



Brief note on nutrition

Sravya Sevana *

Department of Nutritional Sciences, Andhra University, Visakhapatnam, Andhra Pradesh, India.

DESCRIPTION

Nutrition can be defined as biochemical and physiological course by which an organism uses food to upkeep its life. It comprises of ingestion, absorption, assimilation, biosynthesis, catabolism and excretion. The science that studies the physiological procedures of nutrition is called nutritional science. Organisms principally provide themselves with carbon in one of two ways: autotrophy (the self-production of organic food) and heterotrophy (the consumption of existing organic carbon). It may be either combined with the source of energy, either light (photo trophy) or with chemical (chemo trophy). Nutrients are substances used by an organism to persist, grow, and reproduce. The seven major classifications of relevant nutrients for animals (including humans) are carbohydrates, dietary fibre, fats, proteins, minerals, vitamins, and water. Nutrients can be grouped as either macronutrients (carbohydrates, dietary fibre, fats, proteins, and water needed in gram quantities) or micronutrients (vitamins and minerals needed in milligram or microgram quantities). In nutrition, the intake of an organism is the sum of foods it eats, which is chiefly determined by the accessibility and palatability of foods. Human nutrition deals with the endowment of essential nutrients from food that is obligatory to support human life and good health. In humans, deprived nutrition can cause deficiency-related diseases such as blindness, anaemia, scurvy, preterm birth, stillbirth and cretinism, or nutrient surplus health-threatening circumstances such as obesity and metabolic syndrome; and such common chronic systemic ailments as cardiovascular disease, diabetes, and osteoporosis. Under nutrition can lead to wasting in acute cases, and stunting of marasmus in chronic cases of malnutrition.

Animal nutrition emphasizes on the dietary nutrients needs of animals, often in contrast to

other organisms like plants. Carnivore and herbivore diets are conflicting; with basic nitrogen and carbon proportions vary for their particular foods. Many herbivores count on on bacterial fermentation to create digestible nutrients from indigestible plant cellulose, while obligate carnivores must eat animal meats to attain certain vitamins or nutrients their bodies cannot otherwise synthesize. Animals generally have a higher necessity of energy in comparison to plants. Plant nutrition is the study of the chemical elements that are indispensable for plant growth. Some elements are directly involved in plant metabolism. There are 16 essential plant soil nutrients, besides the three major elemental nutrients carbon and oxygen that are obtained by photosynthetic plants from carbon dioxide in the air, and hydrogen, which is acquired from water.

Plants uptake vital elements from the soil through their roots and from the air (consisting of mainly nitrogen and oxygen) through their leaves (transpiration). Green plants acquire their carbohydrate supply from the carbon dioxide in the air by the method of photosynthesis. Carbon and oxygen are absorbed from the air, while other nutrients are absorbed from the soil. In the leaves, stomata pores open to take in carbon dioxide and expel oxygen. The carbon dioxide molecules are used as the carbon source in photosynthesis.

Although nitrogen is ample in the Earth's atmosphere, very few plants can use this directly. Most plants, therefore, require nitrogen compounds to be present in the soil in which they grow.

This is made possible by the fact that basically inert atmospheric nitrogen is changed in a nitrogen fixation process to biologically usable forms in the soil by bacteria.

CONCLUSION

In addition to dietary references for the general population, there are many specific diets that have primarily been developed to promote improved health in specific population groups, such as people with high blood pressure (such as low sodium diets or the more specific DASH diet), or people who are obese (weight control diets). Some of them may have more or less evidence for positive effects in normal people as well. Consumers are generally aware of the elements of a healthy diet, but find nutrition labels and diet

advice in popular media perplexing. Fears of high cholesterol were frequently voiced up until the mid-1990s. Later research shows that the distinction between high- and low-density lipoprotein ('good' and 'bad' cholesterol, respectively) is vital when considering the impending ill effects of cholesterol.