

Eating Healthy 101



CARBOHYDRATES

WHAT: Energy substrate found in food and beverages that we eat and drink. Each gram of carbohydrate yields 4 calories.

Carbohydrates are found in foods in the form of sugar and starch. During digestions and metabolism all carbohydrates (sugar & starch) are broken down to a single glucose molecules. Glucose is the body's primary energy source. Glucose is needed to maintain blood sugar levels and it is stored in the liver and muscles in the form of glycogen. Glycogen is a long chain of glucose molecules linked together. A high carbohydrate diet is required for maintaining muscle and liver glycogen stores. Adequate glycogen stores are essential for peak athletic performance.

WHY: Carbohydrate (glucose) is the primary source of fuel / energy for the brain and working muscles.

- great source of vitamins, minerals, fiber
 - o *Body's spark plugs*
 - o Assist in digestion and metabolism
 - o Aid in the formation of bones, teeth, muscle, tendons, ligaments red blood cells
 - o Strengthen the body's immune system

- fruits, vegetables, whole grains, and legumes
 - o good source of dietary fiber
 - o reduce risk of cardiovascular disease
 - o certain cancers
 - o speed the movement of food through the GI tract

Complex Carbohydrates (starches)

- breads, bagels, cereals, pasta, rice, potatoes fruits and vegetables

Simple Carbohydrates (simple sugars)

- monosaccharide- glucose, fructose, lactose
- disaccharides – sucrose, lactose, maltose
- table sugar, honey, mild, candies, sweets, cakes, soft drinks, natural fruit, fruit juices

REQUIREMENTS FOR ATHLETES

- female athlete exercise < 90 min per day; 2.5 grams of CHO per pound of body weight
- female athlete exercise >90 min per day; 3.5 grams of CHO per pound of body weight
- male athlete exercise < 90 min per day; 3.5 grams of CHO per pound of body weight
- male athlete exercise > 90 per day; 4.5 grams of CHO per pound of body weight

Examples:

	female < 90 min	female > 90 min	male < 90 min	male > 90 min
115lb	288	403	403	518
145lb	363	508	508	653
175lb	438	613	613	788
205lb	513	718	718	923

FAT

WHAT: One gram of dietary fat yields 9 calories. The type and amount of fat eaten can have a significant effect on over all hearth and athletic performance. Fatty foods (burgers & fries) take much longer to digest.

WHY:

- Athletic performance: source of stored energy. During light to moderate aerobic exercise (40%-60% of aerobic capacity) the body uses approximately 50%-60% of its energy from fat. During exercises above 60% little fat energy is used. It takes stored body fat 30- 60 minutes to become available as fuel for working muscles.
- Growth and development: cell membranes
- Optimal health: aids in the digestion and absorption of fat soluble vitamins (A, D, E, &K). Provides the essential fatty acids, linoleic acid, found in vegetable oils, green leafy vegetables, fish oils, and soy products.

TYPES:

- Unsaturated fats: polyunsaturated and monounsaturated fats referred to as "GOOD" fats because they help reduce the risk of Coronary Heart Disease (CHD); Found in corn oil, safflower oil, canola oil, olive oil, and other vegetables oils.
- Saturated fats: "BAD" promote the build up of fatty deposits in the arties, increasing the risk of CHD; found in butter, beef, pork, lamb, poultry, partially hydrogenated oils and fats, coconut oil, palm and palm kernel oil.

Fat requirements for an athlete: 25% or less of total daily calories.

<u>Weight</u>	<u>Total fat grams</u>
120 lbs	50 g
140 lb	70 g
160 lb	80 g
220 lb	110 g



PROTEIN

WHAT: Structural basis for all muscle tissue. There are 9 essential and 13 non – essential amino acids. The body produces the non- essential amino acids however; animal proteins in the diet supply the essential amino acids.

WHY:

- Amino acids are the building blocks of protein, essential for growth and development. Builds, repairs, maintains all body tissue including muscles, bones, blood vessels, hormones, and hair.
- Protein essential in the formation of enzymes. Enzymes are responsible for the regulation of metabolism
- Not a source of energy during exercise

TYPES:

- complete protein: animal protein, lean meats, chicken, turkey, pork, fish, seafood, eggs
- Incomplete protein: plant sources; rice, beans, pasta, cereals, breads, nuts, soy products, vegetables & fruits.

Protein requirements- depend on the athlete's age, body size, type, intensity and duration of exercise. Approximately ½ to 1 gram per pound of body weight.

<u>Weight</u>	<u>Protein</u>
120 lb	66-88
140 lb	77 – 102
160 lb	88 – 117
180 lb	98 – 131
210 lb	114 – 152

TIPS FOR TRAVELING

HELPFUL TIPS

1. *Fast foods are ok if used sparingly and with caution*

- a. Choose healthy alternatives
- McDonald's – hotcakes, cold cereal, English muffins, grilled chicken, fresh green salads, milk, juices
- Wendy's – grilled chicken, baked potatoes, chili, salad bar
- Pizza Hut – pasta & meatballs, breadsticks, salad bar, cheese pizza
- Subway – low fat/ low calorie and traditional subs, deli style sandwiches and salads



2. *Vending machines*

- pretzels, crackers, breakfast/granola bars

3. *Restaurants*

- breakfast – pancakes, waffles, breads, cereals, oatmeal, milk, juice, yogurt, fruits, scrambled eggs
- lunch – fresh breads & rolls, pasta rice, soups, fresh vegetables, fruits, turkey, tuna, grilled chicken, roast beef sandwiches, pitas, green salads
- dinner – pastas with red sauce & meatballs, baked chicken or fish with rice and vegetables, turkey with potatoes and stuffing

4. *Avoid foods high in fat.*

- ordered baked, broiled or steamed

5. *Low calorie and low fat condiments / toppings*

- Choose catsup, mustard, vegetable oils, low calorie dressings, lettuce tomatoes, onion and peppers instead of mayonnaise, butter, sour cream, cheese toppings, regular salad dressings and bacon bits.



Calorie chart & food sorted by name

<http://www.caloriecountercharts.com/chart1a.htm>

Fast food Calorie counter

<http://www.calorie-counters.net/>

Vegetarian Resource

<http://www.vegsource.com/>

Nutrition and your Health: Dietary Guidelines for Americans

http://graphics.ocsn.com/schools/tennw/facilities/training-room/enhance_dietgd.pdf