Substances found in Food that are not Nutrition

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Benjamin Feingold Story

- In the 1970's, a pediatrician named Benjamin Feingold was working with children who were displaying hyperactive behavior.
- Mothers of these children were finding that when foods with artificial colors and flavors were removed from their children's diets, their hyperactive behavior went away. They told Dr. Feingold.
- Dr. Feingold went on record that that artificial colors and flavors were triggering hyperactive behavior.
- The American Academy of Pediatrics wanted to revoke his medical license. Parents protested and this didn't happen.
- The moral of this story, that this was only the beginning of what was happening to the food supply in this country and to medical care. It demonstrates a lack of concern this effect has on our health and our children's health as well as not doing complete research.

Background

- We have at least 70,000 chemicals being used in this country.
- They all have not been tested for their safety and impact on human health, not to mention plant, insect, bird, and animal life.
- It is the cumulative effect of our exposure to chemicals, especially in food that is a concern to human health, not to mention plant and animal life. There is definitely an increase in cancer in all age groups.
- This presentation will address chemicals that is found in the American food supply.
- Note: GMOs are a separate topic. It will be briefly covered in the addendum.

Types of Food Additives

Substances added to the food supply serve a number of purposes. This is in addition to substances that are already in foods grown with pesticides, herbicides, and fungicides.

- Emulsifier – takes substances like oil and water and smoothens it out
- Food Coloring
- Food Flavoring
- Oils and Fats
- Preservative
- Sweeteners – both sugar and artificial sweeteners
- Other

Listing of Additives

- Emulsifiers
  - Carboxymethylcellulsose
  - Polysorbate 80
- Flavoring
  - Diacetyl (Butter Flavoring)
  - MSG-Monosodium Glutamate
- Food Coloring
- Oils and Fats
  - Canola Oil
  - Hydrogenated Oils
  - Trans Fatty Acids
  - Saturated Fats
- Preservatives
  - Benzoalii (BHA, BHT, and TBQH)
  - Sodium Benzoate
  - Sulfites
  - Sulfur Dioxide
- Sweeteners
  - Aspartame
  - High Fructose Corn Syrup
  - Sucralose
  - Sugar

Listing of Additives continued

- Other
  - Aluminum
  - Azodicarbnamide
  - Benzene
  - Bisphenol A (BPA)
  - Bromated Vegetable Oil
  - Meat Glue (microbial transglutaminase)
  - Perchlorate
  - Perfluorooctaanic Acid (PFOA)
  - Phthalates
  - Potassium Bromate

List of Emulsifiers (two)

Carboxymethylcellulsose

- This emulsifier is found in bread, cake, margarine and bottled salad dressing, and ice cream.
- This emulsifier causes gut inflammation and can infiltrate the intestinal lining. It can result in obesity, hypoglycemia, and insulin resistance.

Polysorbate 80

- It is used in food.
- This emulsifier causes gut inflammation and can infiltrate the intestinal lining. It can result in obesity, hypoglycemia, and insulin resistance.

List of Flavoring

Diacetyl (Butter Flavoring)

- It is found in bags of popcorn, in the home variety version.
- Diacetyl is able to cross the blood brain barrier, a defense that prevent harmful substances from entering the brain. It causes beta-amyloid clumping, an sign of Alzheimer's. It is not labeled as diacetyl, but it is under "artificial butter flavor" or "natural flavors".

MSG-Monosodium Glutamate

- It is found under natural flavoring. The FDA allows natural flavoring to include up to 40% MSG. Unfortunately, this makes all “natural flavoring” suspect.
- It is an excitotoxin, causing cells in the brain to get so excited that they collapse and die.

More on MSG as a Flavoring

- MSG is found in salad dressing, low-fat yogurt, frozen dinners, condensed canned soups, canned meats, potato chips and flavored crackers like Wheat Thins, Triscuits, and Cheez-its. It is also found in hydrolyzed protein, vegetable protein, soy protein isolate, soy protein concentrate, whey protein, natural flavoring, spices, enzymes, autolyzed yeast extract, stock, broth and carrageenan.
- People who have migraines and sensitivity to MSG need to avoid this completely. MSG excites the nerve cells, actually causing these cells to die. It also raises the amount of glutamate acid in the brain. It can lead to weight gain.

Food Coloring

- Food coloring is what it gives sodas, fruit juices, candies, and salad dressings their color.
- It can cause behavioral problems in children. Blue 1 and Blue 2 can cause chromosomal damage and Red 3 and Red 40 may be linked to thyroid cancer. Yellow 6 and Yellow Tartrazin can be linked to kidney and adrenal gland disorder

Oils and Fats

Canola Oil

- Unfortunately, canola oil is found in a number of products that are labeled as organic.
- It is basically a manufactured oil created from rapeseed. It was created by the food industry to find a cheaper source of cooking oil. More on this on the next slide.

Hydrogenated Oils

- It is found in margarine.
- It produces trans fats, which the body is unable to digest. Trans fats interfere with normal cell metabolism. They lower the good HDL cholesterol and raise the bad LDL cholesterol. They also increase triglycerides in the blood.

More on Canola Oil (as an oil and fat)

- Canola oil was invented in Canada in the late 1960's. It is derivative of the rapeseed plant, and has been hybridized to eliminate the lethal erucic acid found in rapeseed. Rapeseed oil caused muscular heart lesions and insects avoid erucic acid. Genetic engineering was used to reduce the harmful effects of rapeseed. Canola oil was given GRAS, which means generally recognized as safe by the FDA in 1985. In 1995, canola oil was genetically modified to contain bacterial DNA that would make it resist ant to toxic herbicides like Roundup. 82% of the world's canola oil is GMO. When canola oil is heated, it reaches high levels of butadiene, benzene, acrolein, formaldehyde and all traces of the omega 3 fats are gone. This releases free radicals and oxidation in the body.

Oils and Fats continued

Trans Fatty Acids

- It is found in processed foods, margarines, salad oils, deli meats, bakery goods, potato and corn chips, and candy.
- It increases the bad LDL cholesterol, depletes the good HDL c holesterol, facilitates heart related conditions, stroke, inflammation, and diabetes. It has been found to be linked to dementia and Alzheimer's disease. It also results in mild cognitive impairment. Also, may shrink the brain.

Saturated Fats

- It is a naturally occurring substance found in meats, chicken skin, and full fat dairy.
- It can lower cognitive and memory function. (Note: There is some controversy on this. It also depends on food source.)

Preservatives

Benzoalii (BHA, BHT, and TBQH)

- A common preservative found in cereals, potato chips, chewing gum, and vegetable oil.
- They are oxidants that are believed to form cancer causing reactive compounds in the body. It can eventually affect the brain, altering behavior. It has been linked to tumors, hyperactivity, rashes, and hormonal imbalance, and to keep the food from going rancid and changing color.

Sodium Benzoate

- It is in fruit juices, carbonated drinks, and pickles to impede the growth of microorganisms in acidic foods.
- When it is used in beverages that contain ascorbic acid or vitamin C, sodium benzoate forms small amounts of benzene, a cancer causing substance. Sodium Benzoate can deprive cells of oxygen and break down the immune system. It is not the same as benzoic acid, a naturally occurring substance on low levels in many fruits.

Preservatives continued

Sulfites

- It is in wine and processed foods.
- It helps to preserve freshness in food and added to meats to retain color. It is a problem for people with asthma.

Sulfur Dioxide

- It used in dried fruits as well as in breakfast cereals, cookies, soft drinks, ice-cream, and candies.
- It is used in dried fruits because of its antimicrobial properties. It helps maintain the vibrant appearance of fruit and prevents rotting. It is a problem for those with lung issues. Sulfur dioxide destroys vitamin B1 and vitamin E in the body.

Sweeteners

Aspartame

- It is in drinks and in a number of food products.
- It can cause seizures and brain tumors.

High Fructose Corn Syrup

- It is in drinks and in a number of food products.
- It elevates (bad) LDL cholesterol and facilitates the development of diabetes and tissue damage, and resulting effects. One effect of high fructose corn syrup is that the body will not single satiety, whereas sugar does.

Sweeteners continued

Sucralose

- It is a sweetener.
- It reduces the good gut bacteria in the gut and damages the hippocampus (where memories are stored). Sucralose kills probiotics and harms the intestinal wall. (p. 85 Axe)

Sugar

- It is a sweetener and it is found in processed foods.
- Sugar increases risk of metabolic syndrome. It has a high glycemic index/load and release glucose quickly, causing spikes in blood sugar and cognition.

Sweeteners continued

- Sugar has been given a number of names. It is helpful to know the various names sugar comes under. They are:

Agave nectar	Dextrose	Maltodextrin
Barley malt	Glucose	Maltose
Brown rice syrup	High fructose corn syrup	Maple syrup
Cane sugar	Honey	Rice syrup
Corn syrup	Lactose	Sucanat
Dextrin	Malt syrup	

- Note: there are at least fifty names for sugar. Foods do come with sugar and that is okay. What is the concern is the added sugars to processed foods. The other concern is that sugar is addictive and the amount of sugar (per capita consumption) in the American diet is not healthy.

Other: Aluminum (anti-caking ingredient)

- It is found in baking powder, and an anti-caking agent. It is in drinking water, antacids, deodorants, cans and foil. It’s also found in antacids, aspirin, and even some types of flours and cake mixes (where it prevents powder from clumping).
- It is a known neurotoxin. People with Alzheimer's had more than normal concentrations of aluminum. It can cross the blood brain barrier. It is also used in vaccines.

Other: Azodicarbnamide (bleaching agent) found in processed foods

- It is a bleaching agent found in processed foods.
- It is bleaching agent and dough conditioner.

Other: Benzene (not specified)

- It is in soft drinks.
- Benzene in soft drinks is of potential concern due to the carcinogenic nature of the benzene molecule. This contamination is a public health concern and has caused significant outcry among environmental and health advocates. Benzene levels are regulated in drinking water nationally and internationally, and in bottled water in the United States, but only informally in soft drinks. The benzene forms from decarboxylation of the preservative benzoic acid in the presence of ascorbic acid (vitamin C) and metal ions (iron and copper) that act as catalysts, especially under heat and light.

Other: Bisphenol A (BPA) (can liner)

- It is a liner in canned foods.
- It acts like estrogen, linked to obesity, increased cancer risk, diabetes, metabolic syndrome, heart problems, and ADHD. Bisphenol A is a type of plastic. There are others. This issue here is bioaccumulation, where levels build up within the body. It contributes to reproductive problems, infertility, birth defects, obesity, and cancer. Other problems exist.
  Note: It is strongly recommended not to place hot foods into plastic containers. Safer containers are ones made out of glass, stainless steel, and ceramics. (page 100)

Other: Bromated Vegetable Oil (additive)

- It is in bottled beverages.
- It is a flame retardant in bottled beverages. It is an endocrine inhibitor, attaching to iodine receptors, so real iodine cannot attach to cells. It causes thyroid problems, hypothyroidism, linked to heart, liver, kidney, and testicular damage, increased levels of cholesterol and triglycerides.

Other: Meat glue (microbial transglutaminase) (binding agent)

- It is used in meats.
- It can trigger leaky gut.

Other: Perchlorate (packaging)

- It is used in plastic packaging in contact with dry foods.
- It affects the thyroid, brain development and growth.

Other: Perfluorooctaanic Acid (PFOA) (packaging)

- It is found in microwave popcorn as a liner for grease-proof paper and packaging.
- It can affect the thyroid, digestion, and the brain.

Other: Phthalates (packaging)

- Used in adhesives, lubricants, and plasticizers during the manufacturing process.
- It can affect male genital development, increase childhood obesity, and contribute to cardiovascular disease.

Other: Potassium Bromate

- It is in bread, doughs, and rolls.
- It is a powerful oxidizing agent that ages flour chemically, and much quicker than open air. It bleaches the dough and improves its elasticity. Excessive use has been linked to thyroid and kidney damage.

Addendum

- Bibliography
- Concepts
- GMOs
- Organizations Supporting Clean Food
- Substances not covered in this presentation

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Addendum: Concepts

- Biochemical similarity- There can be a similarity between biological and synthetic chemicals, especially when it comes to enzymes. The problem is that the body will not be able to tell them apart. The phony chemical will not function like its biochemical counterpart. The synthetic substance will not function like the biological substance.
- Leaky gut – It is when holes develop in the intestinal lining, allowing food particles and other substances to leak into the blood stream or body.
- Radiation – When foods have been radiated, this reduces the vitamin content of the food as much as 90%. If the food has been radiated, it has to be labeled.
- Synergistically toxic effects – when two or more toxins are together, example like fluoride and aluminum, the effects are much more serious, than individually.

Addendum: GMOs

- GMO stand for genetically modified organisms.
- The problem with GMOs are:
  - One, is faulty research.
  - Two, the outcome is unknown. It has harmed insect life.
  - Three, once the mutant genes are out, there is no going back.
  - Four, GMOs require massive amounts of pesticides, herbicides, and fungicides.
- GMOS are now in a number of products and it is not labelled.
- GMOs have actually been banned in a number of countries. This includes the European Union, Australia, Japan, and UK and two dozen other countries.

Addendum: Organizations involved in Environment Protection and Clean Food

- EWG - Environmental Working Group - https://www.ewg.org/
- Food and Water Watch - https://www.foodandwaterwatch.org
- NRDC- Natural Resource Defense Council - https://www.nrdc.org/

- Note: The U.S. Environmental Protection Agency (EPA) under Scott Pruitt has unfortunately is undoing many of the environmental protection regulations placed on the books.

Addendum: Substances not covered in this presentation

- Carrageenan – It is from seaweed and is considered safe.
- Hexane – A component of gasoline and used to process vegetable oils (instead of cold compressing)
- Neonicotinoid – A pesticide that harms and kills bees
- Olestra – It is a fat substitute that adds no fat, calories, or cholesterol to products.
- Pesticides – Chemicals used in growing plants and get absorbed into plant matter
- Polysorbate 60 - a class of emulsifiers used in some pharmaceuticals and food preparation (see Polysorbate 80)
- Propylene Glycol – used in food processing
- Sodium Hydroxide – used for washing or chemical peeling

Concluding Remarks

- Our health is everyone's business. Our health and the future of our country's health depends on eating healthy food.
- We all need to educate ourselves on what is now in the American food supply.
- These toxins do end up in our bodies. Research is coming out that the current obesity epidemic is due to the chemicals in processed foods.
- It is affecting the IQ levels of the next generation and reducing the fertility levels.
- The overuse of chemicals affects our soil, plant life, animal life, insect life, and bird life.
- Detoxification now needs to be part of everyone's medical protocol.