

# ESU 009– Introduction and definitions of nutraceutical & functional foods

## Lecture 1

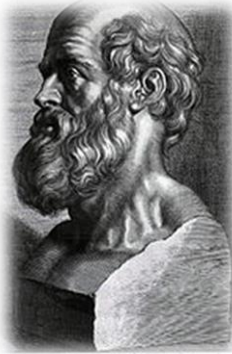


# Objective



- + To know **what is nutraceutical?**
- + To study various **sources of nutraceuticals** and its **importance's**.

# History ...



- The Greek physician Hippocrates, often known as the “**father of medicine**” said “**let food be your medicine**”. The Philosophy behind is:

## “Focus on Prevention”

- The term “**Nutraceutical**” was coined by combining the terms “**Nutrition**” and “**Pharmaceutical**” in 1989 by Dr. Stephen De Felice.

- According to Dr. DeFelice , “Nutraceutical is any substance that is a **food or a part of food** that provides medicinal or **health benefits** including the **prevention and treatment of disease.**”
- Health ministry of Canada defines it **“As a product isolated or purified from the food generally sold in medicinal form not assisted with food and demonstrated to have a physiological benefit and provide protection against chronic disease.”**



# Definition Of Nutraceuticals...

- A nutraceutical is any substance considered as a **food**, or its part which, in addition to its normal which, in addition to its normal nutritional value **provides health benefits** including the **prevention of disease or promotion of health**.
- It is **“any non-toxic food component that has scientifically proven health benefits, including disease treatment or prevention”** .
- The functional component of the food must be **standardized** in the nutraceutical product and produced under good manufacturing practices (GMPs).

# Food As.....Medicine

- Nearly two thirds of the world's 6.1 billion people rely on the **healing power of plant based materials** for many reasons- **availability, affordability, safety** or their belief in traditional affordability, or belief in **traditional cures**.
- Medical benefits of food have been explored for thousands of years Modern nutraceutical industry **began to develop during the 1980s.**



Pharmaceutical

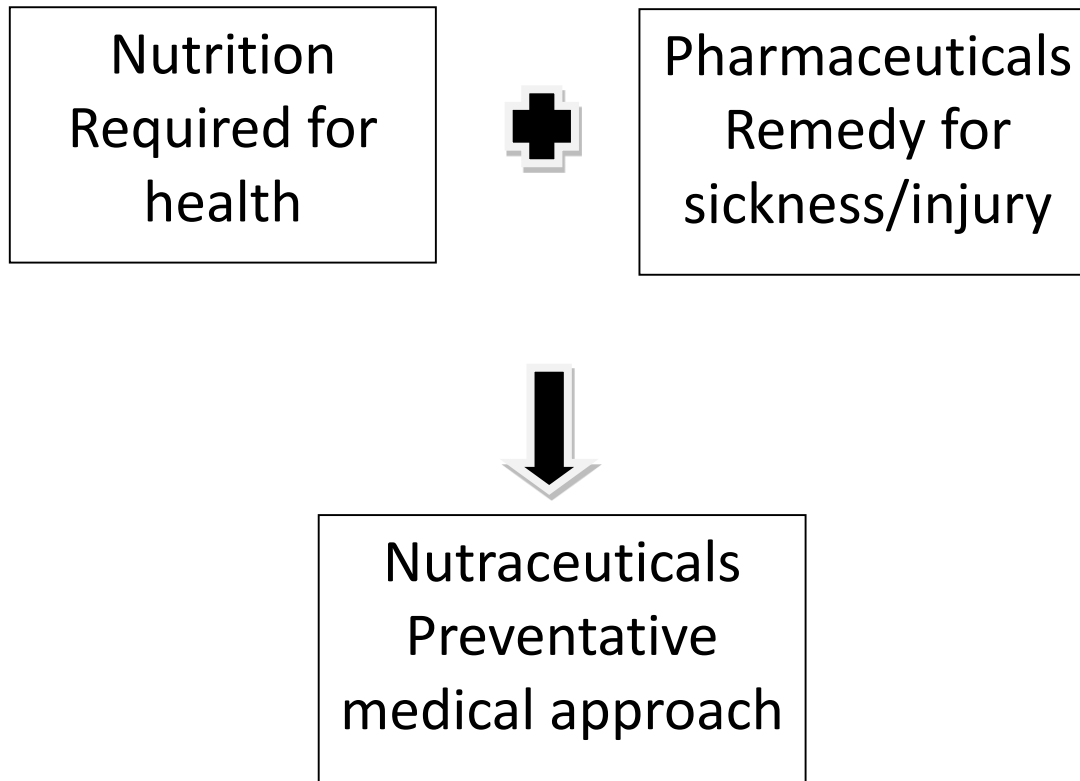


Drugs used in the  
**TREATMENT** of  
disease

Nutraceutical



Nutrients that may  
**PREVENT** disease



**Figure : Concept of nutraceuticals**



# Nutraceuticals can be classified as...

1. **Potential Nutraceuticals** - One which has promising approach towards **particular health or medicinal benefit**.
2. **Established Nutraceuticals** – A Potential Nutraceutical becomes established nutraceutical only after there are sufficient **clinical use** to demonstrate a benefit.

# Nutraceuticals mainly consists of ...

1. Nutrients: Substances which have established Nutritional functions e.g. Vitamins, Minerals, Amino Acids, Fatty acids, etc.
2. Herbals/ Phytochemicals: Herbs or Botanical products.
3. Dietary Supplements: Probiotics, Prebiotics, Antioxidants, Enzymes, etc.



# Thank you

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