

# Essential Nutrients in Human Body

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## Introduction

Our bodies are built of and powered by solely what we eat and drink. Food is the source of all of the energy needed. People get energy from food. We need energy all the time, when we run, jump, sing, and even when we sleep. We create all the energy we need by eating. The structures components that make up the human body, such as muscles, organs, and bones, are also composed of the nutrients contained in food, meaning that it is. This is why eating and taking in the nutrients that provide energy and become the components of our bodily structures is essential to for sustaining human life.

## Analysis

Nutrients are the substances found in food which drive biological activity, and are essential for the human body. They are categorized as proteins, fats, carbohydrates (sugars, dietary fiber), vitamins, and minerals, and perform the following vital functions.

- Building all parts of the body such as muscle, bone, teeth, and blood.
- Producing energy (power and heat).
- Keeping the body in good working order.

“Essential nutrients are compounds that the body can’t make or can’t make in sufficient quantity,” says Mandy Ferrera. “According to the World Health Organization, these nutrients must come from food, and they’re vital for disease prevention, growth, and good health.”

Essential nutrients can be grouped into 6 categories: Carbohydrate, protein, fat, vitamins, minerals, and water. Carbohydrates, protein, and fat are macronutrients because they make up most of your diet. Vitamins and minerals are micronutrients because you need them in much smaller amounts. Smaller doesn’t mean unimportant: Deficiencies in specific vitamins and minerals can create massive problems. Interestingly, experts classify water as a micronutrient, even though you might drink liters or gallons daily.

**Carbohydrates:** Carbohydrates encompass three categories: Fiber, starch, and sugar. Among macronutrients, they frequently become oversimplified or miscategorized. To further complicated matters, dividing carbohydrates into simple or complex

subcategories. “The whole complex simple carb idea has retired to the dustbin of history,” says Mark Hyman, MD, in *What the Heck Should I Eat?* “What matters is how much a particular carb raises your blood sugar.”

**Protein:** The 20 amino acids your body derives from protein – provides your body the building blocks for muscle, bone, skin, hair, and so much more. Protein helps build hormones, enzymes, and antibodies. DNA and important antioxidants like glutathione require protein. In fact, every cell in your body contains and requires protein.

**Fat:** Dietary fat (scientifically called lipids) falls into three categories. Saturated fats are generally solid or waxy at room temperature. You mostly find them in animal products and a few oils such as coconut oil. Monounsaturated fats have a “heart-healthy” glow because research shows many foods rich in them (including olive oil) can reduce your risk for cardiovascular-related problems. Polyunsaturated fats contain more than one double bond, making them more unstable than other fats. Fish are high in unstable polyunsaturated fats, which can go rancid quickly.

**Vitamins:** Vitamins are organic compounds you require in small quantities, either because your body does not produce enough or doesn’t make that nutrient at all.

**Minerals:** While both are micronutrients, vitamins, and minerals differ in that minerals are inorganic and hold onto their chemical structure. This makes minerals more stable, but other obstacles, including soil depletion, mean we might not get sufficient amounts from food.

**Water:** Overall, about 60% of your body is water. Your brain and heart are about 73% water. Sufficient water intake becomes vital for nearly every bodily function. “Water can improve energy, increase mental and physical performance, remove toxins and waste from your body, keep your skin healthy and glowing, and may even help you lose weight,” says Jonny Bowden, Ph.D., in *The 150 Healthiest Foods on Earth*. Our body constantly loses water via sweat, urinating, and even breathing. Dehydration can occur more easily than you might imagine, and its repercussions can jeopardize your health and even become fatal.

**How to cite this article:** M Diamond, Alan. "Essential Nutrients in Human Body." *Vitam Miner* 10 (2021) : 6

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Citation: Diamond AM (2021) Essential Nutrients in Human Body. *Vitam Miner* Vol.10 No.6: 10.e161

Received date: June 07, 2021; Accepted date: June 21, 2021; Published date: June 29, 2021