7 Unhealthy Synthetic Dyes and Food Colorings to Avoid and Why

Food dye in some form or another has been in use since the ancient Egyptians to make food look more appetizing. The first synthetic food color was obtained from bituminous coal and introduced in 1856. Today’s food coloring may be more sophisticated, but big food companies like Kraft, General Mills, Campbell’s Soup Taco Bell, and Chipotle are among the businesses announcing that they will be removing synthetic food dyes from many if not all of their offerings. It’s a move in keeping with the increasing demand for less processed, healthier food options while eating out or at the grocery store.

We’ve been eating them forever, and we’re fine…right? Not so much.

Dyes and colors are controversial, and they have been linked to cancer, allergic reactions, and other health issues. Eating something for a long period of time does not automatically equal healthy or safe. Consumers are turning away from processed foods for health reasons, and labels are the best way to see what’s in your food. Here’s what you should be on the lookout to avoid.

**Red 3**

Red 3, also known as Erythrosine, is one of the most commonly used food colorings. Its signature cherry-pink is found in maraschino cherries, various candies, baked goods, and sausage casings. Derived from coal tar and flourone and sourcing some of its trademark red from cochineal beetles, red 3 has been linked to hyperactivity in children, thyroid tumors, breast
cancer, and can damage liver DNA. Since its introduction as one of the 7 approved synthetic colors listed in the Pure Food and Drug Act of 1906, there have been numerous attempts to ban Red 3 from food due to its health risks. Although erythrosine has been banned in cosmetics and topical drugs in the United States since 1990, industry pressure has succeeded in keeping it as an option for coloring food.

**Recommended:**  *How Candida Leads to Depression, Anxiety, ADHD, and Other Disorders*

### Red 40

Touted as an alternative to Red 3, Red 40 is also known as Allura Red or Food Red 17. It is a dark red powder made from petroleum and can contain aluminum, other heavy metals, and cochineal beetles (a common ingredient in red dyes). The most commonly used synthetic food coloring in the United States, it can be found in fruit cocktail, candy, salad dressing, chocolate cake, cereal, beverages, pastries, maraschino cherries, fruit snacks, and many over the counter pharmaceuticals. Products containing the dye are treated differently in Europe, with a required label warning that Allura Red “may have an adverse effect on activity and attention in children.” Children experiencing drastic behavioral changes is one of the biggest health concerns associated with Red 40. Other reported side effects include migraines, jitteriness, inability to concentrate, and upset stomach.

### Yellow 5

One of the most controversial of the synthetic food dyes, Yellow 5 or Tartrazine is the low cost, coal tar derived food dye version of beta-carotene. It has been linked to multiple health conditions like hyperactivity in children, severe allergic reactions and rashes, nausea, headaches, and asthma,
among others. This connection has led to Yellow 5 being banned in Norway and Austria, while the U.K. government asked companies to voluntarily remove it from their products. This has not stopped the dye from being added to a wide range of consumables in the U.S., like cereals, puddings, frozen desserts, bread and cake mixes, condiments, beverages, chips, snacks, medications, and pet foods.

Yellow 6

Though it is primarily labeled as Yellow 6 in the U.S., this dye actually provides an orange color. Some of its other names include Sunset Yellow, Monoazo, and Orange Yellow S. This dye is banned in Norway, Finland, and Sweden and required to be labeled in the E.U. It’s been linked to adrenal and kidney cancer, diarrhea, vomiting, swelling of the skin, migraines, and worsening of asthma symptoms. The signature yellow-orange of the dye has found its way into foods like boxed macaroni and cheese, chips, bakery goods, cereals, beverages, dessert powders, candies, gelatin desserts, sausage, and some pharmaceuticals drugs. For those who normally avoid foods that come in boxes and bags, Yellow 6 can also be found in preserved fruits, so check labels carefully.

Blue 1

Blue 1, or Brilliant Blue, is the more commonly used of the two blue food dyes approved for use in the U.S. and frequently partners with Tartrazine (Yellow 5) for artificially colored green items. Like many of the other synthetic dyes, Blue 1 was originally derived from coal tar, although now it’s oil based. Brilliant blue foodstuffs like candies, ice cream, liquors, and others are easily spotted, although canned peas, soup packets, and mouthwashes also contain the color. Blue 1 is not as controversial as some of the other synthetic food dyes, but it has been suggested that it causes kidney tumors in mice and
hypersensitivity reactions.

**Blue 2**

Blue 2 is also known as Indigotine, Indigotin, or Indigo Carmine. Most of those names reference Blue 2’s origins as a synthetic version of actual, plant-based textile dye (and color of the rainbow), indigo. The synthetic form of indigo is derived from coal tar or petroleum. In addition to coloring blue jeans, the twenty thousand tons of Blue 2 produced every year can be found in colored beverages, candies, pet food, and pharmaceuticals. It’s linked to brain tumors in male rats, asthma, skin rashes, and mild to severe allergic reactions. Blue 2 is also used to highlight issues in the urinary tract, coloring urine blue and making leaks apparent. This practice has seen dangerous blood pressure increases in some people. Indigo Carmine has been banned as a food dye in Norway, Belgium, Australia, Sweden, Switzerland, France, Germany and Great Britain.

**Caramel Coloring**

Caramel coloring is not a synthetic food dye in the strictest sense but seeing it listed as an ingredient should still give you pause. Most of the caramel coloring found in select sodas, baked goods, chocolate items, candies, and protein bars is made by treating sugar with ammonia. Needless to say, this can have a carcinogenic effect on those who consume it. Caramel coloring is linked to cancer in animals, and the state of California requires cancer warning labels on products with more than 30 micrograms of caramel coloring in a day. In addition to that, caramel coloring is can be sourced from lactose, barley, or wheat. North American and European caramel coloring are derived from wheat or corn and highly-processed, but that coloring is thought to be “gluten-free”.

Alternatives Abound

We have become accustomed to food designed to delight the senses, and many companies provide that with the cheapest means possible. The recent push to eliminate artificial colors has shown that most food colors can be achieved through other means, like turmeric, beets, blueberry juice, or spirulina. As more people understand that what we eat determines our health will phase out completely. Until then, labels are your friend.

Recommended Reading:

- Detox Cheap and Easy Without Fasting — Recipes Included
- How To Detoxify and Heal From Vaccinations — For Adults and Children
- Bouncing Off The Walls
- Five Things You Can Do to Help Your Child Manage ADHD Naturally
- How Candida Leads to Depression, Anxiety, ADHD, and Other Mental Disorders
- ADHD, Chronic Fatigue Syndrome, and Autism — What Do They Have In Common?

Sources:

- Trix No Longer has Its Neon Color and People Are Freaking Out — Thrillist.com
- Are You or Your Family Eating Toxic Food Dyes? — Dr. Mercola
- Top 5 Worst Artificial Colors — The Alternative Daily
- 23 Worst Food Additives in America — Eat This
- Food Dyes: Red Does Not Mean GO — Huffington Post
- 10 Worst Food Additives — Livestrong
- First-ever Study Reveals Amounts of Food Dyes in Brand-name Foods — Center for Science in the Public Interest
- Where Does Blue Food Dye Come From? — Scientific American