

Processed Food : A Necessity Today



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Abstract

Majority of people in the India still rely on traditional foods for their basic diet, but working young persons in metropolitan cities and industrialized locations tend more and more to purchase processed and packaged foodstuffs for convenience and time saving. The increasing number of women who now work away from home adds additional demand for processed food. Even people with a heavily traditional diet are demanding external products either as occasional treats. To meet these demands for processed food the industrial food processing sector has emerged. Food and crop processing is generally considered to be the largest industry in most countries. Studies in several developing countries for example have shown that up to 25% of the urban population can be involved in making or selling ready-to-eat meals. While in developed countries food processing is almost totally carried out in large, automated factories small-scale food processing still remains a vitally important economic activity in the developing world. Food processing enables the year-round availability of foods that have limited growing seasons. Frozen and canned fruits, vegetables and meat products are examples. Rather than limiting processed foods in the diet, it may be more productive to encourage the best available food options, namely, those that provide fewer constituents to limit and more nutrients to encourage for the calories consumed. Greater effort needs to be made to choose processed foods with lower amounts of saturated fats, sodium, and added sugars while still consuming nutrients to encourage. consumer definitions of processed foods need more research and education. Nutrition and food science professionals, the food industry, and other stakeholders can help to improve the diets of Americans by providing a nutritious food supply that is safe, enjoyable, affordable, and sustainable; by communicating effectively and accurately with each other; and by working together to improve the overall knowledge of consumers.

Keywords: Processed Food, Traditional Food.

Introduction

The foods can be either raw or processed. However, for consumption in today's civilized society no food product is consumed raw, except few fruits, vegetables and dry fruits. In any case the processed foods are palatable, healthy, preserved, and some times may be tailor made to meet specific requirement of specific consumers like infants, children, youth, elders, olders, male, female, boys, girls, patients, astronauts etc. Similarly there can be different situations that may demand a different category of processed foods e.g. breakfast, lunch dinner, festivals, picnics etc. Also, the requirement of processed food is so specific that the type of processed food varies depending upon caste, nation, locality etc. The demand for different type of processed food provide a huge opportunity for employment and profit making. The processed foods can be prepared by adopting different food processing techniques. Food processing is defined as any procedure undergone by food commodities after they have left the primary producer, and before they reach the consumer, who may themselves further cook or process the food.

Permutation and combination of procedures to bring about changes to the agricultural materials may be assumed to be food processing activity. All food processing operations are categorized as unit operations, each of which has a some specific effect on a processed food product. All the Unit operations used for processing together constitute a process, which ultimately determines the nature of the final product such as Palak Puree, canned Juice, Sauces, Canned baked beans in tomato sauce, frozen Peas, Frozen fish, baked products, or ready to cook and chilled ready to eat meals etc. The food industry has now become a global industry, dominated by a relatively few multinational conglomerates.

Aim of the study

In the light of growing working youth population their changing daily life as well as changing social structure the present study is under taken to investigate the necessity of processed food in daily life of growing working youth population in the country as well as to provide a indicator also for potential and opportunity for growth in processed food industry in the country in near future.

What is Processed Food

Different countries have made separate efforts to describe foods by distinguishing between different levels of processing, which has led to terms such as "unprocessed" or "minimally processed" foods, "processed culinary ingredients," "food industry ingredients," and "ultra processed foods". However, all classification schemes are somewhat arbitrary, but a subjective definition based on extent of processing is cost based and does not characterize foods in a helpful manner. The role of processed foods in the diet may be assessed by defining the characteristics of the products by the objectives linked to end use of product. Some specific qualities of food may also be assessed by the criteria ascertained by Government from time to time to bench mark the quality of food product, such as availability of ingredients in blends, use of preservatives, additives, emulsifiers, colours, agronomical practices adopted, type of processing methods used etc.

Why Process the Food

While most people in the world still rely on traditional foods for their basic diet, but those in industrialized centres tend more and more to purchase processed and packaged foodstuffs for convenience and time saving. The increasing number of women who now work away from home adds additional demand for processed food. Even people with a heavily traditional diet are demanding external products either as occasional treats.

The purpose of processing the food are fourfold:

1. To extend the period during which a food remains wholesome (the shelf life) by preservation techniques which inhibit microbiological or biochemical changes and thus allow time for distribution, sales and home storage.
2. To increase variety in the diet by providing a range of attractive flavours, colours, aromas and textures in food (collectively known as eating quality, sensory characteristics or organoleptic quality); a related aim is to change the form of the food to allow further processing (for example the milling of grains to flour).
3. To provide the nutrients required for health (termed nutritional quality of a food).
4. To generate income for the manufacturing company.

Traditional Food Vs Processed Food

Traditional food means food that are being prepared in houses by the technical skills and processes inherited from ancestors. India being rich in cultural heritage possess ITC for many very palatable, innovative, and healthy and convenience food. The taste and variety of foods in India vary not only from

region to region but also it varies from season to season in the same region. Whereas the processed food usually implies a food product that is prepared in various sizes of industrial establishment and provided to the consumers through various marketing channels in different marketable, convenient & safe packages with the specific objective of profit making. Traditional foods are usually prepared and made fit for consumption before feeding time, and are also comparatively cheaper in comparison to store available processed foods. For generations, traditional ecological knowledge, including traditional food species have been passed down to the younger generation through oral teaching, storytelling and experiences. The symbolic value of consuming traditional food has become as marker for identity for festivals occasions and rituals. Whereas the processed food is mostly liked by young people as they are convenient, easily available and always palatable. Processed food is also regulated by various government regulations and different market forces.

Advantages of Processed Food:

No agricultural produce can be consumed directly, it need inspection, cleaning, dressing, some processing, some times packaging. Food processing is the science/engineering/technology to make as well as keep the food fit for consumption till it is consumed in desired shape in desired conditions. Processed food not only provide alternatives to the consumer to consume the food as per their requirement and taste, but also, processed food can be made attractive, healthy, hygienic and convenient to consume as per the requirement of consumers. Food processing technology makes it feasible to make available the food throughout the country, round the year. Processing may also be used to disinfect the food from bacteria and enhance the shelf life of food product, Convenience is another major benefit of foods that have been processed. Imagine not having frozen food or tinned vegetables for that quick and easy Sunday dinner. Food processing is the process of changing raw food materials into more readily usable form. Its advantages and disadvantages are:

1. We get food materials out of season.
2. It prevents spoilage of food stuff.
3. It enables the availability of food material at distant places.
4. Storage period increases.
5. It helps in ensuring remote availability of food.
6. Processed foods are usually safer.
7. Processed foods offer increased employment.
8. It provides opportunity for profit making.

Types of Processed Foods:

The food is processed with the aim to make it fit for consumption. In this endeavor the agricultural produce are processed at three levels namely primary processing which includes cleaning grading sorting etc. through which cleaned cereals, pulses, dry fruits etc. may be created, secondly these products are further processed at a stage called secondary processing, like preparation of flour, split pulses, decorticated kernels of dry fruits etc. and these are called ready to cook foods, lastly at tertiary processing level foods are ultimately converted in to directly consumable form like packed bread, packed cooked chicken, packed pizza, packed Hamburger etc. these

are called ready to eat foods. Besides all these categories two new more categories functional foods and nutraceuticals are also identified functional foods are those which are especially designed or fabricated with an aim to meet certain functional requirement of body parts e.g. sugar free sweeteners are prepared with an aim to address the weakness of functioning of pancreas, similarly iodized salt is prepared with an aim to control the malfunctioning of thyroid gland. Whereas the nutraceuticals are those food products which are prepared with an aim to provide extra nutrition to meet the requirement of growing body parts.

Contribution to Health

Convenience in preparing a complete meal, ease in conforming to human needs, an emphasis on foods with nutrients that are likely to fall short in diets, and a deemphasize on those with constituents that are in excess are some rules of thumb for producing nutritionally favorable processed foods was suggested by Bender years ago. Latest various food processing methods may be applied to fabricate novel food. Some examples are iron fortified infant cereals, the fortification of milk with vitamin D, the fortification of margarine with vitamin A, processed foods prepared with iodized salt, enrichment of cereals with B vitamins and iron, and the recent fortification of wheat flour with folic acid. Processed food may provide alternative food options like one with less or more nutrients to encourage for the calories consumed also it may be used to choose foods with lower amounts of saturated fats, sodium, and added sugars while still consuming nutrients to encourage. Diets are more likely to meet food guidance recommendations if nutrient-dense foods, either processed or not, are selected.

Role of Processed Food in Diet

Bender suggested some rules of thumb for producing nutritionally favorable processed foods, such as convenience in preparing a complete meal, ease in conforming to human needs, an emphasis on foods with nutrients that are likely to fall short in diets, and a de-emphasis on those with constituents that are in excess. Food processing techniques such as enrichment and fortification can add essential nutrients that might otherwise be in short supply and can alter food profiles to decrease components that may be over consumed. Some examples are iron fortified infant cereals, the fortification of milk with vitamin D, the fortification of margarine with vitamin A, processed foods prepared with iodized salt, enrichment of cereals with B vitamins and iron, and the recent fortification of wheat flour with folic acid.

Processed Food and Nutritional Security:

Nutritional security ensures an adequate, balanced, varied, and wholesome diet. Food security, or having enough food and a secure, sustainable, and affordable food supply, is essential for all countries and individuals. Processing techniques that involve milling; separating; exposures to air, light, heat, or radiation; changes in acidity or osmolality; or other techniques during freezing, drying, canning, or vacuum packing can and often do alter the content of nutrients and other nonessential bioactive food

constituents. Processed food due to isolation of nutritional ingredients may yield rich food products, but in general it does not mean that there is any reduction in nutrient content of processed food. For example, the blanching and freezing of peas decreases amounts of vitamin C and riboflavin but not of 9 other nutrients examined. The loss of nutritional value must be weighed against other benefits such as convenience. Least loss of nutrition is the goal of processing.

Processed Food: A Commercial Venture

The post-harvest losses of selected fruits and vegetables are about 25 to 30 per cent in our country. Even marginal reductions in these losses are bound to give us better returns and thereby improve the income level of the farmers. During the last decade, India moved from a position of scarcity to surplus in food. Given the trade in production of food commodities, the Food Processing Industry in India is on an assured track of growth and profitability. It is expected to attract phenomenal investment in capital, human, technological and financial areas.

Food production of India is estimated to double in the next ten years. Hence there is an opportunity for large investments in food and food processing technologies, skills and equipment. The major interventions in this context are, for example, Canning, Dairy and Food Processing, Specialty Processing, Packaging, Frozen Food / Refrigeration and Thermo Processing. Fruits and Vegetables, Fisheries, Milk and Milk Products, Meat and Poultry, Packaged / Convenience Foods, Alcoholic Beverages and Soft Drinks and Grains. Health food and health food supplements are other rapidly rising segments of this industry. In India the food processing has been accorded high priority by the Government of India, with a number of financial incentives, to encourage skill development, employment generation and post harvest loss minimization by value addition to farm produce.

Emerging Technologies and future role of Processed Foods

Combined with advances in clinical, genetic, and metabolic medicine, evolving food processing approaches will encourage and enhance healthy life styles. Food processing approaches that address the obesity epidemic are critically needed. Over consumption of high calorie foods is one contributor to obesity, typically combined with inadequate physical activity. Food scientists are exploring ways to address this imbalance by, for example, reducing calorie intake while retaining pleasurable food experiences, slowing digestion while enhancing nutrient bioavailability, improving the palatability and acceptability of nutrient rich foods, and enhancing satiety. The main sources of calories in foods are carbohydrates and lipids. Modified starches that resist digestive activity are being developed. The goal of these products is to reduce the rate of starch digestion so that blood glucose concentrations are more evenly maintained, which leads to improved glycemic responses and prolonged satiety, thereby reducing risk of diabetes and cancer. Several noncaloric, intense sweeteners, such as stevia, that

can replace sugar have recently been developed and many others are being investigated. In addition, through the use of the advanced tools of nanotechnology and flavor chemistry, future products will have enhanced and nuanced flavors that reduce the need for caloric sweeteners. Reducing the amount of fat consumed while keeping the food enjoyable and fun to eat can be achieved by using novel techniques. For example, making fried potatoes without oil may be possible by using air fry or microwave heating to provide the appearance, taste, and texture of fried food without using additional oil. This process provides the opportunity to reduce fat by as much as one-third. In addition, the process reduces energy input, heat exposure and eliminates oil waste and associated chemical contaminants, providing a healthier, safer product. Providing specific appetite-suppressing compounds in foods without altering flavor or texture is also being studied.

Conclusions

In this assessment of the nutritional impacts of processed foods, we conclude that processed foods are nutritionally important to Indian diets. They contribute to both food security (ensuring that sufficient food is available) and nutrition security (ensuring that food quality meets human nutrient needs). Research has shown that processed foods provide both nutrients to encourage and constituents to limit as specified in the fssai guidelines. Therefore, although food processing has had positive impacts on human health, some of those successes have produced foods that, when consumed inappropriately or at inordinately high proportions of a total diet, are deleterious to health. Diets are more likely to meet food guidance recommendations if nutrient-dense foods, either processed or not, are selected. This initial assessment of the role of processed foods in nutrition and health identified many topics for further research, including the need for more complete data collection and refinement of the diverse measures of processed foods, especially to compare foods eaten at home with those consumed away from home. Also, there is a priority to develop new technologies to preserve foods in a manner that increases their nutrient density and simultaneously decreases the constituents that have been identified as dietary components to limit. Finally, consumer definitions of processed foods need more research and education. Nutrition and food science professionals, the food industry, and other stakeholders can help to improve the diets of youth by providing a nutritious food supply that is safe, enjoyable, affordable, and sustainable; by communicating effectively and accurately with each other; and by working together to improve the overall knowledge of consumers.

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