

A REVIEW ARTICLE ON CURRENT CONCEPT OF HERBAL NUTRACEUTICAL AND FUTURE

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ABSTRACT

In these article we are discuse about the neutracetuical uses from current senario to upcoming future. Genarally we are disscuse the hearbal nutrient which is used as the suppliement to boost the immune or musscles. Nowadays, everyone is concerned about their health, so people use nutraceuticals to stay healthy. In this day and age, there is a high demand for nutraceuticals on the market. Nutraceuticals have been used since the Vedic period. There are numerous herbs are employed as nutraceuticals These are extremely beneficial to one's health, as they boost immunity and fight disease. People who go to the gym frequently consume nutraceuticals. A chemical compound found in any substance, such as fruits and vegetables, plays an important role.

The term nutraceutical implies that it contains nutrition, and we are all aware of its significance. Nutraceuticals include spices that we use in our food on a daily basis.

KEYWORDS:

INTRODUCTION

A nutraceutical is a food substance and its component that is beneficial to our health and useful in disease prevention. These are extremely beneficial to our bodies and health.

These are non-toxic food ingredients. Stephen Defelice coined the term "nutraceuticals" in 1989. The term nutraceuticals is a combination of the words nutrition and pharmaceuticals.

Nutraceuticals are divided into several categories. Since the Vedic period, many traditional herbal plants and medicines have been used. "Chyvanprash," a well-known Ayurvedic formulation, is widely used; it is very beneficial and boosts immunity. Some supplements are also on the market. Our diets also contain nutraceutical substances. Fruits and vegetables are high in vitamins, calcium, phosphorus, and other minerals. Foods are ordinary foods that have components, ingredients that incorporated into give them a specific med.

HEALTH BENEFITS

- Stay away from the side effect.
- May have naturally dietary supplement, so no unfavourable side effects.
- May improve human health, diet, and medical condition; • May be easily available and economically affordable.

Nutritional therapy is a complementary therapy that uses dietary therapeutics or nutraceuticals. This therapy is based on the belief that foods can provide medicinal benefits in addition to being a source of nutrients and energy. It accomplishes this goal, according to nutraceutical and nutritional therapy theory, by utilising the efficacy of such nutraceuticals in detoxifying the body, avoiding vitamin and mineral deficiencies, and restoring healthy digestion and dietary habits. Phytonutrients are plant nutrients that have specific biological activities that help plants.

The phytochemicals function as follows.

- Biochemical reaction substrate
- Enzymatic reaction cofactors
- Enzymatic reaction inhibitors
- Absorbents that bind to and eliminate undesirable gastrointestinal constituents.
- Improve essential nutrient absorption and/or stability.
- Beneficial bacteria selective growth factor.
- Beneficial bacteria fermentation substrate.
- Selective inhibitors of harmful intestinal bacteria.
- Reactive or toxic chemical scavengers

Ligands that irritate or antagonise cell surface or intracellular receptors. Classification Nutraceuticals or functional foods can be classified on the basis of their natural sources, pharmacological conditions, or as per chemical constitution of the products. On the basis of

natural source, it can be classified as the products obtained from plants, animals, minerals, or microbial sources. Nutraceuticals as per the chemical groupings.

Category of Nutraceutical

1. Nutrients are substances with well-established nutritional functions, such as vitamins, minerals, amino acids, and fatty acids.
2. Herbs or botanical products in the form of concentrates or extracts-Herbals
3. Reagents derived from other sources (e.g., pyruvate, chondroitin sulphate, steroid hormone precursors) used for specific purposes such as sports nutrition, weight-loss supplements, fortified conventional foods, and meal replacements-Dietary supplements
4. Dietary supplements are not intended to treat or cure disease, whereas nutraceuticals place a greater emphasis on the expected outcomes of these products, such as disease prevention or treatment.
5. Some of the most common methods of classifying nutraceuticals include food sources, mechanism of action, chemical nature, and so on. Nutraceutical food sources are all natural and can be classified as.
 - Fibers.
 - Prebiotics.
 - Polyunsaturated fatty acids.
 - Antioxidant vitamins.
 - Polyphenols.
 - Spices

GLOBAL DEMAND OF NUTRACEUTICAL

The nutraceutical industry lies under three main segments which include functional foods, dietary supplements, and herbal/natural products. Global nutraceutical market is estimated as USD 117 billion (INR 5148 billion). In 2007, nutraceuticals sale is projected to reach \$74.7 billion at an AAGR of 9.9%. This assumes a world economic recovery in 2003.

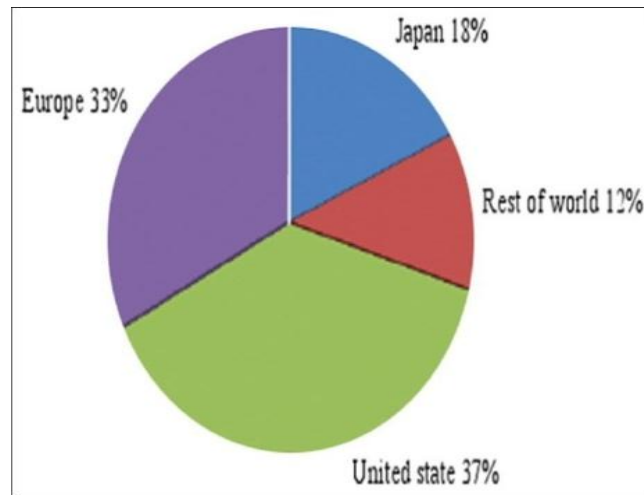


Fig: - 01: Demand graph of nutraceutical.

Class	Example
Inorganic mineral supplements	Minerals
Vitamin supplements	Vitamins
Digestive enzymes	Enzymes
Probiotics	<i>Lactobacillus acidophilus</i>
Prebiotics	Digestive enzymes
Dietary fibers	Fibers
Cereals and grains	Fibers
Health drinks	Fruits juice
Antioxidants	Vitamin c
Phytochemicals	Carotenoids
Herbs as a functional foods	Soya proteins

Fig 02: Supplements sources.

The functional food concept can be defined as “Food products to be taken as part of the usual diet in order to have beneficial effects that go beyond basic nutritional function.

NUTRITIVE + PHARMACEUTICAL

Product	Category	Contents	Manufacturer
Calciorol D-3	Calcium supplement	Calcium and vitamins	Cadilla healthcare limited, Ahmedabad, India
GRD ^[23-25]	Nutritional supplement	Proteins, vitamins, minerals and carbohydrates	ZyduS Cadila Ltd. Ahmedabad, India
Proteinex [®]	Protein supplement	Predigested proteins, vitamins, minerals and carbohydrates	Pfizer Ltd., Mumbai, India
Coral calcium	Calcium supplement	Calcium and trace minerals	Nature's answer, Hauppauge, NY, USA
Chyawanprash	Immune booster	Amla, ashwagandha, pippali	Daburindia Ltd.
Omega woman	Immune supplement	Antioxidants, vitamins and phytochemicals (e.g. Lycopene and resveratrol)	Wassen, Surrey, U.K.
Celestial Healthtone	Immune booster	Dry fruit extract	Celestial Biolabs Limited
Amiriprash (Gold)	Good immunomodulator	Chyawanprash Avaleha, Swarnabhasma and RasSindur	UapPharma Pvt. Ltd.

Fig 03: Nutraceutical products.

The nutraceuticals also contain the vitamins which improve human health and boost the immune system and keep a person healthy, which also increases the antioxidant properties and provides energy to the body. It is obtained from different sources such as plants, eggs, fish, pulses, fruit, and many other sources.

Name of vitamin	Source	Health benefits
Vitamin A ₁	Fish liver oil, liver	Antioxidants maintenance of healthy skin, vision and mucous membrane
Vitamin A ₂	Cheese, butter, carrots, spinach, pumpkins, papaya	
Vitamin D	Fish liver oil, wheat germ oil, egg yolk, milk, butter	Essential for formation of bones and teeth, helps the body absorb and use calcium
Vitamin E	Wheat germ oil, cotton seed oil, peanut oil	Antioxidant, helps form blood cells, muscles, lung and nerve tissue, boosts the immune system
Vitamin K	Cabbage, cauliflower, tomatoes.	Essential for blood clotting
Vitamin B ₁	Cereals, pulses	Essential in neurologic
Vitamin B ₂	Nuts, yeast	Helps in energy production
Vitamin B ₃ (pantothenic)	Liver, meat, yeast	Helps to convert food into energy and maintain proper brain function
Folic acid	Green vegetables	Essential in pregnancy, helps in RBC formation
Nicotinic acid (B ₅)	Yeast, egg, milk	Required for various nervous system functions
Pyridoxine (B ₆)	Banana, tomato juice	Helps to produce essential proteins and convert protein into energy
Biotin (Vitamin H)	Swiss chard	Required for various metabolic functions

Fig 04: Vitamin and their sources.

Herbal nutraceuticals Market

Herbal Nutraceuticals Market (By Product: Ginger, Garlic, Turmeric, Aloe Vera, Green Tea, Others; By Form: Capsules & Tablets, Powder, Liquid, Others; By Nature: Conventional, Organic; By Distribution Channel: Pharmacy, Online store, Supermarket/Hypermarket, Others) - Global Industry Analysis, Size, Share, Growth, Trends, Regional Outlook, and Forecast 2022 – 2030

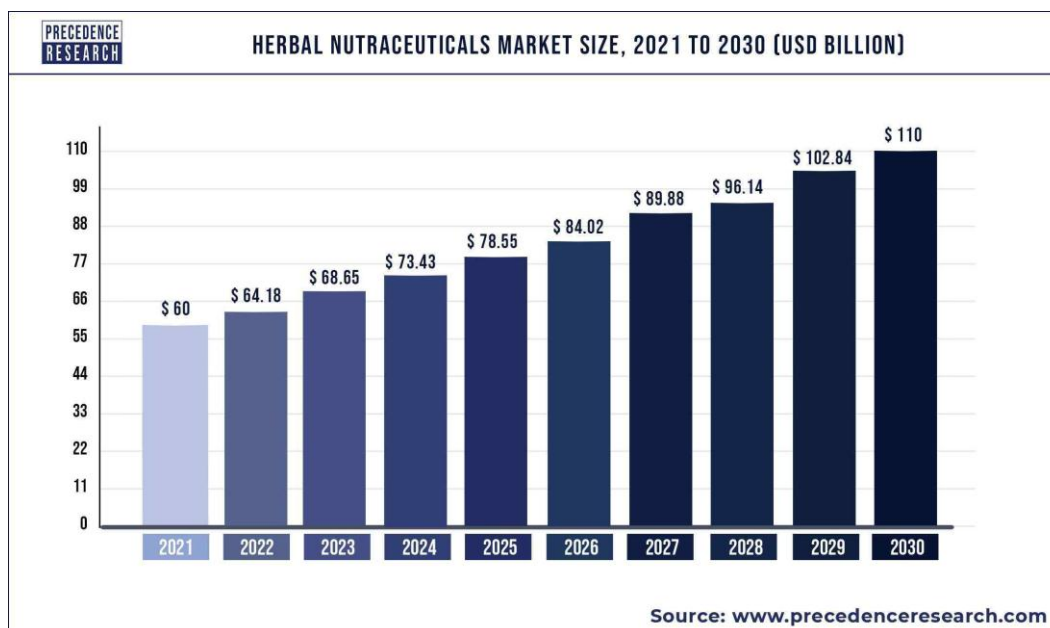


Fig 05: Herbal nutraceutical market sizes.

CONCLUSION

Nutraceutical is essential substance for living being which cannot fulfill with the regularly eating foods. It is obtain through the supplements which have different sources. The phytochemicals are the best source for the nutrition which does not cause any side effect to the body and produced their best action. From the few last years the demand of the nutraceutical supplement are increase years by years. In 2007 the market of the nutraceutical market are approx 117 billion in USD and it will cover large market in 2030 which will be approx 991 billion in USD. Which is shows that nutraceutical have large market value in the future.

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