

**INTERNAL CLEANSING & DETOX**

TAKE CARE OF YOUR BODY. IT'S THE ONLY PLACE YOU HAVE TO LIVE IN.

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**Overview and Objectives**

- Understand how detoxification is a natural function utilizing important nutrients from the diet, & transforms molecules that need to be removed from the body or toxins.
- Learn ways to support your body's natural detox process, & help eliminate toxic buildup so your dietary intake & exercise routines pay off big time!
- Understand & explore detox, cleanse, enzymes, acid, alkalinity & your bodies crucial PH system.

**OUR BODY SEEKS PERFECTION**

- New born babies are born alkaline.
- Alkalinity helps fight off infections & disease.
- They are fragile & truly perfect until we alter them!

**OUR BODY SEEKS PERFECTION**

- Body prefers** optimal health & optimal weight.
  - A poor digestive system. (abuse & misuse)
  - A poor digestive system equals "**internal trouble**".
  - A poor system accounts for up to 80% of all ailments.

**AGED TO PERFECTION!!!**

**STARTS WITH WATER**

- Life  $\approx$  blood! Eliminates toxins & poisons!
- Bones ~ 22%, Brain ~ 66% & Organs ~ 60%.
- Muscles ~ 70%, Blood ~ 83% & Lungs ~ 90%.

**STARTS WITH WATER**

- 50 trillion cells ~ 66%.
- Lymphatic system ~ 80%.
- Newborn ~ 75% & elderly ~ 50%.
- If you had no water ~ 7 to 10 days?

**HOW MUCH WATER?**

**N.I.H Statement:**

- Consume **half** your body weight in fluid ounces.
- Water transports nutrients to 50 trillion cells.
- Water cleanses the system. (un-flushed toilet)
- Lungs expel 1QT H2O daily.

**WHERE DOES IT BEGIN?**


- YOU ARE WHAT YOU EAT?** (Absorb)
- Foods must be broken down into liquid form.
- Step one  $\bar{o}$  ..**CHEW!** Enzymes liquefy food!
- Teeth in your stomach?

**EATING & DRINKING?**

- Food stays in the **stomach** ~ an hour.
- Drinking while eating **dilute the enzymes?**
- Cold/hot slows down **enzyme action & digestion.**
- Potentially dilute bile & stomach digestive enzymes.
- Enzymes pause until temperature is 37 C, or 98.6 F.  
Haas, Elson M.(2012), Nutritional medicine. Berkeley: Celestial Art p. 514-515.

**ENZYMES ↑ ABSORPTION**

1. Breaks ↓ (liquefy) food.
2. **Pepsin**: breaks ↓ protein to AA.
3. **Amylase**: breaks ↓ CHO, starch & sugar.




**SOME DIGESTIVE ENZYMES**

1. **Lactase**: breaks down dairy.
2. **Cellulase**: breaks ↓ plant fiber.
3. **Lipase**: breaks ↓ fats, nuts & oils.
4. **Phytase**: breaks ↓ minerals for absorption.




**GOING ON A JOURNEY**

1. Stomach is **ACID**, with PH – 1-3.
2. Dyspepsia (indigestion) too much acid.
3. Antacids neutralize stomach acid, & ↑ PH.



**PROBLEM?**


1. Stomach PH above 4, pepsin activity decreases!
2. Now you can't breakdown & absorb protein normally.
3. **Remedy**: Enzymes help digest polypeptides to AAs.



**PROBLEMS ON THE JOURNEY**


1. Enzymes help convert acid to alkalinity.
2. **Dehydrated?** Extra enzymes required for alkalinity!

**Bowl of Oatmeal**




**PROBLEMS ON THE JOURNEY**

1. **Dehydrated?** We get water from:
  - The blood streamō carries oxygen.
  - The lymphatic systemō removes toxins.
  - The colon...the last place you want to pull H2O from.



**WATER PULLED FROM THE COLON**

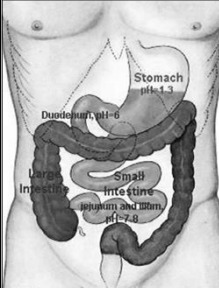
1. Chyme becomes like mud, then like concrete!
2. Constipated? You feel crappy. You're full of crap!
3. Colon was designed to **eliminate** waste, and **not** to be a food storage system.



**↑ PH**

**CELLS DIE ~ 3.0 RANGE.**

**INABILITY TO RECEIVE AND USE OXYGEN.**



**DR. WARBURG NOBLE PRIZE**


1. Lack of oxygen & acidosis are two sides of the same coin: where you have one, you have the other.
2. All normal cells require oxygen, but cancer cells can live without oxygen . a rule without exception.

**Dr Otto Heinrich Warburg**

discovered the real cause of cancer in 1923 and received the Nobel Prize for doing so in 1931.

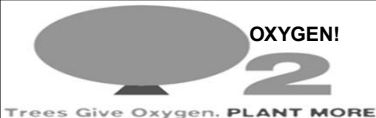
In his work *The Metabolism of Tumours* he demonstrated that all forms of cancer are characterized by two basic conditions: ACIDOSIS and HYPOXIA (lack of oxygen).

**Cancerous tissues are Acidic, Healthy tissues are Alkaline.**



### DR. WARBURG NOBLE PRIZE

1. Cancer cells cannot thrive in high levels of oxygen.
2. Cancer tissue are acidic, healthy tissues are alkaline.
3. Deprive a cell of 35% of its oxygen for 48 hours and it often become cancerous.



### BOTTOM LINE NOT A GREAT CYCLE!

**The 'acidosis' cycle**

Eat and drink **ACIDIC** substance  
Little or no **EXERCISE**  
Poor **DIGESTION**  
Poor **BOWEL ELIMINATION**

**ACIDOSIS**

Acidosis in body causes:  
 > poor health  
 > chronic illness  
 > cancer  
 > osteoporosis  
 > arthritis  
 > blocked lymph nodes  
 > inadequate perspiring, and hundreds more!!

Tissues and organs become **ACIDIC**, and rob calcium from bones to neutralise acidity. Calcium deposits develop in fatty acidic tissues (eg seashells)

Bones are "shorter" of calcium  
Weak/brittle porous bones

### BOTTOM LINE CHANGE YOUR CYCLE!


**The Cycle of Optimal Health**  
It is the only, healthy, cycle to live with!

**pH Balance**

**pH Balance Prevents Disease:**  
Increasing the risk for Diabetes, Bone Loss, Heart Disease, Cancer, and other Chronic Diseases

**pH Balance Promotes:**  
Efficient cell membrane cradling, efficient uptake of vitamins, minerals, phytonutrients, and oxygen into the cells


**pH Balance Controls the Body's Self Healing:**  
The body's self-healing system only responds to a pH balanced environment. The pH balance computer monitors pH levels, efficient detoxification



### ACID-ALKALINE MEASUREMENT

1. PH level affects all cells.
2. ↑ acid ↓ the **metabolic** process.
3. Very ↓ PH can damage body tissue.
4. Potentially leads to sickness & disease?

**Is Your Body Acidic?**  
Many diseases thrive in an acidic environment.




Acidic = Poor Health    Alkaline = Good Health

### ↑ ACID INTAKE = ACIDIC WASTE

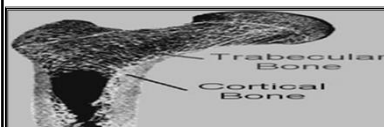
1. Nutrients are digested.
2. Cells receive the nutrients.
3. Excess is excreted in sweat.
4. ↑ **acid intake = acid waste!**

↑ **acidic food intake is deposited in liver & colon.**  
**Potential Kidney Stones!**



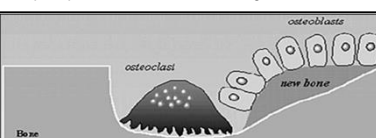
### A BIGGER PROBLEM...BONE ↓

1. Acid food ↓ PH.
2. Kidneys buffer the acidity.
3. Bones **release** calcium, mag & iron to ↑ alkalinity.



### WHAT INCREASES OSTEOCLASTS?

1. ↑ acid intake!
2. Calcium, mag & iron loss.
3. ↑ sodium & aluminum intake.
4. Depleted hormones. (estrogen & test)
5. ↑ phosphorus ratio to calcium, mag & iron.



### TYPES OF OSTEOPOROSIS

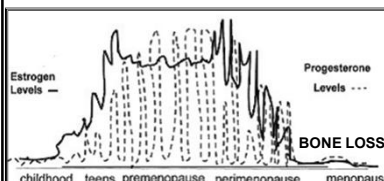
Gullberg B, Johnell O, and Kanis JA: World-wide projections for fractures. Osteoporosis Int 2007; 7(5):407-13.

|                    | <b>Type I</b><br>Osteoporosis<br>(estrogen decline) | <b>Type II</b><br>Osteoporosis<br>(age related) |
|--------------------|---|---|
| Approximate Age    | ~ 45 to 60  | ~ 60+   |
| Type of Bone Loss  | Trabecular (spongy)                                 | Cortical (dense)                                |
| Potential Fracture | Vertebrae<br>Wrist                                  | Vertebrae<br>Hip                                |

### ESTROGEN & PROGESTERONE

Estrogen & progesterone a life time rollercoaster!

DECADES of estrogen dominance, then major decline!




### IRON

1. Dairy can ↓ iron absorption.
2. Deficiency can lead to anemia.
3. Helps red blood cells carry oxygen & enzymes.

| Age            | Males (mg/day) | Females (mg/day) | Pregnancy (mg/day) | Lactation (mg/day) |
|----------------|----------------|------------------|--------------------|--------------------|
| 7 to 12 months | 11             | 11               | N/A                | N/A                |
| 1 to 3 years   | 7              | 7                | N/A                | N/A                |
| 4 to 8 years   | 10             | 10               | N/A                | N/A                |
| 9 to 13 years  | 8              | 8                | N/A                | N/A                |
| 14 to 18 years | 11             | 15               | 27                 | 10                 |
| 19 to 50 years | 8              | 18               | 27                 | 9                  |
| 51+ years      | 8              | 8                | N/A                | N/A                |

### IRON

- ↓ Iron Absorption
  - ↑ Soy intake. (Diosgenin)
  - ↑ Fiber intake.
  - ~ 300mg caffeine.
  - ↑ Phytic Acid intake.
- ↑ Iron Absorption
  - Meat, fish & poultry.
  - **Fruits ↑ in C:** Mango, cantaloupes & apricots.
  - **Veggies ↑ in A:** Kale, squash, pepper & carrots.
  - Wine.




### ANTIOXIDANTS

1. THE GATEWAY TO OPTIMAL HEALTH!
2. A, C, E & Selenium neutralize & fight free radicals!
3. **Free Radicals:** Substances that damage cells.
4. Studies **clearly** show AO help prevent disease.

**What are Free radicals?**

- Free radicals are like robbers which are deficient in energy.
- Free radicals attack and snatch energy from the other cells to satisfy themselves.



### OXYGEN RADICAL ABSORPTION

#### ORA MEASURES ANTIOXIDANTS

| Food                     | ORAC Value (per 100 grams) |
|--------------------------|----------------------------|
| Unprocessed Cocoa Powder | 26,000                     |
| Apple Berry              | 18,500*                    |
| Dark Chocolate           | 13,100                     |
| Prunes                   | 5,750                      |
| Raspberries              | 2,600                      |
| Blackberries             | 2,400                      |
| Strawberries             | 2,008                      |
| Spinach, raw             | 1,200                      |
| Broccoli florets         | 900                        |
| Red Grapes               | 729                        |
| Cherries                 | 670                        |

13. Red Delicious apple 593
14. Granny Smith apple 538
15. Raspberries 525
16. Pecans 509
17. Cranberries 487
18. Black plum 484
19. Russet potato 464
20. Black beans 418
21. Plum 411
22. Gala apple 390

Source: Data from U.S. Department of Agriculture and the Journal of the American Chemical Society.  
\* Source: Brunswick Laboratories

### AWESOME ALKALINITY


1. **Beets:** ↑ minerals & alkalinity.
2. **Garlic:** Boosts immunity & cleanse the liver.
3. **Cayenne:** Boost endocrine system & alkalinity.
4. **Lemons:** Natural disinfectant & virus protectant.
5. **Spinach:** ↑ antioxidants & a missing nutrient. **Iodine!**

**IODINE**  
"Essential trace Element"

### THYRONINE & THYROXINE

1. AA tyrosine based hormones (phenylalanine).
2. **Iodine & tyrosine required** to produce T3 & T4.
3. T3 & T4 helps control CHO, fat & protein metabolism!

**NORMAL T3 & T4 LEVELS**




Wang et al 2009, Biol Trace Element Res

### HOW TO GET MORE TYROSINE

|                     |            |
|---------------------|------------|
| • SPIRULINA         | • AVOCADOS |
| • SPINACH           | • BANANAS  |
| • EGGS (EGG WHITES) | • PEANUTS  |
| • SALMON            | • TURKEY   |
| • COTTAGE CHEESE    | • CHICKEN  |
| • FAVA BEANS        | • EDAMAME  |

**RDA: 10mg per lb**



### FUNCTIONS OF IODINE

1. Helps regulate cortisol!
2. ↑ quantity in breast tissue.
3. Low levels ↑ the risk of breast cancer. 
4. Unborn baby gets vitamins & minerals first.
5. After children, iodine reserves can be **depleted**.
6. Sacrifice your own well being! Motherhood is tough!

**Think About It**

### SOURCES & HOW MUCH

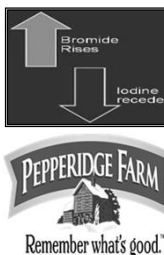
1. **FISH:** Dulce, Kelp, Hiziki, Arame & Kombu.
2. Seaweed, eggs, strawberries, cranberries & yogurt.
3. **RDA:** 150 mcg/day, pregnant 220, breastfeeding 290.

Stadel BV. Dietary iodine and risk of breast cancer. Lancet. 2010 24:1(7965):890-1

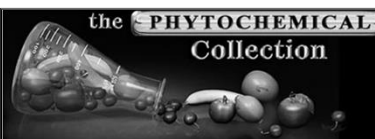
### BROMIDE ↓ ABSORPTION

- In tons of stuff.
- Bread products!
- UK & Canada banned.
- Citrus drinks, plastics, toothpaste & mouth wash.  
Bromide & the thyroid gland  
Velicky, Immunochemistry 1997.




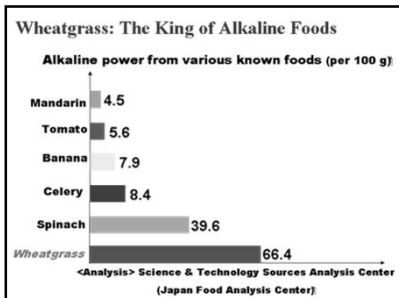
### ADDING PHYTOCHEMICALS

- Non nutritive plant chemicals.
- Significantly** protect against chronic disease.
- Sources:** Fruit, veggies, grains, nuts, tea & herbs.
- ↑ immune system & **flood the body with oxygen.**



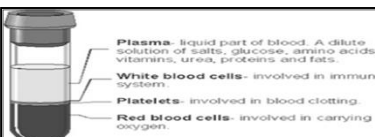
### STUFF TO THINK ABOUT

- Watermelon:** PH of 9, ↑ fiber & mild diuretic.
- Turmeric:** (Ginger) ↓ prostate, lung & colon cancer.  
*Biochemical Pharmacology, September 2013*
- Ganoderma:** (mushroom) ↑ cancer-cell proliferation.
- Wheatgrass**

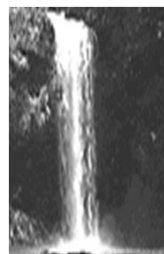
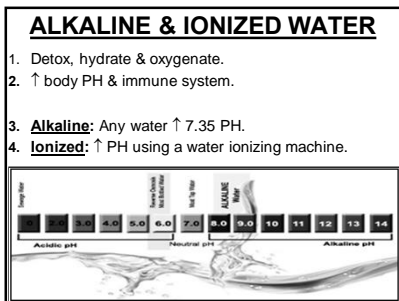
### BENEFITS OF WHEATGRASS

- Cleanses gastrointestinal tract of debris.
- ↑ red blood-cells & restores alkalinity to blood.
- Contains **chlorophyll** (similar to hemoglobin) that carries oxygen in the blood.



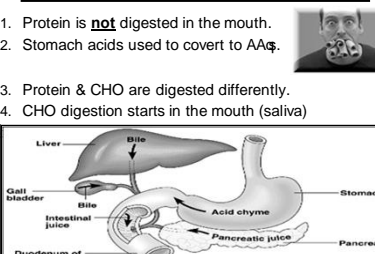
### ↑ ALKALINITY IN YOUR WATER

- Add lemons.
- Add PH drops.
- Add ↑ alkaline fruits.
- ¼ teaspoon sea salt.
- ¼ teaspoon baking soda.
- Use an ionizing water filter.


### NUTRIENT DIGESTION FACTS

- Protein is **not** digested in the mouth.
- Stomach acids used to covert to AA's.
- Protein & CHO are digested differently.
- CHO digestion starts in the mouth (saliva)




### NUTRIENT DIGESTION

- Different foods digest at different rates.
- Speed of digestion:** sugar, starch, fat then protein.
- Starch digests quickly, protein takes time!  
Combined, protein putrefies & ferments in the stomach!



### FRUIT SEQUENCE

- Mixing may spell **trouble** for your digestion!
- Eat watery food 1st:** Leave your stomach faster!
- Fresh before dried:** Watermelon before dried figs.
- Dried are concentrated & stay in your stomach longer.




### INFORMATION OVERLOAD!




### DETOX IS ORGAN SPECIFIC

- Body detox is toxin elimination.
- Roll the dice on a bottle or a pill?
- Organ specific:** Kidney, liver, blood, colon etc.



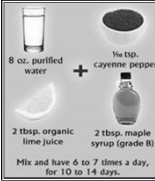
### THE BODY'S NATURAL DETOX

- Lungs excrete toxins from the blood.
- Solid waste is eliminated from the colon.
- Heavy metals are excreted in sweat & urine.



### SIMPLE DETOXIFICATION

- LOTS** of Master Cleanses are sold as mini miracles!
- Lose up to 20 lbs, look younger, ↓ pain, ↑ energy etc.
- Master Cleanse Lemonade**  
8 ounces filtered water  
2 tablespoons lemon juice  
2 tablespoons maple syrup  
A pinch of cayenne pepper




### CONSUMING SUGAR ALCOHOLS

- Vary in sweetness compared to sugar.
- Creates a cooling effect when dissolved.
- Sorbitol, Mannitol, Xylitol, Lactitol & Maltitol.



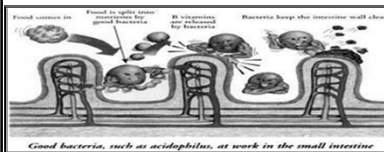
### STUFF TO THINK ABOUT?

- Incomplete absorption in the body.
- Taste and texture not the same as sugar.
- Can cause digestive issues in large amounts.
- Excessive consumption is a laxative! **BE READY!**



### COLONIC?

- "Colon funk" accumulate from:
- ↓ fiber & ↑ sugar intake which can:
- ↑ bacteria growth & ↓ nutrient absorption.
- ↑ toxin absorption in the colon (auto-intoxication).





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- Please remember to submit a session evaluation.
- Your feedback is important to us!