



*Food IgG Antibody Test*

## FOOD INTOLERANCE TEST

Sample Type: Serum / plasma

Method: Microarray-based ELISA

Please find enclosed the Patient Report for your IgG antibody test, which includes information about the specific food IgG antibodies detected in your blood sample and guidelines on how to make full use of the test results:

### TEST REPORT

Two different types of Test Report are provided with every IgG antibody test:

- 1) **Food Groups** – foods are listed according to their respective food group
- 2) **Order of Reactivity** – foods are ranked by strength of antibody reaction

A numerical value is displayed in a coloured box adjacent to each food, which represents the concentration of IgG antibodies detected for each food. Foods are categorised as **ELEVATED**, **BORDERLINE** or **NORMAL**, depending on the antibody level detected.

### PATIENT GUIDEBOOK

- ✓ Information about food intolerance and commonly used terminology
- ✓ How to interpret the test results
- ✓ How to plan your diet
- ✓ Monitoring symptoms, re-introducing foods and avoiding new food intolerances
- ✓ How to avoid dairy, eggs, wheat, gluten and yeast
- ✓ Frequently asked questions

Any change in diet or removal of certain foods/food groups needs to be carefully managed to ensure that essential nutrients are maintained. Information provided in the Patient Guidebook is for general use only. If in doubt, please seek advice from a qualified healthcare professional.

Please note: the IgG antibody test does NOT test for **classical allergies**, which involve the production of IgE antibodies and cause rapid-onset of symptoms such as rashes, swelling, violent sickness, difficulty breathing and anaphylactic shock. **If you have a food allergy, it is important to continue avoiding that food, regardless of the test results obtained.** This advice also applies if you have been diagnosed with Coeliac disease or any other food related condition such as lactose intolerance.

If you would like further information or wish to discuss any matters raised in the Patient Report, please do not hesitate to contact

## Test Report : Food Groups

Patient Name:  
Patient Number:  
Date of Birth:

Sample Date:  
Analysis Date:  
Clinic:

ELEVATED (≥30 U/ml)		BORDERLINE (24-29 U/ml)		NORMAL (≤23 U/ml)	
DAIRY / EGG					
0	Alpha-Lactalbumin	93	Egg White	128	Milk (Cow)
6	Beta-Lactoglobulin	32	Egg Yolk	89	Milk (Goat)
120	Casein	2	Milk (Buffalo)	100	Milk (Sheep)
GRAINS (Gluten-Containing)*					
82	Barley	31	Malt	62	Wheat
57	Couscous	52	Oat	44	Wheat Bran
49	Durum Wheat	48	Rye		
81	Gliadin*	63	Spelt		
GRAINS (Gluten-Free)					
21	Amaranth	3	Millet	0	Tapioca
9	Buckwheat	9	Polenta		
39	Corn (Maize)	53	Rice		
FRUIT					
5	Apple	23	Guava	9	Pear
12	Apricot	1	Kiwi	5	Pineapple
10	Avocado	11	Lemon	17	Plum
1	Banana	14	Lime	17	Pomegranate
6	Blackberry	8	Lychee	5	Raisin
22	Blackcurrant	13	Mango	10	Raspberry
0	Blueberry	11	Melon (Galia/Honeydew)	36	Redcurrant
8	Cherry	0	Mulberry	5	Rhubarb
12	Cranberry	18	Nectarine	8	Strawberry
7	Date	2	Olive	13	Tangerine
14	Fig	41	Orange	11	Watermelon
10	Grape (Black/Red/White)	9	Papaya		
4	Grapefruit	7	Peach		
VEGETABLES					
8	Artichoke	9	Cauliflower	38	Potato
0	Asparagus	41	Celery	9	Quinoa
6	Aubergine	7	Chard	26	Radish
39	Bean (Broad)	8	Chickpea	3	Rocket
16	Bean (Green)	7	Chicory	12	Shallot
38	Bean (Red Kidney)	9	Cucumber	36	Soya Bean
47	Bean (White Haricot)	8	Fennel (Leaf)	22	Spinach
6	Beetroot	20	Leek	19	Squash (Butternut/Carnival)
18	Broccoli	18	Lentil	11	Sweet Potato
13	Brussel Sprout	5	Lettuce	8	Tomato
3	Cabbage (Red)	9	Marrow	2	Turnip
40	Cabbage (Savoy/White)	6	Onion	4	Watercress
11	Caper	58	Pea	0	Yuca
10	Carrot	4	Pepper (Green/Red/Yellow)		

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ELEVATED (≥30 U/ml)			BORDERLINE (24-29 U/ml)			NORMAL (≤23 U/ml)		
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6	Beta-Lactoglobulin		32	Egg Yolk		89	Milk (Goat)	
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GRAINS (Gluten-Containing)*								
82	Barley		31	Malt		62	Wheat	
57	Couscous		52	Oat		44	Wheat Bran	
49	Durum Wheat		48	Rye				
81	Gliadin*		63	Spelt				
GRAINS (Gluten-Free)								
21	Amaranth		3	Millet		0	Tapioca	
9	Buckwheat		9	Polenta				
39	Corn (Maize)		53	Rice				
FRUIT								
5	Apple		23	Guava		9	Pear	
12	Apricot		1	Kiwi		5	Pineapple	
10	Avocado		11	Lemon		17	Plum	
1	Banana		14	Lime		17	Pomegranate	
6	Blackberry		8	Lychee		5	Raisin	
22	Blackcurrant		13	Mango		10	Raspberry	
0	Blueberry		11	Melon (Galia/Honeydew)		36	Redcurrant	
8	Cherry		0	Mulberry		5	Rhubarb	
12	Cranberry		18	Nectarine		8	Strawberry	
7	Date		2	Olive		13	Tangerine	
14	Fig		41	Orange		11	Watermelon	
10	Grape (Black/Red/White)		9	Papaya				
4	Grapefruit		7	Peach				
VEGETABLES								
8	Artichoke		9	Cauliflower		38	Potato	
0	Asparagus		41	Celery		9	Quinoa	
6	Aubergine		7	Chard		26	Radish	
39	Bean (Broad)		8	Chickpea		3	Rocket	
16	Bean (Green)		7	Chicory		12	Shallot	
38	Bean (Red Kidney)		9	Cucumber		36	Soya Bean	
47	Bean (White Haricot)		8	Fennel (Leaf)		22	Spinach	
6	Beetroot		20	Leek		19	Squash (Butternut/Carnival)	
18	Broccoli		18	Lentil		11	Sweet Potato	
13	Brussel Sprout		5	Lettuce		8	Tomato	
3	Cabbage (Red)		9	Marrow		2	Turnip	
40	Cabbage (Savoy/White)		6	Onion		4	Watercress	
11	Caper		58	Pea		0	Yuca	
10	Carrot		4	Pepper (Green/Red/Yellow)				

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Patient Name:  
Patient Number:  
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Clinic:

#### FISH / SEAFOOD

44	Alga Espaguette	0	Haddock	15	Sardine
0	Alga Spirulina	15	Hake	5	Scallop
67	Alga Wakame	6	Herring	0	Sea Bream (Gilthead)
7	Anchovy	11	Lobster	5	Sea Bream (Red)
5	Barnacle	12	Mackerel	9	Shrimp/Prawn
9	Bass	22	Monkfish	20	Sole
13	Carp	19	Mussel	2	Squid
1	Caviar	14	Octopus	6	Swordfish
26	Clam	6	Oyster	13	Trout
6	Cockle	0	Perch	9	Tuna
8	Cod	12	Pike	9	Turbot
2	Crab	13	Plaice	15	Winkle
3	Cuttlefish	3	Razor Clam		
0	Eel	20	Salmon		

#### MEAT

7	Beef	4	Ostrich	14	Turkey
6	Chicken	19	Ox	0	Veal
5	Duck	0	Partridge	12	Venison
5	Goat	12	Pork	0	Wild Boar
25	Horse	6	Quail		
20	Lamb	19	Rabbit		

#### HERBS / SPICES

8	Aniseed	9	Dill	19	Nutmeg
16	Basil	8	Garlic	5	Parsley
10	Bayleaf	9	Ginger	16	Peppercorn (Black/White)
14	Camomile	14	Ginkgo	8	Peppermint
4	Cayenne	1	Ginseng	12	Rosemary
10	Chilli (Red)	16	Hops	16	Saffron
13	Cinnamon	0	Liquorice	13	Sage
0	Clove	0	Marjoram	13	Tarragon
0	Coriander (Leaf)	11	Mint	15	Thyme
0	Cumin	53	Mustard Seed	0	Vanilla
24	Curry (Mixed Spices)	0	Nettle		

#### NUTS / SEEDS

72	Almond	63	Hazelnut	12	Rapeseed
68	Brazil Nut	16	Macadamia Nut	3	Sesame Seed
55	Cashew Nut	69	Peanut	49	Sunflower Seed
9	Coconut	10	Pine Nut	36	Tiger Nut
9	Flax Seed	74	Pistachio	24	Walnut

#### MISCELLANEOUS

42	Agar Agar	3	Cocoa Bean	5	Tea (Black)
32	Aloe Vera	7	Coffee	5	Tea (Green)
6	Cane Sugar	42	Cola Nut	0	Transglutaminase
0	Carob	5	Honey	45	Yeast (Baker's)
7	Chestnut	11	Mushroom	48	Yeast (Brewer's)

\* Gliadin (gluten) is tested separately to the gluten-containing grains. If your Test Report shows an elevated reaction to gliadin, it is important to eliminate consumption of foods that contain these grains, even if the grain results are not elevated. Please refer to the Patient Guidebook for further information.

## Test Report : Order of Reactivity

Patient Name:  
Patient Number:  
Date of Birth:

Sample Date:  
Analysis Date:  
Clinic:

### ELEVATED FOODS ( $\geq 30$ U/ml)

128	Milk (Cow)	58	Pea	42	Cola Nut
120	Casein	57	Couscous	41	Celery
100	Milk (Sheep)	55	Cashew Nut	41	Orange
93	Egg White	53	Mustard Seed	40	Cabbage (Savoy/White)
89	Milk (Goat)	53	Rice	39	Bean (Broad)
82	Barley	52	Oat	39	Corn (Maize)
81	Gliadin*	49	Durum Wheat	38	Bean (Red Kidney)
74	Pistachio	49	Sunflower Seed	38	Potato
72	Almond	48	Rye	36	Redcurrant
69	Peanut	48	Yeast (Brewer's)	36	Soya Bean
68	Brazil Nut	47	Bean (White Haricot)	36	Tiger Nut
67	Alga Wakame	45	Yeast (Baker's)	32	Aloe Vera
63	Hazelnut	44	Alga Espaguette	32	Egg Yolk
63	Spelt	44	Wheat Bran	31	Malt
62	Wheat	42	Agar Agar		

### BORDERLINE FOODS (24-29 U/ml)

26	Clam	25	Horse	24	Walnut
26	Radish	24	Curry (Mixed Spices)		

### NORMAL FOODS ( $\leq 23$ U/ml)

23	Guava	16	Basil	13	Mango
22	Blackcurrant	16	Bean (Green)	13	Plaice
22	Monkfish	16	Hops	13	Sage
22	Spinach	16	Macadamia Nut	13	Tangerine
21	Amaranth	16	Peppercorn (Black/White)	13	Tarragon
20	Lamb	16	Saffron	13	Trout
20	Leek	15	Hake	12	Apricot
20	Salmon	15	Sardine	12	Cranberry
20	Sole	15	Thyme	12	Mackerel
19	Mussel	15	Winkle	12	Pike
19	Nutmeg	14	Camomile	12	Pork
19	Ox	14	Fig	12	Rapeseed
19	Rabbit	14	Ginkgo	12	Rosemary
19	Squash (Butternut/Carnival)	14	Lime	12	Shallot
18	Broccoli	14	Octopus	12	Venison
18	Lentil	14	Turkey	11	Caper
18	Nectarine	13	Brussel Sprout	11	Lemon
17	Plum	13	Carp	11	Lobster
17	Pomegranate	13	Cinnamon	11	Melon (Galia/Honeydew)

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Patient Name:  
Patient Number:  
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# NORMAL FOODS ...continued

11	Mint	7	Beef	3	Cocoa Bean
11	Mushroom	7	Chard	3	Cuttlefish
11	Sweet Potato	7	Chestnut	3	Millet
11	Watermelon	7	Chicory	3	Razor Clam
10	Avocado	7	Coffee	3	Rocket
10	Bayleaf	7	Date	3	Sesame Seed
10	Carrot	7	Peach	2	Crab
10	Chilli (Red)	6	Aubergine	2	Milk (Buffalo)
10	Grape (Black/Red/White)	6	Beetroot	2	Olive
10	Pine Nut	6	Beta-Lactoglobulin	2	Squid
10	Raspberry	6	Blackberry	2	Turnip
9	Bass	6	Cane Sugar	1	Banana
9	Buckwheat	6	Chicken	1	Caviar
9	Cauliflower	6	Cockle	1	Ginseng
9	Coconut	6	Herring	1	Kiwi
9	Cucumber	6	Onion	0	Alga Spirulina
9	Dill	6	Oyster	0	Alpha-Lactalbumin
9	Flax Seed	6	Quail	0	Asparagus
9	Ginger	6	Swordfish	0	Blueberry
9	Marrow	5	Apple	0	Carob
9	Papaya	5	Barnacle	0	Clove
9	Pear	5	Duck	0	Coriander (Leaf)
9	Polenta	5	Goat	0	Cumin
9	Quinoa	5	Honey	0	Eel
9	Shrimp/Prawn	5	Lettuce	0	Haddock
9	Tuna	5	Parsley	0	Liquorice
9	Turbot	5	Pineapple	0	Marjoram
8	Aniseed	5	Raisin	0	Mulberry
8	Artichoke	5	Rhubarb	0	Nettle
8	Cherry	5	Scallop	0	Partridge
8	Chickpea	5	Sea Bream (Red)	0	Perch
8	Cod	5	Tea (Black)	0	Sea Bream (Gilthead)
8	Fennel (Leaf)	5	Tea (Green)	0	Tapioca
8	Garlic	4	Cayenne	0	Transglutaminase
8	Lychee	4	Grapefruit	0	Vanilla
8	Peppermint	4	Ostrich	0	Veal
8	Strawberry	4	Pepper (Green/Red/Yellow)	0	Wild Boar
8	Tomato	4	Watercress	0	Yuca
7	Anchovy	3	Cabbage (Red)		

\* Gliadin (gluten) is tested separately to the gluten-containing grains. If your Test Report shows an elevated reaction to gliadin, it is important to eliminate consumption of foods that contain these grains, even if the grain results are not elevated. Please refer to the Patient Guidebook for further information.

PATIENT NAME:

YOUR DIET





This dietary protocol is intended to be used in conjunction the Patient Support Guide which is included along with the patient test report and which gives guidance on the following:

- a) how to safely remove foods from the diet, including those which commonly arise such as milk and wheat.
- b) recommends suitable alternative foods which can be eaten instead of the problem food.
- c) Illustrates how to rotate foods which are borderline positive which should reduce IgG reaction to those foods
- d) How to monitor symptoms and safely re-introduce foods back into the diet

**CAUTION:** Eliminating specific foods from your diet can increase the risk of micronutrient deficiencies, and it is important that you eat as wide a variety of foods as possible to avoid this. Foods which you are able to eat are in green.

For example, eliminating wheat from your diet can decrease your intake of B vitamins, therefore we recommend that you consume brown rice (not white), oats, rye, millet, buckwheat and other grains which are also rich in B vitamins.

If your results indicate a large number of positive foods, then we recommend you seek dietary advice from a qualified Dietician or Nutritionist who can help you plan your diet in more detail

## RESULT

This patient has elevated IgG response to a large number of foods which suggests increased intestinal permeability. This could be caused by a number of factors such as antibiotic use, high fat diet, stress, or H Pylori infection, overgrowth of gut bacteria. It is important to restore gut health whilst following the elimination diet. The following dietary changes will help to do this.

1. Eliminate the 5 foods showing the highest positivity from the diet as these are causing the most significant inflammatory response. Once these foods have been removed from the diet symptoms often improve significantly
2. Reduce how often you eat other positive foods to no more than twice per week.  
Choose alternatives
3. Eat at least 6 servings per day of vegetables and fruit (1 serving is approx. 80g for example ( 1 banana, 1 apple, 2 tomatoes, 2 spears broccoli, 6 grapes or strawberries)
4. Consider the following nutritional supplements to help restore gut health:
  - a. Probiotic, 20 billion units multi – strain formulation which includes mix of lactobacillus and bifidobacterial strains to restore the gut bacteria to a more normal and healthy profile. Take for 3 months as per manufacturers recommendation.
  - b. Omega 3 oils 1000mg daily.
  - c. Vitamin D3 1000 IU daily if vitamin D levels are low.

ELIMINATE the following foods marked with X for 3 months:

ELIMINATE	FOOD	FOUND IN
X	Cow Milk	Cheese, Yoghurt, Whey protein, Processed foods, Ice Cream, Butter
X	Cola Nut	Used as flavour enhancer in processed foods such as Ice Cream, Cakes, Biscuits, Desserts, Breads
X	Agar Agar	Plant Algae which is used as setting agent in processed food such as Cake, Ice Cream, Desserts, Jellies, Candies,
X	Egg White	Check labels on processed
X	Sheep milk	Cheese, Yoghurt, Whey protein, Processed food, Ice Cream
X	Goat milk	Cheese, Yoghurt, Whey Protein, Processed food, Ice Cream
X	Casein	Protein found in all dairy foods, some processed foods, Ice Cream, Butter
X	Egg Yolk	Eggs, processed foods
X	Gliadin	Gluten protein found in grains such as Wheat, Barley, Rye, Spelt, Couscous, Freekah, Burgul, Semolina, pasta, pizza bread, cakes, biscuits,



X	Wheat	Wheat flour, pasta, pizza, egg noodles, bread, cakes, biscuits
X	Barley & Malt	Fermented beverages, cakes, biscuits, bread, processed sauces and dressings, vinegars
X	Durum Wheat	Pasta
X	Rye	Bread
X	Spelt	Bread, protein bars
X	Couscous	Couscous
X	Corn	Cornflakes, sweetcorn, baby corn, cornstarch, popcorn
X	Bean	Ful Medammas
X	Yeast - Bakers/Brewers	Breads, Cakes, Biscuits, Pizza base, Processed foods, Dressings and sauces, skins of soft fruits and nuts, fermented beverages
X	Oat	Oat, Oatmeal, biscuits,
X	Potato	Fries, crisps, potato starch in processed sauces and dressings
X	Rice	Rice cakes, Risotto, Biryani,
X	Soy	Edamame, Soy milk, Tofu, Soy Flour, soy sauce
X	Almond	Almond Milk, Almond Flour in cakes and biscuits

X	Nuts	Avoid Nuts which are positive, Nut spreads or butters,
X	Seeds	Vegetable oils, Health bars
X	Alga Wakame/Espagumette	Plant Algae used in processed foods as emulsifier such as dressings and sauces such as mayonnaise. Also found in Sushi
X	Curry spices/Mustard Seed	Includes Cardamom and Turmeric, Curry or spiced dishes, Garam Masala
X	Pea	Pea, vegetable protein shakes
X	Orange	
X	Mushroom	
X	Tomato	
X	Radish	
X	Carob	
X	Plum	Fruit, Jam

The following diet gives examples of suitable meal options which include foods that are rarely reactive. There may be a food included in the menu choices which you have reacted to, for example - mushrooms, if this is the case then just avoid it. Choose freely from foods in the green section of your report.

Choose from the following options:

## BREAKFAST

1. Makdous - marinated eggplant, hummous, Baba Ganoush with gram flour flatbread topped with Zeit & Zaatar, olives
2. Cooked Millet with Tahina or honey topped with chopped walnuts and dried fruit
3. Millet flakes soaked in apple juice overnight, mixed with grated apple or pear, sultanas, topped with pomegranate seeds or fresh berries and chopped walnuts
4. Homemade Beef, chicken or turkey sausage served with sweet potato hash browns
5. buffalo milk cheese with gram flour flatbread, chopped vegetables, olives, makdous
6. Coconut milk yogurt with mango or chopped banana

## MID MORNING AND AFTERNOON SNACKS

1. Sliced apple or pear dipped in blackstrap molasses

## APPETISERS

1. Mezze platter -hummous, fattoush salad, and Beewaz parsley salad with gram flour roti

## LUNCH

1. Mezze with Shish Tawook, lamb or beef kofta, hummous, Fattoush salad, Beewaz parsley salad, and gram flour roti
2. Shorbat Addas (lentil soup) with gram flour roti
3. Lamb or chicken Tajine with dried apricots, sweet potato, and chickpeas
4. Chicken Maraqa - chicken, chickpea and vegetable stew with sweet potato
5. Molokhia with meat
6. Banya - Okra baked in spicy tomato sauce with lamb or beef



## DINNER

1. Grilled chicken breast or Shish Tawook with fattoush salad (no pitta chips) Toum, sweet potato fries
2. Lamb or beef kofta with roasted cauliflower salad, Toum and sweet potato fries
3. Falafel with large mixed salad dressed with olive oil and lemon juice, served with Toum
4. Grilled Shrimp served with fattoush salad (no pitta chips) and Toum
5. Grilled Lamb Chops served with fattoush salad (no pitta chips), sweet potato fries and Toum
6. Roasted spiced chicken or lamb with eggplant, zucchini, peppers and onions
7. Grilled fish with oil and lemon and salad vegetables
8. Seafood served with oil and lemon, salad vegetables

## DESSERT

1. Mango and coconut Mahalabiya
2. Home made fruit sorbet - blend frozen berries or banana or mango with honey
3. Home made coconut milk ice cream - blend frozen strawberries or banana or mango with honey and thick coconut milk then freeze
4. Khoshaf - dried fruit compote
5. Slices of Melon or Watermelon

## DRINKS

1. Camel milk flavoured with vanilla extract or cocoa powder
2. Water - with lemon or cucumber slices
3. Apple juice
4. Herbal tea - Karkadeh, cinnamon, mint, green tea
5. Mint and lemon drink
6. Turkish coffee

# PATIENT GUIDEBOOK



*The Food Intolerance Test*



# Guidebook Contents

The Guidebook explains how to interpret the results obtained from your IgG antibody test and how to plan for a change of diet. The information contained will help to identify which foods should be eliminated, reduced or rotated and will provide ideas for alternative/substitute foods. Understanding how to re-introduce foods once symptoms have subsided, will ensure that a varied and balanced diet is adopted, which is essential to maintain good health. Ideas contained in the Guidebook will also assist with developing an achievable, sustainable and enjoyable dietary regime.

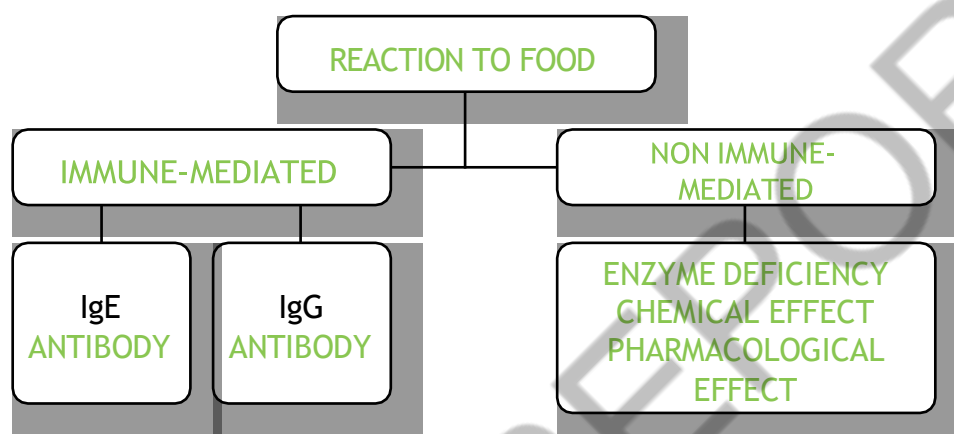
The following information is contained within this Guidebook:

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# Understanding Food Intolerance

## TERMINOLOGY

The terms 'food allergy', 'food intolerance' and 'food sensitivity/hypersensitivity' are often confused, but essentially they all mean an abnormal reaction to certain foods. They may result from mechanisms that involve activation of the immune system, and the subsequent production of antibodies, or reactions that are not immune-mediated.



## IMMUNE-MEDIATED REACTIONS

Reactions that trigger an immune response are most often referred to as 'allergies' and occur when the body over-reacts to foods that do not usually produce a response in the majority of people. This overreaction triggers the immune system to produce antibodies to attack the 'foreign' food proteins which the immune system recognises as a threat.

Allergies are grouped into four types: I, II, III and IV. These classifications are based on which part of the immune system is activated and how long it takes for a reaction to occur. The two types of allergy that are most often associated with adverse reactions to food are:

### 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 in 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, eczema, asthma, joint pain, chronic rhinitis and fibromyalgia. It is possible to eliminate the offending food(s) from the diet for a short period of time and then gradually re-introduce them when symptoms have improved.

# Understanding Food Intolerance

## NON IMMUNE-MEDIATED REACTIONS

Reactions that do not produce an immune response are often referred to as 'food intolerances'. They can be caused by sensitivities to certain chemicals/additives found in food, or more commonly due to enzyme deficiencies:

### Enzyme Insufficiency/Deficiency

#### Lactose Intolerance

- \* Caused by a deficiency of lactase - an enzyme that breaks down lactose (a complex sugar).
- \* Foods that contain lactose include: dairy products (milk, cheese, yoghurts, etc).
- \* Symptoms include: bloating, diarrhoea and flatulence.

#### Histamine Intolerance

- \* Caused by an elevated histamine level due to a deficiency or inhibition of diamine oxidase (DAO) - an enzyme that breaks down histamine (a chemical that triggers an inflammatory response).
- \* Aggravated by foods high in histamine, including: red wine, cheese and tuna fish.
- \* Some foods are low in histamine, but can trigger the release of histamine in the body, including: citrus foods, bananas, tomatoes and chocolate.
- \* Symptoms include: migraines, dizziness, bowel/stomach problems, rhinitis, depression, irritation and reddening of the skin.

This chapter has discussed different types of adverse reactions that can be associated with food, including immune-mediated and non immune-mediated reactions. The IgG antibody test measures immune-mediated, Type III allergy (IgG-mediated) reactions.

Note: although Type III (IgG-mediated) reactions are classified as 'allergies', the colloquial term for this type of reaction is 'food intolerance' And, therefore, this terminology will be adopted throughout the Guidebook.



# Interpreting Your Test Results

## TEST REPORT

The Test Report lists the foods that your blood sample has been tested for. Two different types of Test Report are provided with every test:

- \* Food Groups - foods are listed alphabetically within their respective food group
- \* Order of Reactivity - foods are listed according to the strength of antibody reaction

## ANTIBODY LEVELS

A numerical value is also displayed in a coloured box adjacent to each food. This represents the concentration of IgG antibodies detected (in U/ml) for each food and the higher the value assigned, the stronger your body's immune response to that particular food. Depending upon the antibody level detected, foods are categorised as: **ELEVATED**, **BORDERLINE** or **NORMAL**. Colour-coding of these categories allows 'problem' foods to be easily identified and avoided.

ELEVATED	BORDERLINE	NORMAL
Indicates that a high antibody reaction was detected	Indicates that a moderate antibody reaction was detected	Indicates that no significant reaction was detected
<p>These are the primary 'problem' foods, which should be eliminated from your diet for at least 3 months.</p> <p>Substitute with NORMAL (green) foods from the same food group. Please refer to 'Test Report: Food Groups'.</p>	<p>These are moderate 'problem' foods, which should be reduced and rotated for at least 3 months to avoid an increase in intolerance.</p> <p>Substitute with NORMAL (green) foods from the same food group. Please refer to 'Test Report: Food Groups'.</p>	<p>These foods can be eaten without restriction, unless they have previously caused an adverse reaction.</p> <p>If you have a known allergy to specific food that triggers a rapid-onset of symptoms (Type I allergy), this food should be avoided.</p>

If you are experiencing adverse symptoms and the test has identified **ELEVATED** or **BORDERLINE** IgG antibody levels, this may indicate an intolerance to those specific foods. Removing them from the diet usually results in an improvement of symptoms. Please refer to 'Planning Your Diet' for more detailed information about removal/substitution of foods.



# Planning Your Diet

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## Before You Change

Nutrition and health go hand-in-hand and there are some things you should consider before you change your dietary regimen.

- \* If you have a medical condition, are pregnant or on medication it is advisable to discuss your proposed dietary change with a qualified health professional e.g. a doctor, dietician or nutritionist.
- \* It can be difficult to eliminate a large number of elevated foods at the same time. It may be easier to:
  - Completely avoid the top 10 foods showing the highest antibody concentrations
  - Reduce consumption of remaining positive foods and choose alternatives
- \* If you are eliminating a food such as milk then add non-dairy food sources of key nutrients such as calcium in your diet.
- \* Plan and organise your meals in advance as much as possible. By collecting recipe ideas using your non-reactive foods and shopping ahead you are less likely to struggle with what to eat.
- \* Focus on all the good foods you can eat, rather than those it is recommended you avoid.
- \* When eliminating a food from your diet, try to replace with alternative foods from that food group which does not show a positive reaction.
- \* Continue to avoid a food if you have evidence that it is having an effect on you, even if it is negative in your test.
- \* Recognise what food products contain your reactive foods. Many ready-made meals and sauces contain a variety of ingredients that you may not have necessarily associated with the product, so it is important to always check the labels.
- \* It is very important to maintain a healthy, nutritious diet. By eating a variety of foods you will obtain a wide range of nutrients and will reduce the risk of further intolerances.
- \* Gliadin is a protein fraction of gluten and is found in wheat, barley and rye. Gliadin is tested separately to these grains in the test. If your test shows an ELEVATED response to gliadin we recommend to avoid foods containing gluten, even if these foods are listed as NORMAL in your Test Report.



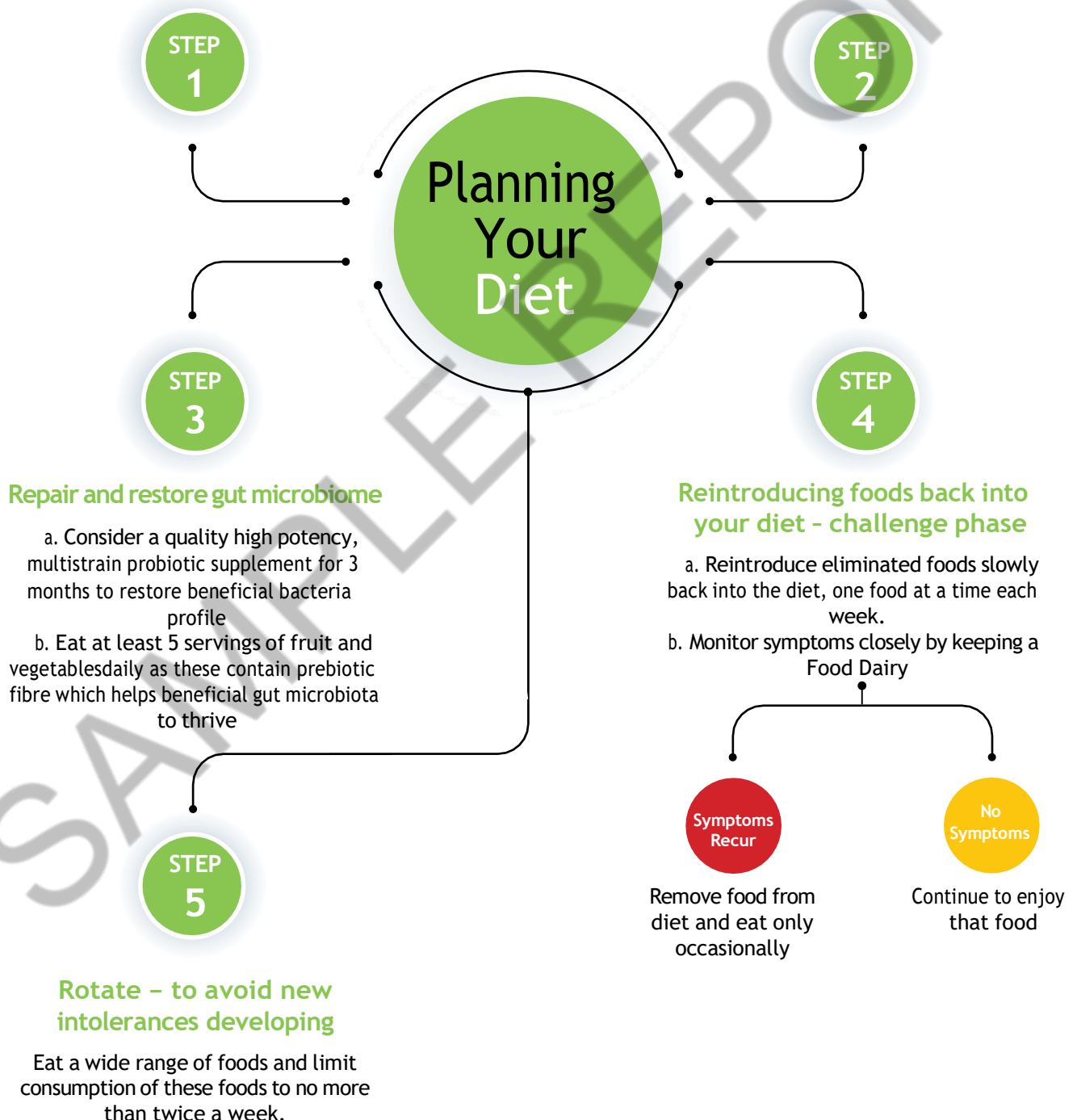
# Planning Your Diet

## Identify foods with elevated IgG response from your report

To help you plan your diet more effectively, further information relating to some commonly positive foods is provided on the next few pages of this guidebook.

## Remove - Elimination Phase

- Eliminate elevated foods for 3 months
- Limit consumption of borderline foods to 1-2 times per week



## Example Food Challenge Diary

Reintroduced food	Date of first challenge	Symptom	Date of next challenge
Orange	1.7.2020	none	
Oat	7.7.2020	none	
Cows milk	14.7.2020	Migraine, diarrhea, bloating	21.10.2020

# Food Challenge

[illegible]



# How To Avoid Dairy



If the test has shown an **ELEVATED** reaction to milk, it is recommended that you eliminate all consumption of milk and milk products.

Milk is an important source of protein, calcium and vitamins including A, D and B complex, so it is important to obtain these nutrients from alternative food sources.

FOODS TO AVOID	INGREDIENTS TO AVOID	ALTERNATIVE FOODS
<p>Dairy products can be found in many foods:</p> <ul style="list-style-type: none"> <li>• Milk, milkshakes</li> <li>• Yoghurt, fromage frais</li> <li>• Cream, ice cream</li> <li>• Cheese</li> <li>• Butter, spreads</li> <li>• Custards</li> <li>• Puddings</li> <li>• Sauces</li> <li>• Gravy</li> <li>• Creamed soup</li> <li>• Cakes, scones, doughnuts</li> <li>• Waffles, pancakes</li> <li>• Biscuits</li> <li>• Bread, pizza</li> <li>• Instant mashed potato</li> <li>• Ready meals</li> <li>• Processed meats, sausages</li> <li>• Packet snacks</li> <li>• Confectionery, chocolate</li> </ul>	<p>Dairy may be hidden in many foods and so it is important to always read the food ingredient labels carefully before purchase.</p> <p>Ingredients to avoid:</p> <ul style="list-style-type: none"> <li>• Butter, butter oil</li> <li>• Casein, caseinate</li> <li>• Cream, light cream</li> <li>• Demineralised whey</li> <li>• Beta-lactoglobulin</li> <li>• Alpha-lactalbumin</li> <li>• Non-fat milk</li> <li>• Milk powder, skimmed milk powder</li> <li>• Milk solids, non-fat milk solids</li> <li>• Whey, sweet whey powder</li> </ul>	<p>Dairy-free foods are available:</p> <p>Milk - Oat milk, rice milk, soya milk, quinoa milk, pea milk, coconut milk, nut milks such as almond or cashew (if no risk of allergic reaction). Some people can tolerate other animal milks, however sheep's, goat's milk contain similar proteins to cow's milk, and can cause similar reactions, therefore these milks should be consumed cautiously.</p> <p>Camel, buffalo milk has been found to be better tolerated than cows milk, as the casein protein in these milks is different to that found in cows milk, and so may be a suitable substitute.</p> <p>Butter - dairy-free and vegan spreads, nut spreads, tahini, cold pressed olive oil or coconut oil</p> <p>Cheese - hard and soft varieties of soya cheese; rice slices</p> <p>Yoghurts - soya, coconut milk, or oat</p> <p>Ice-creams - soya, coconut milk, oat or rice</p> <p>Cream - soya, oat, cashew or almond</p> <p>Fromage frais - soft tofu</p> <p>Chocolate - dairy-free chocolate</p> <p>Mayonnaise - dairy-free mayonnaise</p>

## PROTEIN, CALCIUM AND VITAMINS

To ensure a rich source of protein, calcium and vitamins (A, D and B complex), consume a variety of foods such as soya, cod liver oil, vegetable oil, sardines, whitebait, salmon, nuts, red meat, fresh fruit, vegetables (especially green leafy vegetables such as spring greens, watercress, spinach and broccoli), rhubarb, figs, mushrooms, oranges, apricots, prunes, pumpkin seeds, sesame seeds, lentils and legumes.

Note: calcium is water soluble - ideally vegetables should be steamed or boiled in a little water, which can then be used in soups, gravy and sauces.

# How To Avoid Eggs

If the test has shown an **ELEVATED** reaction to egg white OR egg yolk OR both, you should eliminate that food from your diet. It is not necessary to avoid egg yolk if only egg white is elevated.

However, eggs are an excellent source of protein and provide significant amounts of calcium, iron, zinc and B-vitamins. Alternative foods that provide an equivalent nutritional value should be consumed.

FOODS TO AVOID	INGREDIENTS TO AVOID	ALTERNATIVE FOODS
<p>Eggs can be found in many foods :</p> <ul style="list-style-type: none"> <li>• Omelettes, quiches</li> <li>• Cakes, biscuits, sweets, meringues, ice-cream, custard</li> <li>• Steamed pudding, pancakes, crepes, cheesecakes, pavlova, crème caramel</li> <li>• Pasta, noodles</li> <li>• Chinese rice and soups, some sushi</li> <li>• Yorkshire puddings, foods coated in batter/breadcrumbs</li> <li>• Mayonnaise, tartar sauce, horseradish sauce, lemon curd, salad dressings</li> <li>• Scotch eggs, gala pie, hash browns, some potato products, ready meals</li> <li>• Fresh bakery goods may not be labelled so check the ingredients with the bakers</li> <li>• Soups</li> </ul>	<p>Eggs are hidden in many foods, so it is important to always read the ingredients label carefully before purchase.</p> <p>Below is a checklist of the main product ingredients that are derived from eggs:</p> <ul style="list-style-type: none"> <li>• Albumin</li> <li>• Egg white</li> <li>• Egg yolk</li> <li>• Frozen egg</li> <li>• Pasteurised egg</li> <li>• Dried egg</li> <li>• Egg powder</li> <li>• Egg protein</li> <li>• Ovalbumin</li> <li>• Ovovitellin</li> <li>• Ovaglobulin</li> <li>• Ovamucin</li> <li>• Globulin</li> <li>• Livetin</li> <li>• Vitellin</li> </ul>	<p>Egg-free foods are available:</p> <ul style="list-style-type: none"> <li>• Pasta made from corn, rice, quinoa or buckwheat (soba)</li> <li>• Rice or buckwheat noodles</li> <li>• Boiled or fried rice (e.g. brown basmati rice)</li> <li>• Clear soup or broth</li> <li>• Egg-free mayonnaise</li> <li>• Egg-free snacks (e.g. crisps, rice cakes, corn thins and rye crispbreads)</li> <li>• Fresh fruit, stewed fruit or crumble</li> <li>• Sorbet or soya ice-cream</li> <li>• Home-made cakes (using egg replacer, jams, jelly, marmalade or glacé icing)</li> </ul>

You can replace eggs in homemade cakes, biscuits, pancakes, quiches and custards by substituting any of the following for 1 egg in recipes:

Pancake batter, quiches, and custards:  $\frac{1}{4}$  cup silken tofu beaten or orgran egg replacer (use as directed)

Cakes, brownies, muffins:  $\frac{1}{2}$  pureed banana, or  $\frac{1}{3}$  cup applesauce, or  $\frac{1}{4}$  cup soy or plain yoghurt

Add 1 tsp baking powder if you want or need baked goods to rise

Desserts: 1 tbsp ground flax seed + 3 tbsp water - soak to swell and use once gelatinous.

If you need more than 1 egg for baked goods, use the following:

Cakes, desserts, custards 1 tbsp white vinegar + 1 tbsp water + 1 tsp baking powder



# How To Avoid Wheat



If the test has shown an **ELEVATED** reaction to wheat, it is recommended that you avoid all wheat and wheat products for at least 3 months.

Wheat is an important source of fiber, vitamins and minerals, particularly vitamin B complex, chromium and zinc. If wheat is to be eliminated from the diet, it is important that these nutrients are obtained from alternative sources.

## WHAT IS THE DIFFERENCE BETWEEN DURUM WHEAT AND WHEAT?

Durum Wheat is a variety of wheat that has a higher protein and gluten content than other kinds of wheat and most often found in pasta. It is usually refined and contains only the endosperm of the grain.

Whole wheat, on the other hand, has a higher concentration of lectin proteins than Durum Wheat as these are found in the germ and bran of the grain, and is generally found to be more inflammatory. Some people find that they are intolerant to wheat but can tolerate moderate quantities of Durum Wheat, and vice versa.

FOODS TO AVOID	INGREDIENTS TO AVOID
<p>Wheat can be found in many foods:</p> <ul style="list-style-type: none"> <li>• Breads, rolls, chapatis, naan breads, crumpets, scones, pancakes, wafers, cakes, biscuits</li> <li>• Breakfast cereals</li> <li>• Pizza, pasta, pastries and Yorkshire puddings</li> <li>• Ice-cream, powdered drinks, malted drinks, chocolate bars, liquorices and puddings</li> <li>• Beer, stout, lager and most spirits</li> <li>• Wheat is also found in many convenience foods such as:</li> </ul> <p>Soups, sauces, spices, processed meats, ready-made meals (including burgers), oven chips, salami, sausages, scotch eggs, meat or fish coated in breadcrumbs, corned beef, pates and spreads, crisps, commercial sauces, salad dressings, ham, gravy, stock cubes, herbs, spices, baking powder, tinned foods (including beans), spaghetti and soup, Hummous and Tahini.</p>	<p>Wheat is hidden in many foods, so it is important to read the ingredients label carefully before purchase: Below are some ingredients that may be listed:</p> <ul style="list-style-type: none"> <li>• Binder or brown flour</li> <li>• Breadcrumbs</li> <li>• Bulgar wheat, triticale, kamut, spelt, cracked wheat or kibbled wheat</li> <li>• Couscous, wheat bran, durum wheat or semolina</li> <li>• Gum base</li> <li>• Hydrolysed wheat protein or wheat gluten</li> <li>• Rusk, wheat starch, modified starch, food starch, wheat flakes or edible starch</li> <li>• Whole wheat or puffed wheat</li> <li>• Wheat germ flour or unbleached flour</li> <li>• Wheat germ oil or wheat germ extract</li> <li>• Wholegrain or wholemeal flour</li> </ul>

# How To Avoid Wheat

## ALTERNATIVE FOODS

Although wheat is a significant source of nutrients, there are alternative food products that provide equivalent vitamins and minerals. Whilst it may be challenging, alternative foods should be eaten to ensure that an enjoyable, varied and healthy diet is adopted:

- **Breads** - wheat-free bread is now widely available and generally made from rice flour, rye flour or blended from potatoes and corn. These types of bread contain the essential B vitamins, iron and folic acid that are found in wheat bread. Choose from 100% rye bread, pumpernickel or rye/barley soda bread. Crackers or crispbreads such as rye crispbreads, oatcakes, corn cakes and rice cakes can be used in place of bread for meals and snacks.
- **Pasta** - choose pasta made from rice, quinoa, corn or buckwheat, which all also contain B vitamins. Noodles are also available in buckwheat or rice.
- **Biscuits** - a wide range of biscuits are available that are made from maize or oats, and can be either sweet or savoury.
- **Breakfast cereals** - a wide selection of cereals are available that do not contain wheat, such as corn-flakes, wheat-free muesli, porridge oats, millet puffs, brown rice puffs, puffed buckwheat, shredded oaty bites and quinoa flakes. These all provide a good source of B vitamins and iron.
- **Batter and breadcrumbs** (made from wheat flour) - use wheat-free bread, polenta or cornflakes to make bread crumbs instead.
- **Sausages** - usually contain wheat rusk but rice rusk is used in some wheat-free alternatives available in supermarkets, butchers shops and meat producers at farmers markets.
- **Japanese, Chinese and Thai dishes** (containing soy sauce) - soy sauce is produced using wheat. At home, try Japanese Tamari soy sauce which is made without wheat.
- **Gravy** - use vegetable stock or wheat-free stock tables and thicken with corn flour. If a brown gravy is preferred, add gravy browning. Wheat/gluten-free instant gravy powders are also available.
- **Sauces** - to make a white sauce use corn flour or another wheat-free flour (e.g. rice, potato or gram flour) to thicken the sauce. To prevent lumps forming, mix the corn flour first with a little cold milk. Heat the remaining milk in a pan and then add a small amount of the hot milk to the cold mix and stir. Add the remaining milk to the pan, cook through and then add the flavouring (e.g. grated cheese or parsley).
- **Baking** - There are many foods that can be used as a substitute to wheat that provide variety to meals and essential nutrients. Ingredients that can be used in many recipes instead of wheat include: Bicarbonate of soda, cream of tartar, tapioca, gelatine or vegegel based desserts, pure spices, cornflour, rice and arrowroot; amaranth; potato flour; barley (flakes or flour); quinoa; buckwheat (flakes or flour); rice grains (flakes or flour); corn (cornflour, maize and polenta); rye; ground nuts (e.g almonds); sago; lentils; pea, bean, gram flours; soy (flakes or flour); millet grains (flakes or flour); tapioca and oats.
- **Wheat-free manufactured products** - wide variety of wheat-free speciality products such as flour, bread, biscuits, cakes and gravy mixes are now available at supermarkets, chemists and on-line. Some cafés or restaurants sell home baked gluten-free cakes - check that they are also wheat-free.

Please note that products labelled gluten-free may not be wheat-free as some are made from wheat starch and these are not suitable for wheat-free diets. **REMEMBER:** Always check the label.

# How To Avoid Gluten

If the test has shown an **ELEVATED** reaction to gliadin (a protein fraction of gluten), it is important to eliminate consumption of foods that contain gluten-based grains, even if the individual grains (wheat, barley and rye) are not **ELEVATED** on your Test Report - the gliadin and gluten-containing grain results should be interpreted together.



Some people with gluten intolerance can tolerate oats, but they are often contaminated with wheat, rye and/or barley, so it is recommended that foods containing oats are also avoided.

FOODS TO AVOID	INGREDIENTS TO AVOID	ALTERNATIVE FOODS
<p>Foods containing wheat: Refer to 'How To Avoid Wheat'</p> <p>Foods containing rye:</p> <ul style="list-style-type: none"> <li>• Crispbreads</li> <li>• Crackers</li> <li>• Pumpernickel bread</li> <li>• Rye bread</li> <li>• Some types of whisky</li> <li>• Some types of beer</li> </ul> <p>Foods containing barley:</p> <ul style="list-style-type: none"> <li>• Barley water</li> <li>• Pot barley</li> <li>• Pearl barley</li> <li>• Some soups and stews</li> <li>• Coffee substitutes</li> <li>• Some types of whisky</li> <li>• Some types of beer</li> </ul>	<p>Gluten may be hidden in many foods and so it is important to always read the ingredients label carefully before purchase.</p> <p>Below are some ingredients that may be listed:</p> <ul style="list-style-type: none"> <li>• Wheat</li> <li>• Rye</li> <li>• Barley</li> <li>• Spelt</li> <li>• Durum wheat</li> <li>• Couscous</li> <li>• Kamut</li> <li>• Malt</li> <li>• Bran</li> <li>• Triticale</li> <li>• Dextrin</li> <li>• Oats</li> </ul>	<p>Alternative ingredients that can be used in gluten-free baking include:</p> <ul style="list-style-type: none"> <li>• Amaranth</li> <li>• Potato flour</li> <li>• Quinoa flour</li> <li>• Buckwheat flour</li> <li>• Rice flour</li> <li>• Corn flour</li> <li>• Ground nuts (e.g. almonds)</li> <li>• Sago flour</li> <li>• Lentil flour</li> <li>• Chickpea/gram flour</li> <li>• Soy flour</li> <li>• Millet flour</li> <li>• Tapioca</li> </ul>

Please refer to 'How To Avoid Wheat' for further information.



# How To Avoid Yeast



If the test has shown an **ELEVATED** reaction to Baker's or Brewer's yeast, it is recommended that any products that contain yeast should be avoided for at least 3 months. It is also advisable to avoid all forms of yeast, such as moulds, fungi, mouldy cheeses and other forms of fungi in their foods and environment.

Note: Bakers and Brewer's Yeast are 2 strains of the same organism and it is highly likely that if you react to one strain, you may also react to the other.

Of all the foods to avoid, yeast is probably the most difficult as it is hidden in so many processed foods. It is vital that you plan ahead before starting a yeast-free diet.

Live yeast is used in food preparation and processing, where it converts sugar into carbon dioxide and alcohol. It is a good source of vitamin B, but this can be also obtained in meat, fish, whole grains, nuts and dark green leafy vegetables. Yeast-free diets need to avoid natural sources of yeast, as well as those added to food, so adopting a low sugar diet may also provide benefits by preventing the growth of yeast cells within the digestive system.

BREWER'S YEAST	BAKERS YEAST
<ul style="list-style-type: none"> <li>• Yeast extract such as Marmite, Vegemite, Bovril, stock cubes and gravies</li> <li>• Arabic bread contains brewers yeast to help it rise.</li> <li>• Fermented food and drink such as beer, wine, cider, spirits, ginger ale, homemade ginger beer, vinegar, soy sauce and dressings</li> <li>• Tempeh, miso and tamari (Japanese/Indonesian seasonings made by fermenting soy beans)</li> <li>• Vinegar containing foods such as pickles, relishes, salad dressings, tomato ketchup, mayonnaise, Worcestershire sauce, horseradish and chilli sauce</li> <li>• Pickled fish, meat and poultry</li> <li>• Citric acid and monosodium glutamate (MSG) may be derived from yeast</li> <li>• Some nutritional supplements - check the ingredients label</li> <li>• Canned fruit, and Fruit juices - only freshly squeezed fruit juices are yeast free</li> </ul>	<ul style="list-style-type: none"> <li>• Breads, pizza bases, pastries (e.g. croissants) and other bread-type cakes raised with yeast</li> <li>• Some flat breads (e.g. pitta breads and naan breads) contain a small amount of yeast which allow them to rise and produce 'pockets' when cooked</li> <li>• Some sourdough and pumpernickel breads use a starter that includes yeast and a lactobacillus culture</li> </ul>





# How To Avoid Yeast

## FOODS WHICH MIGHT AGGRAVATE A YEAST INTOLERANCE

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Baker's yeast, Brewer's yeast.</li> <li>• Mushrooms, mushroom sauce and truffles contain organisms closely related to yeast</li> <li>• Sugar containing foods – choose natural sweeteners such as Stevia or Xylitol in place of sugar</li> <li>• Smoked and dried fish, meat and poultry</li> <li>• Cured pork bacon</li> <li>• Peanuts and peanut products</li> <li>• Pistachios</li> <li>• Ripe foods, especially very ripe cheeses such as Brie and Camembert</li> </ul> | <ul style="list-style-type: none"> <li>• Fermented dairy products such as yoghurt, kefir, lassi</li> <li>• Malted milk, and malted drinks</li> <li>• Textured vegetable protein, Quorn (mycoprotein) and tofu</li> <li>• Hydrolysed protein, hydrolysed vegetable protein or leavening - check the ingredients label</li> <li>• Dried fruits (figs, dates, raisins, apricots, etc)</li> <li>• Over-ripe fruit, any unpeeled fruit</li> <li>• Jams and jellies</li> <li>• Black tea</li> </ul> |
|--|---|

### INGREDIENTS TO AVOID

- Hydrolysed protein
- Hydrolysed vegetable protein
- Leavening

### ALTERNATIVE FOODS

The following foods are yeast-free:

- Pasta, brown rice, brown flours, corn, wild rice, buckwheat, couscous, barley and millet.
- Rice cakes, oat cakes, corn tortillas, tacos and rye-crispbreads (e.g. Ryvita).
- Home-made breads (with baking powder/bicarbonate soda for leavening). Also muffins, biscuits, chapatis and Irish soda bread.
- Flatbreads that do not contain yeast (e.g. matzos and flour tortillas).
- Pancakes and crepes use baking soda or baking powder instead of yeast.
- Fresh, frozen or tinned vegetables and vegetable juice.
- Particularly good are onions, garlic, green leafy vegetables (e.g. cabbage, broccoli and kale), Brussels sprouts, spring greens, mange-tout, etc).
- Salad vegetables such as salad leaves, herbs, rocket, spinach, peppers, alfalfa sprouts, avocado, etc.
- Peas, beans and lentils.
- Free range/organic poultry, lamb, pork, beef and veal.
- Fish especially mackerel, sardines, cod, salmon, herring, tuna and trout.
- Shellfish
- Free-range eggs, soya milk, cottage cheese and plain organic live yoghurt (the lactobacilli content will help to re-balance the gut flora).
- Non-citrus fruits such as blackcurrants, strawberries and tropical fruits (e.g. pineapple, papaya, mango, kiwi and banana)

## If you test positive to foods **you don't know**

Sometimes we consume foods without knowing we are doing so, and a food intolerance test can throw up a positive reaction to some food ingredients which might surprise us.

For example, cosmetics, particularly lipsticks often contain animal fats and proteins, and can sometimes be the cause of a positive reaction to a specific animal protein.

If we eat a lot of processed foods we can also consume foods unknowingly. Commercially produced breads, cakes, biscuits, desserts, ready meals, sweets and candies can contain food proteins without them having to be labeled on the packaging as they make up less than 1% of the total ingredients, however some of us are extremely sensitive to these things.

The following foods are examples of some foods/ingredients which can cause positive reactions but which might not be easily recognizable. The simplest way of avoiding these food ingredients is to eat homemade meals so you are aware of and in control of what ingredients you are consuming.

### **COLA NUT**

Cola Nut is widely used in food manufacturing as a flavour enhancer in baked goods such as cakes, pastries, biscuits and desserts. As it is only used in small amounts its presence is unlikely to be found on the label.

### **AGAR AGAR, ALGA WAKAME AND ALGA ESPAGUETTE**

Agar Agar is an algae which is often used in commercially prepared jellies, sweets such as marshmallows, Halva, Turkish Delight (Lakhoum), as well as other desserts and candies as it acts like gelatine and is used to “set” the food.

Alga Wakame and Alga Espaguettes are also used extensively in commercially prepared desserts and sauces, such as mayonnaise to act as an emulsifying agent.

### **MALT**

Malt is used in commercially baked goods such as breads, cakes, pastries and biscuits. It is also found in some drink beverages such as Barbican, Ovaltine and commercially prepared hot chocolate drinks.

### **TIGER NUT**

Tiger nut oil is often used in cosmetics, sweets, biscuits, jam and as a flavouring agent in ice cream. Tiger nut flour is also used in commercially prepared baked goods.

## If you test positive to **lots of foods**

Testing positive to a large number of foods could indicate increased intestinal permeability or “leaky gut”, where the gut wall becomes damaged and more permeable and allows large food particles to move into the circulation where it provokes an immune response.

The following dietary recommendations will help to improve “leaky gut”, reduce inflammation and allow the gut to heal.

EAT	AVOID
<ul style="list-style-type: none"> <li>• Eat a diet rich in nutrients such as Vitamins A, C, E and zinc such as the Mediterranean style diet which includes fish, fruit, vegetables, nuts, seeds and olive oil.</li> <li>• Choose butter not vegetable spread.</li> <li>• Drink a cup of homemade bone broth daily.</li> <li>• Choose foods high in Omega 3 fats such as salmon, sardines, walnuts, flaxseed and pecans.</li> <li>• Take a quality probiotic supplement or eat probiotic foods such as pickles, sauerkraut, miso soup and kimchi.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Eliminate top 5 foods you have tested to as these have caused the biggest immune response.</b></li> <li>• Foods high in saturated fat and sugar.</li> <li>• Processed foods and fastfood.</li> </ul>

# Frequently Asked Questions

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**Q Is it possible to be affected by foods that are not detected by the test?**  
 Some foods may cause a classic allergic reaction involving the production of IgE antibodies (Type I allergy). These will not be detected by the test as it detects IgG antibodies. There are also many foods that can cause a reaction in the body without involving the immune system, but produce symptoms similar to IgG reactions: amines found in chocolate, cheese and red wine may cause migraines; some food additives such as tartrazine, can trigger hives, rashes and asthma; monosodium glutamate (MSG) found in restaurant/take-away food can produce sweating and dizziness; 'Nightshade' alkaloids in potatoes, tomatoes and peppers may affect the joints. Food intolerance may also be due to a deficiency of a particular enzyme, such as in lactose intolerance. Avoid foods if you suspect they are causing adverse affects.

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**Q I have been avoiding a food for several months/years. Will this affect my test results?**  
 The IgG antibody test is based on the immune system's ability to produce anti- bodies in response to certain foods. If a food has been avoided for more than 3 months, it is likely that IgG antibody levels will be insufficient to be detected by the test and may give a NORMAL result. To test intolerance to a certain food, it should be included in the daily diet, or at least every other day, for 4-6 weeks before testing. However, if the food concerned is known to cause extreme symptoms/discomfort, do not reintroduce it.

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**Q What does U/ml mean?**  
 U/ml stands for 'Units per millilitre' and is a measure of concentration. The result for each food listed in the Test Report is expressed in U/ml, which shows the concentration of food IgG antibodies detected in the blood sample provided.

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**Q Do I need to visit a nutritionist to discuss the test results?**  
 Once you have received the test results, it is advisable to consult a qualified nutritionist or dietitian who can help advise or support on dietary changes .

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**Q If cow's milk is ELEVATED, does this mean that I am lactose intolerant?**  
 No. Lactose intolerance is the inability to digest lactose, the major sugar found in milk, and is caused by a deficiency of the enzyme lactase. The test detects IgG-mediated food intolerance caused by the specific proteins found in milk, but does not detect the lactase enzyme and, therefore, cannot diagnose lactose intolerance.

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**Q Is the test suitable for testing children?**  
 Yes, but we recommend a minimum age limit of 2 years.

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# Frequently Asked Questions

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**Q** Is gluten-free the same as wheat-free?  
No. A product can be wheat-free but not gluten-free and vice versa. Products are available that are both gluten-free and wheat-free, but it is important to read the ingredients label to be certain. The IgG antibody test uses wheat, barley and rye food extracts that do not contain gluten and this is tested separately as gliadin (a storage protein found in gluten-based grains).

If your Test Report shows an **ELEVATED** reaction to gliadin, it is important to eliminate any foods that contain gluten-based grains and substitute with naturally gluten-free foods, such as quinoa, buckwheat, corn, oats and wild rice. If your Test Report shows an **ELEVATED** result for wheat, rye or barley, but NOT for gliadin, the reaction may be due to one of the other proteins found in the grains.

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**Q** Why is gliadin tested separately to gluten?  
The test uses water-soluble food extracts to detect food-specific IgG antibodies. Grain extracts, however, do not contain gliadin (gluten) because gliadin is only soluble in alcohol and cannot be extracted with the rest of the grain. For this reason, gliadin is tested separately.

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**Q** Do I need to be cautious when removing a food group from my diet?  
Yes, you should be careful when introducing a new dietary regime. We offer follow-up dietary advice from qualified nutritionists to anyone who has taken the test.

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**Q** Do I need to have a re-test after a few months?  
Most people do not need to have a re-test, but if you would like to take another test, we advise a period of 6 months between tests. If symptoms have improved and you have successfully reintroduced 'problem' foods, a re-test is unnecessary.

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**Q** Why do I react against a food that I have never eaten?  
It is occasionally observed that patients react to foods that they are convinced they have never eaten. Although not unusual, it is not attributable to a false positive result, but instead a 'cross-reaction' with another food. Some foods contain identical antigens (food proteins), even though they are not related to each other and/or do not belong to the same food group. These identical food proteins will be detected by the same antibody, thus producing an **ELEVATED** result. Please contact for further information regarding cross-reactions.

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**Q** What if I don't experience any improvement at all?  
If, after changing your diet according to the test results, improvements have not been achieved after 3 months, food intolerance is unlikely to be the cause of your symptoms and other investigations should be undertaken. Results of the IgG antibody test are intended as a guide to diet alteration only and should be complementary to advice from a healthcare professional.