

## **The Dirty Dozen**

### **Get the low down on 12 food additives you can live without**

*Posted in the August 2006 issue of thefamilygroove.com*

Packaged and processed foods get many a family through the day, especially in the summer. They are convenient, portable, and they stay fresh for a long time (thanks to all those preservatives). Many kids can't get enough of these foods; they're almost addicted to them. The additives put into processed foods to make them look and taste better include unhealthy amounts of extra salt, fat, and sugar-and those are the ones you can pronounce. These additives, however, have a price that may include side effects, food allergies, increased waist lines, decreased absorption of minerals and vitamins, cancer and more. Today, when one in three American children are overweight or obese (and even more than one in three adults) and food allergies are rampant, we have no choice but to finally pay attention to what we are eating.

Below is a list of the 12 most pervasive and detrimental food additives/substances you can eat, in no particular order.

1. Artificial Sweeteners are a combination of chemicals that exist to make our foods sweeter without the calories of sugar. The funny thing is that our nation has been getting fatter since the widespread introduction of these sweeteners into the food supply. Why would that be? And what are the dangers of artificial sweeteners?

It turns out that when you eat something sweet, but do not take in any calories, your body will crave more calories than if you had eaten real sugar. So it is with artificial sweeteners-and it is an endless cycle. For many people, the more they eat of the artificial stuff, the more weight they gain, and the more they crave sweet foods. Also, most of the foods that contain artificial sweeteners are of poor nutritional quality, and in a sense, cause your body to starve itself no matter how much you eat. You are hungry all the time because your body is not getting the nutrients it needs.

Most of the artificial sweeteners have side effects, and their chemical breakdown in the body can be toxic. In addition, in combination with other food additives, like artificial colors, artificial sweeteners can have a much more potent effect on nerve cells. A study completed at the University of Liverpool in 2005 found, for example, that the application of certain additives alone stopped mouse nerve cells from growing and interfered with proper signaling systems. When the artificial color quinoline yellow and aspartame were combined, however, the effect on nerve cells was seven times greater than when each additive was applied on its own. Just think of what this combination could do to your child.

Saccharin (Sweet'N Low) is one sweetener on the market that has a controversial safety record in its past, based on findings of bladder cancer in male rats fed sodium saccharin in the late 1970s. It's still used in SweetN'Low, and was delisted as a carcinogen in 1997. But does that mean it's safe?

NutraSweet (Equal/Aspartame/Spoonful) is made up of methanol, phenylalanine, and aspartic acid. These chemicals on their own can be considered toxic and may alter brain neurochemistry. When the temperature of aspartame exceeds 86 degrees F, for example, the methanol converts to formaldehyde and then to formic acid, which in turn causes metabolic acidosis, which can mimic symptoms of MS; this formic acid is then stored in your fat tissues, particularly in the hips and thighs, and can cause lasting damage. Nutrasweet has also been linked to epilepsy, brain tumors, and 90 other side effects including dizziness, hallucinations, headaches, depression, and weight gain. It's found in over 5000 different types of foods products, both sugar free and non-sugar free, including chewing gum, diet soda, breath mints, yogurt, powdered drink mixes, pudding, children's vitamins and so much more. It's also found in 600 different medicines, including many children's medicines.

For more information about the dangers of this sweetener, go to [www.sweetpoison.com](http://www.sweetpoison.com), [www.dorway.com](http://www.dorway.com), and [www.greenfacts.org/aspartame/l-3/aspartame-1.htm#3](http://www.greenfacts.org/aspartame/l-3/aspartame-1.htm#3).

Newer sweeteners on the scene include Sucralose (Splenda), Tagatose (Naturlose), and Neotame. Sucralose is a synthetic chemical that is made by chemically reacting sugar (sucrose) with chlorine. Tagatose is chemically similar to glucose, but is poorly absorbed by the body. Neotame is composed of aspartic acid and phenylalanine; it's made the Nutrasweet company, and is chemically similar to aspartame. There have been no large human studies done to investigate the potential hazards of these sweeteners yet, but grassroots organizations and individuals have voiced their concerns about these new additives. Go to [www.sweetpoison.com](http://www.sweetpoison.com) for details.

## 2. Refined Sugar

The average person in the US consumes 150-175 pounds of sugar per year. In other words, people are consuming half a cup of sugar a day, and most aren't even aware of it. Due to its insidious nature, and the fact that it can be found in virtually all processed foods (unless they say sugar-free, that is), we subsist off of sugar. No wonder the incidence of diabetes in the US has increased to 20.8 million in 2005, up from 18.2 million in 2000, and 6.8million in 1987. High consumption of sugar, and the corresponding elevated insulin levels, can cause weight gain, bloating, fatigue, arthritis, migraines, lowered immune function, gallstones, obesity, breast cancer, gum disease and cavities, and cardiovascular disease. It can also disrupt absorption of many required nutrients in the body, such as the B-vitamins, calcium, magnesium, chromium and copper. This can lead to osteoporosis, depression, PMS symptoms in women, and increased stress. Children that eat lots of sugar actually eat significantly lower amounts of protein, and have decreased amounts of the B vitamins, iron, zinc, and vitamin E.

Sugar has many names: dextrose, glucose, fructose, lactose, corn syrup, high fructose corn syrup, maple sugar, honey, invert sugar, maltose, diastase, sorbitol, caramel, date sugar, dextran, fruit juice, fruit juice concentrate, ethyl maltol, maltodextrin, sorghum syrup, and more.

For a list of products containing one of worst refined sugars, high fructose corn syrup, please go to

[www.accidentalhedonist.com/index.php/2005/06/09/foods\\_and\\_products\\_containing\\_high\\_fructand](http://www.accidentalhedonist.com/index.php/2005/06/09/foods_and_products_containing_high_fructand)  
[www.foodfacts.info/high-fructose-corn-syrup.shtml](http://www.foodfacts.info/high-fructose-corn-syrup.shtml).

3. Monosodium Glutamate (MSG ) is used to bring out the flavor in foods. Companies use it as an additive to reduce costs, as it allows them to reduce the amount of real ingredients in their foods. Since 1960, the use of MSG has caused some concern, when it was discovered that large amounts of MSG fed to infant mice destroyed nerve cells in the brain. This research caused a public outcry that forced baby food companies to stop adding MSG to their products. Nowadays, MSG may be hidden in infant formula, low fat milk, candy, chewing gum, drinks, over-the-counter medications (especially children's), as a binder and filler for nutritional supplements, in prescription drugs, IV fluids given in hospitals, and in the chicken pox vaccine.

Many people are sensitive to the effects of MSG, and children are 4 times more sensitive to MSG than adults. Neonatal exposure to MSG can cause a permanent reduction in the secretion of growth hormone, leading to stunted growth and irreversible obesity. Other reactions include headaches, nausea, weakness, a burning sensation in the back of neck and forearms, wheezing, changes in heart rate, and difficulty breathing. In order to cut out MSG from your diet, you will need to remove foods with the following ingredients in their label: Monosodium glutamate, free glutamate, hydrolyzed proteins (any type), autolyzed yeast, yeast extract, caseinate, and "natural or artificial flavors".

4. Artificial Colors are synthetic chemicals that do not occur in nature. Most are derived from coal tar and can contain up to ten parts per million of lead and arsenic and still be generally recognized as safe by the FDA. Artificial colors can cause allergic reactions, hyperactivity and ADD in children, may contribute to visual and learning disorders or cause nerve damage. The use of coloring in products normally indicates that other natural ingredients that may contain the color, like oranges, have not been used.

Here are specific details regarding each color:

Blue #1, found in baked goods, candy, and soft drinks, has been shown to damage the chromosomes in a cell's nucleus, contributing to uncontrolled cell mutation and division that is a precursor to cancer. In seriously ill patients, blue #1 use was associated with serious complications such as refractory hypotension, metabolic acidosis and death.

Blue #2, which is found in pet food beverages, and candy, may cause brain tumors.

Citrus Red #1 is sprayed on green oranges to make them look ripe. Like Blue #1, this dye fractures the chromosomes in a cell's nucleus and can lead to cancer. The FDA has proposed a ban on Citrus Red #1.

Citrus Red #2, used to color the skins of some Florida oranges, can cause cancer if the peel is eaten.

Green #3, found rarely in candy and beverages, has been implicated as a cause of bladder tumors.

Red #3 is often added to canned cherry pie filling, maraschino cherries, baked goods and ice cream. Studies have linked this dye to nerve damage and to thyroid cancer.

Red #40 is found in soda, candy, gelatin desserts, pastry, pet food, and

sausage, and is a suspected carcinogen.

Yellow #5 is the second most widely used colorant, and it contributes to behavioral disturbances in children, and can cause allergic reactions, primarily in aspirin sensitive individuals. It's found in gelatin desserts, candy, pet food, and baked goods.

Yellow #6 can cause tumors in the adrenal glands and kidneys. It is found in beverages, sausage, baked goods, candy, and gelatin.

5. BHA and BHT block the process of oil rancidity, which occurs when oils age, are exposed to light, or have repeated exposure to air. These additives seem to affect sleep and appetite, and have been associated with liver and kidney damage, baldness, behavioral problems, cancer, fetal abnormalities, and growth retardation.

6. Sodium Nitrate and Nitrite are preservatives that are added to processed meat products such as bacon, corned beef, ham, hot dogs, lunch meats, and sausage. They prevent the growth of bacteria and give the meat a deceptively healthful-looking pink hue. These compounds transform into cancer-causing agents called nitrosamines in the stomach, however. Nitrates are considered dangerous by the FDA but they have not been banned due to their ability to prevent botulism. Noticeable side effects include headaches, nausea, vomiting, and dizziness.

7. Caffeine is an addictive stimulant that is added to soft drinks, gum, diet pills, and pain relievers; it naturally occurs in coffee, cocoa, and tea. Though there are beneficial effects of caffeine use in moderation, it causes calcium to be excreted from the bones, which can lead to osteoporosis, and can increase infertility. At higher doses, caffeine can cause birth defects, miscarriage, heart disease, depression, behavioral changes, and insomnia. Withdrawal symptoms include headaches, irritability, sleepiness and lethargy.

8. Olestra ( Olean ) is a calorie-free fat substitute used as an ingredient in snacks and chips made by Frito-Lay. This food additive passes through the body undigested because its molecules are so large. In the process, the fat soluble vitamins A, D, E, K and others attach to the substance, thinking it is fat, and are inadvertently flushed out of the body. Currently, olestra products bear a boxed label stating that, "Olestra may cause abdominal cramping and loose stools. Olestra inhibits the absorption of some vitamins and other nutrients. Vitamins A, D, E, and K have been added." It can also cause diarrhea and anal leakage.

9. Brominated vegetable oil (BVO) is used to keep flavor oils in soft drinks in suspension. Bromate, the main ingredient of BVO, is a poison. Just two ounces of a 2% solution of BVO can severely poison a child. In adults, this additive reduces immune defenses and depletes histamine, which can lead to allergic reactions. It has been linked to major organ system damage, birth defects, and growth problems, and is considered unsafe by the FDA. The FDA has not taken action regarding BVO, however, thus it is still lawfully used, and worst of all, manufacturers are not required to list BVO on food labels.

10. Partially Hydrogenated Vegetable Oil is made by reacting vegetable oil with hydrogen. When this occurs, the level of polyunsaturated oils (good fat) is reduced and trans fats are created. Trans fats can be found in foods

such as vegetable shortening, some margarines, crackers, candies, baked goods, cookies, snack foods, fried foods, salad dressings, and many processed foods. They are associated with heart disease, breast and colon cancer, atherosclerosis and elevated cholesterol.

#### 11. Pesticides

Every year more than two billion pounds of pesticides is applied to our food supply. That's about ten pounds per person per year. And many, perhaps most, of the pesticides used throughout the world are carcinogenic. Yet only 10% of the pesticides approved for use on food have been adequately tested for use in humans.

Pesticides are not only found in our food supply, however.. They pollute our water, and the cells in our body. They are sprayed on lawns, in gardens, in parks, and on playing fields. After it rains, these chemicals are carried through storm drains and sewers into creeks, rivers, and our oceans, where they account for more than 90 percent of water pollution.

Pesticides accumulate in our bodies as well. 99% of mothers' milk in the United States , for example, contains dangerous levels of dichlorodiphenyltrichloroethane (DDT). All of us also have measurable levels of polychlorinated biphenyls (PCBs), dioxin, heptachlor, chlordane, aldrin, dieldrin, and other pesticides in our bloodstream. And since our bodies cannot remove these chemicals, over time, they weaken our endocrine, reproductive, circulatory, immune, and central nervous systems. As a result, our likelihood of having heart disease, cancer, and allergies is greatly increased. Pesticide accumulation also undermines our ability to resist infectious organisms, may impair fertility, and contributes to miscarriages and birth defects.

12. Genetically Modified Organisms (GMOs) are plants or animals that have had their DNA modified. In the US, the majority of the corn, soybean, cotton, and canola crops are now genetically modified, and one or more of these can be found in nearly every processed food. The problem with this is that there is no mandatory safety testing done by the FDA on GMOs, and thus there is no clear proof that these foods are safe. Testing that has been done in the past has shown GMOs can increase food toxicity, allergy susceptibility, immune suppression, resistance to antibiotics, and the incidence of cancer.

Here are some simple tips to avoid the Dirty Dozen in your family's daily meals:

1. Drink lots of pure water; water helps flush your system of toxins and keep you hydrated.
2. Be mindful when eating. The more you pay attention to what you are eating, the better you will eat.
3. Chew your food. Processed foods don't taste good when they are fully chewed, and you won't be as tempted to eat them.
4. Eat more whole ORGANIC foods. If it grows in the ground or in a tree, it's a whole food.
5. Get a good night's sleep-when you are well rested, your body and mind function better, and you are more likely to make good choices.
6. Turn off the TV! The less TV you watch, the less you will be exposed to food advertising, and the less processed food you will eat. It is good rule of thumb is the more a food is advertised, the worse it probably is for you.

7. Don't take food packaging claims at face value. be sure to read all labels and educate yourself about what each additive is.
8. Keep a food diary to determine what foods affect you and your family negatively.
9. No matter what, feel good about what you eat. Negative thoughts lead to a negative reality.

A word of caution: if the list of ingredients on a package is long, there's probably a lot of chemical additives in the product. It's best to avoid these foods, not only because of the individual effects of the additives, but also because of the unknown health effects of combinations of food additives.

Also, US Federal Regulations don't require full disclosure on product labels. The only way to avoid dangerous food additives is to eat whole, natural, organic food.

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