



## WHAT IS AN ALLERGY?

I am writing this article because I believe it is important to understand what is physically happening to yourself or your child when you or they are experiencing symptoms of an allergic reaction, sensitivity or intolerance. There are varying levels of allergies or reactions and this article will help make the whole scenario clearer and hopefully provide some reassurance during times of extreme fear and often for most, bewilderment.

While I am certainly no medical doctor, I have called upon a few doctor resources to help write this article whereby educating myself and at the same time providing information to you, the readers. Most credit goes to Dr. James Braly M.D. author of 'Hidden Food Allergies', Dr. Fred Pescatore, M.D., author of 'The Allergy and Asthma Cure' and my own personal doctor friend and great resource for all things medical, Dr. Bob Baratwal M.D. You will find Dr. Bob's availability and advice in our Nut Free Community Blogs section. This is a great resource, which I hope you all use!

The first thing to understand is that not all allergies are created equal. There are two very distinct types of allergies, one that is very common and one that is significantly more rare. The first type of allergy, the more rare variety, is the Immediate-onset 'IgE Based' allergy. The second one is much more prevalent in allergy sufferers and is the Delayed or Hidden 'IgG Based' allergy. The most significant thing to know about the difference between these two types of allergies is that the first kind (IgE Based) comes on very quickly and is potentially life threatening (when anaphylaxis shock occurs). The second type (IgG Based) is mostly hidden for most of one's life or comes on gradually and is seen as an 'intolerance' to certain foods, environmental factors etc. But in fact, food or environmental 'intolerances' are not allergies and do not fall under either of these categories. For the purpose of this article and to understand allergies better, we will discuss both types of allergies, and why intolerance is not an allergy.

## THE ALLERGIC REACTION

What is happening physically when one is experiencing an allergic reaction? Dr. Braly M.D. says "If you were to unfold and lay your small intestine flat on the ground, its inside surface area would equal that of a tennis court! This selective barrier is the gateway between your body and the outside world – it is your inner skin. Only food substances such as vitamins, minerals, amino acids from digested proteins and so on are allowed through. The police force guarding your inner gateway is your immune system."

I think this is a great metaphor for understanding your immune systems important job in protecting your small intestine. A food allergy occurs when this very immune system or 'police force' sees some food you've eaten as an invader, an enemy and certainly not as a friend. This can happen for a variety of reasons and is discussed in further detail in my article 'Why Allergies Now'.

Essentially what is occurring during an allergic reaction is that the inside lining of the digestive tract becomes permeable or uncommonly 'leaky' because of a variety reasons which enables incompletely digested food protein to 'gatecrash' or bombard your bloodstream and your immune system, and in reaction, will attack these invaders. Dr. Braly M.D. says, " This reaction happens on a number of fronts. Your immune system attaches the equivalent of handcuffs, called antibodies, to the invading foods. The immune system then attacks and digests them with specialized cells such as phagocytes; and releases all sorts of reactive chemicals, such as histamine, which also cause many of the sudden and chronic symptoms we experience as allergic reactions."

## IgE BASED ALLERGIC REACTION vs. IgG BASED ALLERGIC REACTION

### **IgE Based**

Here is where we can learn how to distinguish between the two very different types of allergic reactions and how to recognize and cope with them at their onset. The most common and well-known allergic response is the IgE Based allergic reaction and is also known as a type 1, immediate-onset reaction because of their immediate and obvious reaction at the moment that one is exposed to something their body sees as an invader or allergy. While these are most commonly known, they are actually more rare than the other type of allergy, although these days, we see more and more of these serious, life-threatening IgE Based allergies. With this type of allergy one is almost certain to know about it as its reactions occur within seconds or up to, at the most, two hours after exposure. This condition is very likely self-diagnosed and the foods are avoided for the most of, if not the rest of ones life. This type of allergy is, unfortunately, very rarely outgrown.

Dr. Braly says of the IgE Based Allergic Reaction, "one side of the IgE antibody is designed to recognize and tenaciously bind to the food allergen. Before this happens, however, the other side of the IgE antibody must become attached to a troublesome, unstable immune cell called a mast cell. Mast cells are found almost everywhere in the human body, but are especially concentrated in the lining of your digestive tract. Primed for action, the IgE-coated mast cells patiently wait for the food allergen to appear. When you eat that food, the IgE antibodies on the surface of mast cells hungrily latch onto it. Instantaneously, histamine and other allergy-related chemicals come gushing out of the mast cells, rapidly bringing on a range of nasty symptoms".

Well, I hope you got all that technical stuff! I think it's important to know the logistics of what will become a strong factor for the majority of, or for the rest of your life or your

child's life. The symptoms to this physical reaction are things that we see and know such as the development of a rash, hives or eczema. You may also have vomiting, nausea, stomach cramps, dull aching, bloating, heartburn, indigestion problems and other immediate symptoms affecting the lungs such as coughing and wheezing and in severe cases, one where anaphylaxis occurs, a reaction where the throat and mouth swell and difficulty breathing suddenly appears which results in death from suffocation.

This is certainly not an allergy to fool around with and why so much emphasis has been placed on it here on my website and in my company philosophy and in my dedication to awareness and education for all allergy sufferers!

IgE Based Common Conditions are listed here:

Allergic Dermatitis, Eczema

Angioedema (deep swelling of the skin, on the mouth, face, lips, joints and throat)

Anaphylaxis (severe and dangerous allergic reaction)

Asthma

Hay Fever (seasonal allergic rhinitis)

Hives

Both of my children have experienced all of the above conditions as a result of their IgE Based Allergies, except, thankfully, for anaphylaxis shock.

### **IgG BASED**

IgG Based allergic reactions are more common than the later type, affecting as many as one in three people! In the words of Dr. Braly, "these food allergies occur when your immune system creates an overabundance of IgG antibodies to a particular food allergen. The antibodies, instead of attaching to mast cells like their IgE counterparts, bind directly to the food particles as they enter your bloodstream, creating "immune complexes". The more of these you have floating around the bloodstream, the more on edge your immune system becomes, sending out phagocytes to gobble the complexes up. Basically your immune system gradually goes into red alert. This process takes time, which is why IgG symptoms are delayed and only appear two hours to several days after consuming the food allergen."

He also goes on to say, " these delayed reactions can involve almost any organ or tissue in the human body, potentially provoking over 100 allergic symptoms, and are implicated in well over 100 medical diseases and conditions." Here is his list of the more common conditions caused by IgG food allergy.

Allergic rhinitis, nonseasonal

Ankylosing spondylitis (disabling arthritis of the spine)

Anxiety, panic attacks (involves food allergen changes in brain chemistry)

Asthma (may involve both IgE and IgG antibodies at the same time)

Attention Deficit Disorder (involves food allergen changes in brain chemistry)

Autism (commonly associated with milk and gluten cereal allergies)

Bed-Wetting

Depression (one of the most common presenting symptoms of celiac disease)

Diabetes

Eczema

Epilepsy

Fatigue, chronic

Fibromyalgia (biopsy of the tender spots show IgG antibodies deposited under the skin)

Folic Acid Deficiency Anemia

Headaches/Migraines

Inflammatory Bowel Disease

Iron-Deficiency

Irritable Bowel Syndrome

Middle Ear Disease

Osteoporosis

Rheumatoid Arthritis

Short Stature

Sleep Disorders

Thyroid Disease

It is estimated that one in four people suffer from clinically significant food allergies, most of them from delayed symptoms that are probably the result of IgG food allergies. These are very common, long lasting and rarely self-diagnosed or treated.

If you suspect that you have either of these types of allergic conditions, especially in the case of IgE Based allergies, you must have yourself or child tested and total avoidance of this food must be exhibited. If you are concerned that you are displaying some of the above-mentioned diseases and conditions, chances are very good that you are suffering from an IgG food allergy that you don't even know about. One that you could be consuming on a daily basis! A visit to a qualified immunologist will be able to detect, from your symptoms and by using certain tests, what your body is allergic to.

## WHY IS A FOOD INTOLERANCE IS NOT A FOOD ALLERGY?

I have met many people over the course of many years who question their children's symptoms and wonder, while they are obviously not life-threatening are troublesome and possibly allergies. Here is some information to dispel the confusion. Food intolerances are defined, clinically as a non-immunological response to a food. For example, you see symptoms but there is no observable or measurable immune reaction. The most common food intolerance is of lactose (milk sugar) found in cow's milk. Symptoms arise in people who lack adequate supplies of the enzyme lactase, which is needed to digest it. This kind of intolerance mean that cow's milk is hard to digest – a very different thing than an allergy to cow's milk, where the immune reaction can cause inflammation resulting in eczema or other similar conditions listed above. Lactose intolerance and milk allergy are two separate things.

Another intolerance is the use of food chemicals. While no one here, nor many doctors encourage the use of these additives and chemicals to foods, it should be understood that they are generally intolerances, rather than allergies. Such things include:

**MSG (Monosodium Glutamate)** a taste enhancer used primarily in Chinese Food, restaurant fast food and many tinned and packaged foods.

**Sulfites/Metasulfites/Metabisulfites** are used to maintain freshness in factory-prepared foods, white wines and often added to potatoes, avocados, shellfish, greens and vegetables in restaurant salad bars.

**Tartrazine (FD&C Yellow No. 5)** is used as a food colouring and is known to cause hyperactivity, migraines and asthma attacks in asthmatics.

**BHA** is used as a preservative, especially in foods containing fats in deli and lunchmeats.

**Inulin**, extracted from artichokes and its chemical partner oligofructose are now added to a number of processed foods such as drinks, yogurt, ice cream, chocolate and breakfast cereals.

Food Poisoning is also not an allergy. This occurs when meat or fish are not prepared properly and the ingestion of it will make anyone sick!

Nutritional Deficiency is also not an allergy. Eating poor quality, highly packaged, convenient, fast food where whole grains and fruits and vegetables are rarely consumed, **WILL MAKE ANYONE SICK too!!**

I hope this article has helped dispel some myths, worries or confusion over what an allergy is, how it occurs in the body, the main differences between two equally serious allergies and to finally explain how and why intolerance to something does not make it an allergy.

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