

# What is Food Chemical Intolerance?

The following is a summary of the RPAH Elimination Diet Handbook, 2009.



## **What is the difference between an allergy and an intolerance?**

An allergy is an immune reaction to a unique protein of a specific food. An intolerance is triggered by various natural food chemicals and/or additives found in many different foods and does not involve the body's immune system. Unlike allergies, there are no skin or blood tests that can help diagnose an intolerance. Individuals with an intolerance are also more likely to be sensitive to more than one substance.

## **What are the symptoms of a food intolerance?**

Symptoms vary from person to person, with severity depending on how sensitive a person's constitution is. Symptoms usually present in one or multiple systems such as:

- Skin: hives, swelling, eczema or rashes
- Gastrointestinal: stomach/bowel irritation, reflux, diarrhoea and/or constipation
- Airways: recurrent flu like symptoms
- Nervous system: headaches, body aches/pains or change in behaviour

These symptoms usually run in families and can affect the same system across generations.

### **What are the food chemicals associated with food intolerances?**

Most people with food intolerance will be sensitive to more than one substance. This may include natural food chemicals such as salicylates, amines and glutamate, together with one or more of the common food additives such as particular artificial colours/flavours, preservatives, antioxidants and flavour enhancers.

### **Natural food chemicals**

The natural chemical composition of foods varies greatly, however the chemicals most likely to be consumed in larger amounts and likely to cause symptoms are known as:

- **Salicylates:** a family of plant chemicals found naturally in many fruits, vegetables, juices, nuts, herbs, spices, jams, honey, yeast extracts, tea, coffee, beer, wine and Aspirin as well as some natural flavourings or scents used in foods, drinks, liquid medications, perfume, toiletries, washing powders and botanical oils.
- **Amines:** these come from the breakdown of protein. As a protein becomes older (e.g. meats, fish, cheese) or as fruits ripen (e.g. bananas, tomato, avocado, pawpaw, olives) the levels of Amines increase. High amounts of Amines are also present in sauces, fruit juices, chocolate, flavoured spreads, nut/seed pastes/jams and in fermented products such as beer, wine or yeast extracts.
- **Glutamates:** is found naturally in most foods as it is an amino acid building block of all proteins. Foods rich in natural Glutamate (e.g. cheese, tomato, mushrooms, stock, soy sauce, meat/yeast extracts) are commonly used to add flavour to meals. This is because Glutamate in its natural form (i.e. not linked to any other proteins) naturally enhances the flavour of food.

### **Food additives**

These are used to enhance the flavour, freshness, appearance and shelf-life of foods.

People who are sensitive to natural food chemicals are usually also sensitive to certain food additives, such as:

- **Colours:** artificial (102, 107, 110, 122-129, 132, 133, 142, 151, 155) or natural (160B)

- Preservatives: sorbates (200-203), benzoates (210-218), sulphites (220-228), nitrates/nitrites (249-252), propionates (280-283), antioxidants (310-312, 319-321)
- Flavour enhancers: glutamate e.g. MSG (621-635), hydrolysed vegetable protein (HVP), textured vegetable protein (TVP)

Food additives are commonly identified using code number (as seen above) on food packages and labels. Most other additives not listed above are unlikely to cause adverse reactions for individuals with food chemical sensitivities.

### **How do we know which food chemicals we are intolerant to?**

The only way to find out which foods are contributing to our symptoms is to Eliminate all possible triggers (i.e. all food chemicals), wait for symptoms to subside, and then reintroduce the triggers/groups one-by-one according to a systematic challenge protocol.

### **Why do this diet?**

- There are no skin or blood tests that can help to diagnose food intolerances
- It is impossible to predict which food chemical(s) an individual is sensitive to based on their symptoms
- Most individuals with a food intolerance are usually sensitive to more than one substance
- Misleading results are often seen as a result of attempting to eliminate foods/food chemicals one at a time

If you think you have a food chemical intolerance, contact us or your dietitian for help.