

# **Functional Foods and Nutraceuticals, Definition, Concept and Origin**



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# Functional Foods

**IFT** : Food & food components that provide a health benefit beyond basic nutrition(for the intended population) including conventional foods, fortified, enriched or enhanced foods & dietary supplements. They provide essential nutrients often beyond quantities necessary for normal maintenance, growth, development and or other biologically active components that impart health benefits or **desirable physiological effects** (Mac Aulageta,2005)

**Institute of Food and Information Council (IFIC)** states that functional foods “ provide health benefits **beyond basic nutrition**” (Hassler et al., 2004)

**ADA**: Functional foods are foods that have health benefits beyond the nutrients they contain (ADA, 2005)

# Origin of Functional Foods

The concept of functional foods originates from ancient China and then shifted to Japan long ago

- ❖ Arai (2005) gives a concept of **Medicine and Foods are Isogonics**
- ❖ Similarly Hippocrates (460-377B.C) **“Let food be thy medicine and medicine be thy food”**
- ❖ Hasler in 2001 renew this term of functional foods
- ❖ Japan Ministry of Health and Welfare initiated the World first policy of legally permitted the commercialization of selected functional foods named “food for specified health use”(**FOSHU**).

# FOOD

Consists of CHO's, fats, proteins, vitamins, minerals, water and roughage

Normal body functions i.e. growth, repair, energy production and protection

Add bioactive compounds other than nutrients

Remove specific harmful ingredients

## Functional Foods

Basic nutritional functions+ physiological health benefits and reduced risk of chronic diseases

A natural food product can be engineered to become a functional food by:-  
**Increasing** specific components (**Phytochemicals**) to reach a concentration more likely to express health benefits

**Adding** components not normally present but having a beneficial effect

**Replacing** a component that is excessive and harmful with one having a beneficial effect

**Improving the bioavailability** of components having desired health benefits

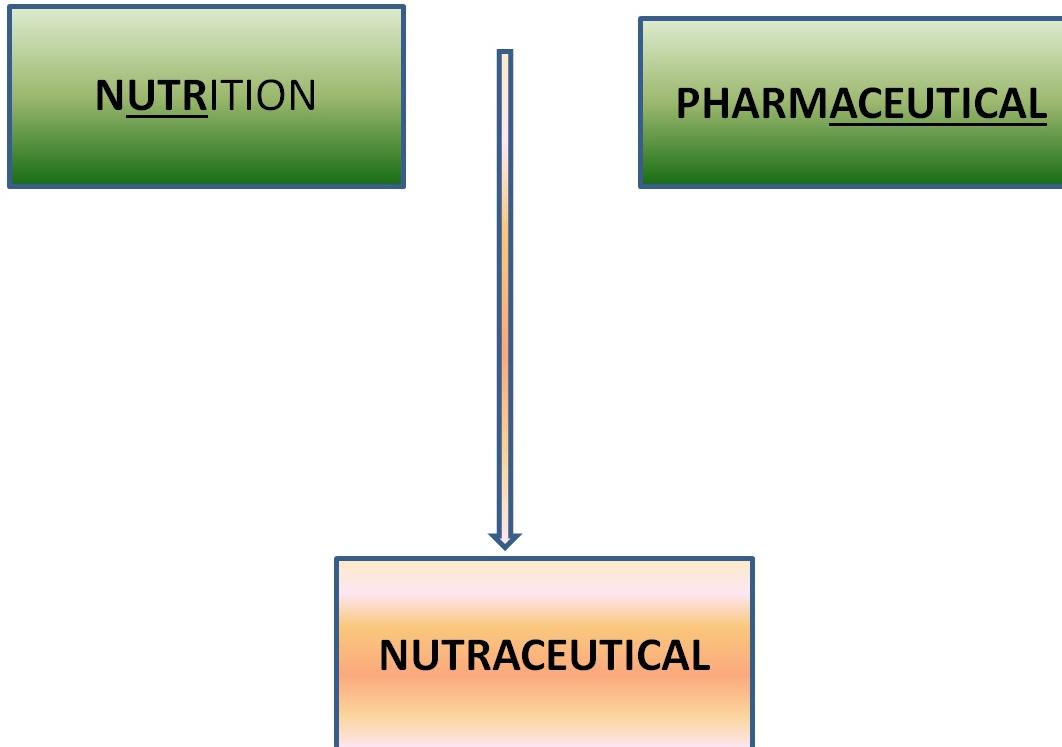


# Nutraceuticals

- ❖ A nutraceutical can be defined as a diet supplement that provides a concentrated form of bioactive compounds of food in a non-food matrix to enhance health and prevent disease

**Examples :** Carotene and anthocyanidins

# Derivation of the term nutraceutical



# Prerequisites of Functional Foods



Should be foods, not capsules, tablets/powder derived from natural ingredients

Should be consumed in daily diet as full or part

Should contain the functional ingredient in sufficient quantities/ cure disease

Perform a particular function of prevention /cure of disease when ingested

# Functional Foods Vs Nutraceuticals

<b>Functional Foods</b>	<b>Nutraceuticals</b>
Should look as a conventional food stuff. e.g. Bread, juice, flour etc.,	Are available as powders, capsules, concentrates etc.
Necessarily a part of our daily meal and basic food stuff	Not a part of daily meals
Functional foods contain nutraceuticals as one of their constituents	These when incorporated into basic food stuff make it functional