

The Antiseptic

Estd. 1904

Indexed in
IndMED

A MONTHLY JOURNAL OF MEDICINE AND SURGERY

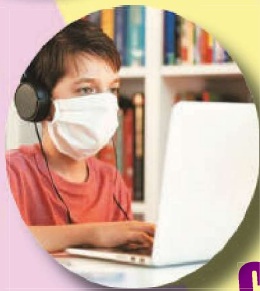
Email: admin@theantiseptic.in

www.theantiseptic.in

Vol. 118 • No. 10

OCTOBER 2021

ISSN 0003-5998 • ₹ 100



Page No. 8

Covid, Children and Schools



Nutraceuticals and its Next generation growth

SANJAY AGRAWAL

Nutraceuticals market today has become one of the booming markets with fast moving health goods, over the counter and fast moving consumer goods domestically and globally. Nutraceuticals play a vital role in curbing the health issues and provide medicinal and health benefits for the treatment of diseases. The potential of this market is increasing particularly in Asia-Pacific region due to the challenging lifestyle of the people who are looking for a modern and quick approach to fight against diseases or to prevent them.

With the rise in life expectancy and subsequent increase in lifestyle diseases, nutraceuticals have emerged as a necessity for consumers. Nutraceuticals are often defined as any food or part thereof which provides health benefits including prevention or treatment of disease. The idea behind the concept of nutraceuticals is to safeguard sickness, in accordance with the famous saying by the Greek physician, Hippocrates - the father of medicine - who is quoted as: "let food be your medicine." It is worth noting that the Hippocratic Oath that doctors take is based on his philosophy of medicine.

A nutraceutical is basically a product isolated or purified from foods that is generally sold in medicinal forms not usually associated with food and demonstrated to have a

physiological benefit or provide protection against chronic diseases. Such products may range from isolated nutrients, dietary supplements and specific diets to genetically engineered foods, herbal products, and processed foods such as cereals, soups, and beverages. Nutraceuticals are natural or bioactive chemical compounds that are promoted and marketed globally, claiming to be health promoting and disease preventing products with medicinal properties and effectiveness and they are available in the form of isolated nutrients and dietary supplements.

Nutraceuticals are segmented and projected according to its types into prebiotics, probiotics, omega-3 amino acids, peptides and proteins, phytochemicals, vitamins, minerals, fibres and specialty carbohydrates and carotenoids. Omega-3 is one of the most consumed nutraceuticals, due to its association with many disease prevention and treatments, such as thrombosis, atherosclerosis, cancers, arthritis. Based on application they are segmented as functional food, dietary supplements, functional beverages, animal nutrition and personal care. Dietary supplements can be extracted or concentrated, and may be found in many forms such as tablets, capsules, soft gels, gel caps, liquids, or powders which include mainly probiotics and prebiotic, dietary fibre, omega-3 fatty acids and antioxidants.

Global nutraceutical ingredients markets are segmented by health benefits as gut health, bone health, heart health, immunity, nutrition,

weight management and others. e. g. vitamins, minerals, amino acids, fatty acids, and so on and herbs or botanical products and the third category is dietary supplements such as probiotics, prebiotics, antioxidants, and enzymes. However, most common nutrients supplemented as nutraceuticals are minerals and vitamins, or in combination and or with other antioxidants.

Fortified cereals: Various breakfast cereals contain added vitamins and minerals (iron, zinc, vitamin B12 and folic acid).

Vitamin and mineral supplements: Either sold as separate supplements or as a mixture with varying amounts of the different compounds.

Additional supplements: Supplements other than vitamins and minerals which are believed to have beneficial effect on health (cod liver oil, primrose oil, glucosamine, garlic, echinacea and ginkgo biloba).

Energy drinks and tablets: Drinks contain stimulants such as caffeine and sugars or isotonic drinks containing sugars and salts to mimic the solute potential of the cytosol and thus create a solution which is osmotically balanced with the body.

Foods to reduce cholesterol levels: The most common example is Benecol, a margarine and possibly in the future a whole range of foods which will contain Abcor, a compound developed by 'Nutripharma' and claimed to reduce cholesterol level by 15-20 per cent in four months time of usage.

Probiotics: Foods containing bacteria that are believed to

Dr. Sanjay Agrawal,
Leading Pharmaceutical Consultant and Editor-in-Chief of IJM Today, Post Graduation Diploma in Naturopathy and Yoga, Visiting Faculty, Global Institute of Healthcare Management, Delhi. 6/146, Malviya Nagar, Jaipur - 302 017. Rajasthan.

Specially Contributed to "The Antiseptic"
Vol. 118 No. 10 & P : 21 - 22

improve health e.g., Yakult (with 6.5 million friendly bacteria in every drink) which contains *lactobacillus casei shirota*, a bacteria which are thought to improve gut health and reduce incidence of heart disease and certain cancers.

Nutraceutical ingredients are nutrient rich components that have beneficial medicinal qualities, which improve human health and provide prevention from diseases. The nutrition value of traditional foods increases with addition of nutraceutical ingredients. Nutraceuticals are used in cosmetics, dietary supplements, food and beverages on a wide range. Medicinal properties of nutraceuticals are used in health beneficial products across the globe. Nutraceuticals in the recent years have witnessed a tremendous rise in interest among consumers due to their potential of providing health benefits, and they can also be defined as a food stuff (as a fortified food or a dietary supplement) that provides health benefits. If indeed a claim is made that implies medicinal benefit to the nutraceuticals, the product would be required to comply with the regulatory requirements for medicinal products, in respect of safety, efficacy and quality-testing and marketing authorisation procedures. The nutraceutical industry is currently made up of many small and medium-sized companies which manufacture and also distribute products that mainly intend to maintain or improve health and well-being of the individual. Nutraceutical ingredients find application right from cereals, grains, nuts, vegetables, fruits, dairy products, poultry products, sea food and confectionery items to non-alcoholic beverages like juices, energy drinks, sports drinks, etc. Few examples of functional foods

are: yogurts with probiotics, drinks with herb blends, soy beverages rich in proteins, etc. The functional food category is seeing the highest growth in energy drinks, healthy snacks and breakfast products.

The next generation nutraceutical is a large market, the minerals segment is no longer posting the high growth numbers seen in years past, according to a study. As a result, companies are exploring other opportunities in an effort to carve out new growth and market share. Right now solubility and bioavailability seem to be key areas, along with providing 'tasteless' minerals, especially in the case of formulations geared toward children, according to experts. There has also been some compelling research in the area of bioavailability. Over the years the chelating process has improved the bioavailability of various minerals, which has brought positive changes to the market.

Polyphenols from grape seed extract have been known for years to have strong antioxidant effects. But, new studies indicate grape seed extracts have positive effects on blood pressure in persons with pre-hypertension and hypertension, as well as metabolic syndrome. Their increasingly recognized health benefits and ease of incorporation into formulations point to establishing grape seed extract as a favored ingredient for use in beverages.

Nutraceuticals provide energy and nutrient supplements to body, which are required for maintaining optimal health, and they are widely used in the food and pharmaceutical industries. Some nutraceuticals are useful to maintain healthy prostate function and as a remedy for restlessness and insomnia. Nutraceuticals, such as glucosamine and chondroitin

sulphate, offer possible chondroprotective effects against joint injury. Dietary factors play very significant role in premature chronic disease appearance, disease progression, morbidity and mortality. About 40 to 50 per cent proportion in cardiovascular disorders, 35-50 per cent proportion in cancers, and 20 per cent proportion in osteoporosis is attributable to dietary factors. Use of food as medicine for treatment and prevention of various disorders is not a recent development. Fortification of table salt with iodine and wheat flour with iron/folic acid has been used with specific aims of prevention of iodine deficiency goitre and anaemia for long. Similarly, food fortified with vitamin A has been found to be a feasible and cost-effective approach to reduce vitamin A deficiency.

Nutraceuticals in the recent years have witnessed a tremendous increase in interest among consumers due to their potential of providing health benefits, and the market place of nutraceuticals has witnessed increasing penetration of the major global companies in various geographic markets, attracted by the wide potentials. Nutraceuticals is a rapidly emerging concept in the Asia-Pacific region, which has been the largest consumer of the nutraceutical products over the past six years. The market has been inspired from the tradition of preventative health practices which were followed in some of the major countries of Asia. The emerging nutraceutical ingredient markets seem intending to occupy the landscape in the new millennium. Its tremendous growth shows implications for the food, pharmaceuticals, healthcare, and agricultural sectors.

