

## Food Additives And Preservatives

**Preservatives:** Preservative food additives can be used alone or in conjunction with other methods of food preservation. Preservatives may be *anti-microbial preservatives*, which inhibit the growth of bacteria and fungi, or *antioxidants* such as oxygen absorbers, which inhibit the oxidation of food constituents. Common anti-microbial preservatives include calcium propionate, sodium nitrate, sodium nitrite, sulfites (sulfur dioxide, sodium bisulfite, potassium hydrogen sulfite, etc.) and disodium EDTA. Antioxidants include BHA and BHT. Other preservatives include formaldehyde (usually in solution), glutaraldehyde (kills insects), ethanol and methylchloroisothiazolinone. The benefits and safety of many artificial food additives (including preservatives) are the subject of debate among academics and regulators specializing in food science and toxicology.

**Food Additive:** **Food additives** are substances added to food to preserve flavour or improve its taste and appearance. Some additives have been used for centuries; for example, preserving food by pickling (with vinegar), salting, as with bacon, preserving sweets or using sulfur dioxide as in some wines. With the advent of processed foods in the second half of the 20th century, many more additives have been introduced, of both natural and artificial origin.

Some additives are manufactured from natural sources such as soybeans and corn, which provide lecithin to maintain product consistency, or beets, which provide beet powder used as food coloring. Other additives are man-made. Artificial additives can be produced more economically, with greater purity and more consistent quality than some of their natural counterparts.

A substance added to a food for a specific purpose in that food is referred to as a direct additive. Many direct additives are identified on the ingredient label of foods.

Indirect food additives are those that become part of the food in trace amounts due to its packaging, storage or other handling. For instance, minute amounts of packaging substances may find their way into foods during storage. Food packaging manufacturers must prove to the U.S. Food and Drug Administration (FDA) that all materials coming in contact with food are safe, before they are permitted for use in such a manner.

## **12 Dangerous Food Additives: The Dirty Dozen Food Additives You Really Need to be Aware Of**

by [www.SixWise.com](http://www.SixWise.com)

In the United States, more than 3,000 substances can be added to foods for the purpose of preservation, coloring, texture, increasing flavor and more. While each of these substances is legal to use (at least here in the States), whether or not they are all something you want to be consuming is another story all together.

With any processed food you run the risk of coming across additives, and reading through ingredient labels can be like trying to decode a puzzle.

Of course, eating largely fresh, whole foods is the best way to stay away from unsavory additives, but, assuming you do include some processed foods in your diet, the following additives are ones you surely want to stay away from. Look for them on ingredient labels and if one turns up, take a pass.

### **Propyl Gallate**

This preservative, used to prevent fats and oils from spoiling, might cause cancer. It's used in vegetable oil, meat products, potato sticks, chicken soup base and chewing gum, and is often used with BHA and BHT (see below).

### **BHA and BHT**

Butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT) are used similarly to propyl gallate -- to keep fats and oils from going rancid. Used commonly in cereals, chewing gum, vegetable oil and potato chips (and also in some food packaging to preserve freshness), these additives have been found by some studies to cause cancer in rats. If a brand you commonly buy uses these additives, look for a different variety, as not all manufacturers use these preservatives.

### **Potassium Bromate**

This additive is used in breads and rolls to increase the volume and produce a fine crumb structure. Although most bromate breaks down into bromide, which is harmless, the bromate that does remain causes cancer in animals. Bromate has been banned throughout the world, except for in the United States and Japan. In California, a cancer warning would likely be required if it were used, which is why it is rarely used in that state.

### **Monosodium glutamate (MSG)**

MSG is used as a flavor enhancer in many packaged foods, including soups, salad dressings, sausages, hot dogs, canned tuna, potato chips and many more. According to Dr. Russell Blaylock, an author and neurosurgeon, there is a link between sudden cardiac death, particularly in athletes, and excitotoxic damage caused by food

additives like MSG and artificial sweeteners. Excitotoxins are, according to Dr. Blaylock, "A group of excitatory amino acids that can cause sensitive neurons to die."

Many consumers have also personally experienced the ill effects of MSG, which leave them with a headache, nausea or vomiting after eating MSG-containing foods. To find out more about the side effects associated with MSG, as well as a complete list of which foods contain it, see our past article [MSG: If it's Safe: Why do They Disguise it on the Labels?](#)

### **Aspartame (Equal, NutraSweet)**

This artificial sweetener is found in Equal and NutraSweet, along with products that contain them (diet sodas and other low-cal and diet foods). This sweetener has been found to cause brain tumors in rats as far back as the 1970s, however a more recent study in 2005 found that even small doses increase the incidence of lymphomas and leukemia in rats, along with brain tumors.

People who are sensitive to aspartame may also suffer from headaches, dizziness and hallucinations after consuming it.

### **Acesulfame-K**

Acesulfame-K is an artificial sweetener that's about 200 times sweeter than sugar. It's used in baked goods, chewing gum, gelatin desserts and soft drinks. Two rat studies have found that this substance may cause cancer, and other studies to reliably prove this additive's safety have not been conducted. Acesulfame-K also breaks down into acetoacetamide, which has been found to affect the thyroid in rats, rabbits and dogs.

### **Olestra**

Olestra is a fat substitute used in crackers and potato chips, marketed under the brand name Olean. This synthetic fat is not absorbed by the body (instead it goes right through it), so it can cause diarrhea, loose stools, abdominal cramps and [flatulence](#), along with other effects. Further, olestra reduces the body's ability to absorb beneficial fat-soluble nutrients, including lycopene, [lutein](#) and beta-carotene.

### **Sodium Nitrite (Sodium Nitrate)**

Sodium nitrite (or sodium nitrate) is used as a preservative, coloring and flavoring in bacon, ham, hot dogs, luncheon meats, corned beef, smoked fish and other processed meats. These additives can lead to the formation of cancer-causing chemicals called nitrosamines.

Some studies have found a link between consuming cured meats and nitrite and cancer in humans.

### **Hydrogenated Vegetable Oil**

The process used to make hydrogenated vegetable oil (or partially hydrogenated vegetable oil) creates trans fats, which promote heart disease and diabetes. The Institute of Medicine has advised that consumers should eat as little trans fat as possible. You should avoid anything with these ingredients on the label, which includes some margarine, vegetable shortening, crackers, cookies, baked goods, salad dressings, bread and more. It's used because it reduces cost and increases the shelf life and flavor stability of foods.

### **Blue 1 and Blue 2**

Blue 1, used to color candy, beverages and baked goods, may cause cancer. Blue 2, found in pet food, candy and beverages, has caused brain tumors in mice.

### **Red 3**

This food coloring is used in cherries (in fruit cocktails), baked goods and candy. It causes thyroid tumors in rats, and may cause them in humans as well.

### **Yellow 6**

As the third most often used food coloring, yellow 6 is found in many products, including baked goods, candy, gelatin and sausages. It has been found to cause adrenal gland and kidney tumors, and contains small amounts of many carcinogens.



Like diet soda? The aspartame that's used to sweeten it increases lymphomas, leukemia and brain tumors in rats -- even in small doses.