

## Adverse Food Reactions

People may react to the ingestion of food in a number of different ways. There are three main categories used to classify these adverse reactions.

1. **Psychological/Psychogenic** - Psychological or psychogenic reactions occur when a person simply does not like a specific food or food additive. While they can sometimes be an indicator of an underlying non-toxic reaction, they are usually due to past experience and/or personal taste preference. Testing is not necessary to confirm psychogenic reactions, they can be identified by asking yourself whether you like the food in question.
2. **Toxic** - When toxic food reactions come to mind, the most common image is vomiting and intestinal distress brought on by food poisoning. These are immunological responses used by the body to remove food very quickly when the food is toxic (naturally poisonous) or contaminated with viruses, parasites, bacteria, or a by-product of the presence of bacteria in a food. These reactions occur very quickly, within 2-4 hours after ingestion, and generally subside within 24 hours. Toxic food reactions are identified by testing the food for possible contaminants.
3. **Non-Toxic** - Non-toxic food reactions can be further broken down into two subcategories, *immune mediated responses* and *non-immune mediated responses*.

*Non-Immune Mediated Responses* - Commonly refer to as *intolerances*, they occur when we lack or under-express the enzymes required to digest and process specific foods. Common food intolerances include lactose, alcohol, and caffeine, and symptoms vary based on the intolerance, but include difficulty digesting or metabolizing the food. Intolerances are best tested for by elimination and reintroduction diets.

*Immune Mediated Responses* – There are two different classifications of immune mediated responses, **allergies** and **sensitivities**. Both of these types of reactions involve the adaptive immune system and reaction intensity often increases with repeated exposure to the food.

**Allergies** are severe reactions typically associated with more severe symptoms including anaphylaxis and hives. They are caused by specific antibodies called IgE antibodies and tend to increase with repeated exposure to the food. Food allergies usually occur within minutes to hours and are diagnosed by a physician. They can be tested for through a skin prick test or IgE specific blood test.

**Sensitivity** reactions are delayed and therefore slower to show symptoms, within several hours and up to 3 days after ingestion. Sensitivity reactions are slower and more challenging to connect with the food causing them because the inflammation they cause can present differently from person to person. Symptoms tend to vary by person and may include skin reactions, gastrointestinal distress, and ear/nose/throat discomfort. Sensitivity reactions are mediated (most often) by IgG antibodies or T-cells, and can be tested for using elimination and reintroduction diets or addition to IgG specific blood tests.