TOBACCO "HEALTH AND BEAUTY" PRODUCTS

ТОВАССО

Cigarette smoke is a mixture of about 4000 chemicals, many of which are harmful to the human body.

All currently available tobacco products that are smoked deliver substantial amounts of toxic chemicals to their users and those who breathe their smoke.

Cigarette smoke is a combination of:

- 1. Mainstream smoke the smoke inhaled by a smoker;
- 2. Sidestream smoke the smoke from the end of a lit cigarette; and
- 3. Secondhand smoke the smoke exhaled by a smoker plus sidestream smoke.
- 4. Thirdhand smoke the smoke deposited on all surfaces in home and car

5. Of the more than 4000 chemicals present in cigarette smoke, more than 60 have been identified as cancer-causing.

Cancer-causing chemicals in tobacco smoke include:

- Benzene
- 2-naphthylamine
- 4-aminobiphenyl
- Cadmium
- Vinyl chloride
- Ethylene oxide
- Arsenic
- Beryllium
- Polonium-210
- Nicotine the addictive agent in tobacco smoke
- Formaldehyde used in preservation of laboratory specimens

- Ammonia used in toilet cleaner
- Hydrogen Cyanide used in rat poison
- Acetone used in nail polish
- Carbon monoxide found in car exhaust
- Tar particulate matter in cigarette smoke
- Toluene found in paint thinners
- Phenol used in fertilisers

These chemicals are toxic. They have serious health impacts on the human body. For example:

- Hydrogen cyanide, carbon monoxide and tar are associated with, cardiovascular disease and chronic obstructive lung disease.
- Ammonia and formaldehyde cause eye, nose and throat irritations and other breathing problems.

Chemicals present in mainstream, sidestream and secondhand smoke are similar. Sidestream smoke is generated at lower temperatures and under different conditions than mainstream smoke. Consequently, it contains higher concentrations of many of the toxins found in mainstream smoke.

With approximately one non-smoker dying due to secondhand smoke exposure for every eight smokers dying of smoking-related disease it is no surprise that secondhand smoke has been designated a known human carcinogen. Further, about half of regular smokers will die of smoking-related disease and have a reduced life expectancy of 13 to 16 years as compared with non-smokers.

And vaping? Equally toxic. See <u>5 Vaping Facts You Need to Know | Johns Hopkins</u> <u>Medicine</u>

COSMETICS – SHAMPOOS – CERAMIC NAILS – FRAGRANCES – CLEANING PRODUCTS

Our modern way of life is very different from that of our parents and earlier forebears. In many ways it is better. But as far as the goodness of what we eat and the things we do to our bodies are concerned, we are at greater risk of being harmed than our ancestors were. Manufacturers, food processors, scientists – they all come up with "New! Improved!" delights to tempt us on a daily basis. They try to convince us that we "Can't live without them." I suggest that the truth is more likely that "You won't live long with them."

Following is a list of things to avoid if you want to give your body and your mind a chance to survive to a ripe old age. Quitting some of them may not cause any pain or inconvenience, but others may be hard to give up. So, where possible, we list some safe alternatives.

Shampoos and Hair Treatment

Those warm, wonderful companies that make shampoos containing *sodium lauryl* and *laureth sulphate* (SLS) don't seem to care that these chemicals have been linked with cancer, vision disorders, dandruff, rashes, hair loss, the breakdown of cell membranes and allergies. In industry, SLS is used in engine degreasers and floor de-waxers.

Anything that foams is likely to contain SLS, of course, plus other dangerous chemicals. Most shampoos read like chemistry texts: *cocamido propyl betaine, peg-3 distearate, glycol distearate, polyquaternium-16, hydroxypropyl,* and on and on with a depressing list of extremely dangerous substances that belong in the toxic waste section of your local tip, not on your scalp and from there into your body.

According to biochemist Hulda Regehr Clark, PhD, ND, who did exhaustive research, of all the chemicals contained in cosmetics and toiletries the solvent *propyl alcohol* is the worst of the lot. She has written three books on the connection between this solvent and intestinal parasites. She claims that *all* cancer patients have both the human intestinal fluke

and propyl alcohol in their livers. Dr Clark says that this parasite typically lives in the intestines, where it does not do life-threatening harm. "But if it establishes itself in the liver," says Dr Clark, "it causes cancer." Wise people will avoid this solvent.

It is not enough to just avoid propyl alcohol. All of the hundreds of dangerous chemicals that are put in our cosmetics, willy-nilly, must be shunned. Some are so terrible that it would be laughable that governments permit them, if they were not killing people. If you want specifics, there are many books available, but they are heavy reading. Study labels and refuse to buy anything that lists chemicals. After trials and errors we ended up using bicarb dissolved in water as a shampoo. The result is excellent.

Please do not fall for the propaganda spewed out by companies claiming to sell 'organic' and/or 'all natural' cosmetics. Most are not. Pathetic labelling regulations make it legal to claim 'organic' status for cosmetics filled with cancer-causing chemicals, because any compound containing carbon is chemically defined as organic. Buyer beware! All we use is the pure coconut oil we have at the Centre – definitely not the contaminated versions you're likely to find elsewhere! We use it for cleansing, moisturising and on salads. As the late Henry Bieler, MD, said, "If it isn't pure enough to eat, it isn't pure enough for your skin."

Hair dyes and hair sprays are extremely hazardous, as they are chock-full of evil chemicals that are easily absorbed through the scalp. Many people cannot even walk into a beauty salon without becoming ill from the toxic fumes, and hairdressers themselves are at great risk of premature illnesses and death.

Ceramic Nails

The chemicals used by beauticians to apply ceramic nails are so toxic that just being in the same salon is extremely dangerous, due to the fumes they give off, to say nothing of what is ingested through the nails and skin. We urge all women to boycott the salons that permit those deadly chemicals to pollute the air. Some women describe their reactions as "feeling as if I've breathed fire."

Fragrances

Perfume, aftershave, incense and scented candles are laden with chemicals. Strong people, who don't notice any ill-effects, might give a thought to those who are allergic and made ill by them. Fabric softeners are especially noxious and can cause serious allergic reactions. Don't buy scented tissues or paper towels and shun fancy toilet paper – the dyes and perfumes have been proven to cause cancer of the anus. Those strong odours are not achieved by Chanel Number 5, but by dangerous petrochemicals. When unsure, open wrappers and sniff products at the market. Even plastic garbage bags are not immune to this nonsense and, of course, these chemicals pollute our environment. In a properly run society, in which the multinationals do not call the shots, these dangerous, polluting and totally unnecessary products would be outlawed. What's wrong with old fashioned, unbleached white?

Cleaning Products

Decades ago, when we learned that all the 'tried and true' cleaning products in our house were dangerous, a light went on in the brain. It was the old "aha!" syndrome, and suddenly we understood why every time we washed dishes, clothes, or used any cleaning product, we sneezed and often felt slightly ill. And here we had been thinking those symptoms were due to a dislike of housework!

It was the previously mentioned research of Dr Hulda Clark that alerted us to the carnage created by certain chemicals in household products and our food. The information in Dr Clark's book was so persuasive and horrifying that it galvanised us into action; all of our conventional household cleaning products were gathered and taken to the *Hazardous Waste* section of the tip. They were replaced by baking soda, borax and low cost white vinegar, which work adequately. We had not used air fresheners, talc, sprays or poisons of any kind in decades, as mother taught us the dangers. Dr Clark's books are filled with photographs of common products and foods with notations underneath saying either that they are safe (precious few) or that they are contaminated with benzene, propyl alcohol, etc. She is a brave woman, because the products she condemns are produced by powerful

companies that few people are courageous enough to defy. Her books are must reading, but, like this book, may be hazardous to your emotional health.

There are at least 17,000 different chemicals in cleaning products, most untested for toxicity. Interactions among them, and interactions in the body when absorbed through inhalation and skin contact, are unknown. What *is* known is that they are deadly for young children and dangerous for adults.

Camphor/Moth Balls

The fumes from moth repellents made from camphor are extremely dangerous. They are made to kill insects, and do a good job. They also kill animals, children and adults, but slowly. Instead, we recommend you use essential oils to protect stored clothes from moth attack.

NATURAL HAIR AND SCALP CARE

Shampoo with a mild soap, then instead of ordinary conditioner, allow white vinegar to soak into the hair and scalp.

Brush your hair 100 times every day with a natural pig bristle or bamboo brush.

For dry scalp, apply a small amount of coconut oil throughout hair and scalp. Leave oil on overnight

WANT TO SAVE THE PLANET? USE LESS DEODORANT.

The deodorants, perfumes and soaps that keep us smelling nice are fouling the air with a harmful type of pollution — at levels as high as emissions from today's cars and trucks.

That's the surprising finding of a study published in the journal Science. Researchers found that petroleum-based chemicals used in perfumes, paints and other consumer products can, taken together, emit as much air pollution in the form of volatile organic compounds, or V.O.C.s, as motor vehicles do. V.O.C.s interact with other particles in the air to create the building blocks of smog, including ozone, which can trigger asthma and

permanently scar the lungs, and another type of pollution known as PM2.5, fine particles that are linked to heart attacks, strokes and lung cancer.

Smog is generally associated with cars, but since the 1970s regulators have pushed automakers to invest in technologies that have substantially reduced V.O.C. emissions from automobiles. So the rising share of air pollution caused by pesticides and hair products is partly an effect of cars getting cleaner. But that breathing room has helped scientists see the invisible pollutants that arise from a spray of deodorant or a dollop of body lotion.

The researchers said their study was inspired by earlier measurements of V.O.C.s in Los Angeles that showed concentrations of petroleum-based compounds at levels higher than could be predicted from fossil-fuel sources alone. Concentrations of ethanol, for example, were some five times higher than expected. And those levels were increasing over time.

"You can see these really rapid decreases in tailpipe emissions," said Brian C. McDonald, a scientist at the Cooperative Institute for Research in Environmental Science at the University of Colorado, Boulder, who led the study. "It just made sense to start looking at other sources and seeing whether they could be growing in relative importance."

While people use far more fuel, by weight, than they do lotions and paints, Dr. McDonald and his colleagues found a marked difference in how much of the pollutants from those products end up in the air. Even though drivers can use gallons of gasoline each week, "it's stored in an airtight tank, it's burned for energy, and converted mostly to carbon dioxide," said Jessica B. Gilman, a research chemist at the National Oceanic and Atmospheric Administration also involved in the study. Those carbon dioxide emissions are not smog-forming V.O.C.s.

"But these V.O.C.s that you use in everyday products — even though it may just be a teaspoon or a squirt or a spray — the majority of those kinds of compounds will ultimately end up in the atmosphere, where they can react and contribute to both harmful ozone formation and small-particle formation," Dr. Gilman said.

Forty percent of the chemicals added to consumer products wind up in the air, the researchers found. To make their calculations, the study's authors constructed a computer model that simulated air quality in Los Angeles, weaving in data from the chemical composition of consumer goods and tailpipe emissions. Using the model, they could see the fingerprints of the chemical compounds coming from personal care products and also estimate how many V.O.C.s from paints and finishes inside buildings were being released to the outside world. Roughly half of the V.O.C.s in Los Angeles air could be attributed to consumer products, the authors found.

Ravi Ramalingam, who leads the California Air Resources Board's consumer products and air quality efforts, said he was not surprised that paints and perfumes were making up a bigger share of emissions as cars and trucks became cleaner.

He said his agency was surveying the chemical makeup of about 300,000 consumer products sold or used in California, and preliminary results also suggested that emissions from those products were higher than previously estimated.

"We're still looking for opportunities to reduce emissions from consumer products," Mr. Ramalingam added.

California has regulated emissions from consumer products since the late 1980s, and federal regulations have followed suit, setting V.O.C. emissions limits for a range of items, including paints, varnishes and lacquers.

Concerned consumers may be tempted to turn to "natural" products, though the researchers say that isn't a cure-all. For example, one class of compounds called terpenes gives many cleaning products a pine or citrus smell. These terpenes can be produced synthetically, or naturally from oranges. "But whether it's synthetic or natural, once it gets into the atmosphere it's incredibly reactive," Dr. Gilman said. Similar natural compounds give the Blue Ridge Mountains in Appalachia their name, from the blue haze formed by terpenes emitted from the trees there, Dr. Gilman added.

Galina Churkina, a research fellow at the Yale School of Forestry and Environmental Studies who was not involved in the study, noted that the study did not consider emissions related to biological sources such as trees and animals. But the authors said their study was not the end of this line of research.

There are tens of thousands of chemicals in consumer products, and researchers have not yet pinpointed which chemicals are most likely to form ozone or PM2.5 particles. "One of the things that we're hoping the public takes away from this is that our energy sources and the consumer products we use every day are continually changing the composition of our atmosphere," Dr. Gilman said.

Notably, some of the V.O.C.s used in consumer products were replacements for chlorofluorocarbons, or CFCs. Those chemicals were phased out beginning in the 1980s because they thinned the Earth's ozone layer.

For consumers looking for a greener solution, Dr. McDonald offered some advice. "Use as little of the product as you can to get the job done," he said.

TOXIC INGREDIENTS IN "HEALTH PRODUCTS" AND "BEAUTY PRODUCTS"

Over the decades, we've advised thousands of people that "One of the quickest ways to get poisoned is to walk into a health food shop." Then we've explained, "Why? Because you let your guard down. You think to yourself, 'Well, these products must be OK, because they're health products."

They're not necessarily safer than ordinary health and beauty products, and often contain the same ingredients.

How do you know? SIMPLE. READ THE LABEL. If the label contains ingredient names you don't recognise, or worse yet, mystery abbreviations and/or numbers, find out more.

Google the ingredient's name, or ask the product's manufacturer. (DO NOT rely on shop assistants; they usually don't have the required knowledge.)

If you don't get the answers you seek, simply don't buy the product.

We buy very little in health food shops or groceries – aside from fresh foods and herbs. We simply avoid virtually all manufactured foods and other manufactured products.

Labels on cosmetics and body care products are a tough code to crack. The industry is so shockingly unregulated that it's usually impossible to trust the claims that manufacturers place on their products. Words such as "natural" or "green" can be used by anyone for anything. Even "organic" is misleading. Companies are supposed to use an organic label only if all ingredients are certified organic, but they can also say it's "made with organic" if it contains a minimum of 70 percent certified organic ingredients. Regardless, 30 percent still leaves a lot of room for toxins.

The whole industry has a "innocent-until-proven-guilty" approach to ingredients. Unless a chemical used in beauty products is proven to cause harm to human health, it is classified as GRAS, or "generally recognized as safe." This classification is upheld by the U.S. FDA and hardly has the best interests of consumers at heart.

The best thing we consumers can do is read ingredient lists carefully in order to avoid chemicals that are known to be harmful, even though they continue to be widely used.

Among the worst:

- **Coal Tar:** A known carcinogen banned in the EU, but still used in North America. Used in dry skin treatments, anti-lice and anti-dandruff shampoos. Also listed as FD&C Red No. 6.
- **DEA/TEA/MEA:** Suspected carcinogens used as emulsifiers and foaming agents for shampoos, body washes, soaps.
- **Ethoxylated surfactants and 1,4-dioxane:** Never listed because it's a byproduct made from adding carcinogenic ethylene oxide to make other chemicals less

harsh. The Environmental Working Group (EWG) has found 1,4-dioxane in 57 percent of baby washes in the U.S. Avoid any ingredients containing the letters "eth."

• **Fragrance/Parfum:** A catchall for hidden chemicals, such as phthalates. Fragrance is connected to headaches, dizziness, asthma, and allergies.

• **Hydroquinone:** Used for lightening skin. Banned in the UK, rated most toxic on the EWG's Skin Deep database, and linked to cancer and reproductive toxicity.

• Lead: Known carcinogen found in lipstick and hair dye, but never listed because it's a contaminant, not an ingredient.

• **Mercury:** Known allergen that impairs brain development. Found in mascara and some eyedrops.

• **Mineral oil:** Byproduct of petroleum and used in baby oil, moisturizers, styling gels. It creates a film that impairs the skin's ability to release toxins.

• **Oxybenzone:** Active ingredient in chemical sunscreens that accumulates in fatty tissues and is linked to allergies, hormone disruption, cellular damage, low birth weight.

• **Parabens:** Used as preservatives and found in many products. Linked to cancer, endocrine disruption, reproductive toxicity.

• **Placental extract:** Used in some skin and hair products, but linked to endocrine disruption.

• **Polyethylene glycol (PEG):** Penetration enhancer used in many products, it's often contaminated with 1,4-dioxane and ethylene oxide, both known carcinogens.

• **Silicone-derived emollients:** Used to make a product feel soft, these don't biodegrade, and also prevent skin from breathing. Linked to tumour growth and skin irritation.

• Sodium lauryl (ether) sulfate (SLS, SLES): A former industrial degreaser now used to make soap foamy, it's absorbed into the body and irritates skin.

• **Talc:** Similar to asbestos in composition, it's found in baby powder, eye shadow, blush, deodorant. Linked to ovarian cancer and respiratory problems.

• **Triclosan:** Found in antibacterial products, hand sanitizers, and deodorants, it is linked to cancer and endocrine disruption. First made as a pesticide, this antimicrobial chemical has made its way into personal care items since the 1960s. "Triclosan is added to soaps and washes and even some clothing or cookware to reduce bacteria in products," says Dendy Engelman, MD, New York City-based celebrity dermatologist. Now, because of its potential link to skin cancer and thyroid issues, the FDA has banned soaps and other antiseptic products from using the ingredient.

• **Fragrances:** Sure, synthetic fragrances might make your products smell undeniably delicious, but they're one of the top contenders to cause an allergic reaction to your skin. "Fragrances are usually made up of other harmful chemicals, like parabens, benzene derivatives, aldehydes and more that are linked to cancer and nervous system issues," explains Dr. Engelman. "Short term, they can cause irritation and redness on the applied area." She recommends looking for these terms to clue you in that a product contains a fragrance: parfum, perfume, linalool, limonene, eugenol, citronellol, geraniol or cinnamal. Fragrance-free products are usually labeled as such.

• Phthalates:

These chemicals, commonly found in nail polishes, hair sprays, deodorants, perfumes, and moisturizing lotions, are meant to keep products soft and flexible. That's great, but phthalates can also be incredibly dangerous. "There have been reports of phthalates being linked to various cancers, including breast, liver, kidney and lung, though no causal relationship has been proven," says Joshua Zeichner, MD, director of cosmetic and clinical research in dermatology at Mount Sinai Hospital in New York City. Keep your eyes peeled for products that contain terms including the term "phthalate" to be safe. You also may find many newer products on the market that contain the term "phthalate-free".

• Parabens:

You've probably heard of this term, especially considering how many new products are launching with the claim of being "paraben-free." "Parabens are preservatives

are used in skincare products to prevent contamination of products while they are sitting on the shelves," explains Dr. Zeichner. "Without preservatives, product ingredients, like fresh fruit, will become contaminated with bacteria and viruses and become broken down over time." So what's the problem? Dr. Zeichner notes reports that have come out that link parabens to breast cancer, as well their negative impact on the body's endocrine system. Parabens are also a common catalyst for skin allergies.

• Sulfates:

Sulfates are commonly used surfactants - ingredients that cleanse the skin and hair in cleansers and shampoos, explains Dr. Zeichner. They're found in more than 90 percent of personal care and cleaning products, such as detergents. "Sulfates such as SLS (sodium laurel sulfate) are known irritants at high concentrations and are even used as the positive control group in experiments to evaluate how irritating products are."

• Formaldehyde:

This colorless, inflammable gas is commonly used to make home-building products such as adhesives for wood, particleboard, furniture paneling, and cabinets. It's also an ingredient in some beauty products, including hair treatments and even nail polishes. "This chemical has been linked to cancer as well as other nervous system issues, such as chest pain, coughing, trouble breathing, and respiratory irritations," warns Dr. Engelman. "Some hair-straightening procedures use this chemical during the process and some nail polishes still contain formaldehyde, putting your body and salon workers at risk."

• P-phenylenediamine:

Also known as PPD, P-phenylenediamine has been used in permanent hair coloring since the late 1800s; however, it has been banned in France and Germany. In the U.S., it's FDA-approved for hair dye:ing. "PPD is a frequent contact allergen," Dr. Kraffert warns. "Temporary tattoos with PPD are increasingly common. These tattoos are referred to as 'black henna' and rely on direct application of PPD to the

skin." Cases of severe contact allergy continue to occur frequently, sometimes with permanent negative consequences.

• Microbeads

Those microbead scrubs and cosmetics you love to use are slowly being phased out and banned in the United States. "Microbeads are used as physical exfoliants in cleansing products and do a fair job; however, the problem with microbeads is that they linger in the environment for many decades and have been linked to potential biosphere disruptions in aquatic environments," warns Dr. Kraffert. "The good news is there are lots of natural exfoliants that actually work better—without the environmental baggage."

• Toluene:

This petrochemical is mainly used to dissolve paint and paint thinner, but it's also a common ingredient in nail polishes and treatments, as well as hair-bleaching products. The problem is that exposures to high levels of this chemical could lead to respiratory problems, as well as kidney and liver damage, according to EWG. Studies on animals have linked toluene to these and other health risks including impaired immune functions.

• Propylene Glycol:

You might find this ingredient listed on the back of many of your beauty products, including hair sprays, makeup, conditioners and shampoos, moisturizers, and even sunscreen. Propylene glycol is typically used as a skin-conditioning agent. It's been linked to allergy-induced conditions such as dermatitis and hives. Used as antifreeze.

• **Sodium nitrate**: Added to processed meats to stop bacterial growth. Linked to cancer in humans.

• **Sulfites**: Used to keep prepared foods fresh. Can cause breathing difficulties in those sensitive to the ingredient.

• **Azodicarbonamide**: Used in bagels and buns. Can cause asthma.

• **Potassium bromate**: Added to breads to increase volume. Linked to cancer in humans.

• **Propyl gallate**: Added to fat-containing products. Linked to cancer in humans

• **BHA/BHT**: A fat preservative, used in foods to extend shelf life. Linked to cancerous tumor growth.

• **Butane**: Used in chicken nuggets to keep them tasting fresh. A known carcinogen.

• **Monosodium glutamate (MSG)**: Flavor enhancer that can cause headaches. Linked in animal studies to nerve damage, heart problems and seizures.

• **Disodium inosinate**: In snack foods. Contains MSG.

• **Disodium guanylate**: Also used in snack foods, and contains MSG.

• Enriched flour: Used in many snack foods. A refined starch made from toxic ingredients.

• **Recombinant Bovine Growth Hormone (rBGH)**: Geneticially-engineered version of natural growth hormone in cows. Boosts milk production in cows. Contains high levels of IGF-1, which may cause various types of cancer.

• **Refined vegetable oil**: Includes soybean oil, corn oil, safflower oil, canola oil, and peanut oil. High in omega-6 fats, which can cause heart disease and cancer.

• Sodium benzoate: Used as a preservative in salad dressing and carbonated beverages. A known carcinogen and may cause damage to DNA.

• **Brominated vegetable oil**: Keeps flavor oils in soft drinks suspended. Bromate is a poison and can cause organ damage and birth defects. Not required to be listed on food labels.

• **Propyl gallate**: Found in meats, popcorn, soup mixes and frozen dinners. Shown to cause cancer in rats. Banned in some countries.

• **Olestra**: Fat-like substance that is unabsorbed by the body. Used in place of natural fats in some snack foods. Can cause digestive problems, and also not healthy for the heart.

• **Carrageenan**: Stabilizer and thickening agent used in many prepared foods. Can cause ulcers and cancer. • **Polysorbate 60**: A thickener that is used in baked goods. Causes cancer in laboratory animals.

• **Carnauba wax**: Used in chewing gums and to glaze certain foods. Causes cancer and tumors.

• Chlorine dioxide: Used in bleaching flour. Can cause tumors and hyperactivity in children.

• Sodium carboxymethyl cellulose: Used as a thickener in salad dressings. Could cause cancer in high quantities.

• **Saccharin**: Carcinogen found to cause bladder cancer in rats.

• Aspartame: An excitotoxin and carcinogen. Can cause dizziness, headaches, blurred vision and stomach problems.

• **High fructose corn syrup**: Sweetener made from GMO corn starch. Causes obesity, diabetes, heart problems, arthritis and insulin resistance.

• Acesulfame potassium: Used with other artificial sweeteners in diet sodas and ice cream. Linked to lung and breast tumors in rats.

• **Sucralose**: Splenda. Can cause swelling of liver and kidneys and shrinkage of the thymus gland.

• Agave nectar: Sweetener derived from cactus. Contains unnaturally high levels of fructose, which causes insulin resistance, liver disease and inflammation of body tissues.

• **Bleached starch**: Can be used in many dairy products. Causes asthma and skin irritations.

• **Tert butylhydroquinone**: Used to preserve fish products. Linked to stomach tumors.

ARTIFICIAL FOOD COLOURINGS TO AVOID:

• **Red #40**: Found in many foods to alter color. All modern food dyes are derived from petroleum. A carcinogen that is linked to cancer in some studies. Also can cause hyperactivity in children.

• Blue #1: Used in bakery products, candy and soft drinks. Can damage chromosomes and lead to cancer.

• Blue #2: Used in candy and pet food beverages. Can cause brain tumors

• **Citrus red #1**: Sprayed on oranges to make them look ripe. Can damage chromosomes and lead to cancer.

• **Citrus red #2**: Used to color oranges. Can cause cancer.

• Green #3: Used in candy and beverages. Can cause bladder tumors.

• **Yellow #5**: Used in desserts, candy and baked goods. Linked to kidney tumors, according to some studies.

• Yellow #6: A carcinogen used in sausage, beverages and baked goods. Thought to cause kidney tumors.

• **Red #2**: A food coloring linked to both asthma and cancer.

• **Red #3**: A carcinogen added to cherry pie filling, ice cream and baked goods. May cause nerve damage and thyroid cancer.

• **Caramel coloring**: In soft drinks, sauces, pastries and breads. When made with ammonia, it can cause cancer in mice.

• **Brown HT**: Used in many packaged foods. Can cause hyperactivity in children, asthma and cancer.

• **Orange B**: A food dye used in hot dog and sausage casings. Bad for the liver and bile duct.

• **Bixin**: **Norbixin**: **Annatto**: Food colorings that can cause hyperactivity in children and asthma.