## Immune response or Chemical reaction?

In Australia, Food allergy occurs in about 2 in 100 adults (2\%); compared to $10 \%$ in children.

Allergy is the immune systems abnormal reaction to harmless food components; primarily protein's. The IgE Antibodies produced in response to these protein trigger symptoms such as swelling of the mouth, vomiting, breathing difficulty, hives and severely anaphylaxis. Symptoms are usually observed within thirty minutes of consumption. Allergy is not hereditary (Family history
 not relevant).

Common foods allergens: Peanuts, tree nuts, cow's milk, soy, shellfish, egg and wheat.
The term Allergy is often misused to describe any adverse reaction to food. Not all adverse food reactions are due to allergy.

## Food Intolerances

Does not incorporate the immune system and are due to enzyme deficiency. Body only tolerates limited amounts of natural food chemicals.
$\checkmark$ Lactose intolerance - lacking the enzyme which assists in lactose digestion; lactase
$\checkmark$ Wheat intolerance - Sensitivity to protein found in wheat, barley and rye; gluten
$\checkmark$ Increase symptoms; headaches, skin reactions such as rashes and stomach upsets

## The Truth about Food Intolerances

Lactose Intolerance - Individuals with lactose intolerance don't need to avoid all dairy.
Foods contain different levels of lactose. Many cheeses have minor lactose, live active cultures in yoghurt breakdown the lactose making it easier to digest whilst fat in full cream dairy makes it tolerable in small amounts.

There are also many alternatives available:
$\checkmark$ Almond Milk - significant Vitamin E content
$\checkmark$ Lactose Free Cow's Milk - contains same calcium, phosphorous, B vitamins and potassium as its lactose containing counterpart

However not all dairy free is healthier. Rice milk for example is a poor protein source and lacks the micronutrients found in cow's milk.

## Recommendation

If you do not have a dairy allergy try eating small spoonful's and incorporate with other foods such as muesli or nuts and seeds

Wheat intolerance - Individuals with wheat intolerance don't need to convert to completely gluten free.

Gluten is found in wheat however wheat is not present in every grain containing gluten. Intolerance symptoms such as abdominal disturbances are often minimized with controlled portion sizing,

Alternatives to wheat flour:
$\checkmark$ Buckwheat flour
$\checkmark$ Coconut flour
$\checkmark$ Rye flour
$\checkmark$ Arrowroot flour
$\checkmark$ Lupin flour

Be wary when opting for gluten free bread options as they can often be low in fibre and high GI in comparison to wholegrain breads.


Gluten intolerance - Individuals with gluten intolerance don't have same requirements as a coeliac.

Coeliac disease is not an allergy but rather a severe intolerance involving the immune systems response to the gluten containing foods (wheat) causing small bowel damage. Despite the abdominal disturbances associated; Non-Coeliac gluten intolerance is not equivalent to coeliac disease and therefore should not be expressed in the same context. Poor diet assumptions are often the result of wrong self-diagnosis and situational food aversion developed over time.

## Take Caution

## Eliminating certain food products (e.g. Milk products) from the diet unnecessarily, can lead to compromised nutritional needs

## Top tips:

$\checkmark$ Eat legumes and Wholegrains to obtain much needed resistant starch. Resistant starches will assist your insulin response, keep you lean and feed your good gut bacteria for a healthy immune system.
$\checkmark$ Eat Dairy to obtain lean fat blasting CLA, live probiotics, calcium and protein for muscle development and strong healthy teeth and bones.
$\checkmark$ Avoid food additives and enhancers.
$\checkmark$ Ensure food safety - take care when preparing and storing food.

When an intolerance in suspected complete food elimination can be a short-term solution under professional health supervision, in which foods are reintroduced in small amounts one by one to determine causal food item. Long term withdrawal can lead to inadequate nutrition not to mention missed opportunities to enjoy a wide variety of delicious foods.

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