

# EDITORIAL

## Sensitivity to Phenolics May Trigger Food Allergies

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We all know that fruits and vegetables are good for us. Consumption of plant foods, particularly fruits, vegetables and grains is encouraged because they render beneficial health effects. Unfortunately many people are still ignorant about certain unique compounds called phenolics that were only recently uncovered and added to the nutritional medical discipline in 1993 (Harborne and Baxter, 1993). People are also less aware of the nutritional benefits of phytochemicals, anti-oxidants, and pigments that make greens, grains and fruits the wonderful natural health-foods that they are. These unique compounds occur naturally in these foods and provide consumers many opportunities to naturally detoxify their bodies and keep their bodies healthy. Researchers have discovered and are still discovering many benefits of these unique ingredients naturally blended in our everyday foods. These substances offer various protective functions to humans against commonly seen health disorders.

Let us look at phenolics alone. Phenolics are naturally occurring organic compounds found in almost all plants as their secondary metabolites. There are about 8000 naturally occurring plant phenolics, and most plants normally contain more than one of these compounds (Harborne and Baxter, 1993). Phenolics include simple phenols, hydroxybenzoic acid and cinnamic acid derivatives, flavonoids, coumarines and tannins, and a few others. The phenolic compounds have six carbon atoms linked in a ring, each may have one single and one double bond to its immediate neighbors. This six carbon-linked ring is called a benzene ring. Phenolics serve a

protective purpose in the plant, helping to protect the plant against fungi and insects, as well as making the plant distasteful to animal predators who might eat them (Gardner, 1994). Phenolic compounds also give color, taste and smell to foods making them very appealing to humans who nourish on them. They also give food its odor and taste, both desirable and undesirable (Ho, *et al*, 1992 and Huang, *et al*, 1992). To elaborate further, if phenolics were not present, fruits may not appear yellow, orange or red and aromatic fruits and vegetables may not smell as appetizing.

Phenolics improve our appetite, and provide us with great enthusiasm in seeking a variety of colorful and tasty foods to consume on a daily basis. In turn, phytochemicals and antioxidants, like phenolics, assist us in keeping our bodies clean from various chemical toxins and free from free radicals. If we would not consume phenolics and antioxidants in the foods we eat everyday our bodies would not have these special chemical compounds to keep our bodies clean, unless we would take a lot of expensive supplements.

Most people know about vitamin supplements, mineral supplements and amino acid supplements but ask the average person about phenolics or antioxidant supplements and they would probably be ignorant about them even in this day and age. Some people suffer from deficiencies of these compounds. Some people are sensitive to these compounds and are unable to use or they would get various allergy symptoms from them. When people are allergic to phenolics they are unable to

utilize them from food or supplements, and they may suffer from various health problems arising from deficiencies.

When people have mild allergies or mild sensitivities to phenolics they may be able to tolerate a small amount every now and then. When people consume large amount of foods or supplements containing phenolics they can get severe reactions. If they get desensitized for the phenolics via NAET®, their symptoms disappear and they will be able to consume phenolics in adequate amounts either as a food or supplement without triggering further adverse reactions. People who are not educated about NAET® might suggest the person to completely avoid foods containing phenolics to control their presenting symptoms. However, from our experience we know that avoidance will not solve the problem. We recommend that one finds an NAET® practitioner from the NAET® website ([www.naet.com](http://www.naet.com)) and eliminates the sensitivity or allergy to the food or product. It's best to avoid the substance until your body successfully desensitizes for the phenolic compound through NAET®. Then after desensitization you will be able to resume normal consumption of the foods with phenolics and pigments to reap the many health benefits the phenolics provide.

Phenolics and polyphenolics are among the most desirable food bioactives because of their antioxidant activity on our systems.

Phenolic intolerances can be the explanation for symptoms that appear randomly in some people without any known cause upon eating certain foods. This is particularly true for tyramine induced migraines and other headaches. Some people with migraines have a genetic deficiency to the enzyme that metabolizes tyramine, and an excessive intake of tyramine will trigger an attack.

**Tyramine is naturally seen in the following foods:**

Aged or processed cheeses, Alcoholic beverages, Bananas, Bass, Beef, Beer, Canned figs, Chicken, Chicken livers, Chocolate, Citrus fruits, Cocoa, Cottage cheese, Eggs, Nuts, Organ meats, Oysters, Peas, Pickled foods, Pork, Potatoes, Prunes, Raisins, Raspberries, Red plums, Red wine, Soybeans, Spinach, Sweet potatoes, Tomatoes, Vinegar, Walnuts and Yeast.

According to NAET® theory, if one is allergic to an enzyme (in this case the enzyme that digests tyramine), it prevents the body from producing that particular enzyme on demand leading to a genetic deficiency towards that enzyme. After a successful NAET® desensitization for a particular enzyme, that enzyme will be able to be released upon demand to complete the digestive process of a particular food. After desensitizing for tyramine with NAET®, the body will begin to produce the required amount of the enzyme for the digestion of tyramine. Thus, the future consumption of tyramine will not trigger migraines or other types of headaches. Nowadays, some of these enzymes are also available in the market as supplements. There are advantages and disadvantages for depending on these supplements to help digest the phenolic compounds. First of all, all necessary enzymes are not available yet in supplement form. Secondly, taking enzyme supplements without clearing the allergy to the enzyme may help to mask the symptoms temporarily but does not solve the underlying problem of the body's inability to produce the enzyme. After clearing the allergy, the body will resume the normal production of the treated enzyme as needed. Therefore, one doesn't have to carry the enzyme supplements all the time. Thirdly, when the supply of enzyme supplements run out or are not available, the person will experience the previous symptoms (or headaches) upon consuming the foods with the particular phenolic.

The phenolics listed here are the most common offenders in their impact on human health. Phenols are chemicals found in basically all foods. The "phenol" category contains quite a few subgroups, both food and non-food. For example, salicylate is a subgroup of phenol.

Some children have difficulty processing the phenols into useful or at least non-harmful substances. This condition is called PST deficiency. They have genetic deficiencies towards these enzymes and an allergy to the phenolics. They build up high levels of these factors in their bodies which can affect their behavior and physical condition. Many ADD, ADHD and autistic children show huge enzyme deficiencies in digesting these compounds, and the accumulated toxins from improper digestion of these products can result in behavior problems and learning disabilities.

### **Symptoms of phenol sensitivity**

One or more of the following symptoms may be seen in a person (child) with a sensitivity to phenolic compounds.

Aggression  
Chronic fatigue  
Dark circles under the eyes  
Diarrhea  
Difficulty falling asleep at night  
Eczema  
Head banging  
Headaches  
Hyperactivity  
Inappropriate laughter  
Lethargy  
Red face and ears  
Skin rashes  
Self-injurious behaviors  
Sleep disorders  
Somnambulism

### **List of commonly seen phenolics**

Acetaldehyde, Acetylcholine chloride, Anilin, Apiol, Caffeic Acid, Calciferol, Camphor, Carotene, Chlorogenic Acid, Cinnamic Acid, Coniferyl alcohol, Coumarin, Eugenol, Furfural, Gallic Acid, Gliadin, Indole, Limonine, L-Dopa, L-Glutamine, Malvine (Anthocyanides), Menadione, Octopamine, Oxytocin, Phenylethylamine, Phenylisothiocyanate(PITC), Phloridzine, Pinine, Piperine, Pyrole, Salsolinol, Thiophene, Thujone, Thymene, Thymol, Tryptamine, Turpines, Tyramine, Uric acid and Vanillamine.

### **A partial list of foods with phenolics**

Almonds, Apples, Apricots, Bananas, Beef, Berries, Carrots, Cheese, Cumin, Cherries, Chili powder, Cider

& cider vinegar, Cinnamon, Cloves, Cocoa, Coffee, Colored fruits, Cucumbers & pickles, Currants, Food dyes, Garlic, Grapes, Milk, Mints, Nectarines, Night shade vegetables, Oil of wintergreen, Onion, Oranges, Paprika, Peaches, Peanuts, Peppers red and green, Plums, Prunes, Red grapes, Spices, Tangerines, Tea, Tomatoes, Vinegar, Wheat, and Wine and all foods that contain tyramine.

### **Other items to consider are:**

Benzoates, Food additives, Food colorings, Monosodium glutamate [MSG], Nicotine, Perfumes and Salicylates.

If we look around, phenolics are seen everywhere. The color and shine of the leaves on the trees, the fragrance of the flowers, the aroma of the spices and foods, most additives, natural and artificial colorings, flavorings, sweetening, preservatives and many other substances to which we are exposed on a daily basis are examples of phenolics. If one is allergic to a few of these unique compounds normal living will be difficult without the help of supplements, and supplements may not be available for the breakdown of all known phenolics. Therefore, NAET® desensitization for the enzyme or the phenolic is the best answer. However, if a person cannot find an NAET® specialist to desensitize the enzyme, they can always depend on the appropriate enzyme supplement to get help.

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