



## Message from Chair

### Greetings!

The health-related problems due to food intolerance, including food allergies, have been increasing all over the world. Although the statistics about food intolerance come from anecdotal sources yet the available data suggests an increasing trend, with greater number of children suffering from food intolerance and food allergies. Food intolerance, a non-immunologically mediated reaction, can be of functional origin primarily caused by absence of specific enzymes to digest food, irritable bowel syndrome, sensitivity to food preservatives, recurring stress and psychological factors, or anatomical disease involving structural alteration in the gastrointestinal tract such as intestinal diverticula. The toxic effects of food intolerance are of varying etiology, relatively less fatal and limited to digestive problems. The most common symptoms of food intolerance include: bloating, abdominal pain, irritable bowel, headache, fatigue, tiredness, depression and some others.

On the other hand, food allergy, an immunological reaction, can affect various organs in the body and its reactions can be anaphylaxis, life threatening and occur within seconds or minutes of exposure to food one is allergic to. Since the frequency of life threatening shock appears to increase with age, the number of affected people is likely to increase thereby causing a public health problem of increasing magnitude. Timely diagnosis of food intolerance as well as food allergies is very essential. The method should precisely differentiate exactly between food intolerances and food allergies. The physicians as well as the Path Labs should apply a structured diagnostic algorithm to diagnose food intolerance, relieve from unpredictable distress and improve the quality of life of food intolerant consumers.

Sincerely,  
**Dr.Pankaj Shah - MD (Pathology)**  
Managing Director

# Food Intolerance

## Table of Contents

- 1 Message from Chair
- 2 Causes, Symptoms, Allergy v/s Intolerance
- 3 Diagnosis, Management
- 4 Aspira IgG panel

Food intolerance is an unhealthy reaction in the body on consumption of a particular food or drink. Also known as non-IgE mediated food hypersensitivity or non-allergic food hypersensitivity, here the difficulty arises due to the body's inability to digest a particular food. Unlike an allergy, intolerance does not affect the immune system or cause a severe reaction, and may go undiagnosed for years.

However, if the body is unable to digest the food properly it can cause certain other reactions such as headaches, bloating, etc. The reaction in food intolerance to a particular food is largely caused by a chemical or enzyme deficiency. These symptoms, while extremely uncomfortable, are not life-threatening like in the case of a food allergy.

In addition, food intolerance is also being linked with gastrointestinal issues like IBS (Irritable Bowel Syndrome), asthma and low energy levels. Over time, continuous consumption of food which one is sensitive to may lead to chronic conditions in the gastrointestinal tract, neurotransmitter functions as well as depression and anxiety. With Aspira, you can get yourself tested to know the exact ingredients you are intolerant to and work towards a healthier future.



## Diagnosing Food Intolerance

Diagnosing the offending food can sometimes be difficult as one may be sensitive to a particular additive or preservative in a food. Here, it is critical to identify the food-specific IgG antibodies causing the reactions. Aspira does this with the help of Microarray technology originally invented for studying DNA and gene expression. This sensitive technology can diagnose food intolerance up to 221 specific foods in patients presenting with various symptoms from general lethargy, weight gain, dermatitis, and arthritis to irritable bowel syndrome, depression, anxiety, migraine, palpitations and many more.

Some of the critical markers to test include:

- Dairy and Egg
- Seafood
- Fruit and vegetables
- Grains
- Nuts and seeds

## Food Intolerance v/s Food Allergy



The symptoms and causes of food allergies and food intolerances overlap considerably. However, the main difference is that food allergies trigger the immune system, while food intolerance does not.

Food intolerance is an exaggerated or abnormal physical reaction to a food or food additive caused by some chemical or enzyme deficiency in the body. While a food intolerance can make you miserable, food allergies are generally more dangerous requiring immediate medical attention.

## Causes - the 'Intolerant Food'

While any food can cause an adverse reaction, 12 types of food account for about 90% of all reactions:

Eggs, Milk, Peanuts, Almonds, Red Kidney beans, Shellfish, Tree Nuts, Food Colours & Preservatives, Yeast, Wheat, Soy and Fish.

Certain seeds, including sesame and mustard seeds (the main ingredient in the condiment mustard), also are common food allergy triggers and considered a major allergen in some countries.

## Symptoms

Unlike an allergy, the symptoms of food intolerance may take a longer time to come to surface, further impacting their diagnosis. Unlike allergy symptoms that are immediate, symptoms of intolerance may take 2 to 6 hour after consumption. Some of the common symptoms to look out for include:

- Dizziness or feeling faint
- Stomach cramps / bloating
- Shortness of breath / wheezing
- Repetitive cough
- Tight, hoarse throat
- Trouble swallowing /swollen tongue
- Pale or blue coloring of skin
- Headaches
- Weak Pulse
- Hives
- Sweating
- Vomiting
- Diarrhoea

Most food-related symptoms occurring within minutes to hours of ingestion are allergic IgE mediated. While reactions appearing over hours to days are IgG mediated Intolerances, not involving the immune system.

Along with these, Aspira also offers free counselling sessions to better understand the nature of food intolerance and how it can impact one's health and body.

### Type I Allergy also known as IgE-mediated allergy/Type I hypersensitivities/true allergy

These reactions are characterised by the production of IgE antibodies and the release of histamine, and other chemical mediators, upon exposure to an allergen (e.g. peanuts and shellfish). They are responsible for the 'immediate-onset' of symptoms that can occur within seconds or minutes following ingestion of certain foods. Symptoms often associated with a classical 'allergic response' include: rashes, sneezing, difficulty breathing and anaphylactic shock. It is usually obvious which foods are responsible for a food allergy and these have to be avoided for life.

### Type III Allergy also known as IgG-mediated allergy / food intolerance / food hypersensitivity

These reactions are characterised by the production of IgG antibodies and the gradual formation of antigen/antibody complexes which are deposited in tissues, causing chronic inflammation. They are responsible for the 'delayed-onset' of symptoms, which can occur several hours or days after foods are ingested. Symptoms include anxiety, depression, IBS, headaches/migraines, fatigue, hypertension, eczema, asthma, joint pain, chronic rhinitis, arthritis, weight problems and fibromyalgia. It is possible to eliminate the offending food(s) from the diet for a short period of time and gradually re-introduce them when symptoms have improved.

## Risks associated with Food Intolerance

People who are unaware of their food intolerances are at increased risk of developing serious diseases like diabetes, celiac disease, arthritis etc. It is important to investigate any chronic symptoms that never seem to go away.

### Planning the Elimination Diet

Patient should be encouraged to:

- Know their “problem” foods
- Read ingredients labels
- Plan / shop in advance
- Vary their diet – nutrients & intolerance
- Substitute with similar alternatives – maintain balanced diet
- Concentrate on NORMAL foods - experiment.

### Reintroducing Foods

- Re-introduce foods gradually x 1 every 3 - 4 days
- Start with lowest number or lightest colour
- Monitor symptoms
- Avoid for longer if necessary
- Eat foods in moderation and continue to vary the diet
- Retest, if needed after a year
- Don't re-test too soon.

### Monitor symptoms

- Add one food at a time and monitor symptoms over a 5-day period
- Keep a food and symptom diary to monitor progress
- If symptoms return during this period, then stop eating that food for another month
- If no symptoms during these 5 days, then continue with that food in but in moderation
- Repeat with another food.

Source: Cambridge Nutritional Sciences

## Managing Food Intolerance

Once you are aware of the foods you are intolerant to, you can better plan your meals. Avoid the severe triggers as they can stress your body over time. In some cases, a particular food group may only be intolerant in high doses. Here, you can opt to reduce consumption and maintain it at a level that suits your body best. In addition, you can connect with the counsellors at Aspira for healthy alternatives that ensure your body gets adequate nutrition the right way.

### Preventing Future Reactions

Unlike food allergies, food intolerance isn't life-threatening, but it shouldn't be ignored either. Prevent any adverse reactions with these simple changes:

- Inform the servers at restaurants about the ingredients you are intolerant to. Also, be sure to inform all your friends and family to avoid those substances when preparing your meal.
- Read the ingredient labels carefully of all packaged food that you purchase. Often, a particular food group may be used in a minor quantity which may not be obvious on sight.

### Maintain control over chronic inflammations

Simply by examining the presence of antibodies created against the absorption of certain food we ingested.

This analysis is done in our laboratory by way of a technique which is known as ELISA. When antibodies called IgG are detected in the blood we then define them as type III allergies. These must be distinguished from type I allergies.

Succinctly, type III food allergies are delayed allergies (IgG) which means that they can manifest themselves from a few hours after eating up to a few days later (up to 3 days) and their intensity of reaction is relatively mild. On the other hand, type I allergies (IgE) are instantaneous more virulent and can even reach an anaphylactic condition as soon as the allergen has been ingested.

## About ASPIRA

Aspira Pathlab and Diagnostics is an inventive venture in quality healthcare and the pioneer in comprehensive reliance on technological automation. Aspira offers wide ranging diagnostic services which assist in mapping the entire journey of a patient's prognosis, remission and eventual recuperation. With the digital universe imploding onto a cell phone screen, Aspira brings healthcare to your fingertips with an app. Booking appointments, Ordering tests at home, Monitoring test results and accessing one's complete diagnostic history at the click of a button is now possible. Thanks to AspiraHealth – our mobile app.

## ASPIRA FOOD TOLERANCE IgG INCLUSIONS (221 FOOD ITEMS)

### Dairy

Beta-lactoglobulin  
 Buffalo milk  
 Casein  
 Cow's milk  
 Egg white  
 Egg yolk  
 Goat milk  
 Sheep milk



### Fish / Seafood

Alga espaguette	Cod		Monkfish	Scallop
Alga spirulina	Crab		Mussel	Shrimp/prawn
Alga wakame	Cuttlefish		Octopus	Sole
Anchovy	Dorado/sea bream		Oyster	Squid
Barnacle	Eel		Perch	Swordfish
Bass	Haddock		Pike	Trout
Carp	Hake		Plaice	Tuna
Caviar	Herring		Razor clam	Turbot
Clam	Lobster		Salmon	Winkle
Cockle	Mackerel		Sardine	



### Meat

Beef	Pork
Billy goat	Quail
Chicken	Rabbit
Duck	Turkey
Horse	Veal
Lamb	Venison
Ostrich	Wild boar
Ox	
Partridge	

### Fruits

Apple	Fig	Mulberry	Raisin
Apricot	Grape	Nectarine	Raspberry
Avocado	Grapefruit	Olive	Red currant
Banana	Guava	Orange	Rhubarb
Blackberry	Kiwi	Papaya	Strawberry
Blackcurrant	Lemon	Peach	Tangerine
Blueberry	Lime	Pear	Tomato
Cherry	Lychee	Pineapple	Watermelon
Cranberry	Mango	Plum	
Date	Melon	Pomegranate	



### Grains

Barley	Polenta
Buckwheat	Quinoa
Corn (maize)	Rice
Couscous	Rye flour
Durum wheat	Spelt
Flax seed	Transglutaminase
Gliadin	Wheat
Malt	Wheat bran
Millet	
Oat	



### Herbs / Spices

Aloe vera	Dill	Nutmeg
Aniseed	Garlic	Parsley
Basil	Ginger	Peppercorns (b/w)
Bayleaf	Ginkgo	Peppermint
Camomile	Ginseng	Red chilli
Cayenne	Hops	Rosemary
Cinnamon	Liquorice	Saffron
Clove	Marjoram	Sage
Coriander (leaf)	Mint	Tarragon
Cumin	Mustard seed	Thyme
Curry (mixed spices)	Nettle	Vanilla

### Nuts

Almond  
 Brazil nut  
 Cashew nut  
 Coconut  
 Hazelnut  
 Macadamia nut  
 Peanut  
 Pine nut  
 Pistachio  
 Tiger nut  
 Walnut

### Vegetables

Amaranth	Carrot	Peppers (mixed)
Artichoke	Cauliflower	Potato
Asparagus	Celery	Radish
Aubergine	Chard	Rocket
Bean (broad)	Chickpea	Shallot
Bean (green)	Chicory	Soya bean
Bean (red kidney)	Cucumber	Spinach
Bean (white haricot)	Fennel (leaf)	Sweet potato
Beetroot	gourd (squash)	Turnip
Broccoli	leek	Watercress
Brussel sprout	Lentil	Yuca
Cabbage	Lettuce	
Cabbage (red)	Marrow	
Capers	Onion	
	Pea	



### Others

Agar agar	Cola nut	Tapioca
Cane sugar	Honey	Tea (black)
Carob	Mushroom	Tea (green)
Chestnut	Rapeseed	yeast (baker's)
Cocoa bean	Sesame seed	yeast (brewer's)
Coffee	Sunflower seed	



### Aspira Pathlab & Diagnostics Limited

**Unit Ghatkopar:** Ankur Pathology Lab R D Shah Building, Opp. Railway Station, Ghatkopar (W), Mumbai 400 086

**Unit Navi Mumbai:** Plot No. 6, RPT House, Sector 24, Turbhe, Navi Mumbai 400 703

✉ support@aspiradiagnostics.com 🌐 www.aspiradiagnostics.com ☎ 022 - 7197 5757, 7197 5656