



**SNS COLLEGE OF TECHNOLOGY
(An Autonomous Institution)
Coimbatore.**

Introduction to Nutraceuticals

Nutraceuticals are products derived from food sources that provide health benefits beyond basic nutrition. The term combines "nutrition" and "pharmaceutical," reflecting their dual nature as food and potential medicine. Nutraceuticals are often used to promote health, prevent disease, or treat conditions, making them a significant focus in health and wellness industries.

Authorized Definition of Nutraceuticals

While there isn't a universally accepted definition, the World Health Organization (WHO) and various regulatory bodies recognize nutraceuticals as substances that provide health benefits when consumed. The Food and Drug Administration (FDA) in the United States does not officially categorize nutraceuticals as a distinct category, but they often fall under dietary supplements or functional foods. Generally, nutraceuticals can be defined as:

"Foods or food products that provide medical or health benefits, including the prevention and treatment of disease."

Classification of Nutraceuticals

Nutraceuticals can be broadly classified into several categories:

Functional Foods: Foods that have a beneficial effect on health beyond basic nutrition. This includes foods fortified with vitamins, minerals, probiotics, or other bioactive compounds. Examples are yogurt with probiotics or orange juice fortified with calcium.

Dietary Supplements: Products that contain vitamins, minerals, herbs, amino acids, or other dietary ingredients meant to supplement the diet. These can be in forms such as pills, capsules, powders, or liquids. Examples include fish oil capsules and multivitamins.

Medicinal Foods: Foods formulated to be used under medical supervision for specific dietary management of a disease or condition. These are often used in clinical settings and may include medical nutrition products prescribed for patients.

Herbal Products: Plant-derived products used for therapeutic purposes. These can include extracts, tinctures, or teas. Examples include ginseng and echinacea.



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Probiotics and Prebiotics: Substances that enhance the health of the gut microbiome. Probiotics are live bacteria, while prebiotics are compounds that feed these beneficial bacteria.

Fortified Foods: Foods that have added nutrients to enhance their nutritional value. Examples include bread fortified with folic acid or cereals enriched with iron.

Differences Between Nutraceuticals and Nutrients

Definition:

Nutrients: Essential compounds that the body needs to function properly, including carbohydrates, proteins, fats, vitamins, and minerals.

Nutraceuticals: Products derived from food sources that offer additional health benefits and may not be essential for basic life functions but contribute to overall health and wellness.

Functionality:

Nutrients: Primarily provide energy, structural components, and regulatory functions in the body.

Nutraceuticals: Often provide specific health benefits, such as reducing the risk of chronic diseases or improving health markers (e.g., cholesterol levels, inflammation).

Regulatory Status:

Nutrients: Generally recognized as essential and are regulated as part of food or dietary guidelines.

Nutraceuticals: May be subject to less rigorous regulatory standards compared to pharmaceuticals and can vary significantly in quality and efficacy.

Sources:

Nutrients: Primarily obtained through a balanced diet consisting of various food groups.

Nutraceuticals: Can be consumed as standalone products, often in concentrated forms or as supplements.

Health Claims:

Nutrients: Health claims are based on established scientific evidence regarding their role in human health.

Nutraceuticals: Health claims can vary widely and may not always be supported by rigorous scientific evidence.

INFERENCE :

Nutraceuticals represent an important intersection of food and health, offering additional benefits beyond basic nutrition. While nutrients are essential for bodily function, nutraceuticals can enhance health, prevent disease, and support overall well-being. Understanding the distinctions between these categories helps consumers make informed choices about their dietary and health-related decisions.