Achieving Wellness through a whole foods based diet

By: Aziza Amarshi , BSc, RPh, RHN

aziza@kingcitypharmacy.ca

King City Guardian Pharmacy

"In the business of keeping you healthy"

Today's discussion

- What are "Whole Foods": Class 2 (March 4)
  - Benefits of whole foods: why choose them
  - Understand how to choose whole foods
  - Discuss different whole foods

What is a “Whole food”

- Definition:
  - food that has been processed or refined as little as possible and is free from additives or other artificial substances.
  - NAG= natural, alive and good quality
    - Natural: Food the way it grows—in it’s natural state
    - Alive: enzymes, good bacteria, phytonutrients
    - Good quality: provides micronutrients not just macronutirents:
      - Nutrient dense vs calorie dense


SAY WHAT NOW?
MEMES & FUNNY PICS
FRABZ.COM

It’s impossible!! or is it?

- REMEMBER:
  - Choose as much of whole foods as possible
  - If you can’t get it whole, buy the least processed with the least amount of ingredients
  - Don’t just focus on fat, carbohydrate, protein but on how whole the food is
  - It’s a journey and we need to start somewhere
  - It’s possible if you start slowly and with an open mind

What is the problem

Distorted marketing--causes confusion

Bean chips

Beans

Another example

Sweet potatoes

Sweet potato fries

Solution: RECOGNIZE A WHOLE FOOD

- CRITERIA:
  - Ideally should contain one ingredient:
    - An orange, a cucumber
  - Is this how the product was grown
    - Apple Vs Apple juice
  - Does it contain additives and preservatives
    - Plain chicken breast vs commercially prepared breaded chicken finger
  - Has it been altered in any way?
    - Cold pressed oils vs chemically extracted oils
    - Genetically modified seeds?
  - Has it been stripped of ingredients
    - Whole grain whole wheat flour vs whole wheat flour or bleached white flour
    - Brown rice vs white rice

What do whole foods provide

1. FIBER
2. VITAMINS & MINERALS – THE MICRONUTRIENTS
3. PHYTONUTRIENTS (ANTI-OXIDANTS)
4. GOOD BACTERIA (PROBIOTICS AND PREBIOTICS)
5. GOOD FATS (MONOUNSATURATED & POLYUNSATURATED ESP OMEGA 3’S)

Fiber—the neglected friend

- 2 kinds of fiber: soluble and insoluble
  - Need both in diet
  - Average adult gets 5-10g in diet
    - Need 25-35g for optimum health
  - Several studies have linked increased fiber intake with decreased risk of bowel cancer, diabetes, high cholesterol and coronary artery disease
  1. **Soluble**:
     - Helps control blood sugar levels
     - Removes toxins
     - Removes excess cholesterol
     - Ex: whole grains, beans, lentils, fruits and vegetables

2. **Insoluble Fiber**:

- Provides roughage and bulk needed for elimination
- Necessary to keeping the digestive tract clean (scraper)
- Found in skins of fruits, bran (outside layer of grains)

VITAMINS AND MINERALS

- The micronutrients
- Unlike macronutrients (carbs, proteins and fats) they are not always available in all foods
- Nutrient density: refers to micronutrients
- WHO: calls them the “magic wands” that enable the body to produce enzymes, hormones and other substances essential for proper growth and development

PHYTONUTRIENTS (ANTI OXIDANTS)

- Micronutrient
- Disease fighting chemicals that give plants its colour, smell and taste
- >400 discovered and many more being discovered
- Only available in plant products as they constitute the immune system of the plant
- Work in synergy: can't be obtained from a supplement
- have been shown in several studies to reduce oxidative stress on our body.

What is Oxidative stress?

- It happens when body makes too much of
  - Highly reactive oxygen molecules called free radicals
  - Can cause damage to cells, proteins, DNA
  - implicated in just about every chronic disease including heart disease and cancer
  - Need to be neutralized quickly
- What creates free radicals
  - Natural metabolic processes
  - Inflammatory foods such as trans fats (bad fats)
  - Smoking
  - Infections
  - stress
- How can you take care of it
  - Remove inflammatory food
  - Increase phytonutrients

GOOD BACTERIA

- Forms an ecosystem in our body
- Research in infancy: science trying to figure out what a normal “ecosystem” is
- Tons of study that have proven the connection between the good bacteria and several aspects of health (immune system, inflammation, diabetes, mental health etc)
- How do we gain this bacteria
  - Gut sterile at birth
  - Over time, gut develops a diverse and distinct community of bacteria:
    - genes
    - what bacteria live in and on those around us

GOOD BACTERIA

- What reduces the number of these good bacteria
  - Excess sugar
  - High use of antibiotics
  - Stress
  - Slow digestion
- How do we replenish
  - Fermented foods –probiotic food
  - Fiber rich food – prebiotic food

GOOD FATS

- 2 TYPES: MONOUNSATURATED & POLYUNSATURATED

MONOUNSATURATED:

- sources: avocados, nuts, olives, cold pressed olive oil
- unstable therefore likely not part of processed foods: Can only get from whole foods

POLYUNSATURATED (ESSENTIAL FATTY ACIDS)

- Essential because body can’t make them
- 2 type
  - Omega 3 and omega 6

Essential Fatty acids

- Omega 3
  - Relatively unstable: not suitable for processed food-goes rancid over time
  - Anti-inflammatory
  - Found in
    - dark leafy greens
    - Fatty cold water fish ex salmon, halibut,mackeral,
    - Nuts and seeds
    - flaxseeds
    - avocados

Essential Fatty acids

- Omega 6
  - Pro-inflammatory
  - Stable and resistant to oxidation
  - Sources: soybean oil, corn oil, vegetable oils, safflower, sunflower
  - Perfect for use in packaged food

Problem today: ratio skewed

past: 1:1 to 4:1 Of omega 6:3

present: 15:1 to 20:1 of omega 6:3

What is missing from whole foods

- Additives
- Preservatives
- Artificial colours
- Artificial flavours
- High fructose corn syrup
- Artificial sweetners
- Refined sugars
- Hydrogenated (aka altered) or partially hydrogenated fats or tans fats
  - High consumption of *trans* fat has been associated with high **oxidative stress** in humans, which could increase the risk of the development or acceleration of several diseases, such as atherosclerosis, cancer, and type 2 diabetes.

Scientific Studies

Antioxidant vitamin status and carotid atherosclerosis in the elderly[1,2,3]
A high antioxidant vitamin status may help to prevent the initiation and progression of early atherosclerotic lesions in men.
2001 American Society for Clinical Nutrition

Although menopausal status and hormone replacement therapy use dominate women's bone health, diet may influence early postmenopausal bone loss. Fruit and vegetable intake may protect against premenopausal bone loss.
Am J Clin Nutr January 2004 79: 155-165

Cruciferous vegetable intake consistent with high isothiocyanate exposure may reduce breast cancer risk
Am J Clin Nutr March 2008vol. 87 no. 3 753-760

Higher intake of green leafy **vegetables** may reduce the risk of cardiovascular disease through favorable changes in cardiac autonomic function
American journal of clinical nutrition March 2009;vol 89

Scientific Studies

Both hypocaloric diets were effective means of improving CVD risk factors with moderate weight loss. There were significantly ($P < 0.05$) greater decreases in CRP and percentage body fat in the abdominal region in participants consuming whole **grains** than in those consuming refined **grains.**

Am J Clin Nutr **January 2008**vol. 87 no. 1 **79-90**