

MONOSODIUM GLUTAMATE: BEYOND THE CONTROVERSY

MSG is one of the most beloved and demonized ingredients in American history. It's a staple for home cooks and world renown chefs, yet it's a subject of skepticism as brands and restaurants promote "MSG-free." After 110 years since its introduction, Ajinomoto Co., Inc., the world's first and leading manufacturer of MSG, seeks to encourage more conversations about this umami seasoning.

1. WHAT IS MONOSODIUM GLUTAMATE?

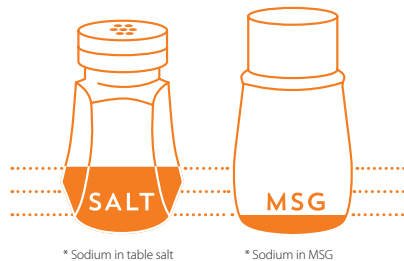


Monosodium glutamate (MSG) is a seasoning that combines sodium (like that in table salt) with glutamate, the most abundant amino acid in nature and one of 20 that make up protein in the human body. Glutamate is also naturally present in foods such as tomatoes, aged cheeses, mushrooms and even breast milk. MSG is digested and metabolized the same as glutamates from foods—the body cannot recognize the difference.

2. WHY USE MSG?

"SOME STUDIES HAVE SHOWN THAT IT IS POSSIBLE TO MAINTAIN FOOD PALATABILITY WITH A LOWERED OVERALL SODIUM LEVEL IN A FOOD WHEN MSG IS SUBSTITUTED FOR SOME OF THE SALT."

-FOOD AND NUTRITION BOARD /INSTITUTE OF MEDICINE*



MSG is the purest form of umami, which is a taste that brings out the savory deliciousness of food and adds dimension to the flavors. About one half teaspoon can enhance the flavor of a pound of meat or 4-6 servings of vegetables, casseroles or soup. Best yet, MSG has two-thirds less sodium than table salt and can enhance the flavor of food while decreasing the need for salt.

3. IS MSG SAFE TO CONSUME?



Yes, MSG is safe to consume. Health experts have endorsed the safety of MSG based on extensive scientific research and a long history of use around the world.¹⁻⁴ Some people identify themselves as sensitive to MSG, however reactions have not been consistently demonstrated in double-blind, placebo-controlled human trials.⁴⁻⁶ In fact, MSG is not considered an allergen.⁵ Also, the International Headache Society removed MSG from its list of causative factors for headaches in January of 2018.⁶

4. WHERE DID MSG COME FROM?



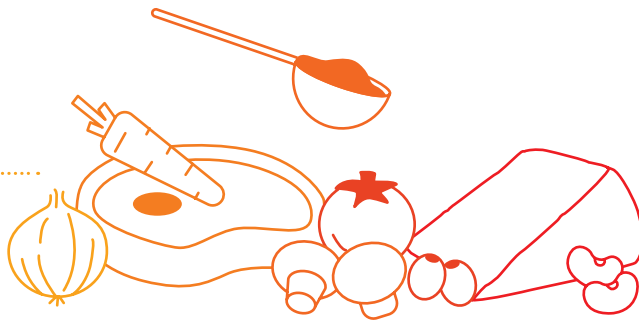
In 1908, Japanese scientist Dr. Kikunae Ikeda was the first to attribute glutamate to the unique taste we now know as umami. He noticed the savory taste in seaweed broth was distinct from the four basic tastes of sweet, sour, bitter, and salty. Following his discovery, in 1909 MSG was patented and commercialized as AJI-NO-MOTO™. Today, MSG is made by a fermentation process that starts with corn.

5. HOW DID MSG RECEIVE A BAD RAP?



In 1968, a letter to the editor of a prestigious medical journal described the author's anecdotal account of generalized weakness, palpitations and numbness in the arms after eating at a Chinese restaurant. He noted that any number of ingredients may have caused his symptoms – sodium, alcohol from the cooking wine, MSG. However, the letter spawned the idea that MSG may be associated with such symptoms, which was coined "Chinese Restaurant Syndrome."⁸

Subsequent studies on animals consisted of injecting extremely high doses of MSG often directly into the animal's abdomen, which does not test the effects of MSG as a food ingredient. Over the last 30 years, American scientists have independently verified that MSG is safe to consume using validated scientific methods.



Sources

1. JECFA. Joint FAO/WHO Expert Committee on Food Additives. (1988). L-glutamic acid and its ammonium, calcium, monosodium and potassium salts In: Toxicological evaluation of certain food additives and contaminants. 97–161. New York: Cambridge University Press.
2. SCF. Scientific Committee for Food. (1991). Reports of the Scientific Committee for food on a first series of food additives of various technological functions, Commission of the European Communities, 25th Series. Brussels, Belgium.
3. FASEB. Federation of American Societies of Experimental Biology. (1995). Analysis of adverse reactions to monosodium glutamate. Washington, DC: Life Sciences Research Office - FASEB.
4. Food Standards Australia New Zealand. (2003). Monosodium Glutamate A Safety Assessment. 20: 1-36.
5. National Academies of Sciences, Engineering, and Medicine. (2017). Finding a Path to Safety in Food Allergy: Assessment of the Global Burden, Causes, Prevention, Management, and Public Policy. Washington, DC: The National Academies Press.
6. IHS. International Headache Society. (2018). The International Classification of Headache Disorders, 3rd Edition. 38(I) 1–211.
7. Henney J. E., editor; Taylor C. L., editor; & Boon C. S., editor. (Eds.) (2010). Institute of Medicine IOM (Institute of Medicine) – strategies to reduce sodium intake in the United States. Washington, DC: The National Academies Press.
8. Kwok R. H. M. (1968). Chinese-restaurant syndrome [letter]. New England Journal of Medicine, 278, 796.

For more information please visit www.whyusemsg.com