

Introduction to Phenolics

Runny noses and persistent post-nasal drips are often the result of the body's reaction to simple components of food or pollen molecules called *phenolics*.

Intolerance to phenolics cause a wide variety of complaints, including:

- Chocolate gives me headaches
- My joints ache after eating tomatoes
- Eating nuts causes my tongue to swell and my mouth to blister
- Oranges give me diarrhea
- I think I'm allergic to carpet

Allergic reactions to Phenolics often include:

- Abdominal Pain
- Depression
- constipation
- Insomnia
- Muscle Pain
- Poor Concentration
- Bloating and Gas
- Diarrhea
- Fatigue
- Irritability
- Nausea

Reactions to phenolics may exacerbate, or perhaps cause, conditions such as:

- Arrhythmias
- Autism
- Dyslexia
- Hyperactivity
- Insomnia
- Mental Retardation
- Asthma
- Colitis
- Enuresis
- Hypertension
- Menstrual Disorders
- Skin Problems

Phenolics are not the only cause of these maladies, and phenolic therapy is not a "cure-all", but scientific studies and anecdotal experiences demonstrate that phenolics do play a large part in many disease processes.

The Real Allergens

Following is a brief introduction to the effects of these six-sided chemical rings that are part of basic food and pollen molecules phenolics. Phenolics include amino acids, hormones and neurochemicals.

Conventional medicine describes allergies as "reactions caused by the production of IgE antibodies to inhaled foreign proteins," according to Martin D. Chapman, Ph.D. Dr. Chapman's statement is true, to an extent, but delving deeper into chemistry we learn that these phenolics which are attached to protein molecules are proving to be the real culprits.

One well known phenolic is *urushiol*, found in poison ivy and poison oak. Contact with poison ivy or poison oak produces severe rashes and itching known as [urushiol-induced contact dermatitis](#).

Proteins and Amino Acids

Proteins are largely comprised of amino acids. Three common amino acids are phenylalanine, tyrosine, and tryptophan and most proteins contain one or more of these amino acids. Biochemical metabolites of these types of amino acids result in such pharmacologically active chemicals as histamine, serotonin, tryptamine, tyramine, and dopamine. Unfortunately, many researchers have ignored the effects of phenolics as allergens.

Food and pollen allergy studies over the past two decades suggest more attention should be focused on phenolics and not exclusively on proteins.

Examples of phenolic influences are manifest in the smell of a rose or the color of its petal. Most perfumes, many cooking odors, and many chemical smells are phenolic compounds. The purple color of a grape comes from the phenolic *malvin*. The spicy taste and smell of cinnamon is the phenolic *cinnamic acid*.

Using apples as an example, any one or a combination of the phenolics in apples can cause serious allergic or autoimmune reactions. Determining which phenolics are the culprits and how to deal with these reactions are the all-important questions.

The good news is that phenolics administered *homeopathically* can induce the body's immune system to protect itself from these phenolics and learn once again to regard them as normal and not foreign or poisonous substances.

Phenolic are understood to be allergens independent of proteins. Stich cited about 175 references to show that a number of well-known simple phenolic compounds have both beneficial and hazardous effects on people.

A Biochemist's Life-saving Quest

Let us introduce you to Robert W. Gardner, Ph.D. He is a biochemist and professor emeritus of Animal Science at Brigham Young University and a pioneer in the study of phenolics.

In his monumental work, Chemical Intolerance: Physiological Causes and Effects and Treatment Modalities, Dr. Gardner showed, with hundreds of trials, that a phenolic approach utilizing homeopathic dilutions to desensitize was more effective than traditional allergy treatment.

Let's go back to the beginning... Years ago Dr. Gardner was afflicted with progressively worsening and nearly fatal food intolerance. Nearly everything he ingested caused one or more serious adverse reactions. He had lost significant weight and was sickly and frail. After undergoing conventional medical treatments, including exploratory surgery, he was assured that his energy-sapping diarrhea and constant abdominal upset were due to "nerves" and a "blushing colon." There was no solution in sight.

Dr. Gardner was subsequently referred to Dr. Ray Wixom, an allergist in Las Vegas, Nevada. After a period of testing and treatment with no results, Dr. Wixom challenged him to seek solutions for himself. It was suggested that as a biochemist, perhaps he could find answers that eluded the physicians.

His subsequent search of the literature published on pharmacological effects of phenolics (he had been told he was sensitive to phenolics) caused him to pursue phenolics as the causal factors of adverse responses to food.

Dr. Gardner read work by Singleton and Kratzer which listed over 800 phenolic substances of plant origin. Their 1969 paper, *Toxicology and Related Physiological Activity of Phenolic Substances of Plant Origin*, includes this quotation:

"Phenols appear generally toxic if natural barriers or detoxification mechanisms are overloaded by amount, circumvented by the manner of administration, or foiled by uncommon compounds such as methylene dieters or isoprenoid structures."

Singleton and Kratzer also referred to a symposium held in 1959 at the Oxford University in England, in which the pharmacology of plant phenols was discussed. This group concluded that "phenolics prolong the life and intensity of cellular responses to epinephrine and norepinephrine, etc. They each act as cardiac stimulants and produce tachycardia. Nicotine, a hetroaromatic compound, was observed to have pronounced effects on biological membranes, i.e. it increases the permeability of these membranes to certain pharmacologically active substances, such as norepinephrine, epinephrine, dopamine, and others."

Dr. Gardner began taking sublingual doses of phenolic dilutions. He found that while most dilutions would cause reactive allergic responses -- adverse physical symptoms like heart rate increase, diarrhea, and other reactions, just the right level of dilution (called the neutralizing dose) would cause the symptoms to disappear entirely.

Initially, microgram amounts were needed and over an extended time period the dosage level increased to milligrams. Gardner's personal experiments with sublingual doses of phenolic

compounds allowed him to overcome adverse reactions to most of his diet. He could enjoy foods which had made him ill. His life became normal, with a great improvement in vitality.

Correlating Phenolics to Disease

Phenolics are essential to life as we know it, but when metabolized incorrectly, they can cause major and minor physical, mental, and emotional disturbances in a large number of patients. Here are a few examples of the effects of some simple phenolics found in everyday foods. These summaries and observations were given in a paper by Abram Ber published in 1983 on the basis of his clinical experience. Quotations from Dr. Ber's paper include:

Coumarin is found in some 30 foods, including wheat, rice, barley, corn, soy cheese, beef, and eggs. It has been found to have a large effect on asthmatics who, almost universally experience coumarin intolerance. Neutralization of all the phenolics, especially coumarin, has resulted in significant relief for 20 asthmatics treated... Coumarin contributes to arthritis and tested positive with 13 out of 18 arthritics. There is also a direct correlation between coumarin and those complaining of low back and cervical neck pain.

Cinnamic Acid is found in approximately 22 foods, especially fruits, cheese, lettuce, and tomatoes... It is commonly found ... with common dermatological problems including acne, eczema and psoriasis, with bladder problems, especially enuresis, and recurrent cystitis, (and) with chronic fatigue.

Gallic Acid is found in some 70% of all foods, including food coloring agents and is, unquestionably, the most important of all phenolics. Neutralization of gallic acid is the basis of the Feingold Diet which eliminates salicylates. Instead of making a child's life miserable utilizing a restrictive diet, neutralization of gallic acid is less traumatic. Frequently, parents often report a marked improvement in their child's school performance and a normalization of hyperactivity. It neutralizes the craving for sweets that is prevalent in so many of these dyslexic children. Gallic acid has effects upon the muscular skeletal system (14 out of 18 arthritics), the lower back, the main contributor to sciatica, and chronic severe chest pain which is non-cardiac and seems to originate in the thoracic wall and is non-cardiac in origin.

Ber tested and treated with 24 phenolics in hundreds of patients between November 1982 and August 1983 and reported "vast improvement in a majority of his patients." While Dr. Ber's remarks lack the rigor of double blind clinical trials, they do indicate the scope of consideration in phenolic neutralization.

Mixing Phenolics

Combinations of phenolics trigger allergic responses. Salsolinol is a product of natural fermentation in some plants and alcoholic beverages. It is a metabolic catecholamine in many animals and is considered to be a logical derivative of dopamine.

When the body does not metabolize salsolinol the result can be obsessive-compulsive behavior according to Joyce Baker, ND, BSN. She says people with this behavior are "like a housewife who has to clean every speck of dust off the floor or they can't rest. Children's rooms have to be

absolutely immaculate." This type of person overdoes everything from business to pleasure and often experiences depression and anxiety.

Many people with a reaction to salsolinol crave sweets, carbohydrates and alcohol. They often find themselves driving to the store specifically to get that candy bar or bottle of beer. This imbalance also effects short-term memory. Such patients constantly forget why they went into a room and they make lists or write things down immediately or they're forgotten. Intolerance to salsolinol, according to Baker, often indicates imbalances in the functions of the thymus, pancreas, and kidneys. These organs must be supported in conjunction with salsolinol therapy to help speed the healing process in addictive chocolate cravings, alcohol cravings, and in calming obsessive behaviors.

Cow's milk is ranked as one of the most allergenic foods in the entire human diet. Substantial proportions of the forage in a cow's diet are phenolics. When coupled with fermentation products from the rumen, a large amount of phenolic materials must be excreted by the cow. Milk is one excretory route. Milk then contains a large array of very reactive phenolic compounds.

"When we developed the concept of phenolic therapy, we were amazed at how many ways there were for people to respond to the chemicals we used," says Dr. Gardner. "They could make you happy or sad, fight a virus or grow hair faster. Phenolics are (an essential part of) what we are. They give us the ability to keep ourselves in balance with our surroundings. No change in the body is possible without a phenolic being involved." When we are out of balance with our surroundings and our health, a phenolic in therapy might well be indicated.

Examples in Modern Practice

Reference has been made to various studies by Dr. Ber where he implicated phenolic sensitivities in a wide variety of maladies including schizophrenia, diabetes, hypoglycemia, hyperactivity, learning disabilities, migraine headaches, allergies, and even depression.

Of course, Dr. Ber's claims need to be tested further in more carefully controlled trials. Nevertheless, this statement of his should not be ignored: **"the treatment has been particularly successful with infants and children with:**

- Abdominal Pain
- Autism
- Enuresis
- Hyperactivity
- Mental Retardation
- Asthma
- Dyslexia
- Headaches
- Insomnia
- Respiratory Allergies

Adults have achieved remissions in many chronic problems, including:

- Arrhythmias
- Asthma
- Constipation
- Fatigue
- Menstrual Disorders
- Skin Problems
- Arthritis
- Colitis
- Depression
- Hypertension
- Migraines