

TAKE THE GUESSWORK  
OUT OF YOUR DIET

# Patient Guidebook



**RMA FST**<sup>TM</sup>  
IgG FOOD SENSITIVITY TEST



Rocky Mountain Analytical®





# Guidebook Contents

The Guidebook helps you to interpret the results obtained from your RMA food sensitivity test (**RMA FST™**) and how to plan for a change of diet. This information is intended to help identify which foods should be eliminated, reduced or rotated and provide ideas for alternative/substitute foods. Understanding how to re-introduce foods once symptoms have subsided helps you adopt a varied and balanced diet, which is essential to maintain good health. Ideas contained in the Guidebook also assist with developing an achievable, sustainable and enjoyable dietary regimen.

NOTE: The information in this guidebook is for educational purposes only. It is not meant as medical advice and any treatment decisions should be made with the knowledge or consent of your healthcare professional.

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# Understanding Food Sensitivity

## TERMINOLOGY

The terms *food allergy*, *food intolerance*, and *food sensitivity* all refer to abnormal reactions to foods, and the terms are often used interchangeably. However, food reactions fall into one of two categories: those that involve activation of the immune system (IgE or IgG antibodies produced) or; non-immune mediated reactions such as lactose intolerance.

## IMMUNE-MEDIATED REACTIONS

Reactions that trigger an immune response are often called *allergies* and occur when the body over-reacts to foods. This over-reaction, or hypersensitivity, triggers the immune system to produce antibodies to attack the 'foreign' food proteins which the immune system recognizes as a threat.

Hypersensitivities 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 hypersensitivities that are most often associated with adverse reactions to food are:

### Type I Hypersensitivity

IgE-mediated allergy / food allergy / immediate hypersensitivity

These reactions are characterized 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 classic IgE allergies include: rashes, sneezing, difficulty breathing and anaphylactic shock. It is often readily apparent which foods are responsible for a food allergy, and these foods must be avoided for life.

### Type III Hypersensitivity

IgG-mediated allergy / food sensitivity / delayed hypersensitivity

These reactions are characterized by the production of IgG antibodies and the gradual formation of antigen-antibody complexes which deposit in tissues and can lead to chronic inflammation. They are responsible for the 'delayed-onset' of symptoms, which can occur several hours or days after foods are ingested. Symptoms may include: irritable bowel syndrome (IBS), headaches/migraines, fatigue, high blood pressure, eczema, asthma, joint pain, runny nose, arthritis, weight problems and fibromyalgia. It is often possible to eliminate reactive food(s) from the diet for several months and gradually re-introduce when symptoms have improved.

## INTOLERANCE OR SENSITIVITY?

IgG food reactions are sometimes referred to as food intolerances. However, because IgG food reactions are immune-mediated Type III hypersensitivity reactions, the term *food sensitivity* is generally considered more applicable. Consequently, the term food sensitivity is used to refer to IgG reactions to foods throughout this Guidebook.

# Understanding Food Intolerance

## NON IMMUNE-MEDIATED REACTIONS

Reactions that do not produce an immune response are typically referred to as food intolerances, (although this term is occasionally used to describe IgG food reactions). Food intolerance is usually caused by reactions to chemicals or additives found in food, or more commonly due to enzyme deficiencies:

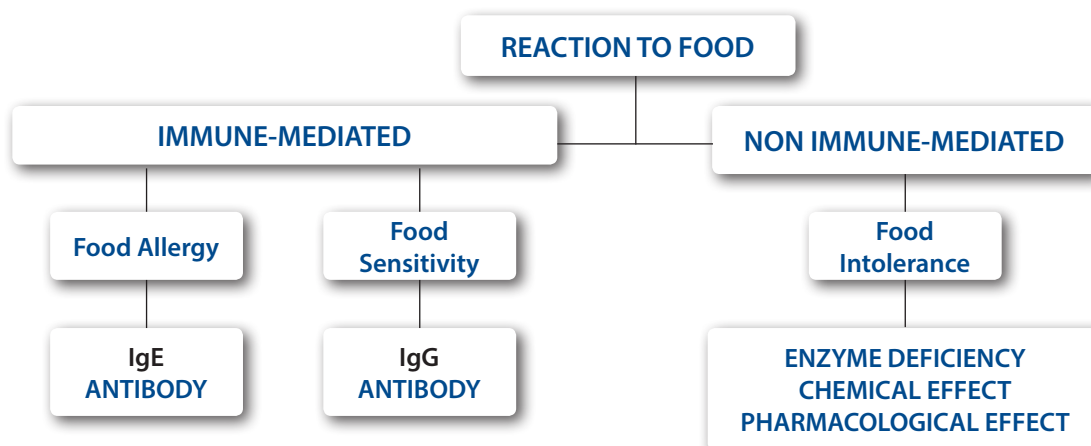
### Enzyme Insufficiency/Deficiency

#### 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, yogurts, etc).
- Symptoms include: bloating, diarrhea and flatulence.

#### Histamine Intolerance

- Caused by elevated histamine levels 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 may include: migraines, dizziness, bowel/stomach problems, runny nose, or irritation and reddening of the skin.



# Interpreting Your Test Results

## TEST REPORT

The **RMA FST™** test report lists the foods your blood sample has been tested for. The number of foods reported depends on which **RMA FST™** panel was selected. Every **RMA FST™** reports results in two different formats:

1. Food Group format - foods listed alphabetically within their respective food group.
2. Order of Reactivity format - foods listed according to strength of antibody reaction.

## ANTIBODY LEVELS

A numerical value is displayed in a coloured box adjacent to each food and represents the concentration of IgG antibodies detected (in U/ml) for each food. The higher the value assigned, the stronger your body's immune response to that particular food. Depending upon the antibody level detected, foods are categorized as: **ELEVATED**, **BORDERLINE** or **NORMAL**. Colour-coding of these categories allows reactive 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 reactive foods, which should be eliminated from your diet for at least 3 months.</p> <p>Substitute with <b>NORMAL</b> (green) foods from the same food group. Please refer to 'Test Report: Food Groups'.</p>	<p>These are moderately reactive foods, which should be reduced and rotated for at least 3 months to avoid increased sensitivities.</p> <p>Substitute with <b>NORMAL</b> (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 <u>allergy</u> to a 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 **RMA FST™** test has identified **ELEVATED** or **BORDERLINE** IgG antibody levels, this may indicate a sensitivity 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.



# Important Points

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- If the **RMA FST™** IgG food sensitivity test did not identify any **ELEVATED** foods, but you are experiencing symptoms associated with food sensitivity, your healthcare professional may recommend you avoid **BORDERLINE** foods for 3 months or more.
- It can be difficult to eliminate multiple **ELEVATED** foods at the same time. You may find it easier to:
  - a) Completely avoid the top 4 or 5 foods showing the highest antibody concentrations.
  - b) Reduce and/or rotate the remaining foods showing moderate antibody concentrations.Please refer to 'Test Report: Order of Reactivity' for antibody concentrations.
- It is normal to feel worse for a few days after eliminating specific foods and changing your diet. Your body needs time to overcome the withdrawal symptoms it is experiencing, so be prepared to persevere. Improvements may only become apparent after a few weeks.
- To rotate foods, eat them no more than once every 4 to 5 days. For example, to rotate wheat, eat wheat bread on day 1; oat cakes on day 2; corn cakes on day 3; rye crispbread on day 4 and durum wheat pasta on day 5, etc.
- If **ELEVATED** foods are to be eliminated from the diet (e.g. milk), it is essential that nutrients found in this food group (e.g. calcium) should be sourced from other foods.
- Do not eliminate foods and then substitute them solely with other foods from the same food group, as this may result in other food sensitivities. For example, if wheat is regularly consumed for breakfast (e.g. toast) and then eliminated from the diet, do not replace wheat with oatmeal porridge every day. It is advisable to eat and rotate a wide variety of foods from the same food group.
- Many people experience the greatest improvement when they completely eliminate highly reactive foods. However, if you choose not to eliminate, or inadvertently consume a highly reactive food, resume your food plan as soon as it is convenient.
- If a food has not been consumed within the last 3 months, the **RMA FST™** is more likely to report a **NORMAL** reaction because lack of exposure keeps IgG antibody levels low for that food.
- If symptoms have not improved after 2 to 3 months despite eliminating the **ELEVATED** foods identified in the **RMA FST™** test, this could indicate that IgG-mediated food sensitivity is not the cause of your symptoms. Your healthcare professional can help determine what your next steps should be.
- Gliadin is a protein fraction of gluten and is found in the grains of wheat, barley, and rye. Gliadin is tested separately to these grains to help identify the potential source of reactivity. If your test shows an **ELEVATED** response to gliadin, it is advisable to avoid any foods containing wheat, barley or rye, even if these grains are listed as **NORMAL** in your Test Report.



# Planning Your Diet

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## BEFORE MAKING ANY CHANGES

Nutrition and health go hand-in-hand and there are some simple rules that should be followed before changing your diet:

- If you have a medical condition, are pregnant or on medication, you must discuss any dietary changes with your healthcare professional.
- Be aware of the range of foods that can be eaten. Although some foods may have been identified as having high IgG antibody levels, there will be many foods in the same food group that can be eaten freely without causing any adverse symptoms. Rather than focusing on the foods that cannot be eaten, it is more positive to focus on all the delicious foods in the **NORMAL** range that can be consumed.
- Investigate which products contain foods that you are reactive to. Many ready-made meals and sauces contain ingredients that are not obviously associated with those products, so it is important to always check the labels before purchase.
- Vary foods as much as possible. Choose a variety of different coloured fruit and vegetables daily; include different proteins such as scrambled egg for breakfast, tuna salad for lunch and chicken for the evening meal. Eating a variety of foods increases the range of important vitamins and minerals in your diet and decreases the risk of developing a sensitivity to any single food.

## PLANNING AHEAD

It is advisable to take a day or two to prepare yourself before starting a new diet. This Guidebook provides you with much of the information you need to benefit from your **RMA FST™** test. We recommend that you plan daily menus well in advance, incorporating as many **NORMAL** foods as possible. By collecting recipe ideas and shopping ahead of time, you are less likely to struggle with adopting and maintaining a new diet.

## ELIMINATING OR ROTATING FOODS

Any foods listed as **ELEVATED** or **BORDERLINE** should ideally be eliminated or rotated for at least 3 months. Most foods are relatively straightforward to eliminate from the diet and can be replaced with **NORMAL** foods from the same food group. These can be found in 'Test Report: Food Groups'.

However, foods such as wheat, gluten, dairy, eggs, soy and yeast are more difficult to eliminate from the diet completely, as they are widely used in everyday foods. To help you plan your diet more effectively, further information for each of these foods is provided in this Guidebook, pages 8 to 14.





# Monitoring Your Symptoms



## FOOD/SYMPTOM DIARY

It is often useful to keep a food/symptom diary to monitor your progress. Record the foods that are consumed before any dietary changes are made and then continue as new foods are introduced. Record how you feel and note any changes in symptoms (i.e. better or worse), as this will help to identify any patterns emerging with respect to certain foods.

## RE-INTRODUCING FOODS

If, after at least 3 months, symptoms have subsided and your healthcare professional has recommended you do so, you may gradually re-introduce **ELEVATED** foods to your diet. Introduce one food at a time and monitor your symptoms over a 5 day period. If symptoms return, this food may still be a problem and should be avoided for another month or two. If symptoms do not return, this food can be included in your diet, but should only be eaten occasionally. You can then introduce another reactive food, monitor symptoms for 5 days, and so on.

## HINTS AND TIPS

- Be patient when introducing foods back into your diet.
- Do not over-indulge! By enjoying your favourite foods occasionally, you may prevent sensitivities from re-occurring.
- Initially re-introduce reactive foods with lower antibody levels - refer to "Test Report: Order of Reactivity".
- Wait 5 days to observe whether symptoms develop before introducing the next food.
- Continue to introduce increasingly reactive foods, one at a time, leaving 5 days between each new food.

## AVOIDING NEW FOOD SENSITIVITIES

After reactive foods are eliminated from the diet and additional foods are introduced, it is possible that sensitivities to these additional new foods may develop. This usually occurs when a reactive food is swapped almost exclusively for a different food. For example, if wheat has been regularly consumed for breakfast (e.g. toast) and is then eliminated from the diet, breakfasts should be varied going forward. For example: alternate porridge with fruit salad and yogurt or poached eggs on rye bread.

In summary, to prevent new food sensitivities from developing:

- Avoid eating any one food too regularly.
- Consume previously reactive foods only once every few days.
- Include a wide variety of foods in the diet to ensure that a range of important vitamins and minerals are consumed.
- Occasionally, a reactive food may need to be omitted from the diet indefinitely. Your healthcare professional can advise you on whether a particular food ought to be taken out of your diet permanently.

# How To Avoid Dairy



If the **RMA FST™** shows an **ELEVATED** reaction to milk, your healthcare professional may recommend you eliminate all milk and milk products from your diet.

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>• Yogurt, cream cheese</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 potatoes</li> <li>• Ready meals</li> <li>• Processed meats, sausages</li> <li>• Chocolate, candy</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, ghee</li> <li>• Casein, caseinate</li> <li>• Cream, light cream</li> <li>• Demineralized 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, soy 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, goat and buffalo milk contain similar proteins to cow's milk, and can cause similar reactions, therefore these milks should be consumed cautiously.</p> <p>Butter – dairy-free and vegan spreads, nut spreads, tahini, avocado oil, cold pressed olive oil or coconut oil</p> <p>Cheese - hard and soft varieties of soy cheese; rice slices</p> <p>Yogurts – soy</p> <p>Ice-creams – soy, coconut or rice. Sorbet</p> <p>Cream – soy, cashew or almond</p> <p>Cream cheese – 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 soy, cod liver oil, vegetable oil, sardines, 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 steam or boil vegetables in a little water, which can be then be used in soups, gravy and sauces.

# How To Avoid Eggs

If the **RMA FST™** test shows an **ELEVATED** reaction to egg white and/or egg yolk, your healthcare professional may recommend you eliminate eggs and products containing egg proteins from your diet.

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, meringues, ice-cream, custard</li> <li>• Pancakes, crepes, cheesecakes, pavlova, crème caramel, puddings</li> <li>• Pasta, noodles</li> <li>• Chinese rice and soups, some sushi</li> <li>• Battered or breadcrumb-coated foods</li> <li>• Mayonnaise, tartar sauce, horseradish sauce, lemon curd, salad dressings</li> <li>• 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. potato chips, rice cakes, corn thins and rye crispbreads)</li> <li>• Fresh fruit, stewed fruit or fruit crumble</li> <li>• Sorbet or soy ice-cream</li> <li>• Home-made cakes (using egg replacer, apple sauce, banana, silken tofu, buttermilk or yogurt)</li> </ul>



# How To Avoid Wheat



If the **RMA FST™** test shows an **ELEVATED** reaction to wheat, your healthcare professional may recommend that you eliminate all wheat and wheat products from your diet for at least 3 months.

Wheat is an important source of fibre, 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.

FOODS TO AVOID	INGREDIENTS TO AVOID
<p>Wheat can be found in many foods:</p> <ul style="list-style-type: none"> <li>• Breads, rolls, crackers, scones, pancakes, wafers, cakes, biscuits, chapatis, naan breads</li> <li>• Breakfast cereals</li> <li>• Pizza, pasta, pies and pastries</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, meat or fish coated in breadcrumbs, corned beef, pâté and spreads, potato chips, commercial sauces, salad dressings, ham, gravy, stock cubes, herbs, spices, baking powder, canned foods (including beans), and spaghetti.</p>	<p>Wheat is hidden in many foods, so it is important to 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>• Binder or brown flour</li> <li>• Breadcrumbs</li> <li>• Bulgar wheat, triticale, kamut, spelt, or cracked wheat</li> <li>• Couscous, wheat bran, durum wheat or semolina</li> <li>• Gum base</li> <li>• Hydrolyzed wheat protein or wheat gluten</li> <li>• 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, other food products can provide equivalent vitamins and minerals. Eliminating wheat may be challenging, but 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 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 cornflakes, wheat-free muesli, porridge oats, millet puffs, brown rice puffs, puffed buckwheat, 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 or corn flakes to make bread crumbs instead.
- Sausages – usually contain wheat. Some gluten-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 tablets and thicken with corn starch. 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 starch or another wheat-free flour (e.g. rice, potato or chickpea flour) to thicken the sauce. To prevent lumps forming, mix the corn starch 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, gelatin based desserts, pure spices, rice and arrowroot; amaranth; potato flour; barley (flakes or flour); quinoa; buckwheat (flakes or flour); rice grains (flakes or flour); corn (corn starch, polenta); rye; ground nuts (e.g. almonds); teff; sorghum; lentils; pea, bean, chickpea flours; soy (flakes or flour); millet grains (flakes or flour); tapioca and oats.
- Wheat-free manufactured products – a wide variety of wheat-free speciality products such as flour, bread, biscuits, cakes and gravy mixes are now available at supermarkets 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 **RMA FST™** test shows an **ELEVATED** reaction to gliadin (a protein fraction of gluten), it is important to eliminate gluten-based grains from your diet, even if the individual grains (wheat, barley and rye) are not **ELEVATED** on your Test Report. The gliadin and gluten-containing grain results need to be interpreted together.



Some people with gluten sensitivity can tolerate oats, but because oats are often contaminated with wheat, rye and/or barley, avoidance of oats is also often recommended.

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>• Arrowroot</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>• Lentil flour</li> <li>• Chickpea 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 **RMA FST™** test shows an **ELEVATED** reaction to Baker's or Brewer's yeast, your healthcare professional may recommend you eliminate all yeast and yeast-containing products from your diet. This may include related foods such as mushrooms, moldy cheeses (e.g. blue cheese) and other forms of fungi in foods and in the environment.

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

Of all the foods to avoid, yeast is one of the most difficult as it is hidden in so many processed foods. It is important to 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 B vitamins, which 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.

## FOODS TO AVOID

- Baker's yeast, Brewer's yeast.
- Breads, pizza bases, pastries (e.g. croissants) and other bread-type cakes raised with yeast.
- Some flat breads (e.g. pita and naan breads) contain a small amount of yeast which allow them to rise and produce 'pockets' when cooked.
- Some sourdough and pumpernickel breads use a starter that includes yeast and a lactobacillus culture.
- Yeast extract such as Marmite®, Vegemite®, Bovril®, stock cubes and gravies.
- Fermented food and drink such as beer, wine, cider, spirits, ginger ale, vinegar, soy sauce and dressings.
- Tempeh, miso and tamari (Japanese/Indonesian seasonings made by fermenting soy beans).
- Vinegar containing foods such as pickles, relishes, salad dressings, tomato ketchup, mayonnaise, Worcestershire sauce, horseradish and chili sauce.
- Mushrooms, mushroom sauce and truffles contain organisms closely related to yeast.
- Pickled, smoked and dried fish, meat and poultry.
- Cured pork bacon.
- Peanuts and peanut products.
- Pistachios.
- Ripe foods, especially very ripe cheeses such as Brie and Camembert.
- Malted milk, malted drinks and home-made ginger beer.
- Textured vegetable protein, Quorn™ (mycoprotein) and tofu.
- Dried fruits (figs, dates, raisins, apricots, etc).
- Over-ripe fruit, any unpeeled fruit.
- Fruit juices – only freshly squeezed are yeast-free.
- Hydrolyzed protein, hydrolyzed vegetable protein or leavening - check the ingredients label.
- Citric acid and monosodium glutamate (MSG) may be derived from yeast.
- Some nutritional supplements – check the ingredients label.

# How To Avoid Yeast

INGREDIENTS TO AVOID	ALTERNATIVE FOODS
<ul style="list-style-type: none"> <li>Hydrolyzed protein</li> <li>Hydrolyzed vegetable protein</li> <li>Leavening</li> <li>Nutritional yeast</li> </ul>	<p>The following foods are yeast-free:</p> <ul style="list-style-type: none"> <li>Pasta, brown rice, brown flours, corn, wild rice, buckwheat, couscous, barley and millet.</li> <li>Rice cakes, oat cakes, corn tortillas, tacos and rye-crispbreads (e.g. Ryvita®).</li> <li>Home-made breads (with baking powder/bicarbonate soda for leavening). Also muffins, biscuits, chapatis and Irish soda bread.</li> <li>Flatbreads that do not contain yeast (e.g. matzos and flour tortillas).</li> <li>Pancakes and crepes use baking soda or baking powder instead of yeast.</li> <li>Fresh, frozen or canned vegetables and vegetable juice. Particularly good are onions, garlic, green leafy vegetables (e.g. cabbage, broccoli and kale), Brussels sprouts, spring greens, etc).</li> <li>Salad vegetables such as salad leaves, herbs, arugula, spinach, peppers, alfalfa sprouts, avocado, etc.</li> <li>Peas, beans and lentils.</li> <li>Free range/organic poultry, lamb, pork, beef and veal.</li> <li>Fish: especially mackerel, sardines, cod, salmon, herring, tuna and trout.</li> <li>Shellfish</li> <li>Free-range eggs, soy milk, cottage cheese and plain organic live yogurt (the lactobacilli content can help re-balance the gut flora).</li> <li>Non-citrus fruits such as blackcurrants, strawberries and tropical fruits (e.g. pineapple, papaya, mango, kiwi and banana).</li> </ul>



# Frequently Asked Questions

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**Q Is it possible to be affected by foods that are not detected by the RMA FST™?**

Foods that cause a classic IgE allergic reaction (Type I allergy) will not be detected by the **RMA FST™** as it only measures IgG antibodies. Many foods can cause reactions that do not involve the immune system, but cause allergy or sensitivity-like symptoms. For example: 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) can trigger sweating and dizziness; the 'nightshade' alkaloids found in potatoes, tomatoes and peppers may affect the joints. If you experience digestive symptoms like cramping, bloating, excess gas and irritable bowel, poor absorption of small carbohydrates known as FODMAPs may be a contributing factor. Symptoms may also be due to a food intolerance, such as a deficiency of a particular enzyme: as in lactase deficiency causing lactose intolerance. Avoid foods if you suspect they are causing adverse effects. Your healthcare professional can help determine whether non-immune mediated reactions are contributing to your symptoms.

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**Q I have been avoiding a food for several months/years. Will this affect my test results?**

The **RMA FST™** test measures levels of IgG antibodies produced in response to certain foods. If a food has been avoided for more than 3 months, IgG antibody levels could be insufficient to be detected by the test and may give a **NORMAL** result. To test sensitivity to a certain food, it should be included in the daily diet, or at least every other day, for 4 to 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 Who should I discuss my test results with?**

Once you have received your **RMA FST™** test results, the healthcare professional who requisitioned your test can assist you in making decisions regarding diet and supplements. Your healthcare professional may also offer support and encouragement with regular progress checks, as persevering with a new diet on your own can be challenging.

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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 **RMA FST™** test detects IgG-mediated food sensitivities 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 RMA FST™ suitable for testing children?**

Yes, but we recommend a minimum age limit of 2 years. Your healthcare professional may choose to test children under two years if he or she deems it clinically necessary.

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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 **RMA FST™** test uses wheat, barley and rye food extracts that do not contain gluten, and we test gliadin (a storage protein found in gluten-based grains) separately.

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 from the gluten-containing grains?

The **RMA FST™** 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, removing an entire food group from the diet can be detrimental to your health. It is important to include a variety of foods in the diet to ensure that important vitamins and minerals are consumed. Discuss any planned dietary changes with your healthcare professional prior to implementing.

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## Q Will I need to 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 waiting at least 6 months between tests. If symptoms have improved and you have successfully re-introduced highly reactive foods, a re-test is generally unnecessary.

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## Q Why do I react against a food that I have never eaten?

Patients occasionally react to foods that they are convinced they have never eaten. Although not unusual, it is not 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 Rocky Mountain Analytical 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 sensitivity is unlikely to be the cause of your symptoms and other investigations should be undertaken. Results of the **RMA FST™** are intended as a guide to diet alteration only and should always be used in conjunction with advice from a healthcare professional.







# RMA FST™

IgG FOOD SENSITIVITY TEST



**Rocky Mountain Analytical®**  
*Changing lives, one test at a time*

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