

Introduction to Human Nutrition and Dietetics (NTD 212)

Lecture-1

by

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Definition and goals of studying Human Nutrition

Definitions

- Human nutrition is a complex, multifaceted scientific domain indicating how substances in foods provide essential nourishment for the maintenance of life.

It is a process by which substances in food are transformed into body tissues and provide energy for the full range of physical and mental activities that make up human life.

Nutrition is both a pure science and a social science. As a pure science it looks at how the body uses nutrients. As a social science it looks at the relationship between food and human behavior and the environment, or how and why people eat.

Nutrients are substances in food that body needs to function properly such as in growing, in repairing itself, and in having supply of energy.

- The study of human nutrition is interdisciplinary in character, involving not only physiology, biochemistry, and molecular biology but also fields such as psychology and anthropology, which explore the influence of attitudes, beliefs, preferences, and cultural traditions on food choices.
- Human nutrition further touches on economics and political science as the world community recognizes and responds to the suffering and death caused by malnutrition. The ultimate goal of nutritional science is to promote optimal health and reduce the risk of chronic diseases such as cardiovascular disease and cancer as well as to prevent classic nutritional deficiency diseases such as kwashiorkor , pellagra etc

- The science of human nutrition deals with all the effects on people of any component found in food.
- This starts with the physiological and biochemical processes involved in nourishment—how substances in food provide energy or are converted into body tissues, and the diseases that result from insufficiency or excess of essential nutrients malnutrition.

- The role of food components in the development of chronic degenerative disease like coronary heart disease, cancers, dental caries, etc.,

The scope of nutrition

- The scope of nutrition extends to any effect of food on human function:
- fetal health and development, resistance to infection, mental function and athletic performance.
- There is growing interaction between nutritional science and molecular biology which may help to explain the action of food components at the cellular level and the diversity of human biochemical responses.

- Nutrition is also about why people choose to eat the foods they do, even if they have been advised that doing so may be unhealthy.
- The study of food habits thus overlaps with the social sciences of psychology, anthropology, sociology and economics.
- Dietetics and community nutrition are the application of nutritional knowledge to promote health and wellbeing.
- Dietitians advise people on how to modify what they eat in order to maintain or restore optimal health, and to help in the treatment of disease.

Goals of Human Nutrition and Dietetics

1. One of the goals of the course is to provide scientific training that encompasses all aspects of the nutritional and food sciences and, to develop the skills and attitudes required for working in the broad field of applied nutrition
2. It is also to give future applied nutrition professionals (dietitians) a broad understanding of the basic sciences, nutrition, dietetics, public health, nutritional education, organization, management, languages and other complementary subjects.
3. Educate individuals and the public on food choices that will optimize health and prevent disease.
4. Apply nutrition principles to health promotion and the prevention of diet-related disease conditions.

5. Monitor trends and issues in the discipline of nutrition and translate this information into curriculum and training programs.
6. Apply research principles and methods to the examination of current problems in nutrition and health.
7. To expand nutrition knowledge through provision of excellent conditions for learning, research and innovation.
8. To produce graduates with sufficient knowledge, professional skills, and competence in promoting optimal nutrition, health and sustainable developments.