



Review On: Herbs As Nutraceuticals

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ABSTRACT:

Nutraceutical can be define as a food or part of food or nutrient which in addition to its nutraceutical value provide health benefits including promotion of health and prevention of disease. Nutraceuticals are nutritional substances derived from food that support human health. Nutraceuticals are a powerful tool in the fight against modern health epidemics. The potential of nutraceutical in the treatment and prevention of various disease including cancer, metabolic disorder, diabetes and asthma to improving human health. “Dr. Stephen L. De Felice introduced the terms ‘nutraceuticals’ in 1989, blending nutrient and pharmaceutical to create the a concept that merges the benefit nutrition and pharmaceuticals”. The global nutraceutical market is forecast to reach USD 404.8 billion by 2025, driven by growing popularity of dietary supplement and herbal product. Nutraceuticals are bioactive food substance or their constituents that provide therapeutic or health promoting effects, encompassing the prevention and management of disease and are integral in mitigating widespread health concerns. “ food as medicine”.

Keywords- Nutraceutical, Prevention, dietary supplement, Nutrition, Diseases.

1. INTRODUCTION:

Nutraceuticals are food derived products that offer medicinal and health benefits including disease prevention and treatment are gaining popularity as a complementary or alternative to conventional pharmaceuticals. Nutraceutical a fusion of food and medicine, offering exciting possibilities for industry innovation and health advancement.^[1] Demand for medicinal foods rises with environmental pollution and lifestyle changes. Nutraceuticals have revolutionized research, focusing on enhancing quality of life disease prevention and immune system enhancement.^[2] The term ‘nutraceuticals’ is a combination of nutrition and pharmaceuticals. Nutraceuticals are isolated from natural source such as herb dietary supplement and specific food, dietary fibers that possess medicinal properties. The benefits of nutraceutical include improving health, slowing aging, preventing chronic disease increase lifespan and support human function.^[3]

“Dr. Stephen L. De. Felice introduced the term ‘nutraceuticals’ in 1989, blending nutrient and pharmaceutical to create that merges the benefits nutrition and pharmaceuticals”. “Food as medicine”.^[4] Nutraceuticals can be whole that are naturally rich in nutrients or specific bioactive compound in foods.^[5] Nutraceuticals are composed of various nutrients such lipids, vitamin, carbohydrates, proteins, minerals and other vital nutrients.^[7] Recent research have revealed promising outcomes for these compounds in managing various pathological condition including diabetes, cardiovascular disease, cancer and neurological disorder.^[12] The growing demand for nutraceuticals is being by consumer dissatisfaction as conventional medicine and a growing preference for natural and safe health solution.^[4] The nutraceuticals sector is undergoing a period of rapid transformation, driven by the growing awareness of preventive healthcare spending in the US, India and Europe.^[2]



1.1 REASONS FOR SHIFT TOWARDS NUTRACEUTICALS:

1. Dissatisfaction with prescription medications outcomes.
2. Economic obstacles to accessing health services.
3. Raising awareness about the efficacy of natural therapies.
4. Expanding market for preventive and curative health care.
5. Insufficient efficacy of conventional medicine for long terms disease^[3,12]

1.2 NEEDS OF NUTRACEUTICALS:

1. Promote normal physiological activity.
2. Growth and development increase demand for health promoting.
3. Elderly individuals requiring nutritional supplements.
4. Chronic disease like hypertension, anemia, diabetes etc.
5. Boosting energy.^[10]

1.3 CONCEPTS OF NUTRACEUTICALS:

Pharmaceuticals have undergone rigorous trials to demonstrate their efficacy, whereas has lacked a similar standard of verification. However, as research reveals the significant impact of food composition on lifestyle related disease. Nutraceutical have gained recognition as a potential solution for promoting health and preventing disease. These products boast of range of benefits from mitigating the risk of cancer and heart disease to alleviating symptoms of insomnia, digestive disorders and other condition.^[5]

1.4 CLASSIFICATION OF NUTRACEUTICALS:

- **Traditional nutraceutical :**

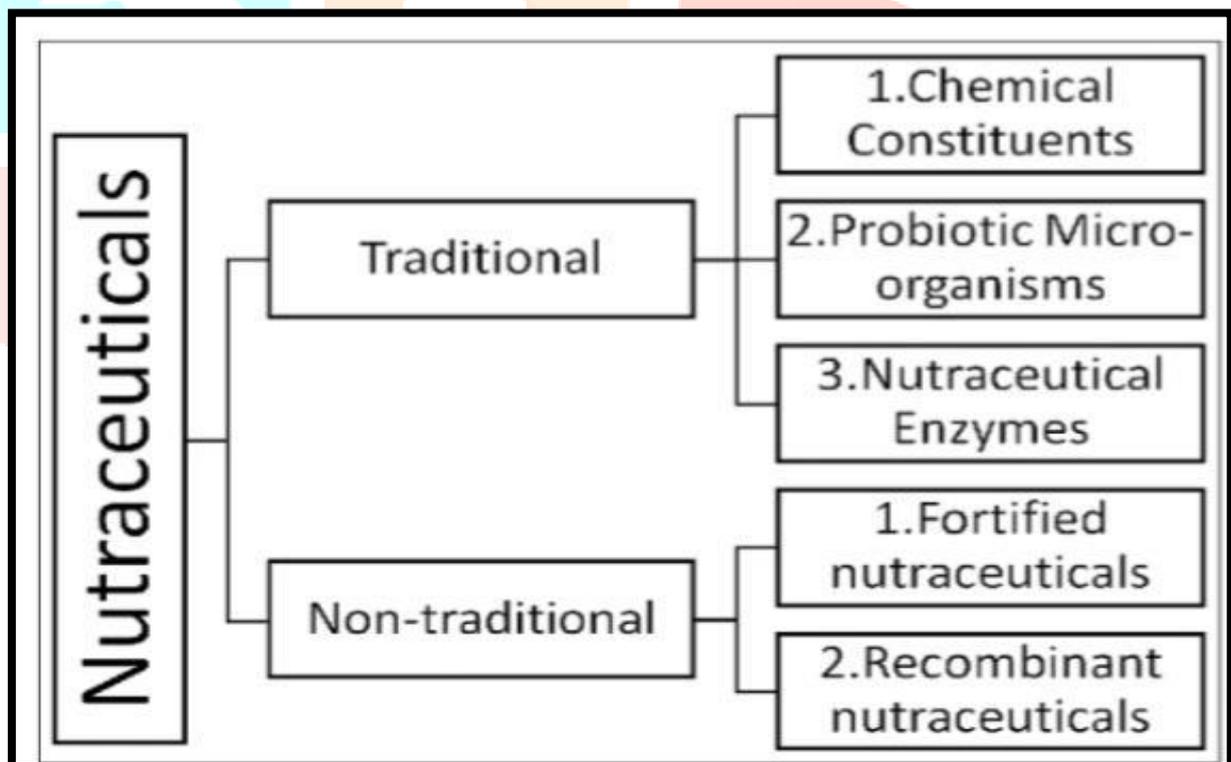
Food or food components that provide heath benefits such as fruit, vegetables, whole grains and dairy product that are part of a conventional diet. Its is further classified into three types

1. Chemical constituent.
 - Nutrient
 - Herbals
 - Phytochemicals
2. Probiotic organisms.

3. Nutraceuticals enzymes. ^[3]• **Non traditional nutraceutical:**

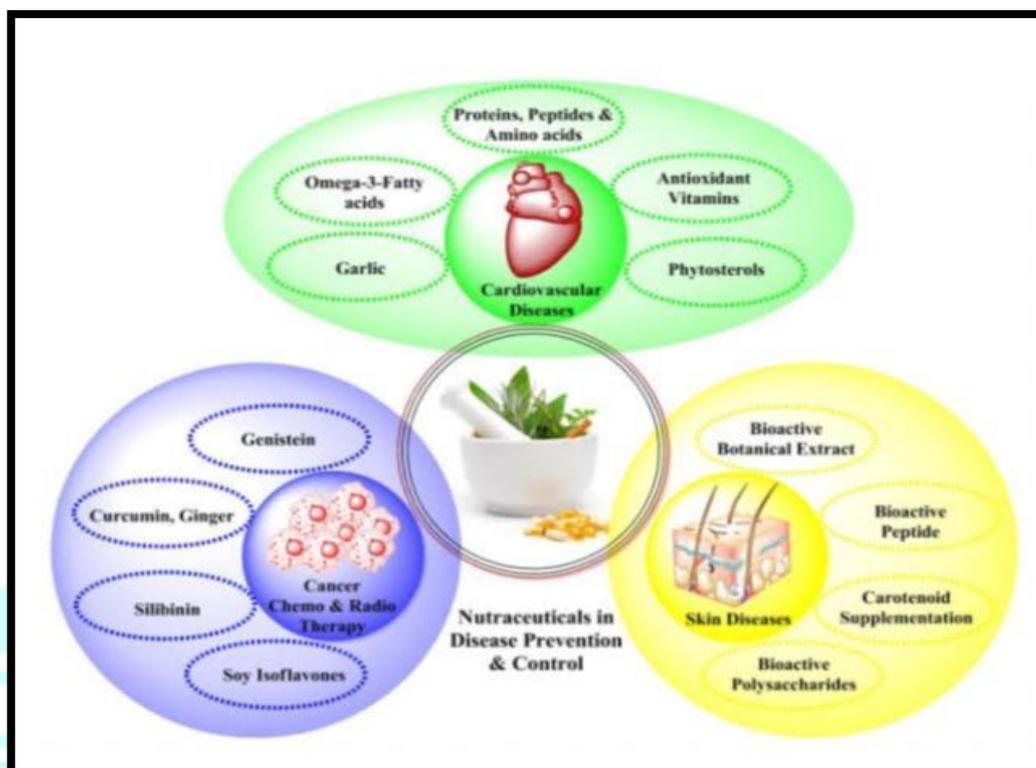
Non traditional nutraceuticals are substance or products non typically part of the traditional diet used to promote health and well being such as herbal extracts, microorganisms and bioactive include it is further divide into two types

1. Fortified nutraceuticals.
2. Recombination nutraceuticals. ^[3]



1.5 NUTRACEUTICALS AND DISEASES

Nutraceuticals are considered to have health promoting properties and provides protection against various disease such as Cardiovascular disease, Diabetes, Obesity, Parkinson disease, Cancer, Allergy, Osteoarthritis, Eye disorder, Immune system, inflammation. ^[3,9]



List of common nutraceuticals

Nutraceuticals	Biological Name	Family	Disease effect on body	Name of disease
Garlic	Allium Sativum	Amaryllidaceae	Anticancer, antioxidant	Heart, cancer
Ashwagandha	Withania Sonifera	Solanaceae	Inflammation reduction	Parkinson, Alzheimer
Turmeric	Curcuma longa	Zingiberaceae	Anticancer, antioxidant	Asthma, eye infection etc.
Ginseng	Panax Ginseng	Araliaceae	Antioxidant, anti inflammation	COPD, Asthma etc
Lotus seeds	Nelumbo Nucifera	Nelumbonaceae	Disease effect on body	Diarrhea, gout , etc.

1.6 RECENT TRENDS OF NUTRACETICALS IN INDUSTRY

Nutricosmetics

Nutricosmetics Industries is growing rapidly driven by demand for natural side effect free product that promotes beauty and wellness. Customer especially younger generation are seeking alternative to chemical based cosmetics. Nutricosmetics feature natural ingredient like vitamin, herbal extract and polyphenol and market is seeking trends towards collagen alternative. The global nutricosmetics market is projected to reach USD 179 billion by 2022 fueled by increasing consumer awareness of personal care healthy lifestyle.^[10]

Supplement for pets

Pet owner prioritized their pets health driving demand for natural organic supplements with vitamin and minerals 76 millions US pet seek safe to ensure their are pets younger pet owner drive demand for premium pet supplement. The global pet supplement market is expected to reach USD 8.25 billion by 2023 growing at a CAGR of 6.34.^[10]

Nutritive supplement for sport

The global sport nutrition market expected to grow at a compound annual grow rate (CAGR) of 7.5% % from 2024 to 2030. The global nutraceutical market is growing by 8.9% each year.^[10]

1.6 FUTURE PRESPECTIVE OF NUTRACEUTICALS

Growing health awareness drives demand for nutraceuticals, with emerging trends in enzymes fermentation technology and investment in science and education.^[2] The nutraceutical market expected to grow significantly over the next five year due to increasing lifestyle related health issue. The market is projected to reach \$578.23 billion by 2025, growing at a CAGR of 8.8 %.^[3] Nutraceuticals bridge medicine and disease prevention advance in technology like genetic modification and nanotechnology with fuel growth driving investment and expansion.^[4] Nutraceutical offer benefits is preventive chronic disease but benefit is preventive chronic disease but require professional guidance and should not replace medical treatment on going research regulation and emerging concepts like genetic and shaping the industry.^[7]

2. CONCLUSION

Modern diet often lack essential nutrients due to processed and junk food. As a fusion nutrition and pharmaceutical supply a concentrated nutrients, minerals, ingredient. It is use as prevention of disease not cure of disease. Nutraceuticals play a vital role in preventing treatment disease. Nutraceuticals reduces stress, enhance well being. Plant derived nutraceutical importance in present system of medicine and healthcare is use as same as traditional drug. "Nutraceutical a day may keep the doctor away" replace the proverb "An apple a day will keep the doctor away".

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