

BASIC NUTRITION

There are six major classes of nutrients that we need to stay healthy.

1. **Water** - Water makes up 60-70% of our body weight. It is the largest component of blood that carries oxygen throughout our system. It is an essential part of every cell in your body. You need water to regulate your body temperature, for proper kidney function, and for every reaction that takes place in your body.
2. **Proteins** are the body's building blocks. They are a basic substance in all the body's cells and are essential for the growth, maintenance and repair of body tissues. Protein is made up of smaller units called amino acids. There are 22 amino acids in all. The body manufactures 14. The other 8 must come from the food you eat. The best quality protein comes from animal sources and supplies all of these 8 amino acids in balanced amounts. The protein in plant foods (cereals, grains, peas, and beans) is not complete. Fortunately, you can combine plants foods for a high quality protein that supplies all 8 amino acids.
3. **Carbohydrates** are the fuel for your body. The foods (sugars and starches) from breads, cereals, grains, fruits and vegetables are your main energy source. Carbohydrate sources also supply fiber. Fiber is the part of the plant foods that you cannot digest. Fiber passes through your body undigested and adds bulk to the diet, aiding the regular elimination of wastes.
4. **Fats** help your body use proteins and carbohydrates efficiently. They are carriers for the fat-soluble vitamins, cushion and protect vital organs and have other important functions. Fats in the diet are not the same as adipose tissues (fat stores) in the body.
5. **Vitamins** are organic substances that are essential for good health. Your body cannot make vitamins. You must get them from the foods you eat. There are thirteen vitamins essential for good health and each one play a unique role in your body. There are two types of vitamins, fat soluble, which are stored in your liver and the other body tissues and water soluble, which are not stored to any great extent, but pass through your body rather quickly.

Fat soluble vitamins: stored in our body fat

Vitamin A - Helps eyes adjust to dim light. Helps keep skin healthy. Helps keep lining of mouth, nose, throat and digestive tract healthy and resistant to infection. It promotes growth and helps control bone growth.

Major sources: Liver, whole milk, some cheeses, egg yolk, dark green leafy vegetables, yellow fruits and vegetables, fortified products, butter, cream.

Vitamin D - Helps body use a calcium and phosphorus to build strong bones and teeth, important in growing children and during pregnancy and lactations.

Major sources: Fortified milk, exposure to sunlight.

Vitamin E - Helps keep red blood cells intact. An antioxidant. Protects Vitamin A from oxidation.

Major sources: Soybean, corn and cottonseed oils. Also widely distributed among foods.

Vitamin K - Necessary for clotting of blood.

Major sources: Green leaves such as spinach, cabbage, cauliflower and liver. Made in intestinal tract by bacteria.

Water soluble vitamins: not stored in our bodies

Vitamin C - Helps hold body cells together and strengthens walls of blood vessels. Helps in healing wounds. Helps body to build bones and teeth and absorb iron.

Major sources: Citrus fruits, tomatoes, strawberries, cantaloupe, cabbage, broccoli, kale, and potatoes.

Thiamin (B1) - Helps body cells obtain energy from food. Helps keep nerves in healthy condition. Promotes good appetite and digestion.

Major sources: Pork, liver and other organ meats, wheat germ whole grain or enriched cereals and breads, soybeans, peanuts and other legumes and milk.

Riboflavin (B2) - Aids in utilization of calories. Promotes healthy skin, eyes, and clear vision.

Major sources: Milk, organ meats, and enriched breads and cereals.

Niacin - Helps the cells of the body use oxygen to produce energy. Helps to maintain health of skin, tongue, digestive tract and nervous system. Aids digestion and fosters normal appetite.

Major sources: Lean meat, fish, poultry, liver, kidney, whole wheat and enriched cereals and breads, peanuts.

6. **Minerals**, like vitamins, are needed in small amount. Your body uses minerals to build bones and teeth and to help in various chemical reactions in your body.

Calcium - Assists in clotting of blood, building of bones and teeth, promotes proper functioning of nerves, heart and muscle.

Major sources: All forms of milk, cheese and ice cream.

Iron - Makes hemoglobin, the red substance in blood which transports oxygen to and from cells.

Major sources: Organ meats, oysters, lean meats, eggs, leafy green vegetables, dried peas, enriched breads, and cereals.

Here are some other quick tips for checking for nutrition in foods

The Color and Crunch Test. This test is surprisingly effective. Ask yourself – do your meals usually contain foods of three or more colors? Usually, a colorful plate is a healthy plate, containing a variety of different foods from different food groups. Crunchy foods like fruits, vegetables and whole-grains are good sources of fiber.

The Color Connection. Does the color of that bunch of leafy green spinach mean anything? You bet! Food colors are an indication of what nutrients the food contains. The darker or more intense the natural color, the larger amount of the nutrient present. Here, is a guide to Mother Nature's own natural "color code" to help you find, at a glance, the nutrients you need.

Green

Vitamins A & C – broccoli, kale, spinach, Brussels sprouts

Vitamin C – green peppers, cabbage

Iron – spinach, kale, collards

Fiber – most green vegetables

Brown

Rich in fiber, B vitamins, iron, moderate protein – nuts and grains

Darker color usually means higher fiber, nutrients – dark rye bread

But not always – brown sugar

White - Potassium, carbohydrates, protein

Carbohydrates, protein, calcium – milk

Protein – poultry

Carbohydrate – bread, mushrooms, cauliflower

They all have potassium

Purple/Deep Red

Iron – red meats, raisins, prunes

Fiber and Vitamin C – blueberries, blackberries, red cabbage

B vitamins – liver, organ meats

Red/Yellow/Orange

Vitamin C – oranges, lemons, strawberries

Vitamin A – yellow squash, peaches, apricots, egg yolk

Vitamin A & C – pink grapefruit, tomatoes, sweet potatoes, melon

Daily Servings for Girls 9 – 13 years old with less than 30 minutes of daily physical activity

Fruits: 1 1/2 cups per day

Vegetables: 2 cups per day

Grains: 5 ounces per day

Proteins: 5 ounces per day

Dairy: 3 cups per day

Oils: 5 teaspoons per day

Menu Planning for the Day

Breakfast

1. _____

2. _____

3. _____

4. _____

Lunch

1. _____

2. _____

3. _____

4. _____

Dinner

1. _____

2. _____

3. _____

4. _____

Snack

1. _____

2. _____

3. _____

Pick your meal for the contest. Which food do you want to prepare? Look for recipes. Practice!!