

There are seven lines of evidence leading to the conclusion that the manufactured free glutamate (MfG) in monosodium glutamate is toxic

1. Studies demonstrating that **in the human body** glutamate in interstitial tissue* becomes excitotoxic – brain damaging – when present in amounts that exceed what a normal healthy person needs for normal body function. The medical literature is replete with studies of glutamate-induced abnormalities.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3431845/>

2. Animal studies done in the 1970s demonstrating MfG-induced excitotoxicity. These were studies of glutamate-induced brain damage wherein MSG was used as a source of free glutamate because MSG (which contains MfG) had been found to be just as toxic as pharmaceutical grade glutamate but less expensive.

<https://www.truthinlabeling.org/assets/Data from the 1960s and 1970s demonstrate.pdf>

3. Animal studies offered inappropriately as evidence that MSG is harmless. As alleged evidence of MSG-safety, researchers produced studies that they claimed were failed attempted replications of studies demonstrating MSG-induced toxicity, but their procedures were different enough to guarantee that toxic doses had not been administered, or that all evidence that nerve cells had died would be obscured. Researchers said they were replicating studies, but did not do so. Instead, discussion was phrased to suggest that studies were "replications," and the conclusions were based on what was said, not on what was done.

https://www.truthinlabeling.org/assets/review_studies.pdf

4. Alerts from independent researchers outside of the United States, warning of the dangers posed by ingesting MSG. They are often scientists with interest in identifying drugs to use as interventions in glutamate-related maladies. John Olney, the only active neuroscientist in the United States with the integrity to stand up to the glutamate industry and warn of the dangers of MSG, passed away in 2015.

https://www.truthinlabeling.org/assets/researchers_warnings.pdf

5. Human studies that have demonstrated the toxicity of MSG.

https://www.truthinlabeling.org/assets/data_human_studies.pdf

6. Human studies rigged by the U.S. manufacturer of MSG, each carefully designed to produce negative results (no harm done by MSG). All were contrived to conclude (not prove) that MSG is harmless. They employed a variety of researchers from various universities and medical schools, all given study protocols and supervised by Andrew G. Ebert (Ajinomoto's agent in charge of research at the time). Although they had common elements, no two studies were identical. There was, however, one element shared by all -- the use of excitotoxic amino acids in placebos.

https://www.truthinlabeling.org/assets/designed_for_deception_short.pdf

7. Reports of adverse reactions offered by people sensitive to MSG

https://www.truthinlabeling.org/assets/arms_msg.pdf &
<https://www.truthinlabeling.org/letters.html>

*tissue between cells