Editorial note for food processing.

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Food processing is defined as the collection of techniques and methods that is used to transform raw material into food for consumption by humans. Basically it is the method of alteration of food into another form using different preservation and packaging techniques. Food processing includes the methods and techniques used to transform raw ingredients into food for human consumption. This may involve a combination of processes like washing; chopping, fermenting, packaging, cooking pasteurizing etc. food processing also involves addition of substances for the extension of shelf life.

Food processing makes use of different methods that may include traditional methods like heating, fermentation, pickling, drying etc. some of the modern methods include pasteurization, ultra-heat treatment, high pressure processing, or modified atmosphere packaging etc. canning or pasteurization is the method of preservation where the food is heated at high temperatures and stored in an air tight can. Fermentation is another used to improve the nutrient value of the food. This involves the breakdown of sugars using bacteria, yeast or other microorganisms under anaerobic conditions. This is mainly used in the production of alcoholic beverages like wine, beer and also in the production of yogurt, bread etc. freezing is a technique used for the preservation of food materials like fruits, vegetables, meat etc., by inhibiting the growth of harmful bacteria by reducing the temperature below 00C. MAP or modified atmosphere packaging is the technique in which the air inside the can is replaced with a protective gas mixture containing oxygen, carbon-dioxide, and nitrogen. It is helpful in the extension of shelf life of meat products, meat, fruits and vegetables. Food additives is the major component of food processing industry for preserving the freshness and taste of the food. Few examples of additives include antioxidants that preserve fats and oils, preservatives that reduce the growth of microbes and emulsifiers are used to improve the texture of the processed food.

Processed foods are of greater advantages, they make the food edible. For example grain crops are not edible naturally, they need to be ground, to turn them into flour after which they are made into bread, tortilla etc. it improves safety by elimination of harmful microorganisms. Food processing is also helpful in enhancing the nutritional quality by addition of components that are not present naturally like addition of vitamin D through the process called fortification, or or by lowering fat sugar or salt content. Food processing leads to fall in price of the food. For example, the frozen vegetables have similar nutritional value as fresh foods but are available at lower prices.

As per the study published in "Food & Nutrition Research" it suggests that the processed foods takes less energy to digest than whole foods it means more of the calories they contain are retained. Moreover processed foods seem to be more allergenic when compared to the whole foods, according to an article called "Current Opinion in Allergy and Clinical Immunology". Although the preservatives additives used in processed foods are recognized as safe, a few of them may cause problems for some individuals, including sulfites, artificial sweeteners, artificial colors and flavors, sodium nitrate, BHA and BHT, olestra, caffeine and monosodium glutamate.