

MONOSODIUM GLUTAMATE (MSG)

This is the well known flavour enhancing additive added to many foodstuffs. Its flavour enhancing properties stem from its excitatory (depolarising) action on sensory taste receptors. Approximately 20 % of protein consists of the amino acid glutamic acid and it is thus ingested normally in the diet. It is thought that reactions occur when an increased amount of glutamate is ingested. Glutamate is also present in a free form in mushrooms and tomatoes.

CLINICAL EFFECTS

a. Asthma provocation:

This can take two forms; an early response occurring 1 to 2 hours after ingestion, or a late reaction occurring 10 to 14 hours after ingestion. Bronchospasm is dose dependent and may vary from moderately severe to unresponsive asthma requiring intubation. (Ref.7).

b. Chinese Restaurant Syndrome:

This occurs in non-asthmatics and asthmatics alike. Typical symptoms include headache, a burning sensation along the back of the neck, chest tightness or pain, nausea, sweating, and a sensation of facial pressure or infraorbital pressure. Pins and needles or tingling may be experienced in the limbs or face and head.

Reactions are thought to occur only if MSG is eaten on an "empty" stomach. Onset occurs in 15 to 25 minutes. In adults, a threshold level of 1.5 to 3 grams is required before symptoms occur. Females are more affected. Chinese Restaurant Syndrome is thought to occur in 30 % of the normal population but no real statistics exist.

Young children experience shudder attacks or shivering, and older children get migraine attacks. A recent study has ascribed these symptoms to histamine in foods. As these symptoms differ from that classically caused by histamine, further definitive studies are required.

c. Urticaria and ora-facial granulomatosis:

These are uncommon but may occur following MSG ingestion.

FOODS CONTAINING MSG

Chinese food, highly seasoned restaurant meals, spices such as "Aromat", cheeses, tomatoes, mushrooms, instant soups, gravies. One hundred grams Camembert cheese can contain as much as 1 gram MSG. A single bowl of Wonton soup can contain 2.5 grams MSG.