





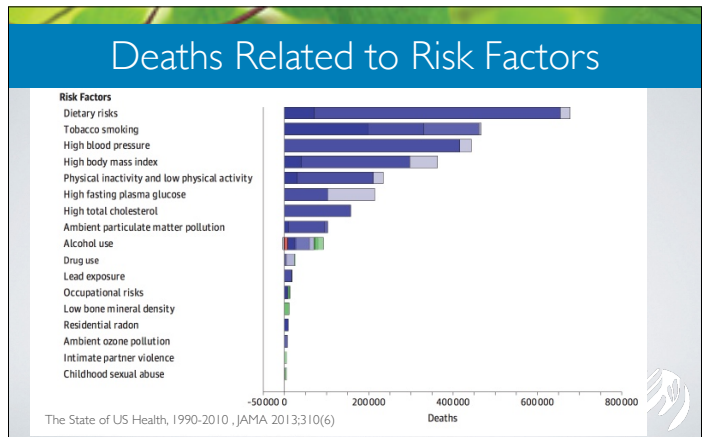
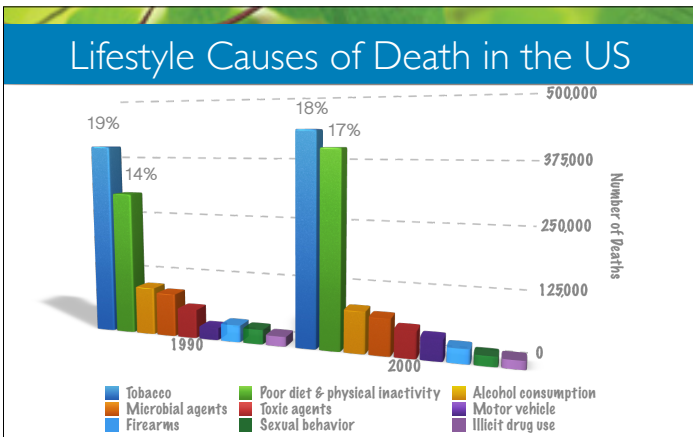
Plant Power

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Know your enemy and know yourself and you can fight a hundred battles without disaster.

Sun Tzu

The Battle: Inflammation

- Inflammation is the body's away of healing
- It should happen quickly
- On the surface it may feel hot, painful, and appear red and swollen



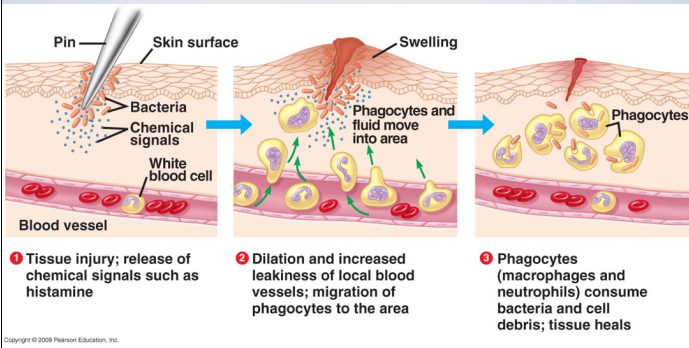
Chronic Inflammation

- The healing is not complete and the body's fighters cause more damage than good

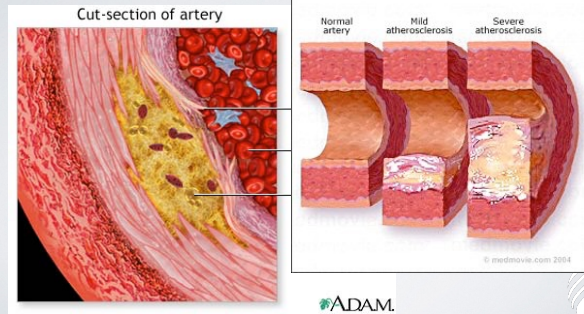




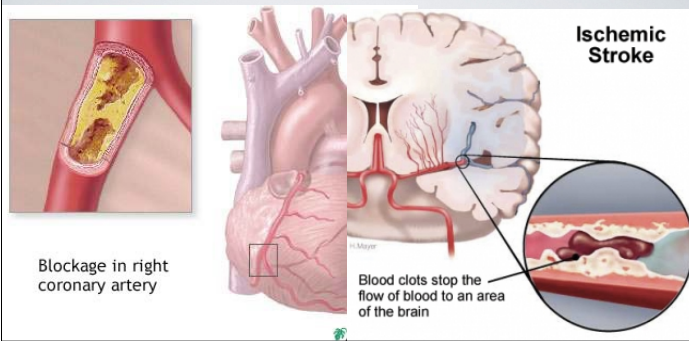

Normal Response



Inflammation in Artery



Chronic Inflammation



Weight & Inflammation

- Chronic inflammation & obesity often go hand in hand
- The inflammation may not be noticeable without lab results
- Weight loss through healthy eating and exercise can reduce the inflammation



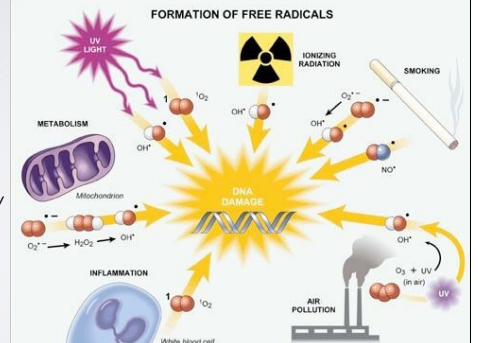
What Causes Chronic Inflammation?

- Invaders: food, infection, allergens
- Fat
- High blood sugar
- Oxidation



Oxidation: Free Radicals

- Caused by:
 - ▶ Smoking
 - ▶ Air pollution
 - ▶ Inflammation
 - ▶ Normal body metabolism
 - ▶ UV light
 - ▶ Radiation



PHYTOCHEMICALS

ANTI-
OXIDANTS

FATS

Fiber



3.5 minute upper body stretch

I. What is Fiber?



- Fiber is the part of plants that we cannot digest.
- It goes right through our bodies adding weight to our stool.
- On its way it cleans our intestines and it helps clean out cholesterol – some people call fiber “nature’s broom”.



Fiber Benefits



- Lose weight
- Lower cholesterol and triglycerides
- Improve blood sugar control
- Less disease in colon and intestines
- Lower risk of heart disease, diabetes



Variety is Key!



- Eating All Bran cereal is not enough
- You need fiber from a many different foods to have the greatest benefit for blood sugar and cholesterol
- Focus on beans, oats, barley and flax for soluble fiber
- Drink more water!



Daily Intakes

- Recommended:
35-50 grams/day
- North America:
10-20 grams/day



Best Fiber Sources
Whole Plant Foods

Legumes/Beans	2-3 servings
Whole Grains	3-5 servings
Vegetables	6-7 servings
Fruits	3-5 servings
Nuts & seeds	1 serving



2. Phytochemicals



- Naturally occurring chemicals found in plants
 - Give plants flavor, color, texture and odor
 - Regulate plant growth
 - Defend against attack by insects, etc
- These protect people!
- Not present in animal foods



Phytochemicals

- Fight cancer
- Help inflammation to heal
- Help the immune system
- They are antioxidants
- Can also fight infections



Phytochemical-rich Food

- Cruciferous vegetables
 - broccoli, cabbage, kale
- Carrots
- Garlic
- Citrus fruits
- Herbs and spices
 - Cinnamon, ginger, basil, Oregano, turmeric

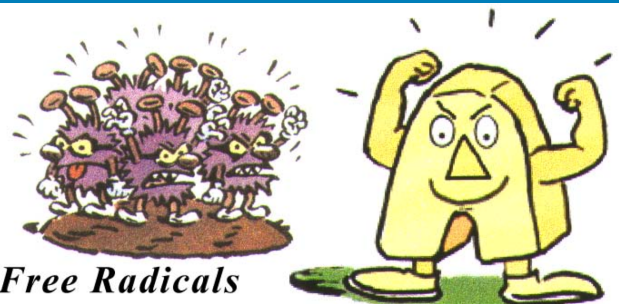


PHYTOCHEMICALS:

Get lots of color!



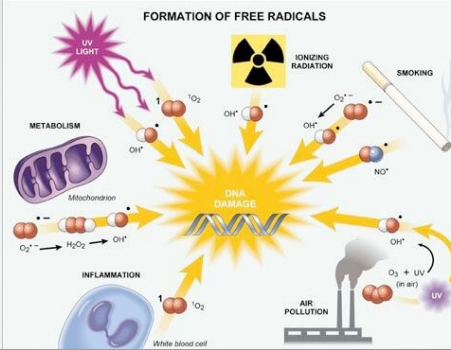
3. Antioxidants



Free Radicals

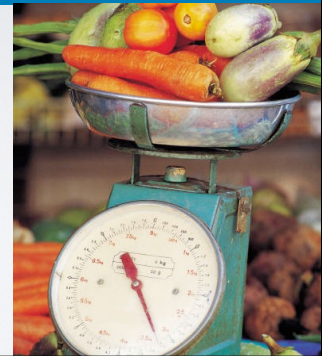
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Whole Foods vs Supplements

- Antioxidants fight oxidants that are often increased in people with diabetes
 - ▶ Antioxidants in food have shown to be very protective
 - ▶ Antioxidant vitamin supplements are not as effective



Vitamin C

- Getting enough vitamin C helps prevent diseases
- Vitamin C is a good antioxidant
- Best sources – fruits and vegetables
 - ▶ Strawberries, Peppers, Citrus fruits
 - ▶ Broccoli, Tomatoes



Spices High in Antioxidants

- Cloves
- Oregano
- Rosemary
- Thyme
- Cinnamon
- Turmeric
- Most others



4. Healthy Fats

- Monounsaturated Fats (MUFA)
- Polyunsaturated Fats (PUFA)



Nuts and Seeds

- Six large studies found people who eat nuts 5+ times a week have about a 50% lower risk of heart disease
- One large study also found a 20-30% reduced risk of type 2 diabetes



Nuts and Seeds

- Healthful compounds in nuts:
 - ▶ Vitamins, including vitamin E and B vitamins
 - ▶ Phytochemicals
 - ▶ Trace minerals, including selenium, copper and magnesium
 - ▶ Plant protein and fiber



Flaxseed

- Richest plant source of omega-3 fats (PUFA)
- Most abundant source of plant lignans
 - ▶ Used by intestinal bacteria to make phytoestrogens
 - ▶ May have antioxidant activity
 - ▶ May decrease risk of
 - Cardiovascular disease
 - some cancers
 - osteoporosis
- Post-prandial blood glucose
 - ▶ decrease by 8-19% (15-20 g powder)



Omega-3 Fats

- Balance of Omega-3 and Omega-6 fats
- Omega-3 fats helps improve blood vessels and circulation in diabetes
- Improve insulin resistance
- Decrease inflammation
- Sources: flax seed, fish oil, walnuts, chia seed



Most of the fat you eat should be unsaturated

- Use whole foods as your main sources of fat
 - ▶ Sprinkle nuts & seeds on cereals and salads
 - ▶ Use nut butters instead of margarine as a spread and in baking
 - ▶ Olives & avocados make great spreads
- Use oil sparingly and select canola or olive oil most of the time

IS MEDICINE FOOD?

**OR IS FOOD
MEDICINE?**



~ GOAL I ~

Aim for at least 35-50 grams of fiber/day, including good sources of soluble fiber



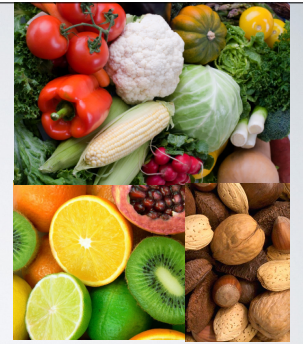
~ GOAL 2 ~

Maximize phytochemical intake with a wide variety of colorful, whole foods



~ GOAL 3 ~

Include a variety of foods rich in antioxidant nutrients in the daily diet



~ GOAL 4 ~

Include moderate amounts of healthful fats
Get most of your fat from whole plant foods

Use isolated oils sparingly



Two things I ask of you... Remove far from me falsehood and lying; give me neither poverty nor riches... feed me with the food that is needful for me.

Proverbs 30:7, 8



Why do you spend money for what is not bread, and your wages for what does not satisfy? Listen carefully to Me, and eat what is good and delight yourself in abundance.

Isaiah 55:2



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