

FOOD INTOLERANCE NETWORK FACTSHEET

MSG, flavour enhancers and natural glutamates

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Introduction

The benefits of MSG (monosodium glutamate, flavour enhancer E621) are to make stale or cheap ingredients taste irresistible.

- Myth: MSG has been used in Asia for centuries.
- Fact: MSG was first isolated in a laboratory by a Japanese scientist in 1908. It was introduced into the Western diet in 1948. Before that, our ancestors lived their whole lives without MSG.
- Myth: People in Asian countries eat huge amounts of MSG.
- Fact: Intakes of MSG have been shown to be higher in the Western diet than in Asia.

Studies by independent researchers and industry-supported researchers disagree about the safety of MSG.

- In 1969, a study of 36 healthy volunteers exposed to increasing doses of MSG found that everyone can react to MSG with various symptoms if the dose is high enough.
- New flavour enhancers can boost the effects of MSG up to 10-15 times and seem to similarly worsen the adverse effects.

Foods labelled NO ADDED MSG can contain new flavour enhancers and other forms of glutamates.

What are the effects of MSG/flavour enhancers?

Effects are related to dose – the more you eat, the more likely you are to be affected

Some people are more sensitive than others

Effects are worse when taken on an empty stomach – that is when most people eat.

Reactions can include:

- rashes (see RIBO RASH factsheet), itching, burning, numbness
- migraines, headaches
- asthma
- irritable bowel symptoms
- chest tightness, heart palpitations, heart arrhythmia, anxiety (see HEART factsheet)
- irritability, restlessness, sleep disturbance

Effects on children: Children are more vulnerable to the effects of additives than adults. MSG and other flavour enhancers are not permitted in foods manufactured specifically for infants and young children (12 months or less). Effects can change with age.

MSG and obesity: People who use MSG as a flavour enhancer in their food are more likely than people who don't use it to be overweight or obese even though they have the same amount of physical activity and total calorie intake, according to a University of North Carolina at Chapel Hill School of Public Health study. This finding confirms results from animal studies.
<http://www.medicalnewstoday.com/articles/118202.php>

Reader reports

[827] 635: Tachycardia, arrhythmia and ectopic heart beats (July 2009)

I had been suffering increasing episodes of tachycardia, arrhythmia and ectopic heart beats - two to three episodes a day. Despite escalating testing with various cardiac specialists over the past 6 months, nothing was determined apart from the fact I had high blood pressure and was placed on a low dose of appropriate medication for that. No known cause for my cardiac anomalies.

Eight days ago I ate a delicious bowl of my home made potato and leek soup for lunch. I experienced my usual (but scary and increasingly strong) palpitations and (frustrated, a little frightened and upset), I broadly Googled "heart palpitations" on Australian sites. Up came your website that mentioned 'soup' in the first Google lines that came up. Thinking "that's funny, I just ate soup, I'll have a look at that one before I find what I'm really after" I looked at it. Well, that's what saved me. What I found there were countless, comforting, case studies of people just like me, suffering consequences to MSG (635 in particular), just like me, who didn't know what was causing it. Just. Like. Me.

For me, it was a revelation, an epiphany. I was euphoric. My God, what have I been poisoning my family with, for so many years? Weekly, particularly in winter, I lovingly make risotto, casserole, beef in red wine, soup, etc, etc. Thinking I'm making healthy foods for my husband and my children, I've made all these dishes with more than a liberal dash of commercial stock (cube and/or liquid), all of which (no exceptions, I find) are loaded with MSG.

I stepped, willingly, into the world of chemical additives, flavour enhancers, neurotoxins, excitotoxins and ribonucleotides.

I have strenuously avoided any flavour enhancers (particularly 635) and all MSG in its myriad disguises since that last bowl of soup. I did not expect things to settle immediately, but I've gone from having 2-3 cardiac episodes a day and thinking I was going to die like my father, at 46, to NOT ONE EPISODE IN MORE THAN A WEEK.

Gotta be something to this. I'm eternally grateful for the information you have on your website and the comfort and advice it gave me. I think you saved my sanity and my life. Shannon, WA (See more on our [Heart problems factsheet](#))

[826] 621: 635: Headaches from 621, asthma-type reaction to 635 (July 2009)

I have been aware of an intolerance to MSG (621) for many years and mainly suffer with severe headaches, dehydration and nausea. I steer clear of any preservatives and flavour enhancers wherever possible, particularly those with #6 at the beginning. My diet rarely incorporates any packaged or prepared canned foods, I have eaten take away food but not on a regular basis. In a previous life, I did eat packaged and prepared foods!

A few years ago, whilst a friend was cooking a store bought, marinated chicken dish, I suffered blocked nose, mucous throat and headache, not from eating, but being in the surrounding area.

I recently suffered an episode of severely blocked nose, thick mucous in throat and tightness in throat/chest, almost wheezing like an asthmatic. The symptoms started within 10 minutes of eating a Campbells "Chunky" Chicken & Vegetable, Curry with Rice meal in a tin left behind by a guest. Although it claims "No Added MSG No Artificial Flavours No Added Preservatives" it does contain 635. This is my first reaction to 635 as far as I am aware. I am a fit and healthy 54 year old and don't have asthma. I will certainly be checking for this number now. - Lee, WA

[810] 635: My sister's rash reaction to 635 in Thai food (June 2009)

My sister ate Thai food 3 days in a row (Fri, Sat, Sun). On Monday morning she had an itchy rash and face that looked like she had been hit (red, swollen, hive type rash). Over the next 4 days the rash only got worse. It moved from head to chest, to legs, all over her body – a different spot every day. Antihistamines had no effect. Eventually she went to the Emergency Department and a doctor thought "not food related" but a nurse suggested it might have been.

They prescribed a corticosteroid (I think) which began to make an impact. But reading the info on your website re ribo rash - it all made sense. She has since noticed the rash on a smaller scale after eating CC's with 621 and 635. – by email, Vic [The 635 in Thai food can be in the soy sauce or fish sauce – see more on our Ribo Rash factsheet]

[382] 635: Irritable bowel symptoms (December 2005)

A few weeks ago I started having a Continental Low Carb instant soup every day. I knew the 635 was in there, but thought I didn't react to it. BIG mistake. No doubt you're expecting a description of the rash and swelling. Yes, I did get those, but not until week 2.

In week 1 my stomach progressively got sicker and sicker. By the end of the week I could only lie on the lounge and visit the loo. The doctor diagnosed mild food poisoning that turned into a very nasty stomach bug. Antibiotics and no food for three days cleared the bug. So what did I do? I had a miso soup from a local Japanese restaurant. A few hours later my stomach started going odd again and I began to itch. By that night the typical 635 rash and unbearable itch had set in.

For some bizarre reason I didn't think of 635 with the miso. The next day I had one of those damn instant soups again and of course the same thing happened but worse.

Needless to say I have ditched the soup and banned 635. My son is actually quite pleased because one of the things that make him itch makes Mummy itch, so he feels a little less alone about it. The itch and rash have gone, but my lips are still very dry and cracked. But I have LEARNT MY LESSON! – Megan NSW,

[828] 621: 635: Better sleep and behaviour without glutamates (July 2009)

I have been a huge fan of your diet, site, book, cookbook and dvd since it helped us sort out why our 2 year old girl was misbehaving. We did the full elimination diet very strictly and passed sals, amines but failed glutamates. We also avoid the nasty additives but haven't formally challenged those.

My little girl is now 3 years old. Her behaviour, sleep and eczema are so much better when she doesn't have glutamate or additives, however I have felt recently that there must be something still in her diet that is affecting her as she sometimes has mood swings, defiance, silly behaviour. I have been giving her home made stock and slow cooked casseroles thinking they are OK because she passed the amines challenge and I thought it was just amines that increased with ageing and cooking time but I recently read in Friendly Food that glutamate does too. – Michelle, Vic

[877] 621: Juvenile Rheumatoid Arthritis – pain free when avoiding MSG (November 2009)

SUCCESS!!! Our 12 year old daughter with Juvenile Rheumatoid Arthritis is pain free!!

We have finished all challenges on the elimination diet and have discovered glutamates - MSG and all 600 numbers to be extremely bad for our daughter with arthritis. Within 8 to 12 hours of having MSG our daughter went from no pain to all the symptoms of arthritis, swollen joints, very sore, trouble walking, and lots of pain. We continued the challenge for 48 hours and by then she had problems with all her joints, soreness, swelling and was absolutely miserable! Within 12 hours of stopping MSG her symptoms settled and she was back to "normal" – no pain! We now totally avoid MSG, all 600 numbers and unspecified 'flavour' listed on any product!

It has been 7 months now since we began the elimination diet and took our daughter off all arthritis medication. She is fantastic! We had a check up with the rheumatologist recently and she was amazed. We don't need to see her for another 6 months and she has classed our daughter as "in remission"!!!! No pain, No symptoms and No medication!

I hope this is of assistance to other sufferers of arthritis! It has made a huge difference to our daughter's life. Thank you for your wonderful information, without this we would be further down the track of a life of pain, misery and medications with nasty side effects for our daughter. To look at our daughter now, you would never know that she suffers from a chronic, debilitating condition, she is full of energy and her love for life is back again!

We completed all food challenges in this order: milk, wheat, bread, salicylates, amines, MSG, propionates, sorbates, antioxidants, colours, benzoates, nitrites and sulphites (all food not capsules). The only challenge our daughter reacted to was MSG, 600 numbers and naturally occurring glutamates. She had no reaction to any other challenge. Once we had completed all the challenges we challenged tomatoes, broccoli and those foods high in natural glutamates separately. She came out in an itchy rash if she ate too many tomatoes or broccoli (at least 6 to 8 serves a day) but the amazing thing for us was that she didn't have joint pains. We are tending to think that manufactured MSG must contain VERY HIGH levels of glutamic salt compared to those foods that have it naturally occurring such as tomatoes and broccoli. We have now restricted how

much she has of these things. She is very good at knowing what she can and can't have. She reads labels everywhere, even when she stays over at friends or goes to birthday parties, she will read labels and decide if she can have it or not. We always send her with plain chips and 'safe' snacks for a party. Her friends have been very supportive and know that she can have plain hot chips at a party instead of pizza or party pies.

We saw the dietitian you recommended. She was very helpful, knowledgeable and thorough in what quantities etc to challenge. She was very interested in the results. She suspected MSG from early on because we had commented on how over the Christmas holidays (before elimination diet), our daughter had eaten CC's and was so sore the next day she could hardly walk. We kept a daily food diary and I also kept a dated scrap book with labels of products we had eaten so I could check back as a reference if needed.

For the MSG challenges we used "Coles Farmland" packet chicken noodle soup, about 500 mls to a litre a day (contains 621, 627 and 631) and soy sauce about 4+ tablespoons a day. (Need to check labels for soy sauce because not all list MSG or 600 numbers).

We are amazed at how many foods with unspecified 'flavour' (but no MSG or 600 numbers listed) affect her. We have found this with tomato soups, tomato pastes etc where they list 'flavour' and our daughter has been sore after having this. We have completed our own challenge with some of these products and her reaction varies. We avoid any savoury type products that have 'flavour' listed with no specific ingredient numbers on labels. The unknown is not worth the soreness for our daughter.

Foods previously eaten which we avoid completely now include: All packet soups, cup of soups, packet stocks, stock cubes, any chips or corn chips that have a flavour, BBQ shapes and all shape/savoury biscuits with flavour, tomato and BBQ sauce, some mayonnaise and dressings, packet pasta mixes (ie continental pasta packs), sausage rolls, pies, breads with savoury toppings, pizza, concentrated tomato paste, tomato soup - most have unspecified 'flavour' - and lots of other savoury foods. We never used to eat a lot of these foods, but even having things once to twice a week was enough to have our daughter in continuous pain.

She now is totally pain free, medication free and living a very active, sporting life. She plays netball weekly, has participated in the school athletics and cross country team this year and is currently in weekly training with the school volley ball team to go to Nationals in December. All of these activities were completely impossible 12 months ago! The difference is amazing! We are so thankful that your website and information has led us to finding an alternative to medication, and a way to manage our daughter's condition and allow her to live a very active life. I hope that there will be others out there that will try the elimination diet and find an alternative to medications and a life of chronic pain. - Sandra, Vic

More reader experiences under [Further reading](#)

How to avoid MSG/flavour enhancers

Read the ingredient list - not the label!!! The following words will **NOT** protect you: fresh, natural, traditional, original, plain, pure, gourmet, finest ingredients, '100% wholesome goodness' All natural. No artificial colours, flavours or preservatives. No added MSG.

Avoid '600 number' flavour enhancers

- 620 Glutamic acid
- 621 Monosodium glutamate, MSG, umami, E621 (in Europe)
- 622 Monopotassium glutamate
- 623 Calcium glutamate
- 624 Monammonium glutamate
- 625 Magnesium glutamate
- 627 Disodium guanylate, DSG or GMP
- 631 Disodium inosinate, DSI or IMP
- 635 Disodium 5'ribonucleotides, I&G, nucleotides

Avoid MSG seasoning powders

- Gourmet powder
- Chinese seasoning
- Ve-tsin powder
- Ajinomoto
- Accent
- Zest
- Chicken or other seasoned salt with flavour enhancers

Avoid hidden sources of MSG

Free glutamate and the MSG labelling loophole

If MSG is added to a food, it must appear in the ingredients list as MSG or flavour enhancer 621. However, there is a loophole. Most consumers don't realise that ingredients such as hydrolysed vegetable protein, soy sauce or yeast extracts contain free glutamates that are essentially the same as MSG. Due to consumer requests, in 1996 the USFDA published an advance notice of proposed rulemaking with several options such as a requirement that all foods with 0.2 g or more of free glutamate per serving must state the amount of free glutamate on the label. This regulation would be very helpful for people who are sensitive to MSG! Predictably, the proposal was opposed by the food industry - such as the International Hydrolyzed Protein Council (IHPC) - and 14 years later, nothing has happened. Consequently, consumers must learn for themselves the deceptive and ever-changing ways that MSG can be described on labels. Further reading: Food Labeling for the 21st Century: A Report by the Center for Science in the Public Interest p26 <http://www.cspinet.org/reports/labelrept.pdf>;

Free glutamate can be listed as

- HVP (hydrolysed vegetable protein)
- HPP (hydrolysed plant protein)

and any combinations of

- hydrolized, autolyzed, formulated
- vegetable, wheat, gluten, soy, maize, plant
- protein

- yeast (except in baked products like bread), yeast flakes
- yeast extracts (Vegemite, Marmite and similar foods such as Promite, Natex savoury spread, Vegespread and Vecon contain free glutamates)

Free glutamate can also be present in added flavours in savoury foods

- flavour, flavours
- natural flavour/s

Free glutamate can also be added as

- kombu extract
- broth
- vegetable powder, tomato powder, etc
- soy sauce - even without any additives, this is naturally very high in glutamates
- other sauces and seasonings e.g. BBQ sauce, Worcester sauce, Bragg's all purpose seasoning
- all stocks and stock cubes

Here's a great list of hidden sources:

<http://www.msgexposed.com/hidden-sources-of-msg-monosodium-glutamate-on-food-ingredient-labels/>

WARNING

Expect glutamates in a soy sauce substitute despite a clean-looking label: "formulated vegetable protein from pure soybeans and purified water only - contains no preservatives, no colouring agents, no additives, no alcohol and no chemicals - this product is not fermented"

Q. Recently I purchased a quality fresh homemade style chicken and leek family pie. On reading the ingredients I was overjoyed that here was a fast food that had failsafe ingredients, listing salt but no stock. Anyway I was hit with severe tiredness, heavy eyes, thirst and unusual (for me) bad mood within one hour of eating it that lasted over 24 hours. My breastfed 10-month old baby had a bit of an unsettled night, bit of a cough and ... some red blotchy rash on her torso. I knew for sure that there must be an ingredient unlisted like stock or flavour enhancer. I rang the company (who said) "there is no stock, just a bit of chicken salt"! What is "chicken salt" and is there somewhere I should report the label being incorrect?

A. Chicken salt is usually ordinary table salt with added flavour enhancers, often in quite large quantities. That would account for all your symptoms. Our updated MSG factsheet might be useful: <http://www.fedupwithfoodadditives.info/factsheets/FactMSG.htm>. In Australia you must report illegal labeling to the relevant state/territory authority. For instance, in NSW this is the NSW Food Authority, but in Victoria local councils have the responsibility (although not the resources).

Sources of concentrated natural glutamates

- Sauces, seasonings, gravies and stocks even if 'natural'
- Processed meat, fish, tomato or vegetable pastes or sauces
- Stock cubes, pastes and powders
- Soy sauce, soy paste, soy protein, miso, tempeh

Glutamates in natural foods

As a concentrate MSG can be added to foods in much greater quantities than in nature; however, some people are affected by glutamates in:

- parmesan and other strong cheeses
- tomatoes (especially sauce, paste or powder)
- mushrooms
- grapes, sultanas, raisins, wine
- plums, prunes
- broccoli, spinach
- green peas (small amounts, but enough to affect some sensitive people)

Look for MSG/flavour enhancers in:

Flavoured chips and snacks • flavoured noodles and snacks with flavour packs or sachets • savoury biscuits and crackers with flavours such as pizza or chicken and even 'plain' rice crackers • soups or sauces (canned, packet, restaurant) • stock cubes, stocks • gravy mix • crumbing mixes • seasoned salt • prepared meals • slimmers, lite or 'healthy' products and meals • frozen foods and meals • pies, party pies and sausage rolls • fresh sausages, marinated meats and stuffed or seasoned chicken • bottled soy or oriental sauces (note that naturally brewed soy sauce is a form of natural MSG) • deli, manufactured meats or mechanically reclaimed meat such as devon, some hams, luncheon chicken and turkey • chicken nuggets • flavoured tuna • vegetarian burgers and sausages

Breaking News: we recently received a report of flavour enhancers 627 and 631 in a well known brand of fresh bread – read the label!

Supermarket foods likely to be free of MSG

- Breakfast cereals
- Rice, oats, flour, pasta
- Fresh meat, fish and plain chicken
- Eggs
- Most fresh, canned or frozen fruit and vegetables
- Dried beans and lentils
- Sweet biscuits or cookies
- Sweets (candies)
- Dairy products including icecream

Fast food

Most takeaways will contain some form of flavour enhancers, especially in fried or roast chicken; pies; sauces and flavoured chips. Safer choices include unbattered, uncrumbed, grilled fish, or baked potatoes.

Other restaurants

Many restaurants use MSG, even if they have a sign saying they don't. You can ask. Sometimes they will say 'only a little bit'. Often staff genuinely don't know, for example when HVP or soy sauce and fish sauces with these ingredients are used for flavouring.

The best way to eat out is to find a small restaurant with a friendly, helpful staff. Ask them whether food is prepared on the premises. Choose simple dishes made from fresh, natural ingredients. Avoid pre-packaged foods and crumbing (eg prawn cutlets) or seasoning mixes (eg veal parmigiana). Be very suspicious of any soups, sauces, gravies or dressings. Identify a few safe dishes, and stick to them.

Other food chemicals can cause problems too

MSG and nucleotide flavour enhancers are not the only food chemicals that can cause a wide range of side effects including asthma, skin rashes, headaches, sleeping and behavioural disturbances. For more information, see factsheet [Introduction to food intolerance](#).

The science of MSG/flavour enhancers

Many doctors will tell you that MSG is safe. You can read the history of MSG below and decide for yourself.

MSG occurs naturally in some foods. It was first isolated from kombu seaweed in 1908 by a professor at Tokyo University who became a partner in Ajinomoto, now a multi-billion dollar company providing more than half the world's MSG. MSG/flavour enhancers are now cultured on yeasts in giant factories.

MSG was launched in the USA in 1948 and since then its use has doubled every decade.

At first, MSG was at first used mainly in Asian cooking in relatively large amounts, for example, three grams in a bowl of soup in a Chinese restaurant. It is now found in varying doses in most soups, stocks, gravies, sauces, snack foods, takeaways and restaurant meals.

MSG intake higher in Western countries

Westerners generally assume that MSG consumption is high in Asian countries. However estimates of MSG intake in the 1990s found higher consumption in the UK than in Japan or Korea. Extreme users - defined as consuming three times the average – had an average at home intake of 16 grams of MSG per week, without even considering snacks and foods consumed outside the home that would be a major source of MSG.

Chinese Restaurant Syndrome

The first reactions to MSG were identified in 1968 by a Dr Robert Kwok who had emigrated from China to the US. Dr Kwok reported in a medical journal that although he never had the problem in China, about 20 minutes into a meal at certain Chinese restaurants, he suffered numbness, tingling, and tightness of the chest that lasted for approximately two hours. This collection of symptoms became known as Chinese Restaurant Syndrome.

A year after Dr Kwok's report, researchers in the US found that everyone will react to MSG if the dose is high enough. They also observed that the effect occurred on an empty stomach, which is how most people eat food. In one study, 36 subjects - many of whom were doctors or medical students - ate chicken soup with increasing doses of added MSG every day. Half of the subjects reacted to doses between 1.5 and 4.0 grams. Most of the rest reacted to doses between 5 and 12 grams. Researchers commented that it would be possible to prepare a meal containing 10-12 grams of MSG per person if following the manufacturers' recommendations. Although researchers were mainly looking for the traditional Chinese Restaurant syndrome reactions, they also noted other reactions and one doctor who admitted himself to hospital, convinced he was having a heart attack. Symptoms found included

- burning, facial pressure and chest pain
- migraine
- gastric distress
- suspected heart attack - typically, pain in the chest, tingling and numbness from the chest down the left arm and a feeling of impending doom.

In 1976 a survey found that 25 per cent of the population experienced adverse reactions after a meal in a Chinese restaurant. This study was funded in part by a grant from the National Eye Institute, interested because MSG had been found to cause retinal damage in newborn mice, rats and chicks.

Industry spin

In response to the possibility of MSG toxicity, industry apparently decided to promote the 'safety' of MSG through new organisations: • The International Glutamate Technical Committee (IGTC) consists of doctors and scientists who meet once a year, with a secretariat provided by Ajinomoto, to sponsor MSG research • The Glutamate Association was established in 1977 to provide communication and awareness of the 'use and safety' of glutamates (www.msgfacts.com) • The International Glutamate Information Service (IGIS) provides information about glutamates based on 'scientific evidence which confirms the safety and the benefits of this widely used food ingredient' (www.glutamate.org). It is supported by the Australian Glutamate Information Service.

Other non-profit organizations that offer science-based information are encouraged to pass on information from the Glutamate Association. An award-winning science website at the University of Texas recommends the International Food information Council (IFIC) website guides. 'A source of good information,' it says, while warning that 'they take a definitely pro-industry stance and tend to gloss over areas of nutritional or food safety debate: for instance, they argue that monosodium glutamate is a perfectly safe food additive.'

MSG and statistics

In 1979 a market research questionnaire commissioned by Ajinomoto found that less than 2 per cent of the population suffer from Chinese Restaurant Syndrome after a meal, compared to 25 per cent in the earlier independent study. I suspect that this lower figure was achieved through recording only a narrow range of symptoms that occurred within a short time limit. However, soon after this survey, the FDA started quoting the figure that only 2 per cent of the population react to MSG.

The battle for statistics had begun. It is in the food industry's best interests if only a small number of people are seen to react to their product. So when an Australian study about asthmatic reactions to MSG was published, a few small industry-funded studies responded showing no asthmatic reactors to MSG.

MSG in court

In 1993, American David Livingston went to a Marie Callender's chain restaurant for a business lunch. As an asthmatic, Livingston knew he reacted to MSG so he avoided it. He told the waitress he had asthma and wanted to know if the vegetable soup contained MSG. The waitress assured him the soup was 'made from the freshest ingredients, from scratch ... every day'. It was later found to contain a 'beef base' that had MSG clearly listed on the label.

On the way back to the office, Livingston suffered an asthma attack followed by an anaphylactic reaction including respiratory arrest and full cardiac arrest despite medical attention. He was finally resuscitated and remained unconscious on a respirator in intensive care for three days. As a result of lack of oxygen, Livingston suffered brain damage and a slight neurological deficit. One year later, he initiated a lawsuit against Marie Callender's Inc.

Industry and asthma research

Researchers at the Scripps Research Institute then began a new asthma study supported by the IGTC. As reported in the newsletter of the No MSG group, one MSG-sensitive woman who replied to an advertisement for test subjects in the Los Angeles Times was told that '1) if she feared her asthma reactions to be serious that she should not apply for the study, 2) that the person who was screening the applicants didn't believe that MSG could cause asthma reactions, and 3) that she was most likely responding to sulfites, and not to MSG'. By rejecting asthmatics who think they react to MSG, you could probably expect to run a study finding no reactors, and that's happened. One of the researchers also published a review about MSG and asthma, criticising the painstaking Australian study of MSG-induced asthma.

The full story of the relationship between Scripps researchers Drs Simon and Stevenson and the glutamate industry is discussed in article, 'A study in suppression of information' By Dr Adrienne Samuel, published in the journal Accountability in Research, available at www.truthinlabeling.org/1-manuscript.htm. Dr Simon was called as an expert witness in the ensuing court case. You can read about his testimony at www.truthinlabeling.org/scripps1 and the court report at <http://caselaw.findlaw.com/data2/californiatstatecases/b115078.pdf>.

The verdict

David Livingston won on the basis of strict liability. This means the court accepted that a substantial number of people are allergic to MSG. MSG is now a textbook case showing that restaurants should have menu disclosures and warnings such as: 'Certain individuals may be allergic to specific foods or ingredients used in food items (e.g. MSG) ... Please alert your server of any allergies prior to ordering.' (from Hospitality Law by Barth and Hayes, 2005).

How to recognise industry funded research

You can find studies about monosodium glutamate in the Medline medical database at www.pubmed.com Remember that 13 of the world's top medical journals imposed rules regarding disclosure of company ties in 2001. Here are some hints from Dr Samuel about how to recognise the influence of industry in research or public talks:

- Researchers will claim MSG is safe.
- They will refer to studies as 'randomised double-blind cross-over design' which gives the casual reader the impression that subjects were drawn randomly from the general population – in fact, subjects are often carefully selected.
- Conclusions will not follow from the results in the study.
- Critics of MSG will be disparaged or made the subject of jokes - critics don't report adverse reactions, they 'complain'.
- Jokey generalisations are presented in serious papers – 'if you eat too much of anything you'll get sick'.
- Existing data may be distorted or trivialised.
- Reports of human suffering are dismissed as anecdotes.
- Inaccurate generalisations will be presented by alleged authorities - 'monosodium glutamate has been used in the Orient for more than 2,000 years' (it was only synthesised in 1908)
- Allergists, dietitians and nutritionists appear to have been particularly targeted by industry funded research and glutamate industry involvement is rarely obvious.

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Further reading

- Fed Up by Sue Dengate, Random House, 2008
- Friendly Food by Dr Anne Swain and others from the RPAH Allergy Unit, Murdoch Books, 2004.

Factsheets

- [Ribo Rash](#)
- [Heart](#)
- [Introduction to Food Intolerance](#)

www.fedup.com.au

The information given is not intended as medical advice. Always consult with your doctor for underlying illness. Before beginning dietary investigation, consult a dietician with an interest in food intolerance. You can write for our list of supportive dietitians (confoodnet@ozemail.com.au)

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