SHORT COMMUNICATION

FOOD AS MEDICINE

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CAPSULE SUMMARY

The author has elucidated the role of food

as medicine, encompassing the major

types along with the main ingredients and

functions of each

Research indicates that some civilizations (Egyptians, Chinese & Sumerians etc) used food as both prophylactic and therapeutic medicine, and food has been studied for many centuries for its medicinal properties 1. Stephen DeFelice created the

word "nutraceutical" in 1989, combining the words "nutrition" and "pharmaceutical." It is defined as "a food or part of a food that provides medical or health benefits, including disease prevention and/ or treatment". Nutraceuticals is an overarching term that refers to any food- derived product that provides numerous health benefits along with its fundamental food

value. Stuff that classically makes claims about improving health, preventing chronic diseases, slowing down ageing, and enhancing life expectancy. For many years, nutraceutical products were considered alternative medicine, but they have now become a mainstream dietary supplement ².

CLASSIFICATION OF NUTRACEUTICALS

Nutraceuticals are a broad category that includes a wide range of products.

- A. Functional foods: "Functional food" is the term used when food is cooked / made with or without knowledge of how or why it is being used. Thus, it supplies the necessary proteins, carbohydrates, fats, vitamins and minerals for health. A nutraceutical is a functional food that assists in preventing and/or treating diseases other than anemia. Instead of having liquid or capsule-based nutritional supplements, functional foods allow people to feed on natural, enriched foods. "Nutrification" is a process of enrichment or fortification of the functional food ³.
- B. Nutritional supplements: A nutritional supplement is a liquid or capsule that has food-derived nutrients in it. Definition of a dietary supplement by the Dietary Supplement Health and Education Act (DSHEA) of 1994 is "a product taken by mouth that contains a "dietary ingredient" in order to supplement the diet which might

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include amino acids, minerals .vitamins, enzymes, organ tissues, herbs or other botanicals and metabolites. These are available in capsules, tablets, soft gels, liquids, and powders3. Nutritional supplements are not formulated to

> diagnose, cure, treat, or prevent any disease and prior FDA approval before marketing (FDA)is not required for them 4.

C. Medicinal foods: Medicinal foods are not sold freely to the general public. These are aimed for specialized nutritional treatment of a particular medical disorder, which different nutritional requirements

are identified for by medical evaluation. These foods are based on acknowledged scientific principles, designed to be ingested / supplied, under the supervision of a physician. Medicinal meals are generally developed to fulfill specific nutritional needs for patients suffering from definite ailments, and can be taken by mouth or through a tube 5.

D. Pharmaceuticals: These are medically beneficial compounds derived from genetically modified agricultural harvests or have an animal-source (generally by biotechnology). In agricultural circles, the word pharmaceuticals is commonly linked with medical uses of genetically engineered reaps or animals 6.

Some foods with medicinal value are functionally classified in the table below 2:

S. No	Functions	Ingredient	Source
1	Antioxidants	Resveratrol	Red grapes
		Flavonoids	Dark chocolate, Citrus, Wine, Tea
		Anthocyanins	Berries
2	Cholesterol lowering foods	Products containing soluble dietary fibre	Psyllium seed husk
3	Foods that prevent malignancies	Sulforaphane	Broccoli
4	vascular health improving foods	Isoflavonoids	Soy or Clover
5	Lowering the chances of cardiovascular disease	α-Linolenic acid	Chia or Flax seeds

REFERENCES

- 1. Adelman J, Haushofer L. Introduction: Food as Medicine, Medicine as Food. J Hist Med Allied Sci. 2018 Apr 1;73(2):127-34.
- Verma G, Mishra MK. A review on nutraceuticals: classification and its role in various diseases. International Journal of Pharmacy & Therapeutics. 2016;7(4):152-60.
- 3. Kaur S, Das M. Functional foods: An overview. Food Sci Biotechnol. 2011
- Aug;20(4):861-75.
- 4. Wallace TC. Twenty years of the dietary supplement health and education act—how should dietary supplements be regulated?. J Nutr. 2015 Aug 1;145(8):1683-6.
- 5. Rahman MS, McCarthy OJ. A classification of food properties. Int J Food Prop. 1999 Jul 1;2(2):93-9.
- 6. Schubert D. A different perspective on GM food. Nat Biotechnol. 2002 Oct;20(10):969-.
