



Memorandum

Date June 26, 1997

From Technical Information Specialist (HFS-728)

Subject Summary of Adverse Reactions Attributed to MSG

To Health Hazard Evaluation Board

From 1980 through the end of 1996, CFSAN has received 717 reports describing adverse reactions attributed to Monosodium Glutamate (MSG). The reports were received from consumer advocacy groups and as comments to FDA initiatives. A total of 564 (78.7%) complaints included information on gender, 399 (70.7%) of these involved females. For the 182 (25.4%) complainants whose ages were known, 9.3% were age 1-19, 6.6% 20-29, 12.6% 30-39, 20.9% 40-49, 22% 50-59, and 28.6% were over 59 years old.

There were 74 symptoms reported in these complaints. Headache was the most frequently reported symptom with 315 (43.9%) complaints, followed by 136 (18.9%) for vomiting and nausea, 104 (14.5%) for diarrhea, 95 (13.2%) for abdominal pain, 93 (13%) for change in mood quality, and 90 (12.6%) for change in heart rate. Remaining symptoms linked to MSG were reported by less than 10% of complainants (Table 1).

Prior to 1985, CFSAN received less than 5 reports of adverse reactions to MSG per year. The peak year for reporting was 1990 with slightly over 200 reports. Nineteen complaints were reported to have occurred in 1996.

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Table 1. Symptoms attributed to MSG in complaints submitted to FDA.¹

REPORTED SYMPTOMS	NO. OF REPORTS	% OF REPORTS	% OF COMPLAINTS
Headache	315	43.9%	17.9%
Vomiting and Nausea	136	19.0%	7.7%
Diarrhea	104	14.5%	5.9%
Abdominal Pain and Cramps	95	13.2%	5.4%
Change in Mood Quality or Level	93	13.0%	5.3
Change in Heart Rate	90	12.6%	5.1%
Dizziness or Problems with Balance	63	8.8%	3.6%
Difficulty Breathing	59	8.2%	3.4%
Fatigue, Weakness	54	7.5%	3.1%
Localized Pain or Tenderness	46	6.4%	2.6%
Sleep Problems	44	6.1%	2.5%
Change in Sensation (Numbness, Tingling)	42	5.9%	2.4%
Change in Body Temperature	41	5.7%	2.3%
Change in Vision	40	5.6%	2.3%
Change in Activity Level	35	4.9%	2.0%
Chest Pain	34	4.7%	1.9%
Local Swelling	32	4.5%	1.8%
Difficulty Swallowing	25	3.5%	1.4%
Joint and Bone Pain	23	3.2%	1.3%
Changes in Skin and Nail Coloration	21	2.9%	1.2%
Blood Pressure Changes	21	2.9%	1.2%
Other Neurological	21	2.9%	1.2%
Other symptoms (reported by less than 20 complaints)	331	-----	18.80%

1. Some consumers described more than one symptom attributed to MSG.