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## Food additives

Food additives are substances that become part of a food product when they are added during the processing or making of that food.

"Direct" food additives are often added during processing to:

- Add nutrients
- Help process or prepare the food
- Keep the product fresh
- Make the food more appealing

Direct food additives may be man-made or natural.

Natural food additives include:

- Herbs or spices to add flavor to foods
- Vinegar for pickling foods
- Salt, to preserve meats

"Indirect" food additives are substances that may be found in food during or after it is processed. They were not used or placed in the food on purpose. These additives are present in small amounts in the final product.

## Function

Food additives serve 5 main functions. They are:

1. Give the food a smooth and consistent texture:

- Emulsifiers prevent liquid products from separating.
- Stabilizers and thickeners provide an even texture.
- Anticaking agents allow substances to flow freely.

2. Improve or preserve the nutrient value:

- Many foods and drinks are fortified and enriched to provide vitamins, minerals, and other nutrients. Examples of commonly fortified foods are flour, cereal, margarine, and milk. This helps make up for vitamins or minerals

that may be low or lacking in a person's diet.

- All products that contain added nutrients must be labeled.

### 3. Maintain the wholesomeness of foods:

- Bacteria and other germs can cause foodborne illnesses. Preservatives reduce the spoilage that these germs can cause.
- Certain preservatives help preserve the flavor in baked goods by preventing the fats and oils from going bad.
- Preservatives also keep fresh fruits from turning brown when they are exposed to the air.

### 4. Control the acid-base balance of foods and provide leavening:

- Certain additives help change the acid-base balance of foods to get a certain flavor or color.
- Leavening agents that release acids when they are heated react with baking soda to help biscuits, cakes, and other baked goods rise.

### 5. Provide color and enhance flavor:

- Certain colors improve the appearance of foods.
- Many spices, as well as natural and man-made flavors, bring out the taste of food.

## Side Effects

Most concerns about food additives have to do with man-made ingredients that are added to foods. Some of these are:

- Antibiotics given to food-producing animals, such as chickens and cows
- Antioxidants in oily or fatty foods
- Artificial sweeteners, such as aspartame, saccharin, sodium cyclamate, and sucralose
- Benzoic acid in fruit juices
- Lecithin, gelatins, cornstarch, waxes, gums, and propylene glycol in food stabilizers and emulsifiers
- Many different dyes and coloring substances
- Monosodium glutamate (MSG)
- Nitrates and nitrites in hot dogs and other processed meat products
- Sulfites in beer, wine, and packaged vegetables

The United States Food and Drug Administration (FDA) has a list of food additives that are thought to be safe. Many have not been tested, but most scientists consider them safe. These substances are put on the "generally recognized as safe (GRAS)" list. This list contains about 700 items.

Congress defines safe as "reasonable certainty that no harm will result from use" of an additive. Examples of items on this list are: guar gum, sugar, salt, and vinegar. The list is reviewed regularly.

Some substances that are found to be harmful to people or animals may still be allowed, but only at the level of 1/100th of the amount that is considered harmful. For their own protection, people with any allergies or food intolerances should always check the ingredient list on the label. Reactions to any additive can be mild or severe.

For example, some people with asthma have worsening of their asthma after eating foods or drinks that contain sulfites.

It is important to keep gathering information about the safety of food additives. Report any reactions you have to food or food additives to the FDA Center for Food Safety and Applied Nutrition (CFSAN). Information about reporting a reaction is available at [www.fda.gov/about-fda/center-food-safety-and-applied-nutrition-cfsan/contact-cfsan](https://www.fda.gov/about-fda/center-food-safety-and-applied-nutrition-cfsan/contact-cfsan) [https://www.fda.gov/about-fda/center-food-safety-and-applied-nutrition-cfsan/contact-cfsan] .

## Recommendations

The FDA and the United States Department of Agriculture (USDA) supervise and regulate the use of additives in food products sold in the United States. However, people who have special diets or intolerances should be careful when choosing what products to buy.

## Alternative Names

Additives in food; Artificial flavors and color

## References

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