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## Food additives

It is often said that you are what you eat. This is why checking the ingredients list on packaged foods is very important in making healthier choices. It is very likely that among these ingredients you will find a food additive. Food additives are substances added to food to maintain or improve their safety, freshness, flavour, texture, or appearance. They have been in use for centuries for preservation, such as salt (in meats), sugar (in jams), or sulfur dioxide (in wine), and can be derived from plants, animals, minerals, or be synthetic. Many of these substances are safe and can be consumed with minimal risk. However, some of them have been associated with adverse health effects and should be avoided. Below you will find a few common food additives to look out for.

### **Nitrates and Nitrites**

Nitrates and nitrites are preservatives used to prevent bacterial growth in processed meats, such as bacon, hot dogs, and deli meats. When the foods containing these substances are cooked at high heat and they mix with stomach acid during digestion, the added nitrites can generate nitrosamines. Some research shows that nitrosamines may be carcinogenic, and that eating even half an ounce of deli meat or half a hot dog daily increases the risk of premature death.

### **Carrageenan**

Carrageenan, derived from red seaweed, is used as a stabilizer (for example, to keep salad dressing from separating) and to give products like frozen desserts, yogurts, and plant milks a creamy taste and texture. Animal studies have shown that exposure to





carrageenan increased levels of fasting blood sugar and glucose intolerance, especially when combined with a high-fat diet, and also found that it triggered inflammation. Carrageenan is believed to also negatively impact digestive health, possibly associated with the formation of intestinal ulcers.

## **Phosphates**

Phosphorus-containing additives, such as phosphoric acid and disodium phosphate, are found in a variety of processed foods, like soda (soft drinks), baked goods, dairy products, and fast food. High phosphorus intake is hazardous for people with kidney disease or those at risk. Too much phosphorus can bind to calcium, pulling it from bones and leaving them brittle. A link has also been found between high phosphate levels and increased cardiovascular risk. A 2013 study of over 700,000 people found that those with normal kidney function but high phosphorus levels had a 36 percent increased risk of a cardiovascular event (such as a stroke or heart attack).

## **Trans fats**

Trans fats are unsaturated fats that have undergone hydrogenation, increasing the shelf-life and improving the consistency of products. It is present in various types of processed foods, such as baked goods, margarine, and microwave popcorn. In 2015, the FDA revoked the status of trans fats as GRAS (generally recognized as safe), due to its association with many negative effects on health, including inflammation, heart disease and diabetes.

## **Artificial Sweeteners**

Sugar substitutes, such as sucralose, acesulfame potassium, and aspartame, are much sweeter than sugar and have few or no calories. They are commonly thought to be used only in “diet” foods. However, manufacturers have begun to use them in regular products to lower the added sugar content. Some studies have found links between artificial sweeteners and an increased risk of heart disease, type 2 diabetes, and harmful changes in the gut microbiome. Also, despite the fact many people try



artificial sweeteners to help them with weight loss, many studies have found that eating artificially sweetened foods instead of sugar-sweetened ones may not actually lead to losing weight.

These are just a few additives used in everyday foods. It is also important to take into account individual sensitivities. For example, MSG, although not linked to any diseases, has been known to cause adverse symptoms such as headaches and dizziness in certain people. Above all, remember to read ingredient labels and choose fresh whole foods whenever possible.

#### References

<https://www.ewg.org/research/food-additive-science/>

<https://www.healthline.com/nutrition/common-food-additives>

<https://thebeet.com/the-5-potentially-harmful-food-additives-to-look-for-on-the-label/>

<https://www.consumerreports.org/food-additives/food-additives-to-avoid/>

<https://www.irishnews.com/lifestyle/2020/09/24/news/are-the-additives-in-our-food-making-us-all-ill--2074760/>

<https://westchestermagazine.com/life-style/beauty-shopping/5-food-additives-to-leave-on-the-shelf/>

<https://www.who.int/news-room/fact-sheets/detail/food-additives>