

## Part 4, Chapter 48: MSG

Other than aspartame, one of the most destructive substances that has ever been invented—more discovered than invented—is MSG. One of the reasons that it's so insidious is that, unlike aspartame, it is a naturally occurring substance. It is monosodium glutamate, MSG.

Monosodium glutamate (MSG, also known as sodium glutamate) is the sodium salt of glutamic acid, one of the most abundant naturally occurring non-essential amino acids. Monosodium glutamate is found naturally in tomatoes, cheese and other foods.<sup>{1}</sup>

Monosodium glutamate is a peculiar chemical. It is actually a form of a naturally occurring amino acid, glutamic acid. Glutamic acid is a non-essential amino acid. (The body can synthesize it.) You wouldn't think that MSG would be a problem—but it is.

In 1907 a Japanese chemist, Kikunae Ikeda, was experimenting with food flavors in a quest for what the Japanese consider the perfectly balanced combination of flavors, 'umami'. Professor Ikeda captured what he believed was umami by isolating glutamic acid from seaweed and other plants such as wheat, beets, corn, and molasses. In 1909 the Ajinomoto Corporation of Japan patented it as monosodium glutamate, or MSG, and sold it in the U.S. as Accent, a flavor enhancer. This chemical is not food, like [the] kombu sea vegetable, but rather a toxic concoction and excitotoxin.

In the chemical MSG manufacturing plant, however, the bound glutamic acid in the above mentioned foods is broken down or made 'free of protein' by various processes (hydrolyzed, autolyzed, modified or fermented with strong chemicals, acids, bacteria, or enzymes, which are often genetically modified) and refined to a white crystal powder that resembles salt or sugar. Chemical MSG contains 78% glutamate, 12.2% sodium, and 9.6% water. This chemical form is known as D-glutamic acid. It usually contains some L-glutamic acid, pyroglutamic acid, and other contaminants. This factory made version causes serious reactions. From our research there is no D-glutamic acid, pyroglutamic acid or other contaminants in the protein found in plants and animals, only L-glutamic acid. When pure, manufactured, MSG is ingested, a rapid effect occurs from the glutamate. This 'free of protein' glutamic acid, or glutamate, unlike the naturally occurring 'protein bound' glutamate, is not attached to other amino acids. The normal digestive disassembly process does not happen because there are no 'peptide' bonds to slow the process. [MSG is essentially a fake protein but chemically similar enough to act like the amino acid L-glutamic acid to fit into receptor sites in the brain except there is a] sudden increase in free glutamic acid [that] is then rapidly absorbed and can raise blood levels of glutamate eight to ten times causing toxicity.<sup>{2}</sup>

This is why MSG is called an excitotoxin and is absorbed into the body as if it were a properly processed amino acid. It essentially burns out neurotransmitters in the brain and can cause other symptoms.

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[Functionally, MSG,] ... an addictive chemical added to your food, could cause brain damage, migraine headaches, obesity, numbness, tingling, tightness of the chest, asthmatic attacks, hives, skin rashes, dizziness, heart palpitations, weakness, nausea [and] vomiting, abdominal cramps, chills, diarrhea, heartburn, unusual thirst, unusual perspiration, flushing sensation in the face or chest, seizures, tachycardia, and depression ... This chemical could affect how your children's nervous systems formed during development, so that in later years they may have learning or emotional difficulties.<sup>{3}</sup>

It's pretty nasty stuff and, like high-fructose corn syrup and aspartame, is added to many food products. It is a very dangerous, totally artificial, food additive. It's particularly dangerous because the body accepts it as legitimate L-glutamine, in practice, readily incorporating it into the brain. The effect is that it functionally destroys neurotransmitters, the exact opposite of what the valid amino acid L-glutamine does.

What makes MSG particularly insidious is that it goes by many names. The following is a partial list of names of ingredients that always contain processed free glutamic acid.

- Glutamic Acid (E 620)
- Glutamate (E 620)
- Monosodium Glutamate (E 621)
- Monopotassium Glutamate (E 622)
- Calcium Glutamate (E 623)
- Monoammonium Glutamate (E 624)
- Magnesium Glutamate (E 625)
- Natrium Glutamate
- Yeast Extract
- Anything "hydrolyzed"
- Any "hydrolyzed protein"
- Calcium Caseinate
- Sodium Caseinate
- Yeast Food
- Yeast Nutrient
- Autolyzed Yeast
- Gelatin
- Textured Protein
- Soy Protein
- Soy Protein Concentrate
- Soy Protein Isolate
- Whey Protein
- Whey Protein Concentrate
- Whey Protein Isolate
- Vetsin
- Ajinomoto<sup>{4}</sup>

This is not the complete list.

Having said all this, if you buy any packaged or processed food it probably has some form of MSG in it. It's just about impossible to avoid. As with so many of the toxic foods, if you stick with real food, 90%-95% vegan, fruits, vegetables, nuts, seeds and sprouts, you'll avoid the vast majority of potential chemicals.

More than anything else I've included this section to explain what this common food additive is. The only way to truly avoid it is to not eat any processed food, and that's probably not a realistic option. Still, you can do much to eliminate as much of this nasty substance's damage as possible by sticking with a predominantly raw food vegan diet.