



Nutrient Classifications

Many people imagine nutrition as the function of a handful of clearly identifiable nutrients. This is only partly true. Individual nutrients do have specific effects and reactions that are involved in certain disease events, but those reactions are all interwoven, interconnected, and integrated in a vast, complex system.

Nutrition's role in disease prevention and formation is much like a symphony orchestra. It is not a violin solo, but rather all the instruments—violin, horns, percussion, and others—playing toward a common musical experience. Yet this doesn't discount the importance of individual nutrients; if the violin is out of tune, the music may not sound as good.

Use this document as a reminder of the main types of instruments that participate in this symphony.

Macronutrients

- **Carbohydrates** are the body's primary fuel. They provide energy for our muscles and the central nervous system. Fiber is a type of carbohydrate that cannot be broken down by our GI tract. Fiber consumption is important to help rid our body of waste and keep our intestinal tract healthy.
- **Fat** is vital for the body as an energy reserve, for insulation and protection of our organs, and for absorption and transport of fat-soluble vitamins.
- **Protein** is essential to many processes in the body. It provides structure to cell membranes, organs, muscle, hair, skin, nails, bones, tendons, ligaments, and blood plasma. Proteins are involved in metabolic, hormonal, and enzyme systems, and help maintain acid-base balance in our bodies.

Micronutrients

- **Vitamins** are necessary for energy production, immune function, blood clotting, and other functions.
- **Minerals** play an important role in growth, bone health, fluid balance, and several other processes.

Water

Dr. Campbell defines water as an essential nutrient because it is required in amounts that exceed the body's ability to produce it. Water helps to restore fluids lost through metabolism, breathing, sweating, and the removal of waste. It helps prevent the body from overheating, lubricates the joints and tissues, maintains healthy skin, and is necessary for proper digestion.