Your Health Matters: Nutritious Eating

5: The Basic Nutrients

ChooseMyPlate.gov
Calories In
The Six Basic Nutrients

Macronutrients
- Water
- Carbohydrates
- Proteins
- Fats

Micronutrients
- Vitamins
- Minerals
Water

- Makes up 60-75% total body weight
- Vital to keep your “engines” running
- Intake met with food and beverages
- 8 to 10 cups/day
Carbohydrates

- Best “fuel” for the body = glucose
- Whole Grains
  - 3 servings/day
- Vegetables
  - 2 ½ cups/day
- Fruits
  - 2 cups/day

Nutritional Sciences, Thompson Learning Inc. 2007; MyPyramid.gov; American Cancer Society
Proteins

- Give structure for muscle, bone, skin

- Meat, poultry, fish, eggs, nuts, seeds, beans
  - 5 ½ ounces/day

- Dairy
  - 3 cups/day
Fats (Lipids)

- Provide structure and store energy
- Make most of your fat sources from fish, nuts, vegetable oils
- Limit butter, margarine, lard, shortening
GO SLOW WHOA and Fats

Unsaturated Fats
- monounsaturated
- polyunsaturated
- ↓ heart disease risk

Saturated Fats
- mostly from animal sources
- not a necessary part of a healthy diet
- ↑ heart disease risk

Trans Fats (oils)
- partially hydrogenated
- not necessary for your body
- ↑ heart disease + diabetes risk
Dietary Sources of Unsaturated Fats

Vegetable Oils: Olive, Canola, Peanut, Sesame, Sunflower
Avocado, Peanut Butter, Nuts and Seeds, Fatty Fish

Eat these!
Dietary Sources of Saturated Fats

Fatty Meats - Beef, Lamb, Poultry with skin
Full-fat Dairy Foods
(cheese, butter, ice cream, whole milk)
Coconut and Palm Oils
Cocoa Butter

Limit these!
Dietary Sources of *Trans* Fats

Stick Margarine, Some Tub Margarine, Shortening
Fried Foods, Some processed foods like baked goods and crackers

Avoid these!
Vitamins

- Vital for using energy from carbohydrates, protein, and fat
- A, B<sub>6</sub>, B<sub>12</sub>, C, D, E, K, Folate, Thiamin, Riboflavin, Niacin, Biotin, Pantothenic Acid
- Best to get through a whole foods diet… variety!
Fruits and Vegetables = great sources of vitamins

Vitamin A

Vitamin B6

Vitamin C
Minerals

- Give bones structure, carry oxygen in your blood, regulate heartbeat

- Calcium, Iron, Potassium, Sodium, Zinc, Phosphorus, Magnesium, and more

- Best to get through a whole foods diet... variety!
Fruits and Vegetables = great sources of minerals

Calcium

Iron

Potassium
Alcohol… *Not a nutrient!*

- Ethyl alcohol (ethanol)
- Intoxicating ingredient produced by fermentation of yeast, sugars, starches
- Central nervous system depressant

Centers for Disease Control and Prevention; Dietary Guidelines for Americans
Alcohol… Not a nutrient!

Frozen Margarita
12 oz = 750 cal

Sweet Wine
4 oz = 105 cal

Regular Beer
12 oz = 149 cal

Tequila Shot
1.5 oz = 100 cal

Rum
1 oz = 64 calories

Moderation = no more than 1 drink per day for women; no more than 2 drinks per day for men
Dietary Guidelines

- ~50% Carbohydrates
- ~20% Protein
- ~30% Fat

USDA Dietary Guidelines for Americans and MyPyramid.gov
Eat a balanced whole foods diet especially **fruits** and **veggies** to meet your basic nutrient needs.
Challenge!

For the next week, drink 8 glasses of water per day and try one new fruit.
What is a grain?
Grains are Seeds

Cereal Grass

Seed
Parts of a Grain

**Bran**
- “Outer shell” protects seed
- Fiber, B vitamins, trace minerals

**Germ**
- Nutrient, Storehouse
- Antioxidants, vitamin E, B vitamins, healthy fats

**Endosperm**
- Provides energy
- Carbohydrates, protein
Milling of Grains

Whole Grain

All parts milled

Refined Grain

Endosperm is milled

Germ & Bran
What’s so great about whole grains?
Whole Grains Have Grain Benefits PLUS More

- Whole Grain
- Fiber
- Plant Stanols and Sterols
- Antioxidants
- Phytonutrients
- Magnesium
- Carbohydrates
- Trace Minerals
- B Vitamins
Grains Contain Important Nutrients

- Carbohydrates
- B Vitamins
- Trace Minerals
  - Iron
  - Zinc
  - Copper
Dietary Fiber

Insoluble (whole grains)
Soluble (fruits and veggies)

- Helps move food through
- Helps control blood sugar
- Makes you feel full faster
- Lowers cholesterol
Whole Grain Health Benefits

- Reduced risk of disease:
  - Heart disease
  - Some cancers
  - Diabetes
- Digestive health
- Weight control
Whole Grain Fiber Facts

Whole Grain Doesn’t Mean High Fiber

• Whole grain foods provide 1-4 grams of fiber per serving
• Contain the whole grain package

High Fiber Doesn’t Mean Whole Grain

• Some high-fiber grain foods are not whole grain
Will the Whole Grain Please Stand Up?
Label-Reading for Whole Grain

Look for “Whole Grain” as a Leading Ingredient
Look for an FDA-Approved Health Claim

Diets rich in whole grain foods and other plant foods, and low in total fat, saturated fat and cholesterol may reduce the risks of heart disease and certain cancers.
Look for Whole Grain Symbols

Whole Grains Council Stamp Program

For products offering a half-serving or more of whole grain. Contains at least 8g whole grain per serving.

For products where ALL of the grain is whole grain. Contains at least 16g whole grain per serving.

General Mills Products

The Whole Grain Guarantee from General Mills guarantees that every box of Big G cereal has at least 8 grams (a half serving) of whole grain per serving. At least 48 grams of whole grain is recommended daily.

General Mills, Inc; Whole Grain Stamps appear courtesy of the Whole Grains Council
Activity: Fiber Line-up

Fiber  Sugar  Fat
Each week, for the next four weeks, try a new whole grain food.
The Basic Nutrients

Key Point Recap

- IN: A healthy diet has a balance of carbohydrates, protein and fat
- IN: “Vary your veggies” and “Focus on fruits”
- IN: “Make half your grains whole”
- IN: Get enough fiber
- Watch out for packaging health claims
Switch to

Understanding the Nutrition Facts Label

PowerPoint