

Nutritional News



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Nutrition Basics

The body relies on nutrients (fuel) for energy, growth and function. Nutrients are broken down into macro, which are needed in large amounts and micro, which are needed in smaller amounts. The three macronutrients required by humans are carbohydrates (sugar), lipids (fats) and protein. Each provides energy in the form of calories.

Carbohydrates

Carbohydrates are easily metabolized and used as the body's main fuel source. Our major organs (brain, kidneys, muscles and heart) need carbohydrates to function properly. Our tissues have the ability to use the simple carbohydrate glucose as energy so that the other macronutrients can be used for tissue growth and repair. Carbohydrates aid in the synthesis of certain amino acids and are required so that fat can be properly metabolized.

If a food label states that there are 10 grams of carbs, zero protein and zero fat, then the food provides 40 calories:

Carbohydrates	4 calories per gram
Protein	4 calories per gram
Fat	9 calories per gram

Protein

Protein is the major component of most cells and defines what an organism is, what it looks like and how it behaves. Enzymes, used for digestion, protection and immunity are made of protein and essential hormones used for body regulation require it. Our bodies are made up of thousands of proteins and are used to produce new tissues for growth and tissue repair while regulating and maintaining body functions. Proteins may be used as a source of energy when carbohydrates are not available. The body breaks down protein into its building blocks – amino acids. There are 500 known amino acids, 21 of which are needed by humans. Of the 21 necessary for life, nine are considered essential since they cannot be produced by the body and must be eaten. Proteins that contain all nine essential amino acids are

considered “high quality” proteins (mainly animal sources) and ones that do not contain all nine essential amino acids are considered “low quality” proteins (mainly plant sources).

Fat

Fat is essential for normal growth and development and is the most concentrated source of energy. It is required in the absorption of certain vitamins like A, D, E, K and carotenoids. Fat provides cushioning for the organs and maintains cell membranes. Fat also provides taste, consistency and stability to foods. The three main types of fats are saturated, unsaturated and trans. Unsaturated fat, found in foods like olive oil, avocados, nuts and canola oil has been shown to decrease the risk of developing heart disease.

How much do I need?

Variety is one of the most important things to keep in mind. The higher the percentage of fresh foods and the lower the percentage of processed foods you take in the better your chances are to ensuring an optimum diet. The number of calories will depend on sex, body size and activity level. Most adults need to consume between 2000 and 3000 calories a day. The recommended distribution of calories is 50 to 60% carbohydrates, 30% from fat and 10 to 20% from protein. Adult women should eat about 225 to 270g of carbs a day while men should eat about 288 to 345g per day. On a 2000 calorie-a-day diet, 600 calories can come from fat, which is about 67 grams and between 50 and 100 grams of protein. A high intake of fresh fruits and vegetables will provide most of the micronutrients you need. In addition, depending upon your personal needs, you may also benefit from adding supplements.

Resources
healthycanadians.gc.ca
Dr. Weil, MD

Fun Food Facts!



The word “protein” is from the Greek word *proteios*, which means “primary” or “holding the first place”.

The term was first used in 1883.

Did You Know?



It is important that your diet contains approximately 40 grams of fiber and plenty of water.

Fiber, which is not easily digested by the body, is broken down into two classes - soluble and insoluble.

Studies show that fiber helps decrease your risk of heart disease and may also help regulate blood glucose levels along with other benefits such as helping to move waste through the digestive system, adding bulk and softness to stools and helping to promote regularity.

Good sources of soluble fiber include beans, peas, oats & barley. Good sources of insoluble fiber include 100% whole wheat products, fresh fruits and vegetables.

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