

## WHAT ARE EXCITOTOXINS?

They are substances added to foods and beverages that literally stimulates neurons to death, causing brain damage or varying degrees. It is linked to neurodegenerative diseases such as Alzheimer's, Dementia, Lou Gehrig's Disease and others. These excitotoxins are found in ingredients such as Monosodium Glutamate (MSG), Aspartame (NutraSweet®), Sucralose, (Splenda) cysteine, hydrolyzed protein, and aspartic acid.

What if someone were to tell you that a chemical added to food could cause brain damage in your children, and that this chemical could effect how your children's nervous systems formed during development so that in later years, they may have learning or emotional difficulties? What if you knew there were scientific evidence that these chemicals could damage a critical part of the brain known to control hormones so that later in life your child might have endocrine problems?

Dr. Blaylock makes some startling insights on artificial sweeteners (aspartames) causing brain tumors. Since the artificial sweetener has dramatically been introduced in many foods and drinks, brain tumors, Parkinson's disease, Alzheimer's, and many neurodegenerative brain diseases have been on the rise. He even suggests that this chemical could be linked to stroke, seizures, hypertension, diabetes, meningitis and viral encephalitis.

These powerful toxins are not added to food and drinks for health benefits, they are added to boost sales. These additives have no purpose, other than to enhance the taste of food and the sweetness of various diet products. Dr. Blaylock also states that even a single exposure of excitotoxins in sufficient concentration can cause irreversible brain lesions.

MSG is a chemical isolated from a natural source. In its isolation component, it is considered a flavor enhancer and has been added to endless amounts of food to increase flavor. These are the chemicals that make you want more. Neuroscientists tested MSG on infant mice in an effort to study an eye disease but when they examined the eye tissues of the mice, they found that the MSG had destroyed all of the nerve cells in the inner layers of the animal's retina, with are the visual receptor cells of the eye. Findings also found MSG to be toxic to the brain. After a single dose of MSG, Doctors discovered that specialized cells in a critical area of the animal's brain, the hypothalamus, had been destroyed. Despite all the frightening discoveries of MSG, this chemical continues to be added to food in enormous amounts. Cookbooks continue to recommend it as a taste-enhancing additive to recipes. (e.g., Accent).

This discovery should have been earth –shaking news, because millions of babies all over the world were eating baby foods containing large amounts of MSG and hydroloyzed vegetable protein (a compound which contains three excitotoxins). Tons of excitotoxins are added to foods of all kinds. The government's public health watchdog agency, the Food and Drug Administration, refused to take action. Although some changes have been made over the years, watch for new names these chemicals are disguised under. Caseinate, glutamate, beef or chicken broth flavoring. Also, hydrolyzed vegetable protein.

We know that the brain is extremely vulnerable to excitotoxins. When neurons are exposed to these substances, they become very excited and fire their impulses very rapidly until they reach a state of extreme exhaustion. Several hours later these neurons suddenly die, as if they were "excited" to death. As a result, neuroscientists have dubbed this class of chemicals "Excitotoxins."

A substance called hydrolyzed vegetable protein. This powerful excitotoxin mixture is often portrayed as perfectly safe and "natural" substance. Manufacturers say after all, it is made from plants. Actually this mixture is made from "junk" vegetables that are unfit for sale. They are especially selected so as to have naturally high contents of glutamate. The extraction process of hydrolysis involves boiling these vegetables in a vat of acid. Followed by a process of neutralization with caustic soda. The resulting product is a brown sludge that collects on the top. This is scraped off and dried. The end product is a brown powder that is high in three known excitotoxins – glutamate, aspartate and cystoic acid (which converts in the body to cysteine.) It is then added by the food industry to everything from canned tuna to baby food.

So WHY then would they add these toxins to our food!!?? All of these chemicals stimulate the taste cells in the tongue, thereby greatly enhancing the taste of whatever food that it is added. It is what gives soups the taste that we all love so much. Normally, low fat foods would be tasteless. To help sell them (packaged foods especially) to the public, food manufacturers add these excitotoxins to give taste and enhance the foods flavor.

Another known Excitotoxin is the artificial sweetener NutraSweet®. 40% of this compound is composed of the excitotoxin aspartate. Like glutamate, it is a powerful brain toxin, which can produce similar neuron damage. NutraSweet® is used in many foods and beverages. It is well recognized that liquid forms of excitotoxins are much more toxic to the brain than dry forms as they are absorbed faster and produce higher blood levels than when mixed with solid foods. There is much controversy over cooking with these sweeteners also, as heating them can make them even more dangerous.

The negative effects of excitotoxins are not limited to children. There is evidence that show excitotoxins play a major role in a whole group of degenerative brain diseases in adults. More and more diseases of the nervous system are being linked to excitotoxin build up in the brain, and these chemicals passing the protective blood brain barrier. Migraine headaches, hypoxic brain damage, dementia, hypoglycemic brain damage, metabolic defects and more. Ridding these toxins from your diet could spare you damage... or further damage.

Dr. Blaylock states in his book that when he submitted his manuscript for his book that he knew he should be prepared for the backlash from the food industry and especially from the representatives of the glutamate manufacturers. These two industries have joined together to fight anyone who would dare criticize the use of flavor enhancers. In fact, he says they have formed a special lobby group to counter any negative claims about their product. It is called the Glutamate Association, and is made up of representatives of major US food manufacturers and the Ajinomoto Company, which, based in Japan, is the chief manufacturer of MSG and hydrolyzed protein. Many are scared off by these powerful businesses and organizations, but Dr. Blaylock felt the public should be made aware and protected from harmful substances being added into our food supply. Millions of lives are at stake, including our future generations.

Keep your brain protected by reading labels on all the food that you eat. When you are eating at a restaurant, request that no MSG be placed on your food. Especially in oriental restaurants. Keep your brain and body healthy by eating whole foods, not packaged. Beans, legumes, seeds, nuts, fruits and vegetables. Protect yourself with quality nutrients. Keep neurons safe from free radical damage. A nutritional program designed specifically to you is

important. See your Naturopath and implement a health program between your Naturopath and Medical Doctor. Prevention is the best key!!

HIDDEN SOURCES OF MSG: The food industries are always on a quest to disguise MSG added in our food. Below is a partial list of the most common names used. The FDA does not require labeling in the powerful excitotoxins aspartate and L-cysteine.

The following excitotoxins might even sound good for you, but they definitely are not!

Hydrolyzed Vegetable Protein

Hydrolyzed Protein

Hydrolyzed plant protein

Plant protein extract

Sodium Caseinate

Calcium Caseinate

Yeast Extract

Textured Protein

Autolyzed Yeast

Hydrolyzed Oat Flour

Malt extract

Malt flavoring

Bouillon

Broth

Stock

Flavoring

Natural flavoring

Natural beef or chicken flavoring

Seasoning

Carrageenan

Soy protein concentrate

Soy protein isolate

Soy protein concentrate

From *EXCITOTOXINS The Taste that Kills* by Russell L. Blaylock, M.D.