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Sweet poison-food additive

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Abstract

Food additive have long been used to stimulate taste buds of human beings different types of additives with several contribution are being used worldwide. Just to make food more palatable, more colourful and more self-life. Food additive are used not only they destroy natural nutrients in food but also effect human health to various degrees. Various food colouring agents, antioxidants flavours used in food have been proud to trigger various adverse reactions like burning sensation, chest pain in digestion etc. To avoid such adverse reaction we should obtain from highly processed food and check the food labels for its ingredient.

Keywords: Food additive, human health, consumers, awareness, nutrients, adverse reaction etc

1. Introduction

Food additives have been used for thousands of years. Several experiments have been done on food to make it tastier and increase its life. The role of food additives has become more prominent in recent years, now these days so many food supplements are available in markets and consumers get attracted by their packaging colour, odour, flavour, all of these are made up of "Food Additives". Food additive is any substance not naturally present in a food but added during its preparation and remaining in the finished product. Food additives are all substances added to basic food products. In other words a food additive is anything added to food to make it more nutritious, colourful, or desirable for the consumer. Food additives are used to decrease the risk of contamination by certain microbes, maintain or improve nutritional quality, enhance, appearance, increase shelf life, reduce waste or contribute to convenience. All approved additives are given a number and some are also awarded an 'E'. An E shows that the additive has been accepted as safe all over the European Union. Food labels give information about the additives present so that consumers can make informed choices.

2. Food additives can be classified into several groups which overlap each other

2.1 Acids: Food acids are added to make flavours "sharper", and also act as preservatives and antioxidants. Common food acids include vinegar, citric acid, tartaric acid, malic acid, lactic acid, and lactic acid.

2.2 Acidity regulators: Acidity regulators are used to change or otherwise control the acidity and alkalinity of foods.

2.3 Ant caking agents: Ant caking agents keep powders such as milk powder from caking or sticking.

2.4 Antifoaming agents: Antifoaming agents reduce or prevent foaming in foods.

2.5 Antioxidants -Antioxidants such as vitamin C act as preservatives by inhibiting the effects of oxygen on food, and can be beneficial to health.

2.6 Bulking agents: Bulking agents such as starch are additives that increase the bulk of a food without affecting its taste.

2.7 Food colouring: Colourings are added to food to replace colours lost during preparation, or to make food look more attractive.

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2.8 Colour retention agents: In contrast to colourings, colour retention agents are used to preserve a food's existing colour.

2.9 Emulsifiers: Emulsifiers allow water and oils to remain mixed together in an emulsion, as in mayonnaise, ice cream, and homogenized milk.

2.10 Flavours: Flavours are additives that give food a particular taste or smell, and may be derived from natural ingredients or created artificially.

2.11 Flavour enhancers: Flavour enhancers enhance a food's existing flavours. They may be extracted from natural sources (through distillation, solvent extraction, maceration, among other methods) or created artificially.

2.12 Flour treatment agents: Flour treatment agents are added to flour to improve its colour or its use in baking.

2.13 Glazing agents: Glazing agents provide a shiny appearance or protective coating to foods.

2.14 Humectants: Humectants prevent foods from drying out.

2.15 Tracer gas-Tracer gas allows for package integrity testing to prevent foods from being exposed to atmosphere, thus guaranteeing shelf life.

2.16 Preservatives: Preservatives prevent or inhibit spoilage of food due to fungi, bacteria and other microorganisms.

2.17 Stabilizers: Stabilizers, thickeners and gelling agents, like agar or pectin (used in jam for example) give foods a firmer texture.

2.18 Sweeteners: Sweeteners are added to foods for flavouring. Sweeteners other than sugar are added to keep the food energy (calories) low, or because they have beneficial effects for diabetes mellitus and tooth decay and diarrhoea.

2.19 Thickeners: Thickening agents are substances which, when added to the mixture, increase its viscosity without substantially modifying its other properties.

Some additives improve or maintain the food's nutritive value. Vitamins A, C, D, E, thiamine, niacin, riboflavin, pyridoxine, folic acid, calcium carbonate, zinc oxide and iron are often added to foods such as flour, bread, biscuits, breakfast cereals, pasta, margarine, milk, iodized salt and gelatine desserts. Instead of vitamin C, you may see ascorbic acid listed. Alphatocopherol is another name for vitamin E, and beta carotene is a source of vitamin A. In addition to providing nutrients, food additives can help reduce spoilage, improve the appearance of foods and increase the availability of a variety of foods throughout the year. Some food additives can potentially cause harmful side effects. For example, butyrate hydroxyanisole, commonly known as BHA, is a preservative used in foods including potato chips, crackers, beer, baked goods and cereal. It has been classified by the U.S. Department of Health and Human Services as a preservative "reasonably anticipated to be a human carcinogen." Sulphites, which are added to baked goods, wine, condiments and snack foods, could cause hives, nausea, diarrhoea and shortness of breath in some people. There is no alternate of fresh and real food and only natural way to minimize toxins in your diet and lowering your risk of

disease. Foods, amongst other things (cosmetics & medications), represent a source of these toxins. One can't take a risk with health and the health of his children. It is difficult to tell if a person is being affected by food additives. Effects of food additives may be immediate or may be harmful in the long run if you have constant exposure. Immediate effects may include headaches, change in energy level, and alterations in mental concentration, behaviour, or immune response. Long-term effects may increase your risk of cancer, cardiovascular disease. A burning sensation in the back of the neck, forearms and chest, numbness in the back of the neck, radiating to the arms and back, a tingling, warmth and weakness in the face, temples, upper back, neck and arms., facial pressure or tightness, swelling of lips/face, chest pain, rapid heartbeat, headache, nausea, drowsiness, bronchospasm (difficulty breathing) in MSG-intolerant people with asthma..

Adverse reactions can occur through a variety of mechanisms. Some reactions, such as the stimulant effect of caffeine, are known pharmacologic effects of the chemical, caffeine. Pharmacologic effects typically occur to a greater or lesser degree in all individuals. Adverse effects can also occur because of intolerance to the food. Food intolerances are usually related to individual differences in how a person digests, absorbs, or metabolizes a food. A common example of food intolerance is the symptoms some people get after ingestion of milk because their gastrointestinal tracts cannot breakdown lactose, the sugar in milk. Many other adverse reactions termed idiosyncratic, a fancy way of saying "of unknown cause" are typically rare and will probably someday be understood as uncommon forms of intolerance. Allergy reactions to foods are another type of adverse reaction to a food. Allergic reactions occur when the body's immune system recognizes some protein in the food as foreign and tries to prevent the food from entering the body.

In latest episode of food additive issue Supreme Court of India has put a ban on Maggie noodles manufactured by Nestle .Nestle company has been excused of using MSG in the noodle which is widely consumed by children also MSG can cause hypertension, nausea, diahorrea and headache etc.

Eight different food additives are commonly known to cause adverse reactions. These are described briefly below.

1. **Sulphites** The term, sulphites encompasses a variety of very small chemicals that are commonly used as preservatives in foods. Sulphites prevent foods from turning brown when the food is exposed to air. Some of these are naturally occurring while most are added artificially to foods. Sulphites can cause mild to life-threatening symptoms in some people with asthma. Symptoms of adverse reactions to sulphites include: tightness in the chest, breathing difficulty, hives, stomach cramps, diarrhoea, and sometimes, anaphylactic shock. Sulphites are most often found in wine, dried fruits, white grape juice, frozen potatoes, fresh shrimp, and certain jams and jellies. At one time, sulphites were used on fresh fruits and vegetables, such as in salad bars, to help retain colour and freshness.
2. **Aspartame (NutraSweet)** is a calorie-free sweetener used in many foods and beverages. People who have a problem metabolizing the amino acid phenylalanine should not consume aspartame. Many other types of adverse reactions have been reported in relationship to aspartame but these reactions have not been adequately verified to conclude that they are truly caused by aspartame.

3. Parabens are used to preserve foods and medications. They also are used in sunscreens and shampoos where they can cause reactions such as severe contact dermatitis. Examples of parabens are ethyl-, methyl-, propyl-, and butyl-parabens.
4. Tartrazine is a yellow dye most commonly used in beverages, candy, ice cream, desserts, cheese, canned vegetables, hot dogs, salad dressing, seasoning salts, and catsup. Adverse reactions can include hives or swelling, and possibly a trigger for asthma symptoms; however, studies have not documented this relationship.
5. Monosodium glutamate, glutamic acid (MSG) Manufacturers and restaurants use MSG to enhance flavour in packaged meats and foods. Adverse reactions can cause headache, a burning sensation on the back of the neck, chest tightness, nausea, diarrhoea, and sweating. There are rare reports that people with asthma who have consumed MSG have more severe asthma episodes. "Chinese Restaurant Syndrome"—sudden adverse reactions to eating food from Chinese restaurants—are often attributed to use of MSG in these prepared foods.
6. Nitrates and nitrites are chemicals used to preserve foods, prevent deadly botulism infection, enhance flavours, and colour foods. Symptoms are rare, but may include headache or hives in some people. Nitrates and nitrites are commonly used in hot dogs, bologna, salami, and other processed meats and fish.
7. Butyrate hydroxytoluene (BHT) and butyrate hydroxyanisole (BHA) are preservative chemicals added to breakfast cereals and other grain products to prevent them from changing colour, odour, and flavour. These substances have been linked to chronic hives and other skin reactions on rare occasions.
8. Benzoates are preservatives used in some foods, including cakes, cereals, salad dressings, candy, margarine, oils, and dry yeast. Benzoate reactions are very rare.

Symptoms of an adverse reaction to specific foods are the best indicator that certain food additives may be a problem for you. Consult your physician if you experience any negative reactions to foods. It is often very helpful to keep a list or diary of when you have had reactions after eating and exactly what foods you ate.

The only way to prevent an adverse reaction to a specific food additive is to avoid the additive. Here are some general practices to use to help manage adverse reactions to food additives.

1. Avoid consuming any food additives, which you know will cause problems for you.
2. Read ingredient lists on *all* food labels carefully.
3. Be sure you know the different ways an additive is named. (For example, BHA in place of butyrate hydroxyanisole).
4. Find out whether there are other additives, which are in the same "family" or similar to the additives you cannot use. Avoid these as well.
5. Avoid sulphating agents by looking for sulphur dioxide; sodium or potassium sulphite; bisulphite; or metabisulphite in ingredient lists.
6. Question restaurant staff about ingredients, cooking methods, and what other foods or additives may come in contact with food you want to order. Don't be afraid to ask that your food be prepared according to your needs.
7. If you have a serious adverse reaction to a food additive, wear a Medic Alert bracelet or necklace to inform physicians of your sensitivities to specific

substances/foods in case of emergency.

8. If anaphylaxis is a concern, always carry injectable epinephrine for use in an emergency.

3. References

1. http://www.gaianaturopathic.com/docs/Food_Additives.pdf
2. Copyright Vernon Coleman, 1994-2007.
3. Srilakshmi B, Food Science. New Age International (P) Limited, Publishers, Fourth Edition, 2007.