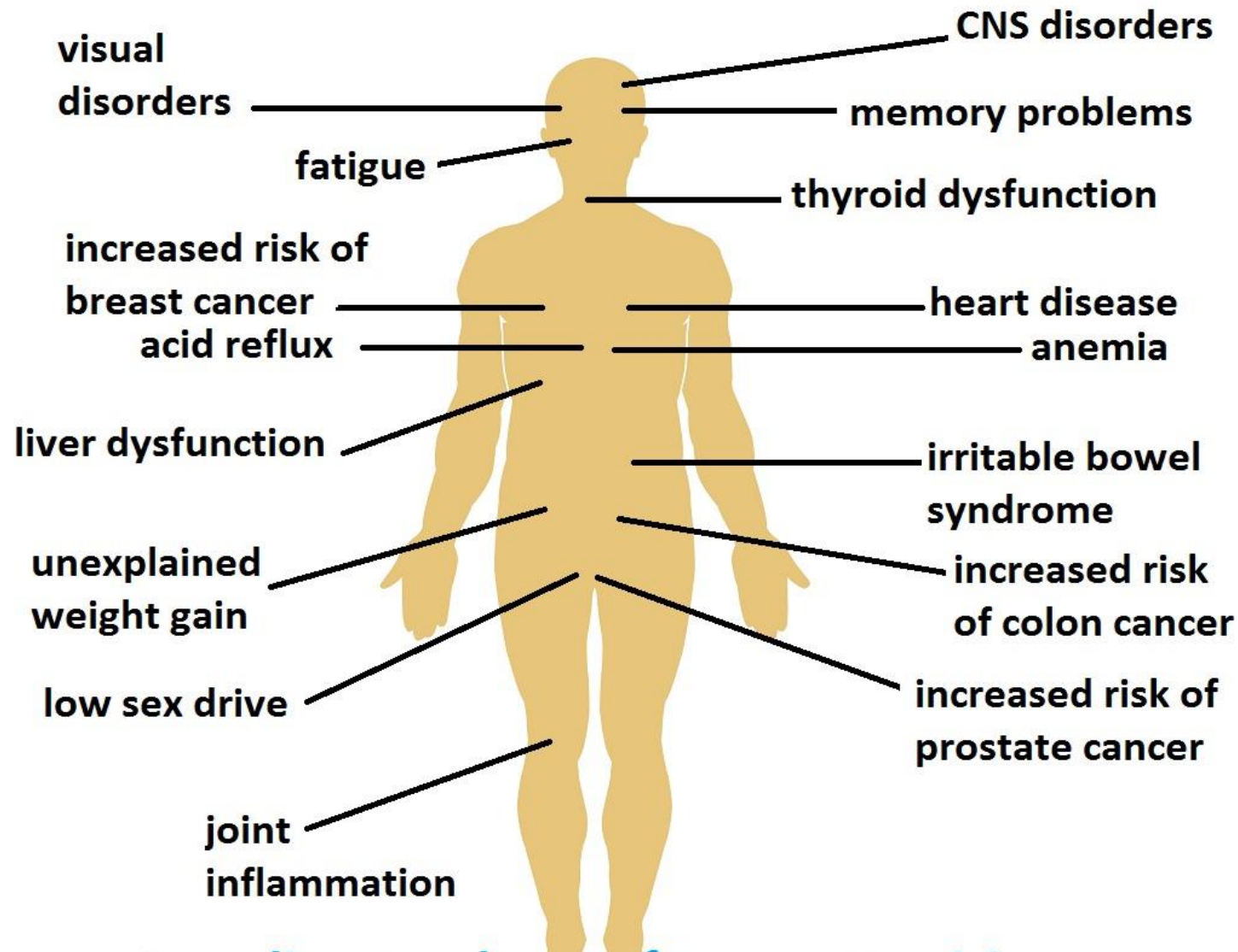








Potential Effects of Toxins in the Body:



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Body Burden:

In a study, 287 chemicals were detected in umbilical cord blood:

- **180 of them cause cancers in humans and animals.**
- **217 of them are toxic to the brain and nervous system.**
- **208 of them cause birth defects or abnormal development in animals.**
- **Almost 200 of them have been banned from the market for years.**

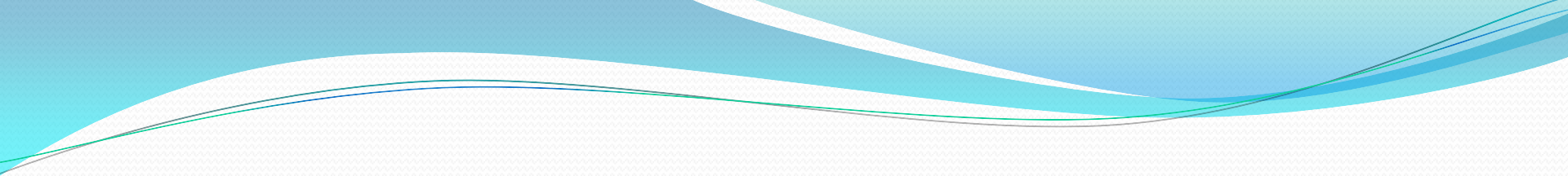
Sources and Effects of Heavy Metals:

Heavy Metal	Primary Sources	Linked To
Aluminum	Antacids, cookware, and drinking water	Alzheimer`s disease, and behavioral disorder
Arsenic	Drinking water	Fatigue, headaches, anemia, heart disease, cancer
Cadmium	Smoking, drinking water	Fatigue, poor concentration and memory, dry skin, prostate cancer, loss of smell, high blood pressure
Lead	Smoking, car exhaust, drinking water, paintings, oyster shell calcium supp.	Fatigue, headaches, anemia, insomnia, hyperactivity disorder, learning disability and high blood pressure
Mercury	Dental silver fillings, drinking water, fish, and shellfish	Fatigue, headaches, autism, impaired memory and concentration, insomnia, and high blood pressure

Indications of Detox:

- 1) Chronic fatigue and tiredness
- 2) Constipation
- 3) Colon cleansing
- 4) Liver cleansing
- 5) Weight management
- 6) General wellbeing
- 7) Indigestion
- 8) Chronic inflammation



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- 9) Allergies not responding to medications**
 - 10) As a preventive measure**
 - 11) Insomnia**
 - 12) Mood changes**
 - 13) Skin disorders**
 - 14) Anxiety and depression.**

Contraindications of Detox:

- Gallbladder problems
- Cancers of gastrointestinal tract.
- Bleeding Disorders
- Taking Warfarin (Coumadin) medication.
- Inflammatory Bowel Diseases (Crohn disease and Ulcerative Colitis)
- Severe Hemorrhoids
- Abdominal surgery



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- Abdominal infections
 - Pregnancy
 - Rectal bleeding
 - Liver cirrhosis
 - Renal failure
 - Intestinal obstruction
 - *Scleroderma*



Hardening of the skin is the cardinal manifestation of scleroderma.

Image: Copyright©Depositphotos.com/Laurin Rinder

Types of Detox:

Conventional Medicine:

- 1) Dialysis
- 2) **Chelation therapy**
- 3) Decontamination of ingested poison
- 4) Neutralizing by antidotes

Alternative Medicine:

- 1) Fasting
- 2) Dieting
- 3) **Chelation therapy**
- 4) Colon cleansing
- 5) Liver cleansing
- 6) Removal of dental fillings



Cleansing Diet:

- Master Cleanser:
 - **2 tbsp** fresh lime or lemon juice
 - 1 tbsp pure maple syrup
 - 1/10 tsp cayenne pepper
 - 1 glass spring water

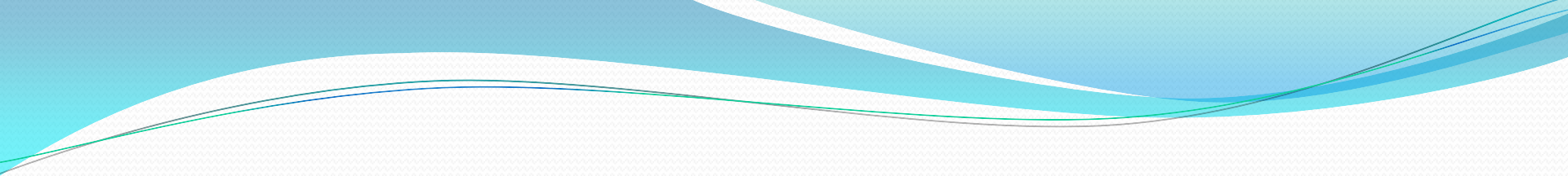
Mix and drink 8 to 12 glasses throughout the day.



Cleansing Herbs:

Choose **two items** from each group:

- **Blood cleansers:** echinacea, red clover, dandelion, burdock, and Oregon grape root.
- **Laxatives:** cascra sagrada, dandelion, rhubarb, senna leaf, and licorice.
- **Diuretics:** parsley, yarrow, horsetail, uva ursi, and Juniper berries.

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- **Diaphoretics:** goldenseal, peppermint, ginger root, Cayenne pepper, and Oregon grape root.
 - **Antibiotics:** garlic, echinacea, propolis, eucalyptus, wormwood, and prickly ash.
 - **Anticatarrahals:** echinacea, sage, goldenseal, garlic, yarrow, and hyssop.

Chelation Therapy:

Chelation therapy is the administration of chelating agents to remove heavy metals from the body.

Heavy metals are lead, **mercury**, arsenic, gold, cooper, aluminum, and iron.

Chelating Agents:

Any substance that absorb heavy metals and take them out of the body is called “chelating agent”.

Supplements with Chelating Effects:

1) Green Powder.

2) Alpha – Lipoic Acid (ALA).

3) Spirulina.



Regular Detox



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graph TD; A[Regular Detox] --> B[Colon Cleansing]; A --> C[Liver Cleansing]; B --> D["Activated Charcoal<br/>Bentonite Clay<br/>Psyllium (Fiber)<br/>Probiotics"]; C --> E["1) Milk Thistle<br/>2) N-Acetyl-L-cysteine<br/>3) Dandelion Root<br/>4) Schizandra<br/>5) Turmeric<br/>6) Red Clover Flower<br/>7) Green Tea Extract<br/>8) Ginger Root<br/>9) Licorice Root<br/>10) Rosemary Leaf"];
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Colon Cleansing

Activated Charcoal
Bentonite Clay
Psyllium (Fiber)
Probiotics

Liver Cleansing

- 1) Milk Thistle**
- 2) N-Acetyl-L-cysteine**
- 3) Dandelion Root**
- 4) Schizandra**
- 5) Turmeric**
- 6) Red Clover Flower**
- 7) Green Tea Extract**
- 8) Ginger Root**
- 9) Licorice Root**
- 10) Rosemary Leaf**

Bentonite Clay:



Activated Charcoal:



Liver:

The liver has five functions :

- 1) Metabolizes nutrients.
- 2) Synthesizes.
- 3) Store some nutrients.
- 4) Transforms numerous substances into needed nutrients.
- 5) Eliminate a variety of unwanted chemicals and toxins from the body.

Whatever you eat has to go thru the liver.

The liver is the “custom officer” of the body!

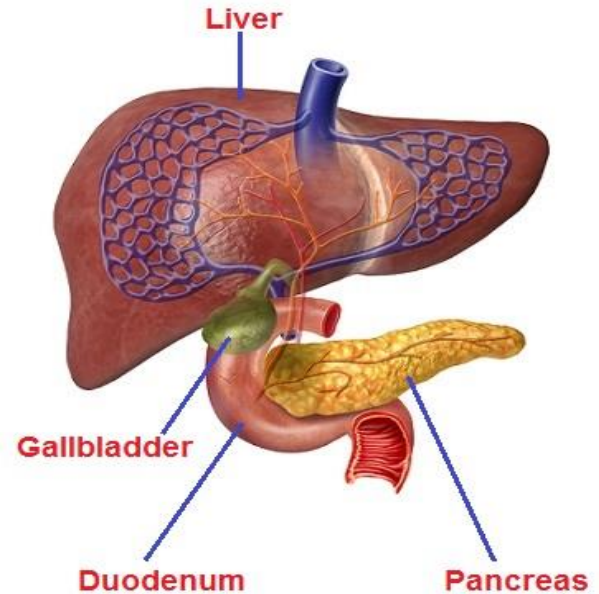


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Toxins
(nonpolar; fat soluble)



Detox in the liver

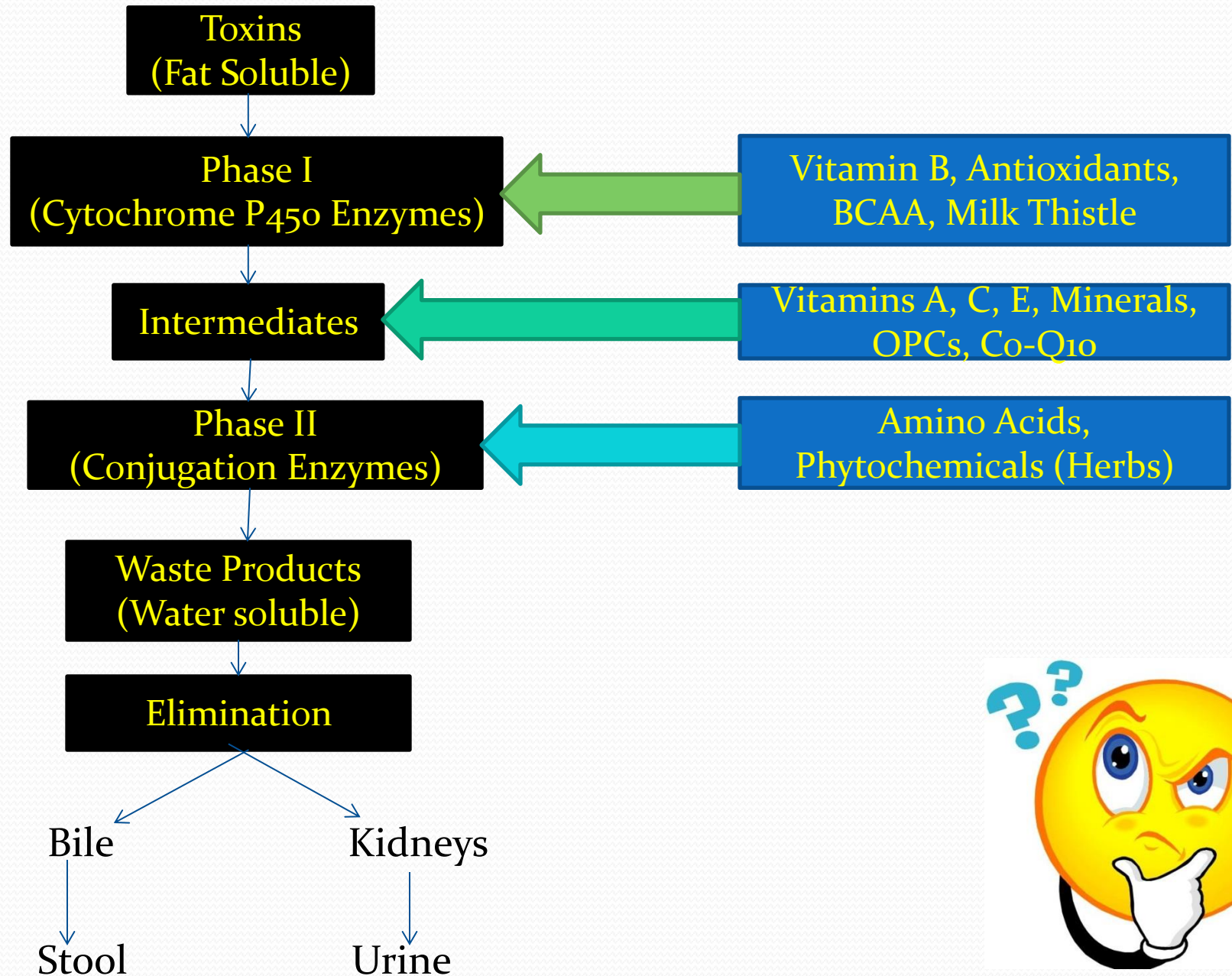


Waste Products
(polar; water soluble)



Elimination

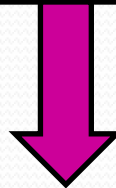
Liver Detox Process:



Stages of Detox:

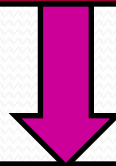
Pre Detox

Usually 3 - 7 days



Detox

Average 7 days



Post Detox

Usually 3 - 7 days

Pre Detox:

1) Aloe Vera:

- Is a powerhouse of nutrients, containing over 200 nutrients including antioxidants, vitamins, minerals, amino acids and enzymes.
- Stool softener.
- Internal and external healing effect.
- Has the **IASC** seal.
- Has no aloin and anthraquinones!

2) Digestive Enzymes.

3) Probiotics.

Why Pre – Detox:

1) To soften hardened stools inside the colon:

- Average person has about 5 - 7 lbs of hardened stool inside.

2) To reduce healing reactions:

- Are temporary symptoms that occur only on deep healing regimens in which the body heals old infections, wounds, injuries, or other imbalances from the past.
- It happens in 50 – 60% of cases.

During Detoxification:

- No alcohol.
- No decaffeinated coffee.
- No animal-based proteins.

Limited intake of:

- Saturated fats
- Coffee.

Detoxification:

- 1) Detox liver and colon at the same time.
- 2) Choose a product that contains:

- Good Bacteria
- Glutamine
- Fiber
- 3 out of 5:

Milk Thistle

N-Acetyl-L-cysteine

Dandelion Root

Schizandra

Turmeric

Post Detox:

Curcumin:

- Supports normal liver detoxification.
- Promotes “*apoptosis*” in unhealthy cells.
- Powerful antioxidant.
- Promotes neurological/cognitive health.

Greens powder.

Homework:

- 1) Describe indications and contraindications of detoxification.
- 2) Describe the harmful effects of heavy metals on the body.



