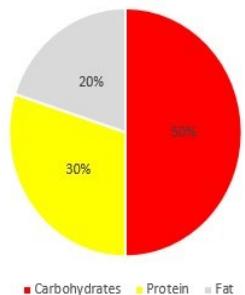


# Macronutrients

*Carbohydrates, protein, and fat are the three nutrients that your body needs in large amounts to support normal functioning*

Macronutrient Distribution



## Tips

- Make half of your carbohydrates come from whole grains. Whole grains contain fiber, which has many beneficial effects on the body
- Limit added sugars. Too many added sugars can lead to an increase in blood triglycerides, which can lower the good cholesterol in the body therefore increasing the risk for heart disease

	<b>Carbohydrates</b>	<b>Protein</b>	<b>Fat</b>
Function	Carbohydrates get broken down into glucose which in turn gets used for energy. Extra glucose gets stored as glycogen in the liver and muscles	Proteins provide structural and mechanical support to maintain body tissues. Enzymes and hormones are made up of proteins. Proteins also maintain acid-base balance and transport substances throughout the body	Fats provide essential fatty acids, enhance the absorption of the fat-soluble vitamins, provide a layer of insulation, and cushion the major organs. Fat is also used as a source of energy. Cholesterol is a precursor for vitamin D, bile, estrogen, and testosterone
Food Sources	Whole wheat bread, bulgur, brown rice, quinoa, whole grain pasta, oats	Beans, legumes, peanut butter, nuts, soy	Soybeans, avocado, walnuts, flaxseeds, wheat germ, vegetable oils. Limit fried foods, commercially prepared baked goods, and snack
Too much or too little	Carbohydrates should make up 45-65% of total daily calories. Too little carbohydrates can lead to ketosis which will lead to a decrease in blood pH making the blood more acidic	Protein needs to account for about 10-35% of total daily calories. Too much protein can replace other essential nutrients which will lead to an unbalanced diet. A diet too high in protein can lead to heart disease, kidney stones, and osteoporosis. Too little protein can lead to protein energy malnutrition	Fat should make up 20-35% of daily calories. No more than 10% of calories should come from saturated fat. Trans fats should be avoided as much as possible. Too much fat can lead to high blood cholesterol levels which can lead to heart disease. Too little fat in the diet can lead to fat soluble vitamin deficiencies and essential fatty acid deficiency

