

Preservatives

What are they?

Preservatives are food additives that can keep foods from rotting and decaying. Chemical preservatives like sulfur dioxide are commonly found in processed foods. However, some processed foods that have been preserved by canning, freezing, smoking, pickling, or drying may not have any chemical additives at all.

There are three types of preservatives: antimicrobials that prevent growth of bacteria, yeasts, and molds; antioxidants that slow oxidation of fats and lipids; and another type that prevents natural ripening and enzymatic processes from occurring in food after harvest. Sulfur dioxide can serve all three of these functions, which is why sulfites are so common in foods. Sulfites can prevent microbial growth by reacting with adenosine triphosphate, inhibiting certain metabolic pathways, and blocking cellular transport systems. Other antimicrobials can alter the cell wall or microbial membrane permeability or even destroy genetic material. Sulfur dioxide also inhibits certain degradation reactions in fruits by blocking certain enzymatic reactions from occurring.

Antimicrobials are found in the grocery store everywhere. Propionic acid is a naturally-occurring compound in fruit, grains, and vegetables. Benzoates and sorbates are often used as antifungals. Nitrites and nitrates are found in packaged meats and defend against the bacterium Clostridium botulinum. However, they also convert to nitrosohemochrome, a carcinogen, during cooking.

Antioxidants such as butylated hydroxytoluene, butylated hydroxyanisole, and propyl gallate stop oxidation of oils and lipids in food.

Acids such as citric acid and ascorbic acid inhibit the phenolase enzyme that causes enzymatic processes in food to continue after harvest.

Dangers of preservatives

- Sodium benzoate—commonly used to prevent mold, this chemical can lead to neuro-degenerative diseases by damaging mitochondria in cells. Children are said to be "significantly more hyperactive after they ate a mixture of food colorings and a preservative [sodium benzoate]."
- Sodium nitrate—a curing agent in packaged meats such as hot dogs, bacon, and sausages, this chemical is linked to pancreatic and lung cancers.
- Propyl gallate—a stabilizer in packaged meats, candy, potato chips, and dried milk, it is also used in cosmetics and pharmaceuticals. This preservative can cause prostate inflammation and tumors of the brain, thyroid, and pancreas.

Safe preservatives

- Sorbic acid
- Propionic acid
- Sulfites
- Vinegar
- Sugar
- Salt
- Rosemary extract

Foods commonly found without preservatives

- Dried peas and beans
- Dried brown longgrain rice and whole grain pastas
- Whole eggs
- Cheeses
- Some jams, jellies, pickles, and olives

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Empowering You Through Education and Medical Support Right Weigh Clinic is dedicated to providing our patients with all the education and medical support necessary to obtain and maintain a healthy weight. We recognize the changes in food sources that have evolved over the past several decades and which changes are causing the obesity epidemic. It is as important to learn how to avoid these foods as it is to eat the proper nutrients.

We also have bariatric trained physicians and weekly weigh-ins to monitor progress and make timely changes if needed.

Medical support can include prescription appetite suppressants, metabolic boosters, or medical supplements we have compounded for specific conditions such as diabetes and fatty liver disease.

There are many ways to lose weight, but our program

ensures that you are losing body fat and not just

<u>"weight"</u> by weighing on body mass analysis scales weekly and making timely adjustments to your program.

More troublesome preservatives

- Thimerosal—a preservative that prevents microorganism growth, it is 49.6% mercury and is found in flu vaccines. Mercury can interfere with the development of the nervous system.
- Potassium bromate—often used by bread companies to strengthen dough, this preservative is a carcinogen that may cause kidney and thyroid tumors. However, it is still found in baked goods in the U. S. It is especially dangerous if the food it is found in isn't baked long enough or at a high enough temperature.
- BHA (butylated hydroxyanisole) and BHT (butylated hydroxytoluene)—these chemicals prevent oxygenation and keep breads and snacks fresher for longer spans of time. BHA is shown to cause cancer in animals while BHT's safety has not been proven.
- Parabens—these are found in processed vegetables, mayonnaise, and spiced sauces, and they may cause allergic skin reactions. They are also considered an "unclassified carcinogen".

Just be aware that research on preservatives is still going on, and many side effects have not been discovered yet. Why not just opt for a home-made, all natural meal? It's a lot healthier for you!