

Most Common Food Additive MSG

- ❑ Monosodium Glutamate (MSG) is made up of:
 - Processed free glutamic acid
 - Sodium
 - Moisture
 - 1% contaminants that are carcinogenic.



- ❑ Most adverse effects of MSG are neurological since Glutamic acid is the most abundant *excitatory neurotransmitter in the nervous system*
- ❑ Produced commercially by isolating part of a naturally occurring glutamate, glutamic acid

Confusion About MSG

- ❑ **Glutamic Acid Natural Form is stabilized by a protein**
 - Not Dangerous to most people
 - Free Glutamic acid is not stabilized by a protein
 - Causes many adverse reactions, i.e. destruction of the part of the hypothalamus that regulates hunger and fat storage
- **Highly Addictive – excitatory neurotoxin**
- ❑ **Over 40 food ingredients containing free glutamine:**
 - citric acid
 - malted barley
 - natural flavoring
 - sea salt
- ❑ **Consumers refer to *all ingredients* containing processed free glutamic acid as MSG, regardless of what the ingredient actually is.**



MSG = Excitatory Neurotoxin

Ingredients that Contain Processed Free Glutamic Acid (MSG)¹

Ingredients that *always* contain processed free glutamic acid:

- Glutamic acid (E 620)²
- Glutamate (E 620)
- Monosodium glutamate
- Monopotassium glutamate
- Monoammonium glutamate
- Magnesium glutamate (E621)(E622)(E624)&(E625)
- Calcium glutamate (E 623)
- Natrium glutamate
- Yeast extract
- Anything "hydrolyzed"
- Any "hydrolyzed protein"
- Calcium caseinate
- Sodium caseinate
- Yeast food, Yeast nutrient
- Brewers' yeast
- Autolyzed yeast
- Gelatin
- Textured protein
- Soy protein (also isolate or concentrate)
- Whey protein (also isolate or concentrate)
- Vetsin
- Ajinomoto

(1) Glutamic acid found in unadulterated protein does not cause adverse reactions. To cause adverse reactions, the glutamic acid must have been processed/manufactured or come from protein that has been fermented.

Ingredients that *often* contain or produce processed free glutamic acid:

- Carrageenan (E 407)
- Bouillon and broth
- Stock
- Natural flavor
- Any "flavor" or "flavoring"
- Maltodextrin
- Citric acid (E 330)
- Anything "ultra-pasteurized"
- Barley malt, Malted barley
- Pectin (E 440)
- Protease
- Anything "enzyme modified"
- Anything containing "enzymes"
- Malt extract
- Soy milk
- Soy sauce
- Soy sauce extract
- Anything "protein fortified"
- Anything "fermented"
- Seasonings

(2) E numbers are used in Europe in place of food additive names

These ingredients work with MSG to enhance flavor:

If these are present for flavoring purposes, so is MSG.

- Disodium 5'-guanylate (E 627)
- Disodium 5'-inosinate (E-631)
- Disodium 5'-ribonucleotides (E 635)

Ingredients suspected of containing lesser amounts of MSG:

- Corn starch
- Corn syrup
- Modified food starch
- Lipolyzed butter fat
- Dextrose
- Rice syrup, brown rice syrup
- Milk powder
- Reduced fat milk (e.g., skim milk; 1% milk; 2% milk)
- Most things low fat or no fat
- Anything Enriched or Vitamin enriched

MSG = Excitatory Neurotoxin

Introduced in 1940s



- Tricks the brain into liking a food we would otherwise not like**
- Food industry describes consumers as “heavy users”*
- Exploded in the 90’s and 2000’s**
- Majority of all packaged or processed foods**
- Especially targeted to children**

Sugar

A Powerful Addictant

- ❑ **100 years ago, it is estimated that Americans ate around one pound of sugar a year.**
- ❑ **Today, it is estimated that we (children and adults) consume around 1/4 to 1/2 pound of sugar/day**
- ❑ **Or around 90 to 180 pounds of sugar every year**
- ❑ **Sugar has been found to be as intense an addictant as Cocaine**



Man-Made Addictants

- GE Table Sugar - Most will be GE made from sugar beets**
- Sweeteners – High Fructose Corn Syrup, Aspartame & Asculofame, Agave Syrup**
- MSG – free glutamate**
- Grains – Genetically Engineered (GE) & Hyper-hybridized (HH)**



Sugar in the Obvious Places

- 12 oz. soda contains 8 teaspoons of sugar
- Four 12 oz. sodas to make 1/4 pound
- Donuts - 8-10 teaspoons
- Jams - 3 teaspoons per tablespoon
- Cookies - 2-4 teaspoons per cookie



(There are 120 teaspoons in every pound of sugar, which means 1/2 pound is 60 teaspoons and 1/4 pound is 30 teaspoons)

Sugar in the Not So Obvious Places

Condiments

Soups

Dressings

Cereals (especially children's)

Crackers, bread, pizza dough

Baby Formula



Ingredients: Dehydrated Potatoes, Modified Food Starch, Corn Oil, Sugar, Salt, Soy Lecithin, Leavening (Monocalcium Phosphate and Sodium Bicarbonate), and Dextrose.
No Preservatives.

Nutrition Facts	
Serving Size 1 oz. (28g/About 10 crisps)	
Servings Per Container 10	
Amount Per Serving	
Calories 120	Calories from Fat 30
% Daily Value*	
Total Fat 3g	5%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 200mg	8%
Total Carbohydrate 21g	7%
Dietary Fiber 2g	6%
Sugars 2g	
Protein 2g	
Vitamin A 0%	Vitamin C 6%
Calcium 4%	Iron 0%
Thiamin 4%	Niacin 6%
Vitamin B6 4%	Phosphorus 8%
Zinc 2%	
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9	Carbohydrate 4 Protein 4

Impact on U.S. Eating

- ❑ **All powerful addictants**
 - **Drive disordered eating**
 - **Make recovery more difficult**
 - **Increase likelihood of relapse**
 - **Driving inflammatory conditions**



- ❑ **Indirectly driving higher mortality rates**

Specific Inflammation

- ❑ **Other substances (like incompletely digested proteins) cause specific inflammation, which can take the form of an allergy or an auto-immune disease.**
- ❑ **Allergies - caused by immune cells creating antibodies targeting a part of a protein that is specific to the food it originated from (like an antibody targeting the casein in milk resulting in a milk allergy).**
- ❑ **Food Sensitivities – similar but cause both allergy-type symptoms and symptoms that you might not normally attribute to an allergy, such as:**
 - **pain**
 - **fatigue**
 - **eczema**

