

MSG Lurks As A Slow Poison In Common Food Items Without Your Knowledge

The food additive "MSG" is a slow poison which hides behind dozens of names, such as natural flavouring and yeast extract. Currently, labeling standards do not require **MSG** to be listed in the ingredient list of thousands of foods.

MSG is not a nutrient, vitamin, or mineral and has no health benefits. The part of MSG that negatively affects the human body is the "glutamate", not the sodium. The breakdown of MSG typically consists of 78% **glutamate**, 12% **sodium**, and about 10% water. Any glutamate added to a processed food is not and can not be considered naturally occurring. Natural glutamate in plants and animals is known as L-glutamic acid. Our normal digestive process slowly breaks down this natural or "bound" glutamic acid and it is then delivered to glutamate receptors in our body and brain. Broken down this way, it is harmless. In a factory, however, the bound glutamic acid in certain foods (corn, molasses, wheat) is broken down or made "free" by various processes (hydrolyzed, autolyzed, modified or fermented with strong chemicals, bacteria, or enzymes) and refined to a white crystal that resembles sugar.

Since free glutamate can be a component part of certain food additives, such as autolyzed yeast or hydrolyzed protein, it is essentially unregulated when it comes to labeling standards. This allows it to go into food unlabeled as MSG. A label may say "yeast extract", "calcium caseinate", or "beef flavoring", but the product still contains varying amounts of "free" glutamic acid. This makes it very difficult for consumers who are trying to avoid it. It is also very dangerous for those who suffer severe reactions to it. Many people who are very sensitive to MSG experience respiratory, neurological, muscular, skin, urological and even cardiac symptoms.

So why is MSG even allowed into our food supply? Because they can get us to eat almost anything. There is such an incredible amount of disinformation in the powers that regulate and control food, that they can get us to consume things with absolutely no nutritional value at all. As long as manufacturing costs are minimized, and we keep buying their food, they'll keep making it regardless of the detriments to our health. MSG has been proven to act as an excitotoxin which stimulates the reward system of the brain, so we think it tastes better (than it actually does) and consequently consume more.

There are a growing number of Clinicians and Scientists who are convinced that excitotoxins play a critical role in the development of several neurological disorders, including migraines, seizures, infections, abnormal neural development, certain endocrine disorders, specific types of obesity, and especially the neurodegenerative diseases; a group of diseases which includes: ALS, **Parkinson's** disease, **Alzheimer's** disease, Huntington's disease, and olivopontocerebellar degeneration.

The amount of these neurotoxins added to our food has increased enormously since their first introduction. For example, since 1948 the amount of MSG added to foods has doubled every decade. By 1972, 262,000 metric tons were being added to foods.

How Excitotoxins Destroy Our Health

So, what is exactly is an excitotoxin? These are substances, usually amino acids, that react with specialized receptors in the brain in such a way as to lead to destruction of certain types of brain cells. Glutamate is a normal neurotransmitter in the brain. In fact, it is the most commonly used neurotransmitter by the brain. Defenders of MSG and aspartame use, often say: "How could a substance that is used normally by the brain cause harm?" This is because, glutamate, as a neurotransmitter, is used by the brain only in very, very small concentrations - no more than 8 to 12ug. When the concentration of this transmitter rises above this level the neurons begin to fire abnormally. At higher concentrations, the cells undergo a specialized process of cell death.

The brain has several elaborate mechanisms to prevent accumulation of MSG in the brain. First is the **blood-brain barrier**, a system that impedes glutamate entry into the area of the brain cells.

But, this system was intended to protect the brain against occasional elevation of glutamate of a moderate degree, as would be found with un-processed food consumption. It was not designed to eliminate very high concentrations of glutamate consumed daily, several times a day, as we see in modern society. Several experiments have demonstrated that under such conditions, glutamate can by-pass this barrier system and enter the brain in toxic concentrations. In fact, there is some evidence that it may actually be concentrated within the brain with prolonged exposures. There are also several conditions under which the blood-brain barrier (BBB) is made incompetent. Before birth, the BBB is incompetent and will allow glutamate to enter the brain. It may be that for a considerable period after birth the barrier may also incompletely developed as well. Hypertension, diabetes, head trauma, brain tumors, strokes, certain drugs, Alzheimer's disease, vitamin and mineral deficiencies, severe hypoglycemia, heat stroke, electromagnetic radiation, ionizing radiation, multiple sclerosis, and certain infections can all cause the barrier to fail. In fact, as we age the barrier system becomes more porous, allowing excitotoxins in the blood to enter the brain. So there are numerous instances under which excitotoxin food additives can enter and damage the brain.

Finally, recent experiments have shown that glutamate can open the barrier itself. Another system used to protect the brain against environmental excitotoxins, is a system within the brain that binds the glutamate molecule (called the glutamate transporter) and transports it to a special storage cell (the astrocyte) within a fraction of a second after it is used as a neurotransmitter. This system can be overwhelmed by high intakes of MSG, aspartame and other food excitotoxins. It is also known that excitotoxins themselves can cause the generation of numerous amounts of free radicals and that during the process of lipid peroxidation (oxidation of membrane fats) a substance is produced called 4-hydroxynonenal. This chemical inhibits the glutamate transporter, thus allowing glutamate to accumulate in the brain. Excitotoxins destroy neurons partly by stimulating the generation of large numbers of free radicals. Recently, it has been shown that this occurs not only within the brain, but also within other tissues and organs as well (liver and red blood cells). This could, from all available evidence, increase all sorts of degenerative diseases such as [arthritis](#), coronary heart disease, and [atherosclerosis](#), as well as induce cancer formation. Certainly, we would not want to do something that would significantly increase free radical production in the body. It is known that all of the neurodegenerative disease, such as Parkinson's disease, Alzheimer's disease, and ALS, are associated with free radical injury of the nervous system.

It should also be appreciated that the effects of excitotoxin food additives generally are not dramatic. Some individuals may be especially sensitive and develop severe symptoms and even sudden death from cardiac irritability, but in most instances the effects are subtle and develop over a long period of time. While MSG is probably not the direct cause of the neurodegenerative diseases, such as Alzheimer's dementia, Parkinson's disease, or amyotrophic lateral sclerosis, it may well precipitate these disorders and certainly worsen their effects. It may be that many people with a propensity for developing one of these diseases would never develop a full blown disorder had it not been for their exposure to high levels of food borne excitotoxin additives. Some may have had a very mild form of the disease had it not been for the exposure.

[Hydrolyzed](#) vegetable protein should not be confused with hydrolyzed vegetable oil. The oil does not contain appreciable concentration of glutamate, it is an oil. Hydrolyzed vegetable protein is made by a chemical process that breaks down the vegetable's protein structure to purposefully free the glutamate. This brown powdery substance is used to enhance the flavor of foods, especially meat dishes, soups, and sauces. Despite the fact that some health food manufacturers have attempted to sell the idea that this flavor enhancer is "all natural" and "safe" because it is made from vegetables, it is not. It is the same substance added to processed foods.

Experimentally, one can produce the same brain lesions using hydrolyzed vegetable protein as by using MSG. A growing list of excitotoxins is being discovered, including several that are found naturally. For example, L- cysteine is a very powerful excitotoxin. Recently, it has been added to certain bread dough and is sold in health food stores as a supplement. Homocysteine, a metabolic derivative, is also an excitotoxin. Interestingly, elevated blood levels of homocysteine has recently been shown to be a major, if not the major, indicator of cardiovascular disease and stroke. Equally interesting, is the finding that elevated levels have also been implicated in neurodevelopmental disorders, especially anencephaly and spinal dysraphism (neural tube

defects). It is thought that this is the protective mechanism of action of the prenatal vitamins B12, B6, and folate when used in combination. It remains to be seen if the toxic effect is excitatory or by some other mechanism. If it is excitatory, then unborn infants would be endangered as well by glutamate and the other excitotoxins.

Recently, several studies have been done in which it was found that all Alzheimer's patients examined had elevated levels of homocysteine. Recent studies have shown that persons affected by Alzheimer's disease also have widespread destruction of their retinal ganglion cells. Interestingly, this is the area found to be affected when researchers first discovered the excitotoxicity of MSG. While this does not prove that dietary glutamate and other excitotoxins cause or aggravate Alzheimer's disease, it makes one very suspicious. One could argue a common intrinsic etiology for central nervous system neuronal damage and retinal ganglion cell damage, but these findings are disconcerting enough to warrant further investigations.

Ingredients To Avoid

ALWAYS Contain MSG	OFTEN Contain MSG
Monosodium Glutamate (MSG) Glutamate <i>anything</i> Glutamic Acid Hydrolyzed <i>anything</i> Hydrolyzed Corn Gluten Hydrolyzed Pea Protein Plant Protein Textured Protein Autolyzed <i>anything</i> Autolyzed Yeast Extract Autolyzed Plant Protein Yeast Extract Yeast Nutrient Caseinate <i>anything</i> Calcium Caseinate Sodium Caseinate Gelatin	Carrageenan (ingredient in Chocolate Milk) Xanthum Gum (ingredient in Salad Dressings) Maltodextrin (ingredient in Splenda) Flavor(s) and Flavoring(s) <i>anything</i> Malt Flavoring Natural Flavor(s) & Flavoring(s) <i>anything</i> beef, pork, chicken, etc Bouillon and Broth <i>anything</i> Barley Malt Malt Extract Soy Sauce Extract Soy Protein Isolate Ultra-pasteurized Soy Sauce Whey Protein Concentrate Soy Protein Concentrate Pectin Soy Protein Whey Protein Isolate Whey Protein Protease Protease Enzymes Protein Fortified <i>anything</i> Enzyme Modified <i>anything</i> Enzymes <i>anything</i> Fermented <i>anything</i> Citric Acid Seasoning(s) (the actual word) Spice(s) (the actual word)
Aspartame (any artificial sugar) The next ingredients listed do not contain MSG, but are added to activate MSG already contained in the food product. These two chemicals are very expensive and have no other function. If you find them on the label you can be assured that MSG is present. Disodium Guanylate Disodium Inosinate	
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Ranch Salad Dressing (Most salad dressings are of concern, but Ranch is the worst.)

Vegetable Dips
All Flavored Chips
Sun Chips
Doritos
Flavored Potato Chips
Bouillon (including those that claim MSG Free)
Meat and Vegetable Stock and Broth (including those that claim MSG Free)
Baby Formulas and Foods

Hair Care Products
Hair Shampoo
Hair Conditioner
Toothpaste
Teeth Whitening Agents
Fluoride Treatments
Teeth Cleaning Pumice at the Dentist
Medication
Gel Capsules (contains Gelatin)
Children's Cough Syrup