



**NYS PHASE TWO
NUTRITION FOR
YOU!**

NUTRITIONAL THEORY

- Nutritional Density – Power Food - SuperFood
 - Fiber....gut bacteria...large intestine.....health
- CR
 - Calorie In = Calorie Out = Weight Control (As long as nutrients suffice)
 - Limit the In Increase the Out
 - Periodic Fasting See also Monika's Discussion. We speak allot about this topic for Coaches in having a Game Plan. Do you have a Game Plan for Yourself?
 - Blue Zones: Study of Areas with 100year+ Citizens: Okinawa Japan, Sardina Italy, Nicoya Costa Rica, Loma Linda CA
- Inflammation
 - What are the nutritional Causes
 - What are the nutritional Solutions
- Free Radicals
- Sugar and Sugar Like Foods: Glucose, Sucrose, Fructose- Artificial/Man Made/Fake: Aspartame, Acesulfame Potassium, mono sodium glutamate, Sucralose, **Saccharin** - Natural Potent Stevia/Stevia rebaudiana plant
 - Fake Sugars..... Insulin....High Fructose Corn Syrup
 - Potatoes the good news Fibers: **cellulose, hemicellulose, and pectin cook then cool! Sugar to Starch**
 - GI Method? See also Monika's Discussion
- Omega Three-Omega Six
- Cooking
 - Raw



FOOD SOURCING

- Organic?
 - Vegetable
 - Dairy
 - Meat
- Non-GMO? Sixty-four (64) countries in the developed world have banned the use of glyphosate
- High Fructose Corn Syrup....again
- Man Made vs Nature
- Ocean Fish vs Farm Fish



FREE RADICALS

- UNCHARGED MOLECULE
- UNPAIRED NUMBER OF ELECTRONS
- HIGHLY REACTIVE
- SHORT LIVED
- WHERE WE GET THEM:
 - Either from our own ,metabolism
 - Pollution



OXIDATION

- The adding and reducing of Oxygen
- Oxygen is vital to our being
- Oxidation is a very natural process of breakdown “The birth and death of cells”
- Oxygen metabolizes efficiently in the body
- However a small percentage is used in oxidation
- Rust is an oxidative reaction!

FREE RADICALS

- Who they are:
 - Oxygen
 - Alko-radical
 - Hydroxyl
 - Peroxyl
 - Nitric Oxide!
 - Nitric Dioxide

OXIDATION AND THE FREE RADICAL

- Oxygen highly reacts with the Free Radical
- The molecule is electronically unstable
- The molecule go on the hunt and robs healthy cells/Mitochondria
- Creating a reaction that is harmful to neighboring cells
- If free radicals simply killed a cell, it wouldn't be so bad... the body could just regenerate another one," he says. "The problem is, free radicals often injure the cell, damaging the DNA and Mitochondrial DNA, which creates the seed for disease."

OXIDATION AND EXERCISE

- Exercise increases the use/absorption of 10-20x normal O₂ intake
- Unwittingly increasing the Free Radical process
- Not unusually problematic in trained/healthy athletes
- Moderate to beginner defenses may be overwhelmed
- What About our Fireman/woman..why are they the number one dangerous job?
- You have the answer previous slides/above: Untrained fireman suddenly called to put out fire, exertion increases Oxidation...then goes back to firehouse for pizza/wings/beer.
- Rinse and repeat this process causes great inflammation, plaques and straight out cancer!



FOODS THAT AID FREE RADICALS

- Sugar
- Alcohol
- Meat, especially prepared meats

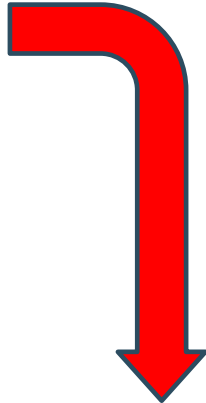
SUPERFOOD

FOODS THAT PREVENT OXIDATION

- What it is: Nutritiously Dense Food with: Fiber, Phytochemicals, Antioxidants, Vitamins, Minerals
- Often with LESS Calories
- What they are:
 - Berries 😊 Crazy as on the GI Hit List
 - Fish
 - Nuts
 - Oils: Olive, Avocado
 - Whole Grain
 - Yogurt 😊 Also on GI Hit List bur American Yogurt!
 - Very Colorful Veggies

ANTIOXIDANTS

- Prevent damage caused by free radicals
 - They are scavengers to eat/bind up the Free Radical
 - Promote FR decomposition
- Where/what?

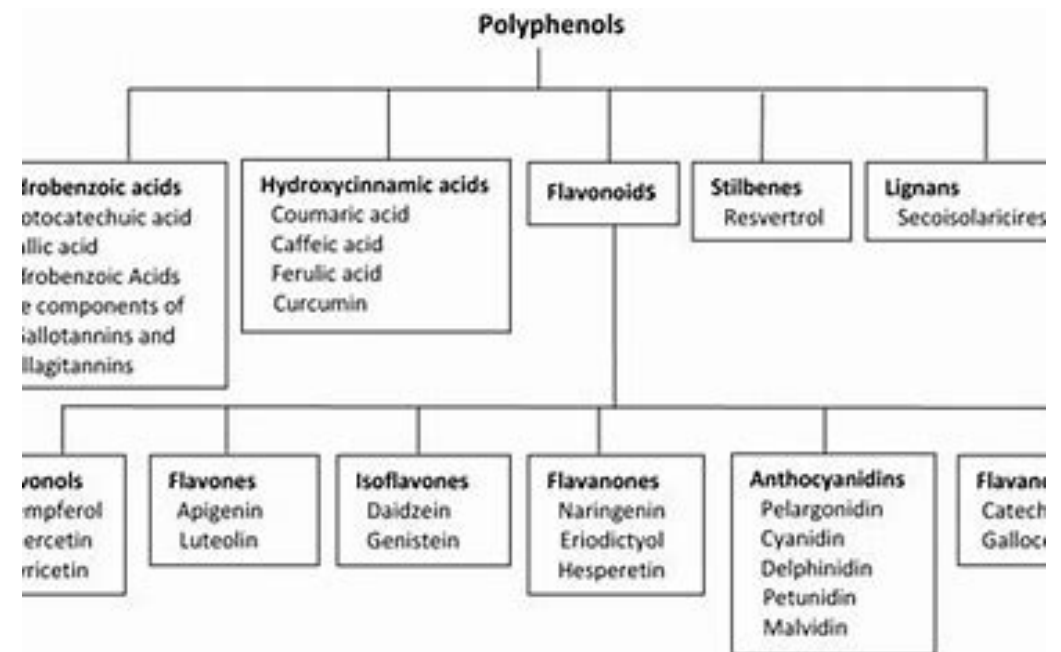


PHYTOCHEMICALS

- **Plant Based Compounds:** Plants use to combat disease: Fungi, Bacteria, greens, colorful, Algae...things that use CO₂/Release O₂
- **What Foods Carry the Most:** Highly colored vegetable/fruits but also garlic, onions, chives, leeks, herbs, spices, Cocoa!
- **Their Names:** polyphenols, flavonoids, isoflavonoids, anthocyanidins, carotenoids, terpenoids

- **What they do In Our Bodies:**

- Aid our immune system
- Protect cells from DNA Damage(Oxidation!)
- Reduce Inflammation
- Regulate Hormones
- Eye Health
- Skin Health
- Helping with Body Weight



| Vegetables | Fruits | Herbs, Spices & Condiments | Beverages | Nuts & Se |
|---|---|---|--|--|
| Artichokes Aubergine Broccoli Celery Cherry tomatoes Sweetcorn Fennel Garlic Kale Leeks Onions Parsnips Raw spinach Red cabbage Red/yellow onions Spring onions Shallots Peppers Sweet potatoes Watercress | Blackberries Blackcurrants Blueberries Cranberries Elderberries Strawberries Plums Nectarines Raspberries | Apple cider vinegar Basil Capers Chives Cinnamon Cloves Dill Horseradish Ketchup (*homemade even better) Oregano Parsley Rosemary Sage Tarragon Thyme | Apple juice Coffee Cocoa Orange juice Red wine Pomegranate juice Tea | Almonds Cashews Chestnuts Flaxseeds Hazelnuts Pecans Peanuts Pistachios Pumpkin seeds Walnuts |

