

FOOD ADDITIVES

A **food additive** is any chemical substance added to food during preparation or storage that either becomes part of the food or affects its characteristics for specific purposes.¹

Food additives are used to:

- **improve “keeping quality” and reduce waste** (e.g., calcium propionate is added to bread to keep it from molding; BHA or BHT is added to food products to keep oils or fat from going rancid).
- **maintain food quality characteristics** (e.g., cornstarch is added to powdered sugar to prevent lumping; mustard is added as an emulsifier to prevent oil and other ingredients from separating).
- **facilitate fast and convenient food preparation** (e.g., phosphate additives are present in instant oatmeal or instant pudding).
- **make food more appealing** (e.g., artificial or synthetic colours are added to food products; flavour enhancers, such as monosodium glutamate (MSG), are added to soups and sauces; sweeteners are added to beverages and breakfast cereals).²

In Canada, vitamins, minerals and other nutrients such as amino acids (sometimes added to improve nutrition) are not classified as food additives unless they are used for purposes listed above. Neither are spices, seasonings or flavourings considered food additives.³



Food scientist

Humans have added substances to food for thousands of years to make food last longer or improve its taste. Historians have found records indicating that salt was used to preserve meat as early as 3,000 BC.⁴



The seed hulls of mustard can be used as an emulsifier.

HOW ARE FOOD ADDITIVES CONTROLLED IN CANADA?

Health Canada regulates food additives under the *Food and Drug Regulations*.⁵ The regulations require food additives to meet certain standards in order for them to be considered safe for use in food. Food additives can be used in only certain foods.



NEW FOOD ADDITIVES

If a particular substance is added to a food that is not on the list of permitted food additives, then the manufacturer must file a **food additive submission** with Health Canada before that food additive can be used in foods sold in Canada.

Health Canada scientists thoroughly evaluate the submission. Food additives must be effective for their intended purposes and must not pose a hazard to consumers' health.⁶

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Labelling of food additives

Substances classified as food additives must be included in ingredients lists on labels of products packaged before being sold. Specific information about colour additives must be provided to inform consumers with allergies or sensitivities to such additives.

THE NITRATE/NITRITE DEBATE

Sodium nitrate (more commonly called “**nitrate**”) is a form of salt found in soil, air and water. Nitrate is found naturally in green, leafy vegetables, such as spinach, beets, celery, lettuce and radishes. Nitrates accumulate in plants as they grow due to the uptake of nitrogen contained in soil that occurs during plant. Nitrates are added to cured meats, such as hot dogs, bacon and ham to prevent the growth of bacteria and to give meat its pink colour.



When nitrates come into contact with saliva in the mouth, they are converted to **nitrites**. Medical research has shown that nitrite is critical for maintaining human health by controlling blood pressure, preventing memory loss and accelerating wound healing.⁷

Some concern exists about processed meats (and thus nitrates) causing cancer; however, of the human body's exposure to nitrite, only 20% comes from food. Of that 20%, just 2-3% comes from processed meat consumed as part of an average diet.⁸

