

Various types of food additives utilized in the food processing industry

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DESCRIPTION

In order to preserve flavor or improve food's taste, appearance, or other sensory properties, additives are compounds that are added to the food. In an effort to preserve food, some additives have been employed for millennia, such as vinegar (pickling), salt (salting), smoke (smoking), sugar (crystallization), etc. Foods that remain longer, like bacon, desserts, or wines, are made possible by this. In the latter half of the 20th century, as processed foods became more prevalent, several additives of both natural and synthetic origin were added. Food additives can include compounds that could be indirectly added to food during production, packing, storage, or transport (referred to as "indirect additives").

Effects of Food Additives

Certain dietary additives can cause responses in certain people, including hives and diarrhea. This does not imply that all foods containing additives should be viewed suspiciously. Given that all meals include chemicals, food additives are not always "less safe" than naturally occurring chemicals.

Numerous food additives are employed by the food industry and are also found naturally in many of the foods that people consume every day. For instance, Monosodium Glutamate (MSG) is present naturally in much higher concentrations in parmesan cheese, sardines, and tomato than it is in food additives. People who have food allergies and intolerances are frequently also sensitive to chemicals that are present in some foods, such shellfish or nuts, in their natural state.

The Most Popular Food Additives:

Monosodium Glutamate (MSG): A typical food additive called Monosodium Glutamate (MSG) is used to boost and amplify the flavor of savory dishes. It can be present in many processed goods, including canned soups, frozen entrees, and salty snacks. Additionally, quick food

establishments regularly include it in their recipe. Since a 1969 study on mice revealed that excessive quantities caused negative neurological effects and impeded growth and development, MSG has been the focus of intense debate.

Artificial food coloring: Artificial food coloring makes everything look nicer and brighter, from candies to sauces. But in recent years, there have been numerous concerns about potential health effects. Following the consumption of specific food colors as blue, red, and yellow some people have developed allergic reactions. A different study, however, suggested that some children might be more sensitive than others. Artificial food coloring may cause hyperactivity in children, according to another review.

Sodium nitrite: Sodium nitrite, which is frequently included in processed meats, prevents the growth of bacteria while also contributing a salty flavor and reddish-pink color. When nitrites are exposed to intense heat and amino acids, nitrosamine is a chemical that can have a variety of negative consequences on health. One study found a connection between higher nitrite and nitrosamine intake and a higher risk of stomach cancer. Numerous additional researches have also discovered a connection between processed meat consumption and an increased risk of colorectal, breast, and bladder cancer. Despite mixed results, several researches have suggested a connection between nitrosamine exposure and a higher risk of type 1 diabetes. The best course of action is to limit intake of processed meat and sodium nitrite.

Guar gum: Guar gum, a long-chain carbohydrate, is employed to thicken and bind meals. In the food industry, it is frequently used in ice cream, salad dressings, sauces, and soups. Guar gum contains a lot of fiber and has a long list of health advantages. For instance, one study found that it lessened bloating and constipation, two symptoms of irritable bowel syndrome. According to

a study of three researches, those who took guar gum with a meal reported feeling more satisfied thereafter and consumed fewer calories from afternoon snacks. Guar gum may possibly aid in lowering cholesterol and blood sugar levels, according to additional studies. However, using guar gum excessively could be bad for health.

High fructose corn syrup: High-fructose corn syrup, a sweetener, is made from corn. It is frequently found in soda, juice, candies, breakfast cereals, and snack foods. It includes a lot of fructose, a type of simple sugar that can be harmful to one's health when consumed in high amounts. Particularly high-fructose corn syrup has been linked to diabetes and weight gain. In one study, 32 individuals drank a beverage with either glucose or fructose as the sweetener for 10 weeks. By the end of the research, compared to the glucose-sweetened beverage, the fructose-sweetened beverage significantly increased blood sugar levels, belly fat, and insulin sensitivity.

Artificial sweeteners: Many diet foods and beverages utilize artificial sweeteners to increase sweetness while cutting calories. Artificial sweeteners that are often used

include aspartame, sucralose, saccharin, and acesulfame potassium. Studies show that artificial sweeteners can aid in both weight loss and blood sugar management. According to one study, those who took an artificial sweetener supplement for 10 weeks consumed fewer calories and acquired less weight and body fat than those who took conventional sugar. According to another study, sucralose consumption for three months had no impact on the management of 128 diabetic's blood sugar levels.

Tran's fat: Unsaturated fats known as Tran's fats have undergone hydrogenation, extending their shelf life and enhancing product uniformity. It can be found in a variety of processed foods, including biscuits, microwave popcorn, margarine, and baked goods. Trans-fat consumption has been linked to a range of potential health problems, and the Food and Drug Administration (FDA) even recently opted to revoke their Generally Recognized as Safe Certification (GRAS). A larger intake of Tran's fats is particularly associated with an increased risk of heart disease, according to numerous researches.