

## Food Intolerance

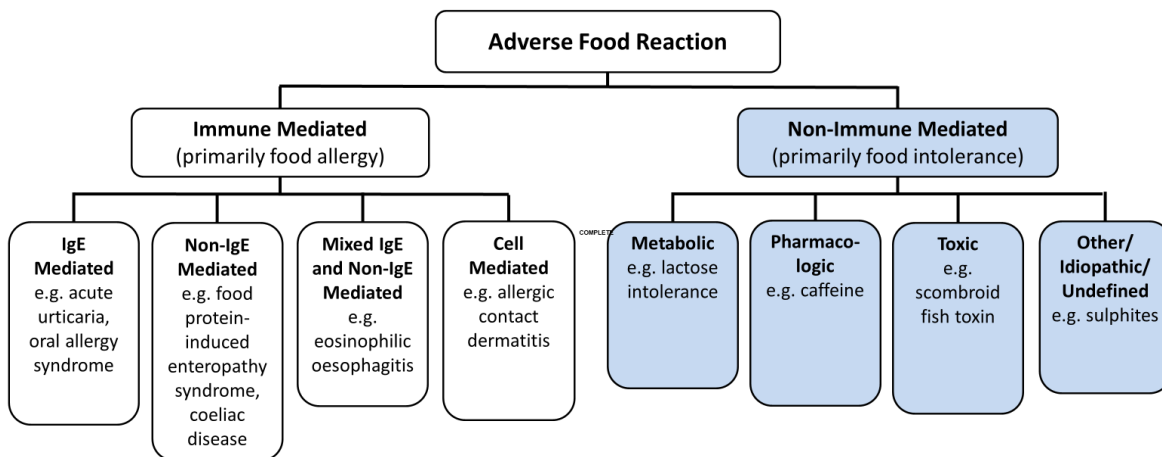
Food intolerance is a broad term that is used to describe a wide range of adverse reactions to foods, that cause symptoms after eating some foods. These include stomach pain, bloating, gas/flatulence, diarrhoea, irritable bowel syndrome (IBS), rashes, hives (urticaria), recurrent mouth ulcers or headaches. If food intolerances are not properly managed, these symptoms can adversely affect general health and wellbeing.

Food intolerances are sometimes confused with, or mislabeled as food allergies. Food intolerances involve the digestive system, whilst food allergies involve the immune system. Unlike Immunoglobulin E (IgE) antibody mediated food allergy, food intolerances (except for sulphite and benzoate reactions) do not cause anaphylaxis (severe allergic reactions), that can be life threatening.

Non-IgE mediated food allergies are sometimes called food intolerances, however these conditions involve the immune system, so they are different to food intolerances, that do not involve the immune system.

### Types of adverse reactions to foods

Adverse food reactions can be grouped as follows:



Whilst some symptoms may be similar, food allergies are different to food intolerances (shaded in the above table), which include:

- **Metabolic conditions** such as lactose intolerance (enzyme deficiency) and carbohydrate malabsorption (including fructose, polyols, sucrose).
- **Pharmacologic (chemical sensitivity) reactions** to food components such as caffeine, monosodium glutamate (MSG) and other naturally occurring food chemicals (salicylates and amines).
- **Toxic reactions** such as food poisoning and scombroid fish toxin.
- **Adverse reactions to artificial preservatives** such as sulphites (often used in dried fruits) and benzoates (often used in soft drinks) have been shown to cause symptoms. These preservatives have also been reported as triggers for asthma and anaphylaxis.

### Natural substances in foods can cause food intolerances

Foods are composed of proteins, carbohydrates, fats, nutrients and several natural chemicals. The following naturally occurring substances often add flavour and smell to food, but they can trigger symptoms in some people:

- **Lactose intolerance** is an example of an enzyme deficiency, which occurs when people are born with, or develop, insufficient lactase enzymes to digest lactose in cow's milk and other dairy products. This can result in bloating, gas/flatulence, stomach upset and diarrhea after having dairy products. This condition is uncomfortable but not dangerous and does not cause rashes or anaphylaxis. Diagnosis is by temporary elimination of lactose and reintroduction.
- **Monosodium glutamate** (MSG, additive numbers 621-625), was originally isolated from seaweed in 1908 by a Japanese chemist. Glutamates also occur naturally in foods such as camembert cheese, Parmesan cheese, tomatoes, soy sauce, and mushrooms. MSG stimulates nerve endings, which may be why it is used as a flavour enhancer when it is added to food.
- **Vasoactive amines** such as tyramine, serotonin and histamine are well known triggers of migraines in some people. They are naturally present in pineapples, bananas, baked meat, vegetables, red wine, wood-matured white wine, avocados, chocolate, citrus fruits, and mature cheese. Amines can act directly on small blood vessels to expand their capacity. This may be why they can trigger flushing, migraines, and nasal congestion in some people.
- **Salicylates** are natural aspirin like compounds that are present in a wide variety of herbs, spices, fruit and vegetables. Reactions to salicylates may be even more common than reactions to artificial colours and preservatives. Aspirin can trigger hives, by acting directly on skin mast cells, and therefore salicylates can also worsen hives in some people.
- **Toxins** can cause severe symptoms. Contamination of food with micro-organisms (such as bacteria) or their products (due to spoilage) can cause food poisoning due to toxins. For example, if some types of fish are stored poorly, their gut bacteria can convert histidine to histamine, resulting in allergy like symptoms.
- **Irritants** such as caffeine and curry are gut irritants that can trigger indigestion in some people. It is important to realise that reactions to these substances are not due to allergy.

### Diagnosis of food intolerances

Food intolerances can often be difficult to diagnose. Some substances within foods, and the quantity (dose) of foods eaten, can increase the frequency and severity of symptoms. These include stomach pain, bloating, gas/flatulence, diarrhea, IBS, rashes, hives or headaches,

Diagnosis of adverse reactions to foods should be based on clinical history, response to treatment and testing. Skin prick tests or blood tests for allergen specific IgE are negative for food intolerances. However, they are useful if the history suggests that food allergy (as opposed to intolerance), is the problem.

The best approach is to first see your doctor to:

- Make a diagnosis, such as migraine headaches, hives, IBS, recurrent mouth ulcers.
- Check for other conditions that may be causing symptoms.
- Determine if diet or other factors play a role in causing symptoms.
- Identify individual triggers to be avoided.

### Management of food intolerances may involve elimination diets

Once a diagnosis is made, a clinical history may help identify the role of diet or other factors that make symptoms worse. The only reliable way to determine if diet is playing a role is by people being placed on a temporary elimination diet, under the supervision of a dietitian and medical practitioner.

If removing the food from the diet helps, this is followed by challenges under controlled conditions to identify food triggers which may need to be avoided in the future.

It is important that elimination diets are temporary, so they should only be undertaken for a short term trial period, under strict medical supervision, as a diagnostic tool. Prolonged restricted diets can lead to problems with adequate nutrition, particularly in children.

It is important to note that low salicylate and low amine diets should not be used for investigation of food intolerance until other potential causes for reactions are explored.

### Unorthodox tests can be misleading

Some people use unorthodox methods for diagnosing health problems. Several misleading tests have been promoted for diagnosing food allergies and intolerances, without any credible evidence, and at significant expense as these tests are not rebated.

These tests include cytotoxic food testing, vega testing, kinesiology, allergy elimination techniques, iridology, pulse testing, alcat testing, Rinkel's intradermal skin testing, reflexology, hair analysis and IgG food antibody testing. Not only do these tests lack any scientific rationale, but have been shown to be inaccurate and unreliable in published studies.

Treatment based on inaccurate results is not only misleading, but can result in ineffective and sometimes harmful treatments, and delay the proper management of food allergies and intolerances.

### Other adverse reactions to food

There are many other adverse reactions to foods, apart from allergies and intolerances, including:

- **Feeling unwell after eating** due to heartburn after a fatty or spicy meal, or a hangover after too much red wine.
- **Coeliac disease** is not an allergy, but does involve an immune system response to foods containing gluten. When gluten-containing cereals (like wheat) are eaten, inflammation of the gut occurs, resulting in poor absorption of nutrients. Major symptoms are gut upset, fatigue, anaemia or weight loss.
- **Non-coeliac gluten intolerance** is a recently recognised condition which can cause symptoms such as abdominal disturbance (usually bloating but sometimes other symptoms as well), and occasionally discomfort and tiredness. It appears to be genuine as proven by blinded challenge studies, but the mechanism is not known.
- **Food aversion** is a condition where a person not only dislikes a food, but also experiences unpleasant physical symptoms when they see or smell the food. Symptoms are triggered by emotions associated with food rather than the food itself. This does not usually occur if the food is disguised.
- **Underlying anxiety** can result in unconscious over-breathing or hyperventilation. The symptoms that result (dizziness, tight chest, blurred vision or numbness) can be very distressing, and can sometimes resemble food allergy.

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