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**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
- 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, which creates the seed for disease."

# OXIDATION AND EXERCISE

- Exercise increases the use/absorption of 10-20x normal O<sub>2</sub> 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

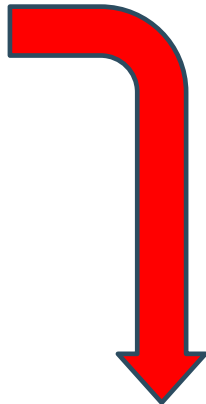
FOODS THAT PREVENT OXIDATION

- 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

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# ANTIOXIDANTS

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

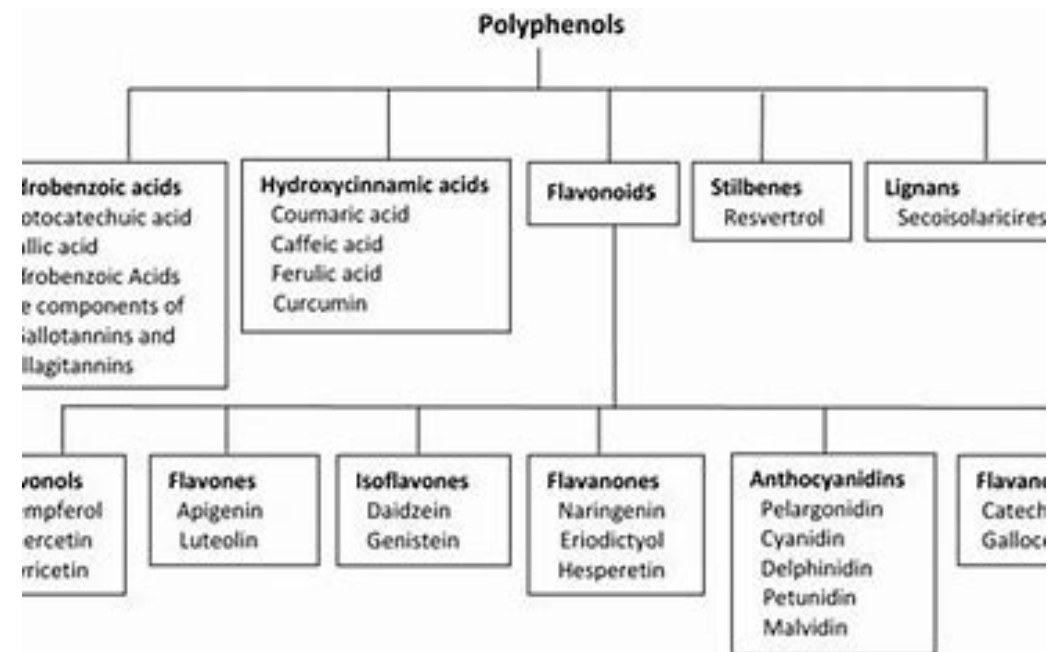


# PHYTOCHEMICALS

- **Plant Based Compounds:** Plants use to combat disease: Fungi, Bacteria, greens, colorful, Algae...things that use CO<sub>2</sub>/Release O<sub>2</sub>
- **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	Blackberries	Apple cider vinegar	Apple juice	Almonds
Aubergine	Blackcurrants	Basil	Coffee	Cashews
Broccoli	Blueberries	Capers	Cocoa	Chestnuts
Celery	Cranberries	Chives	Orange juice	Flaxseeds
Cherry tomatoes	Elderberries	Cinnamon	Red wine	Hazelnuts
Sweetcorn	Strawberries	Cloves	Pomegranate	Pecans
Fennel	Plums	Dill	juice	Peanuts
Garlic	Nectarines	Horseradish	Tea	Pistachios
Kale	Raspberries	Ketchup (*homemade even better)		Pumpkin se
Leeks		Oregano		Walnuts
Onions		Parsley		
Parsnips		Rosemary		
Raw spinach		Sage		
Red cabbage		Tarragon		
Red/yellow onions		Thyme		
Spring onions				
Shallots				
Peppers				
Sweet potatoes				
Watercress				

