



FOOD ALLERGIES

You have just eaten a dessert you have never tried before. It was delicious, but after some time you begin to feel strange: your throat and skin begin to itch; your face and lips have swollen; your heart begins to race and you cannot seem to catch your breath. Chances are, you are one of the many people worldwide that suffer from food allergies. While there are no published statistics for the Caribbean, data from the United States reveal that approximately 4% of the population has food allergies with one out of every seventeen children under 3 years old affected. Food allergies must be diagnosed by a medical professional. An allergy is different from intolerance and until it is confirmed, the term Adverse Food Reaction is used to describe any undesired reaction to food.

What is Food Allergy?

Food allergies, sometimes referred to as food hypersensitivity, occur whenever the immune system erroneously identifies a normally harmless food protein as dangerous. The reaction is reproducible and usually occurs instantly or within two hours of exposure. Reactions to foods do not only occur after ingestion. An allergic response can occur in some people if the food allergen is inhaled or simply comes into contact with their skin.

Distinguishing Between a Food Allergy and a Food Intolerance

People often confuse food intolerance with food allergies. Intolerance to a particular food is a digestive system response

rather than an immune system response. This occurs if an ingredient in the food irritates a person's digestive system or when a person is unable to digest properly or break down the food. Intolerance to lactose is one of the most common food intolerances known.

What Happens During an Allergic Response?

Reactions to food may occur after ingestion or if the food allergen is inhaled or exposed to the skin. The first time you encounter the allergen, your immune system responds by mounting an attack: it creates specific disease-fighting antibodies (called immunoglobulin E or IgE). When you eat the food again, the immune system, in an attempt to protect the body, enlists the help of the IgE, mast cells and basophiles which cause

the release of chemical mediators including histamines. It is the release of these chemicals which cause the symptoms of an allergic reaction.

Symptoms of an Allergic Reaction

Food allergy symptoms can range from mild to severe and can even be fatal if not treated quickly. The amount of food needed to trigger an allergic reaction varies from person to person. A symptom can occur alone or in combination. The exact symptom experienced depends on where in the body the histamine is released. When released in the **ears, nose, and throat**, you may have an itchy nose and mouth, or trouble breathing or swallowing. If released in the **skin**, you may experience itching, flushing (redness), sudden swelling beneath the skin (also called angioedema) or you may develop hives or a rash. Release of histamine in the **gastro-intestinal tract** may cause you to develop stomach pains, cramps, or diarrhoea. Other symptoms include vomiting, gastrointestinal bleeding or intense oral and pharyngeal itching. Systemic symptoms include: hypotension or low blood sugar; disturbance in body rhythms such as of the heart; or sometimes fatal reactions which affect multiple organ systems (also called anaphylaxis).

Common Allergy Triggers

Common foods that contain allergens include cow's milk, eggs, tree nuts, soy, wheat, fish, shellfish, grains, corn, citrus, canned fish, tomatoes, avocado and cheese. Persons who know that they have anaphylactic reactions to a particular food allergen are usually advised to always have epinephrine with them. This reverses serious allergic reactions when administered.

Diagnosing Food Allergies

Identifying the specific food allergen is critical. This requires verification of the immune system response and the ruling out of all other potential causes. Otherwise, you may unnecessarily eliminate foods from the diet which may compromise your health. Diagnosing the condition requires:

- That a physician takes a clinical history from the patient. This includes a thorough description of symptoms, suspected foods and the quantities and time of ingestion relative to the time of the onset of the symptoms.
- That a physical examination be done to evaluate malnutrition if it exists and to check if the growth pattern is normal. Growth below expected levels may indicate malabsorption of nutrients

and potentially, food allergies. Malnutrition can affect skin test results and should therefore be addressed before skin testing is done.

- Biochemical tests on blood, stool and sweat may be done to rule out non-allergenic causes of the symptoms.

If the physician suspects a food allergy, a *food and symptom diary* may be required. This will include all food items eaten over a 7-14 day period, and all identifiable ingredients in these foods. A list of symptoms, relative onset time and any medications taken before or after eating is also included. It is important to include medication because they sometimes alter symptoms. You are encouraged to include even the smallest detail: the more information that is noted in the diary, the better the likelihood of pinpointing the cause of the reaction.

Skin tests can also be used in diagnosing food allergies and involve placing a drop of the antigen on the skin followed by the scratching or puncturing of the skin to allow penetration of the antigen. All foods that show a positive test result must also have a strong history of exposure to the individual or must be proven to cause an allergic reaction through food challenge before it is considered to be allergenic.

Another method is *food elimination*. This involves removing the offensive food and all its derivatives from the diet completely for 2 weeks. Symptoms

are monitored and recorded along with a food diary. Elimination will show whether or not the symptoms can be resolved through avoidance. If the symptoms do indeed resolve with avoidance, and the food showed a positive skin prick test, an oral food challenge is usually carried out. The food challenge is carried out when all symptoms have fully resolved and the patient is no longer on anti-histamines or other medication to counteract allergic reactions. It must be done under the supervision of medical personnel with emergency supplies on hand in case of severe adverse reactions which can be fatal if handled incorrectly.

There are three types of food challenges:

- the Open Food Challenge;
- the Single Blind Placebo Control Food Challenge; and
- the Double Blind, Placebo Controlled Food Challenge (DBPCFC). Physicians consider the latter method as the gold standard for confirming food allergies and establishing a food and symptom relationship. It involves hiding the food (by masking taste, odor and texture) that contains the suspected allergen, from both the patient and the physician. The food is administered every 15 to 60 minutes until a convincing, but not life threatening response is observed. If symptoms occur during the food

challenge, medication is administered to stop the symptoms. It is common to observe the patient for another 1-2 hours afterwards even if there are no adverse reactions.

Managing Food Allergies

One of the best ways to deal with allergies is total avoidance of the food allergen. The following recommendations may also help:

• Food Substitutions

At meals, make item for item substitutions whereby an ice cream for dessert could be substituted with another frozen dessert so that there is not a drastic departure from the norm.

• Grocery Shopping

Be informed about what foods are acceptable and scout supermarkets to find hard to find food substitutions.

• Special Occasions

Call the host family in advance to determine what foods will be served. Offer to provide as acceptable dish that all can enjoy.

• Label Reading

Read labels carefully. Product labels change over time so you should continue reading labels even when you consider a food safe. New labelling legislation makes it easier for individuals with food allergies to identify certain potential allergens from the ingredient

list on food labels. For example, when food manufacturers use protein hydrolysates or hydrolysed vegetable protein, they must now specify the source of the protein used (e.g. hydrolysed soy or hydrolysed corn). Although reactions to food colours or food dyes are rare, individuals who suspect an intolerance will find them listed separately on the food label, rather than categorised simply as food colour .

• Dining Out

Eating meals away from home can be risky for individuals with food allergies. Whether at a fancy restaurant or a fast food establishment, inadvertent exposure to an allergen can occur, even among the most knowledgeable individuals. Here are some precautions to take:

- Bring safe foods along to make eating out easier.
- Alert the wait staff to the potential severity of your food allergy or allergies.
- Question the wait staff carefully about ingredients.
- Always carry medications.

Having food allergies may be a bit inconveniencing, but you must always be on your guard for potential allergen encounters. The best way to achieve this is through education. Learn everything there is to know about the allergen, foods/ingredients related to it and types of foods that usually contain it, whether as a main ingredient or as a food enhancer.