

Basic Nutrition

Macronutrients

Carbohydrates

What are Carbohydrates?

- an essential structural component of living cells and source of energy for animals; includes simple sugars with small molecules as well as macromolecular substances; are classified according to the number of monosaccharide groups they contain
- Anything grown or that which is derived from something grown
- Bread, rice, pasta, cereals, grains, Fruits, Vegetables etc.

What do Carbs do?

- Provide fuel for the body
- They are our Primary energy source
- Only fuel source for brain is Glucose
- Other nutrients can become glucose but not optimal

How do Carbs differ?

- Simple carbs- Basic sugars, easily broken down, enter blood stream quickly
 - Sweets and refined flour products
 - Natural sugars
- Complex Carbs- Larger molecules, require more work to be broken down, steadily enter bloodstream
 - Unprocessed/natural Products

Insulin Response to Carbs

- High Glycemic Carbs
 - Cause a spike in blood sugar (bloodstream is flooded with sugar)
 - Insulin is secreted to decrease level
 - Creates extreme shifts in blood sugar
- Low Glycemic Carbs
 - Slowly enter the bloodstream
 - Keeps blood sugar level even
 - Insulin not needed

Proteins

What is Protein?

- Proteins are fundamental components of all living cells and include many substances, such as enzymes, hormones, and antibodies that are necessary for the proper functioning of an organism. They are essential in the diet of animals for the growth and repair of tissue and can be obtained from foods such as meat, fish, eggs, milk, and legumes.
- Most proteins are animal based or are derived from animals

The importance of Protein

- Protein builds and repairs the tissues of the body
- Protein maintains Muscle (keeps up the metabolism)

- Production of enzymes, hormones, and antibodies

Fats

What is Fat?

- The ester of glycerol and one, two, or three fatty acids.
- Any of various soft, solid, or semisolid organic compounds constituting the esters of glycerol and fatty acids and their associated organic groups.
- A mixture of such compounds occurring widely in organic tissue, especially in the adipose tissue of animals and in the seeds, nuts, and fruits of plants.
- Animal tissue containing such substances.
- Solidified animal or vegetable oil.

Difference in fats

- Saturated Fats –Animal fats
- Unsaturated Fats - Plant Fats
- Processed Fats – Hydrogenated Fats
- Decrease the total amount of Saturated fats while increasing the amount of unsaturated fats

Why eat Fats?

- **Hormones are fat based**
- **Help to improve cholesterol levels**

Balancing Meals

Consume all three macronutrients

- Ratios Vary depending on results desired and individual differences
- General ratio is 40%Protein, 40% Carbs, 20% fats
- Total caloric intake will regulate bodyweight adjustments (maintenance, loss, or gain)

Consume 4-6 smaller meals per day

- Regular small meals Boost metabolism
- Maintain energy levels (constant fuel)
- Help regulate mood and cravings
- Maintain continual amino acid supply
- Avoids shifting into a fasting mode

Fasting Mode

- Large gaps between meals decrease metabolism

- Large gaps between meals increase fat storage
- Decrease energy levels
- Utilizes Protein for fuel instead of fat
- Sumo diet 2 large meals

Healthy Eating Guidelines

- Always Begin the day with breakfast, it is the most important meal of the day.
- Eat every 2 ½ to 4 hours from the time you start your day at breakfast, this will keep your metabolism racing.
- Eat complex carbohydrates to keep your energy up.
- Watch portion sizes of carbohydrates; remember the balance of protein to carbohydrates.
- Consume lean proteins at the same times you eat your complex carbs to balance out the meal.
- Eat plenty of vegetables; always start your dinner meal out with a salad or a fibrous vegetable.
- Eat the low or non-fat version of food as opposed to the whole fat. (Ex. Light cheeses vs. regular cheese, skim milk vs. whole milk, low/non-fat Mayo. vs. regular Mayo.)
- Keep sugar intake low to avoid drops in energy.
- Eat natural foods as opposed to processed foods. (Ex. Natural peanut butter vs. regular, Baked potato vs. instant mashed potato)
- Use whole grain products instead of refined products. (Ex. Whole wheat bread vs. white bread, shredded wheat vs. cocoa puffs)
- Replace a snack with a Meal replacement bar if unable to eat solid food.
- Bake instead of frying.
- Use non-stick sprays instead of oils to pan fry foods.
- Make wise choices when dining out. (shrimp cocktail, broiled & grilled meats, salads, steamed vegetables, baked potato, side of pasta)
- Cook meals using the low-fat directions.
- Limit or eliminate oil and butter in recipes.
- Eat a variety of foods; educate yourself via the food labels to ensure new and wider variety of foods.
- Convert recipes to make a healthier meal.
- Spice it up be creative with dry spices to add a ton of flavor without a ton of calories.
- Know what's in your supermarket, there is a wide variety of healthy eating waiting for you, even quick meals.
- Have a splurge day; this will keep you from feeling deprived, if its going to be a lifestyle change there must be leeway.
- Give yourself time to make a change in your eating habits. Rome wasn't built in a day.

