The three macronutrients—carbohydrate, protein, and fat—all provide the body with energy and serve specific roles to help our bodies function properly.

**CARBOHYDRATE**
- Body’s preferred source of energy and helps fuel the brain, heart, muscles, kidneys, and central nervous system
- 45-65% of our calories should come from carbohydrate (i.e. 2000 calorie diet = 225—325 grams/day)
- Excess carbohydrate may cause weight gain and high blood sugar levels
- Lack of carbohydrate may cause fatigue, brain fog, and irritability
- 1 gram of carbohydrate = 4 calories

*Simple Carbohydrate*
- Quickest source of energy and easiest to digest
- May have additional salt, fat and sugar in highly processed foods
- Sugar and refined grains (i.e. crackers, candy, cookies, cakes, some breads and pastas)

*Complex Carbohydrate*
- Slower digesting due to presence of fiber which aids in satiety; also rich in vitamins and minerals
- Whole grain oats, breads, pastas, and rice
- Fruits, vegetables
- Beans and lentils
- Dairy

**PROTEIN**
- Helps build and repair muscle tissue, provides energy, and serves as a building block for enzymes
- 10-35% of our calories should come from protein (i.e. 2000 calorie diet = 50—175 grams/day)
- Excess protein may cause constipation, weight gain, and kidney damage
- Lack of protein may cause hunger, brittle hair and nails, muscle loss and fatigue
- 1 gram of protein = 4 calories

*Animal sources*
- Meat and poultry
- Fish and shellfish
- Milk and dairy
- Eggs

*Plant sources*
- Beans and legumes (i.e. lentils, peas, soybeans)
- Meat alternatives (i.e. tofu, veggie and black bean burgers, soy crumbles, tempeh, seitan)
- Nuts and seeds

**FAT**
- Provides long-lasting energy, aids in vitamin absorption, supports cell growth and hormonal function
- 20-35% of our calories should come from fat (i.e. 2000 calorie diet = 44—78 grams/day)
- Excess or lack of fat may cause vitamin deficiencies, heart problem, altered hunger cues and hormonal imbalances
- 1 gram of fat = 9 calories

*Monounsaturated Fat*
- Avocado
- Nuts and nut butters (i.e. peanuts, almonds, cashews)
- Oil (i.e. canola, olive)

*Polyunsaturated Fat*
- Fish (i.e. salmon, tuna)
- Margarine, mayonnaise, miracle whip
- Oil (i.e. corn, sunflower)
- Salad dressing
- Seeds and nuts (i.e. walnuts)

*Saturated Fat*
- Coconut
- Dairy (i.e. butter, sour cream, cheese, cream)
- Meat (i.e. beef, pork, poultry)
- Shortening
As seen in the above graph, macronutrients are digested at different rates. Consuming a mix of macronutrients can help ensure you have a balance and variety of nutrients, and help to satisfy and sustain you between meals and snacks.