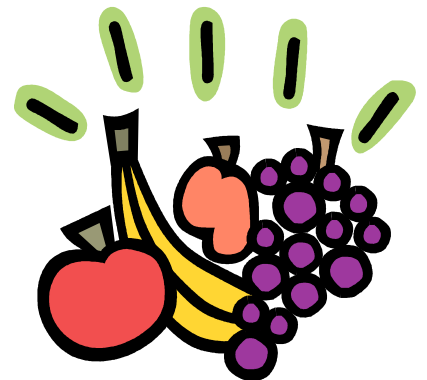


Basic Nutrition

HCHS



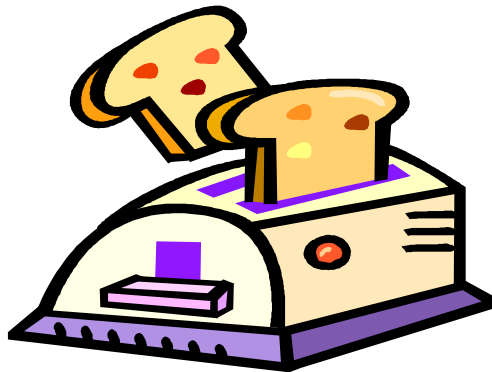
Components of a Healthy Diet

- **Nutrients-** Provide energy to the body– measured in kilocalories
 - Carbohydrates
 - Proteins
 - Fats or Lipids
 - Vitamins
 - Minerals
 - Water



Carbohydrates

- Supply energy to cells in brain, nervous system, and blood; supply energy to muscles during exercise
- 50% of daily calories should come from carbohydrate sources
- Good Carbs
 - Whole Wheat Breads, Cereals, and Pasta (high in fiber)
 - Green Leafy Vegetables
 - Fruit
- Bad Carbs
 - White or enriched breads, cereals, and pasta
 - Cakes, candies, cookies
 - Potato chips



Proteins

- Form important parts of muscles, bones, blood, enzymes, some hormones, and cell membranes; repair tissue, regulate water and acid-base balance, help in growth, supply energy
- 35% of daily calories should come from protein



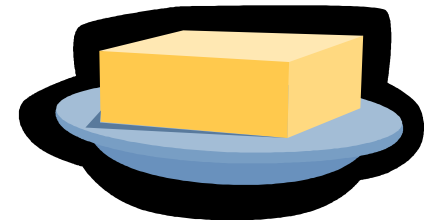
- **Major Sources**

- Meat
- Fish (best source)
- Poultry
- Milk products
- Eggs
- Nuts
- Cheese



Fats (Lipids)

- Supply energy; insulate, support, and cushion organs; provide medium for absorption of fat-soluble vitamins
- 20% of daily calories should come from fat sources
- **Saturated Fats (bad)** are found in animal products and processed foods, such as meats, dairy products, chips, and pastries...they are not heart healthy because they raise your LDL levels (bad cholesterol)
- **Unsaturated fats (good)** are found in foods such as nuts, avocados, and olives. They are also heart-healthy fats - they have the ability to lower LDL cholesterol and raise HDL cholesterol ("good" cholesterol).



Vitamins

- Promote (initiate or speed up) specific chemical reactions within cells—abundant in fruits, vegetables, and grains; also found in meat and dairy products
- Fat soluble
 - A, D, E, K
- Water soluble
 - C
 - Thiamin
 - Riboflavin
 - Niacin
 - B-6
 - Folate
 - B-12
 - Biotin
 - Pantothenic acid



Minerals

- Help regulate body functions, aid in the growth and maintenance of body tissues, act as a catalysts for the release of energy—found in most food groups
- Calcium (1000-1200 mg daily)
- Flouride
- Iron
- Iodine
- Magnesium
- Phosphorus
- Potassium
- Sodium
- Zinc



Water

- Makes up 50-70% of body weight; provides a medium for chemical reactions, transports chemicals, regulates temperature, removes waste products
- Fruits, vegetables, other liquids
- Should drink at least 8 glasses of water daily



Importance of Fiber

- **What is Fiber?** Fiber absorbs large amounts of water in the bowels, and this makes stools softer and easier to pass.
- **2 types...Insoluble fiber**, so-called because it doesn't dissolve readily in water, can be found in nuts, wheat bran, whole grains and many vegetables.
- **Soluble fiber** dissolves readily in water and is found in citrus fruit like oranges and lemons, apples, beans, oats and barley grain.
- Raisin bran, wheat bread, oatmeal, lima beans, berries, and apples are all good sources
- **BENEFITS OF FIBER:**
 - Fights diseases...heart disease, cancers (colon), diabetes, kidney stones
 - Helps to relieve constipation and hemorrhoids
 - Keeps weight under control

Keeping Nutrients in Foods

- Consume vegetables immediately after purchasing
- Store vegetables and fruits appropriately
- Cook vegetables such as potatoes in their skin
- Cook in as little water as possible
- Cook vegetables as little as possible
- Do not thaw frozen vegetables before cooking



Dietary Guidelines

- Eat a variety of foods
 - Balance the food you eat with physical activity
 - Choose a diet with plenty of whole grain products, vegetables, and fruits
 - Choose a diet that is low in fat, saturated fat, and cholesterol
 - Choose a diet moderate in sugars
 - Choose a diet moderate in salt and sodium
 - If you drink alcoholic beverages, do so in moderation
-

Sample Diet for One Day

- **Breakfast**
 - Whole Grain Cereal...with fiber 3 gr. or higher
 - Raisins ¼ cup
 - Orange juice 6 oz.
 - Nonfat milk 12 oz.
- **Snack**
 - Banana/ blueberries protein shake or protein bar
- **Lunch**
 - Turkey sandwich
 - Wheat bread 2 slices
 - Sliced turkey 1 ½ oz.
 - Spinach leaves
 - Tomato ½
 - Mayonaise 2 tbsp
 - Mustard 1 tbsp
 - Vegetable soup 6 oz
 - Banana
 - Nonfat milk 8 oz
- **Snack**
 - Crackers (4), whole grain
 - Peanut butter 2 tbsp
 - Apple juice 6 oz.
- **Dinner**
 - Grilled chicken breast
 - Seasoned brown rice
 - Carrots ½ cup
 - Broccoli ½ cup
 - Water 12 oz, or diet green tea
- **Snack**
 - **200 Calorie Pack**
 - **Fiber drink**
 - **DRINK WATER THROUGHOUT THE DAY....8 GLASSES AT LEAST**

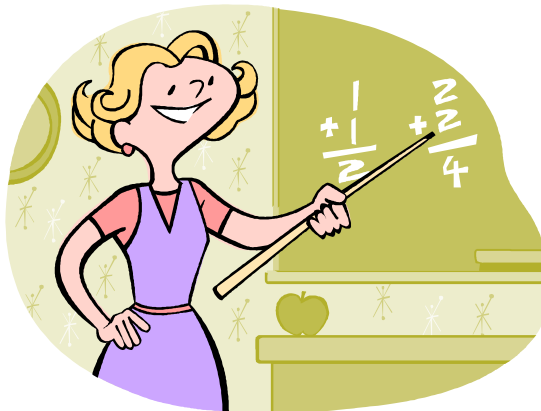
Approximate Nutritional Totals

- **Calories**
 - 2000
 - 50% from carbohydrates
 - 35% from protein
 - 20% from fat
 - 167 mg of cholesterol
 - 38 g of dietary fiber
 - 2.4 g of sodium



Summary

- Six classes of nutrients are: carbohydrates, proteins, fats, vitamins, minerals, and water
- Should consume 50% of calories from carbs, 35% from protein, 20% from fat daily
- Basic recommendations for a healthy diet include eating a variety of foods, reducing all fat, increasing complex carbohydrates and fiber, and limiting salt, sugar, and alcohol



Assignment

WORD DOCUMENT: EMAIL ASSIGNMENT TO johnson-m@harris.k12.ga.us

- Define and list the six nutrients.
- Define carbohydrates.....what percentage of carbs should we consume each day? list good carbs and bad carbs
- Define protein...what percentage of protein should we consume each day? list good and bad protein sources
- Define fat....what percentage of fat should we consume each day? list good and bad fats
- What is the role of vitamins in our diet? List fat and water soluble vitamins
- What are minerals? List examples of minerals and foods they can be found in
- Why is it so important to drink water throughout the day?
- Define fiber....what are the benefits of fiber? list foods that are high in fiber
- How can you keep nutrients in food?
- What are the dietary guidelines for Americans?

Example

- Breakfast:
 - Pop-tart (low-fat brown sugar and cinnamon)
 - Calories: 376 (18%)
 - Carbs: 78g (13%) Protein: 4g (10%) Fat: 6g (8%)
- Do the same for all other meals/snacks/drinks....add all totals
- BASED ON 2000 CALORIE DIET