

Martina Muster

date of birth: 03.03.1973 / age: 50 / sex: f / sample id: 111111

## Individual laboratory result

### ImuPro Basic

	Rating	Number of foodstuffs
Specific IgG antibodies	■ Not elevated	72
	■ Elevated	10
	■ Highly elevated	8
Total	18 out of 90 tested allergens	

#### Important:

ImuPro is only testing for elevated IgG antibodies towards foods. If you have an existing type I food allergy (IgE mediated) previously diagnosed either by a positive IgE test or by a skin prick test or if you have any other known food related issues, please do not start eating this particular food even if your ImuPro result does not show a reaction to it. IgE-mediated food allergies can cause severe reactions such as anaphylactic shock, rashes, vomiting, itching etc. **ImuPro identifies raised levels of IgG antibodies to foods and provides advice based on these findings. Based on the ImuPro result, we do not make any statements on IgE related allergies.**

#### Laboratory:

CTL & Ortholabor GmbH  
Anemonenweg 3a  
26160 Bad Zwischenahn  
Germany

#### Sender:

Herr Ralf Mustermann

sample type	serum
sample id	111111
examination method	Enzyme-linked immunosorbent assay (ELISA)
date of report	27.01.2023
report authorized by	Uwe David, Allergologe

The information in your documents do not replace the medical advice of a trained health professional. The results obtained must always be interpreted in combination with the complete clinical picture. **Dietary changes must be made in consultation with a health professional, a relevant dietician or nutritional expert.** Please immediately consult your practitioner in case of any health-related concerns.

The specific IgG concentrations determined by this test offer the basis for an elimination and provocation diet. We do not claim that the determined IgG concentrations reflect the occurrence or the severity of serious clinical symptoms.

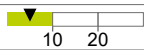
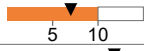
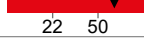
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date of birth: 03.03.1973 / age: 50 / sex: f / sample id: 111111

## How to read your report

### Notes on the individual laboratory results

List 1 shows the measurement results of the tested foods. The value in the  $\mu\text{g/ml}$  column shows the measured concentration of IgG antibodies. The bar graph reports your concentration of IgG in three classes. Your personal measured value is represented by the black indicator above the coloured bar.

	$\mu\text{g/ml}$ IgG	Rating
Food 1	5	
Food 2	7	
Food 3	77	

The two numbers below the bar graph are the threshold values between the three reaction classes. The first number describes the analytical cut-off, i.e. the concentration above which we speak of "elevated" IgG antibodies. The second number is the threshold value above which the reaction class is referred as "strongly elevated".


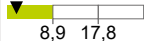

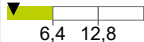



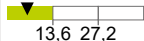


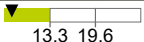
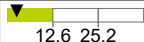
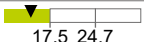
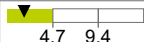
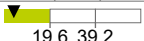
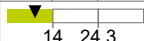
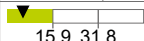
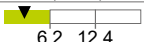
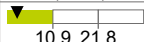
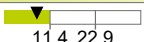
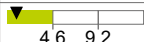
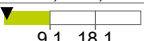
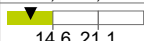
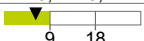
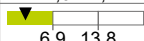
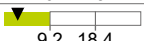
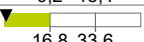
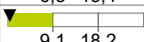
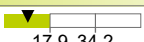
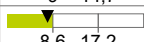
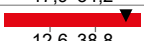

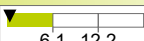
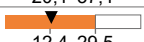
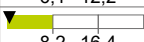
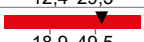
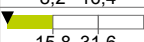
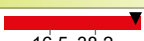
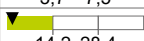
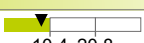
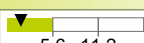
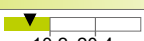
The **green** area: There are no elevated IgG antibodies.

The **orange** area: IgG antibodies were measured in the "elevated" reaction class.

The **red** area: IgG antibodies were measured in the "strongly elevated" reaction class.

## List 1 - Individual laboratory result

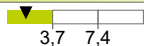

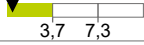

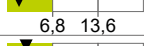

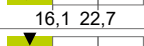
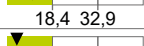
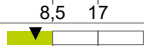
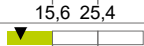
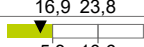
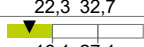
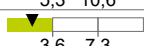
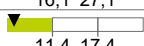

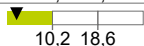

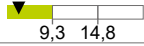
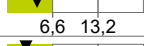
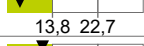
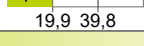
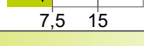



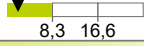
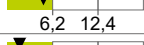
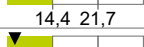
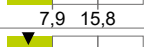
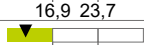
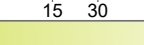
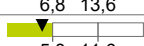
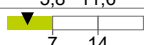
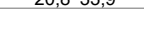
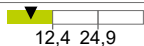
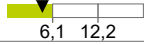
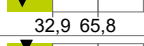
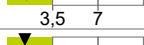
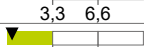
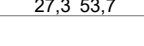

### ImuPro Basic

	µg/ml IgG	Rating	Additional exclusions		µg/ml IgG	Rating	Additional exclusions
<b>Cereals containing gluten</b>				<b>Vegetables</b>			
Barley*	2,7			Aubergine	< 2,5		
Gluten	140,0			Beetroot	< 2,5		
Rye	31,5			Broccoli	7,4		
Spelt	62,4			Carrots	5,9		
Wheat	38,0			Celeriac, knob celery	3,0		
<b>Cereals w/o gluten and alternatives</b>				<b>Chili Cayenne</b>			
Buckwheat	< 2,5			Courgette	2,5		
Maize, sweet corn	10,0			Cucumber	< 2,5		
Millet	3,9			Green bean	8,4		
Oats	4,7			Green pea	5,4		
Rice	2,7			Kohlrabi	< 2,5		
<b>Meat</b>				<b>Leek</b>			
Beef	8,0			Olive	< 2,5		
Chicken	< 2,5			Onion	7,4		
Lamb	6,1			Potato	2,7		
Pork	2,6			Red cabbage	3,4		
Turkey	< 2,5			Soy bean	< 2,5		
<b>Milk products</b>				<b>Sweet pepper</b>			
Goat: milk / cheese	9,1			Tomato	7,5		
Milk (cow)	77,9			<b>Fish and seafood</b>			
Rennet cheese (cow)	30,5			Crayfish	< 2,5		
Sheep: milk / cheese	12,8			Ocean perch	< 2,5		
Sour-milk prod. (cow)	59,6			Pollock	< 2,5		
<b>Eggs</b>				<b>Salmon</b>			
Chicken egg	88,9			Tunafish	< 2,5		
<b>Yeast</b>				<b>Salads</b>			
Yeast	8,4			Butterhead lettuce	< 2,5		
<b>Mushrooms</b>				<b>Lamb's lettuce</b>			
Meadow mushrooms	5,6						

\* This type of cereal normally contains gluten. As the measured value for gluten exceeds the limit, the grain is excluded from the list of permitted foods. It may only be consumed in the form of "certified gluten-free" products. For technical reasons, the IgG antibodies against gluten and other species-specific grain antigens must be measured separately.

## List 1 - Individual laboratory result

### ImuPro Basic

	µg/ml IgG	Rating	Additional exclusions		µg/ml IgG	Rating	Additional exclusions
<b>Fruits</b>				<b>Seeds and nuts</b>			
Apple	< 2,5			Almond	26,7		
Apricot	< 2,5			Cashew kernels	15,1		
Banana	< 2,5			Cocoa bean	10,4		
Cherry	6,7			Hazelnut	10,3		
Grape / Raisin	4,2			Linseed	3,3		
Kiwi	10,5			Peanut	6,6		
Lemon	3,8			Pistachio	7,9		
Nectarine	< 2,5			Poppy seeds	< 2,5		
Orange	12,4			Pumpkin seeds	< 2,5		
Pineapple	27,9			Sesame	< 2,5		
Strawberry	4,3			Sunflower seed	3,9		
Watermelon	8,2			Walnut	5,8		
<b>Spices and herbs</b>				<b>Teas, coffee and tannin</b>			
Basil	8,8			Peppermint	< 2,5		
Cinnamon	4,9			<b>Sweeteners</b>			
Garlic	3,9			Cane sugar	< 2,5		
Horseradish	2,8			Honey (mixture)	7,0		
Mustard seed	2,7			<b>Food additives</b>			
Nutmeg	4,4			Guar flour (E 412)	< 2,5		
Oregano	3,1						
Paprika, spice	6,4						
Parsley	4,7						
Pepper, black	10,8						
Rosemary	< 2,5						
Thyme	< 2,5						
Vanilla	2,8						

**Martina Muster**  
Beispielstr. 1  
33330 Musterstadt

### Your personal ImuPro Basic documents

Sample ID: 111111

Dear Martina Muster,

With this letter, you will receive your personal ImuPro test result as well as general information about food allergies type III and the links with chronic inflammation. This laboratory report contains your results for all the tested foods at a glance.

ImuPro is an extensive IgG food allergy laboratory test. Your blood has been analysed for the presence of specific IgG antibodies to particular foodstuffs. If high levels of these antibodies are present, this might indicate that you have a chronic inflammation caused by a delayed food allergy type III. Your individual ImuPro documents will help you to find out which foods are good for you and to pinpoint your individual "trigger foods". By avoiding the foods that might cause you problems, inflammatory processes can be reduced or even stopped and your body can recover.

### The ImuPro concept consists of three phases:

1. Elimination phase
2. Provocation phase
3. Stabilisation phase

Within the framework of the ImuPro concept, you will find recommendations for a possible form and duration of the dietary change in your diagnostic documents. Please follow the instructions of your therapist first and foremost. **ImuPro shows you the way to the right food for you. And your path for better health.**

**Important:** ImuPro is only testing for elevated IgG antibodies towards foods. If you have an existing type I food allergy (IgE mediated) previously diagnosed either by a positive IgE test or by a skin prick test or if you have any other known food related issues, please do not start eating this particular food even if your ImuPro result does not show a reaction to it. IgE-mediated food allergies can cause severe reactions such as anaphylactic shock, rashes, vomiting, itching etc. **ImuPro identifies raised levels of IgG antibodies to foods and provides advice based on these findings. Based on the ImuPro result, we do not make any statements on IgE related allergies.**

If you have any questions about your ImuPro result or about food allergies type III, please contact us.

We wish you every success on the path to well-being and the restoration of your health.

With kind regards,

Your ImuPro Team



Martina Muster

date of birth: 03.03.1973 / age: 50 / sex: f / sample id: 111111

## Individual laboratory result

### ImuPro Basic

	Rating	Number of foodstuffs
Specific IgG antibodies	■ Not elevated	72
	■ Elevated	10
	■ Highly elevated	8
Total	18 out of 90 tested allergens	

#### Important:

ImuPro is only testing for elevated IgG antibodies towards foods. If you have an existing type I food allergy (IgE mediated) previously diagnosed either by a positive IgE test or by a skin prick test or if you have any other known food related issues, please do not start eating this particular food even if your ImuPro result does not show a reaction to it. IgE-mediated food allergies can cause severe reactions such as anaphylactic shock, rashes, vomiting, itching etc. **ImuPro identifies raised levels of IgG antibodies to foods and provides advice based on these findings. Based on the ImuPro result, we do not make any statements on IgE related allergies.**

#### Laboratory:

CTL & Ortholabor GmbH  
Anemonenweg 3a  
26160 Bad Zwischenahn  
Germany

#### Sender:

Herr Ralf Mustermann

sample type	serum
sample id	111111
examination method	Enzyme-linked immunosorbent assay (ELISA)
date of report	27.01.2023
report authorized by	Uwe David, Allergologe

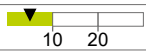
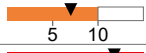

The information in your documents do not replace the medical advice of a trained health professional. The results obtained must always be interpreted in combination with the complete clinical picture. **Dietary changes must be made in consultation with a health professional, a relevant dietician or nutritional expert.** Please immediately consult your practitioner in case of any health-related concerns.

The specific IgG concentrations determined by this test offer the basis for an elimination and provocation diet. We do not claim that the determined IgG concentrations reflect the occurrence or the severity of serious clinical symptoms.

## How to read your report

### Notes on the individual laboratory results

List 1 shows the measurement results of the tested foods. The value in the  $\mu\text{g/ml}$  column shows the measured concentration of IgG antibodies. The bar graph reports your concentration of IgG in three classes. Your personal measured value is represented by the black indicator above the coloured bar.

	$\mu\text{g/ml}$ IgG	Rating
Food 1	5	
Food 2	7	
Food 3	77	

The two numbers below the bar graph are the threshold values between the three reaction classes. The first number describes the analytical cut-off, i.e. the concentration above which we speak of "elevated" IgG antibodies. The second number is the threshold value above which the reaction class is referred as "strongly elevated".

The **green** area: There are no elevated IgG antibodies.




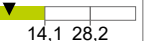
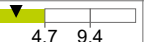
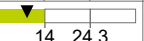
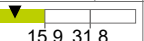
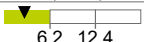
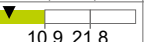
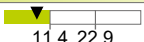
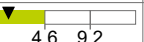
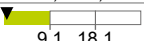
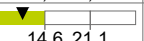
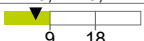
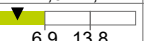
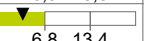
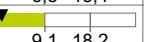
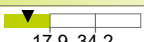
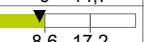

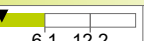
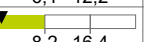
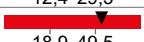
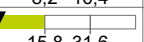
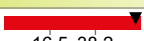
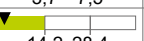
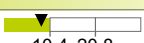
The **orange** area: IgG antibodies were measured in the "elevated" reaction class.

The **red** area: IgG antibodies were measured in the "strongly elevated" reaction class.



## List 1 - Individual laboratory result

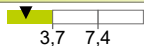

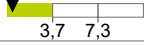

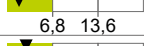

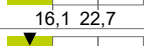
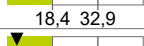
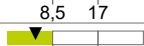
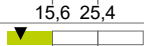
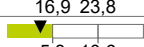
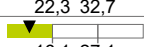
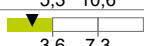
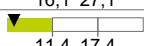

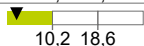

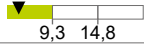
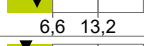
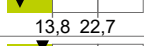
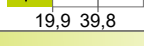
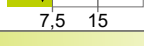


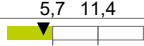
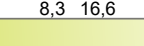
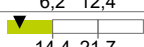
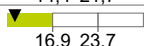
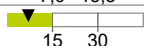
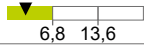

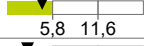
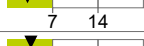

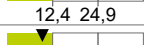
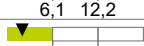
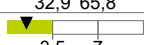
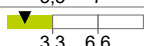
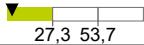


### ImuPro Basic

	µg/ml IgG	Rating	Additional exclusions		µg/ml IgG	Rating	Additional exclusions
<b>Cereals containing gluten</b>				<b>Vegetables</b>			
Barley*	2,7			Aubergine	< 2,5		
Gluten	140,0			Beetroot	< 2,5		
Rye	31,5			Broccoli	7,4		
Spelt	62,4			Carrots	5,9		
Wheat	38,0			Celeriac, knob celery	3,0		
<b>Cereals w/o gluten and alternatives</b>				<b>Chili Cayenne</b>			
Buckwheat	< 2,5			Courgette	2,5		
Maize, sweet corn	10,0			Cucumber	< 2,5		
Millet	3,9			Green bean	8,4		
Oats	4,7			Green pea	5,4		
Rice	2,7			Kohlrabi	< 2,5		
<b>Meat</b>				<b>Leek</b>			
Beef	8,0			Olive	< 2,5		
Chicken	< 2,5			Onion	7,4		
Lamb	6,1			Potato	2,7		
Pork	2,6			Red cabbage	3,4		
Turkey	< 2,5			Soy bean	< 2,5		
<b>Milk products</b>				<b>Sweet pepper</b>			
Goat: milk / cheese	9,1			Tomato	7,5		
Milk (cow)	77,9			<b>Fish and seafood</b>			
Rennet cheese (cow)	30,5			Crayfish	< 2,5		
Sheep: milk / cheese	12,8			Ocean perch	< 2,5		
Sour-milk prod. (cow)	59,6			Pollock	< 2,5		
<b>Eggs</b>				<b>Salmon</b>			
Chicken egg	88,9			Tunafish	< 2,5		
<b>Yeast</b>				<b>Salads</b>			
Yeast	8,4			Butterhead lettuce	< 2,5		
<b>Mushrooms</b>				<b>Lamb's lettuce</b>			
Meadow mushrooms	5,6						

\* This type of cereal normally contains gluten. As the measured value for gluten exceeds the limit, the grain is excluded from the list of permitted foods. It may only be consumed in the form of "certified gluten-free" products. For technical reasons, the IgG antibodies against gluten and other species-specific grain antigens must be measured separately.

## List 1 - Individual laboratory result

### ImuPro Basic

	µg/ml IgG	Rating	Additional exclusions		µg/ml IgG	Rating	Additional exclusions
<b>Fruits</b>				<b>Seeds and nuts</b>			
Apple	< 2,5			Almond	26,7		
Apricot	< 2,5			Cashew kernels	15,1		
Banana	< 2,5			Cocoa bean	10,4		
Cherry	6,7			Hazelnut	10,3		
Grape / Raisin	4,2			Linseed	3,3		
Kiwi	10,5			Peanut	6,6		
Lemon	3,8			Pistachio	7,9		
Nectarine	< 2,5			Poppy seeds	< 2,5		
Orange	12,4			Pumpkin seeds	< 2,5		
Pineapple	27,9			Sesame	< 2,5		
Strawberry	4,3			Sunflower seed	3,9		
Watermelon	8,2			Walnut	5,8		
<b>Spices and herbs</b>				<b>Teas, coffee and tannin</b>			
Basil	8,8			Peppermint	< 2,5		
Cinnamon	4,9			<b>Sweeteners</b>			
Garlic	3,9			Cane sugar	< 2,5		
Horseradish	2,8			Honey (mixture)	7,0		
Mustard seed	2,7			<b>Food additives</b>			
Nutmeg	4,4			Guar flour (E 412)	< 2,5		
Oregano	3,1						
Paprika, spice	6,4						
Parsley	4,7						
Pepper, black	10,8						
Rosemary	< 2,5						
Thyme	< 2,5						
Vanilla	2,8						

Martina Muster

date of birth: 03.03.1973 / age: 50 / sex: f / sample id: 111111

## List 2 - Foods allowed and foods to avoid

Allowed in 4-day rotation					
Apple	Chicken	Hazelnut	Millet	Pepper, black	Sesame
Apricot	Chili Cayenne	Honey (mixture)	Mustard seed	Peppermint	Soy bean
Aubergine	Cinnamon	Horseradish	Nectarine	Pistachio	Strawberry
Banana	Courgette	Kiwi	Nutmeg	Pollock	Sunflower seed
Beef	Crayfish	Kohlrabi	Oats	Poppy seeds	Thyme
Beetroot	Cucumber	Lamb	Ocean perch	Pork	Tomato
Buckwheat	Garlic	Lamb's lettuce	Olive	Potato	Tunafish
Butterhead lettuce	Goat: milk / cheese	Leek	Onion	Pumpkin seeds	Turkey
Cane sugar	Grape / Raisin	Lemon	Oregano	Red cabbage	Vanilla
Carrots	Green bean	Linseed	Paprika, spice	Rice	Walnut
Celeriac, knob celery	Green pea	Maize, sweet corn	Parsley	Rosemary	Watermelon
Cherry	Guar flour (E 412)	Meadow mushrooms	Peanut	Salmon	Yeast

Foods with reaction strength 1: Avoid for at least 5 weeks					
Almond	Broccoli	Cocoa bean	Pineapple	Sheep: milk / cheese	
Basil	Cashew kernels	Orange	Rennet cheese (cow)	Sweet pepper	

Foods with reaction strength 2: Avoid for at least 5 weeks					
Barley	Gluten	Rye	Spelt		
Chicken egg	Milk (cow)	Sour-milk prod. (cow)	Wheat		

Foods that have been additionally excluded from your diet plan					
No foods in this category					



## List 3 - Rotation schedule

### Tip: Build your individual rotation schedule

The rotation diet plan shown here is an example of how the rotation diet can be designed. You may like to choose your own selection of allowed foods for that day. What is most important is that each allowed food only appears once in the 4 day rotation plan.

	Day 1	Day 2	Day 3	Day 4
<b>Cereals and starch</b>				
	Buckwheat	Maize, sweet corn	Millet	Oats
	Rice			
<b>Meat</b>				
	Beef	Chicken	Lamb	Pork
	Turkey			
<b>Milk products</b>				
		Goat: milk / cheese		
<b>Yeast</b>				
	Yeast			
<b>Mushrooms</b>				
	Meadow mushrooms			
<b>Vegetables</b>				
	Aubergine	Beetroot	Carrots	Celeriac, knob celery
	Chili Cayenne	Courgette	Cucumber	Green bean
	Green pea	Kohlrabi	Leek	Olive
	Onion	Potato	Red cabbage	Soy bean
	Tomato			
<b>Fish and seafood</b>				
	Crayfish	Ocean perch	Pollock	Salmon
	Tunafish			
<b>Salads</b>				
	Butterhead lettuce	Lamb's lettuce		
<b>Fruits</b>				
	Apple	Apricot	Banana	Cherry
	Grape / Raisin	Kiwi	Lemon	Nectarine
	Strawberry	Watermelon		
<b>Spices and herbs</b>				
	Cinnamon	Garlic	Horseradish	Mustard seed
	Nutmeg	Oregano	Paprika, spice	Parsley
	Pepper, black	Rosemary	Thyme	Vanilla
<b>Seeds and nuts</b>				
	Hazelnut	Linseed	Peanut	Pistachio
	Poppy seeds	Pumpkin seeds	Sesame	Sunflower seed
	Walnut			
<b>Teas, coffee and tannin</b>				
	Peppermint			
<b>Sweeteners</b>				
	Cane sugar	Honey (mixture)		



## General recommendations

**Your results:** The test results show that you have raised IgG antibody titres to food(s). A monotonous diet, together with an increased permeability of the intestine, is assumed to be the reason for an IgG food allergy (type III). The amount of IgG-positive foods indicates that your gut permeability might be increased and that your immune system responds with an adverse reaction to foods which normally should not be recognised by your immune system. Every time the IgG positive foods are consumed, an inflammatory reaction occurs. This might weaken your entire body. Experience shows that the simple avoidance of the positively tested foods is not enough and a diet modification in accordance with the rotation principle is required.

The amount of IgG positive foods indicates that you suffer from an intestinal permeability (leakiness). Furthermore a disorder of the intestinal flora and / or the intestinal barrier may be present. It may be helpful to analyse the composition of your intestinal flora and the functionality of your intestinal barrier by means of a specialised stool analysis.

**Diagnostics of the intestinal flora:** IgG-mediated food allergy is commonly triggered or aggravated by disorders of the intestinal barrier. Therefore, intestinal diagnostics with subsequent recovery of the intestinal flora (colon cleansing) is essential. It may be helpful to analyse the composition of your intestinal flora and the functionality of your intestinal barrier by means of a specialised stool analysis. Please ask your physician or therapist.

**Gluten:** Elevated levels of IgG against gluten were detected.

Raised levels of IgG antibodies to gluten may be an indication of Coeliac disease which should be further investigated by way of the following tests: Anti-gliadin IgG, Anti-gliadin IgA, Anti-transglutaminase IgG, Anti-transglutaminase IgA, Anti-endomysium.

Even if coeliac disease can be ruled out, you may still suffer from a Non Coeliac Gluten Sensitivity (NCGS) in which case you may also have to eliminate gluten from your diet.

Sensitivity to gluten not only leads to intestinal inflammation but is suspected to actively increase gut permeability which can also lead to several deficiencies, like iron, vitamin D and folic acid deficiencies as well as other adverse reactions to food and associated ailments, particularly outside of the gut.

**Note on oats:** Oats are gluten-free by nature however as oats are usually grown in proximity to other cereals and processed in the same facilities, contamination with gluten cannot be ruled out. As your test result shows no IgG reaction towards oats, but an elevated IgG value towards gluten, please take care to only consume oats that are clearly labelled "gluten-free".

**Other causes:** In addition to a delayed IgG food allergy, there may be a non-immune related digestive disorder or poor utilisation of nutrients which can have numerous causes. You should discuss this with your attending physician or health professional. Possible causes include a diminished degradation of carbohydrates (e.g. lactose, fructose) due to an enzyme deficiency or an inadequate activity of the pancreas and thus insufficient secretion of digestive enzymes.

Furthermore an intestinal mycosis or parasitosis or an impaired intestinal flora may play a role. If the diet modification in accordance with ImuPro shows no improvement at all, you should take further diagnostic steps.









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### 2. Nutritional guidelines

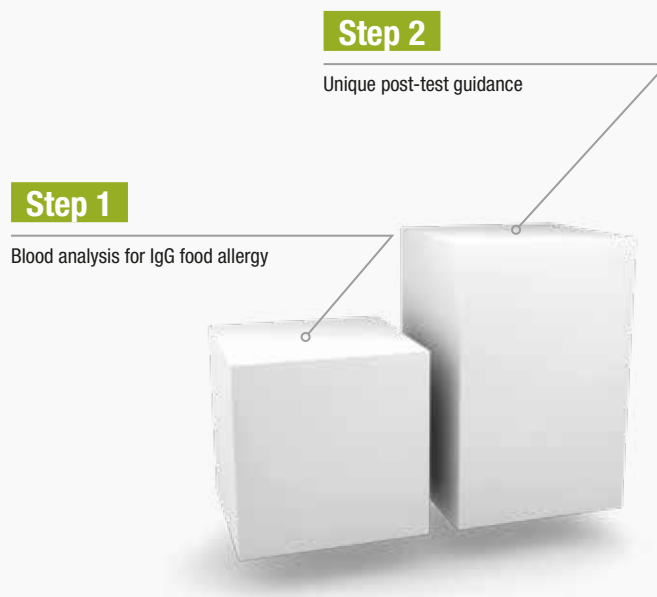
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# 1. Introduction

## 1.1 ImuPro – Individual nutritional analysis and personalised guidance

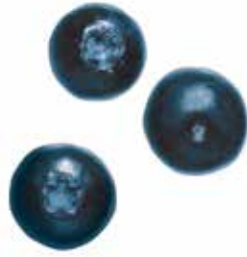
ImuPro is a concept that combines a sophisticated and reliable blood analysis for IgG food allergy with individual post-test guidance.



Your blood sample has been analysed by a specialised laboratory which determined the presence of antibodies against a broad variety of foodstuffs. These antibodies are detected by their ability to bind to specific proteins from the analysed foods.

Along with your test results, you have also received your individual nutritional concept. Your test results and your personal nutritional guidelines will now help you with an elimination and provocation diet with the aim of reducing inflammatory processes.

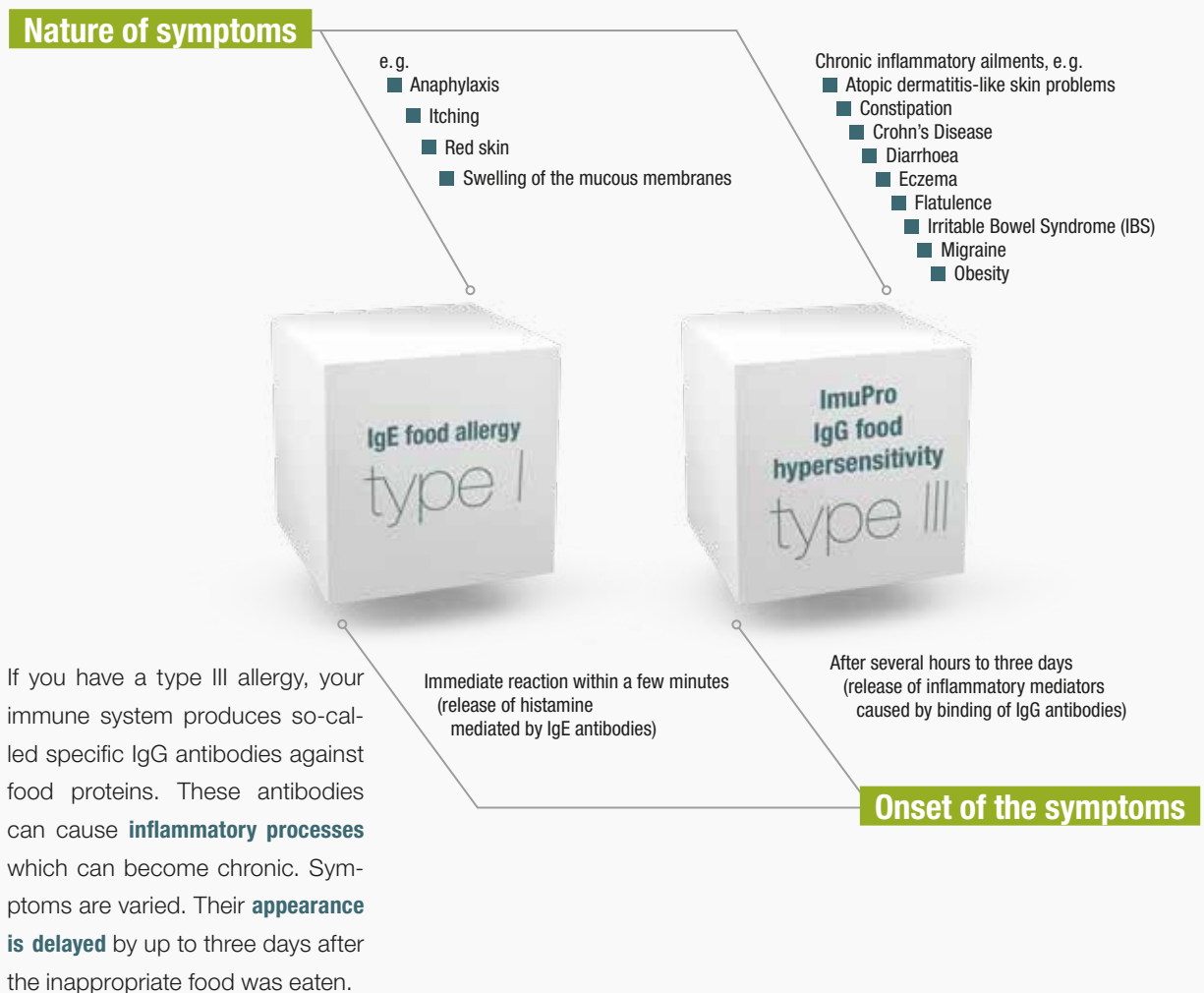
**Note:** Time plays an important role for the ImuPro process. Your body and your intestine need time to heal. You may have to eliminate some foods for more than one year. There may be one or two foods that you will even have to avoid permanently. Therefore, consider ImuPro as your long-term companion and make your change of diet into a new habit.



## 1.2 What is an IgG food allergy?

These type III food allergies often remain undetected because the symptoms may occur only after a few hours or even days after the consumption of a particular food, making them extremely difficult to identify.

The body uses its immune system to fight off invading agents. These invading agents are usually bacteria, parasites, and viruses; they are called antigens. Generally, foods are not harmful to us. However, a delayed IgG food allergy is caused by the body treating a harmless food protein as if it were harmful. If our body deems a food harmful, antibodies are produced to fight against these proteins. (See also “The intestine”)



**Note:** A type III allergy should not be mistaken for a classic food allergy (type I). If you have a type I allergy, your immune system produces so-called IgE antibodies. These antibodies lead to an immediate allergic reaction. The symptoms appear within seconds or minutes. ImuPro does not detect classic food allergies.

### 1.3 The intestine

The immune system of the intestine is the largest in the entire body. Over 80% of the immune defence reactions originate from the intestine. It guarantees an almost invincible barrier for bacteria, viruses and other pathogens and a barrier against other foreign proteins from food. Our body has an extraordinary tolerance to foods, on the condition they are correctly digested and pass the intact intestinal barrier in the intended manner, namely through the intestinal cells.











However, due to medicines, infections, mycosis, stress and environmental poisons the integrity of the intestinal wall can become damaged again and again and food components can slip between the intestinal cells. The immune system may then initiate an immune reaction against these food proteins.

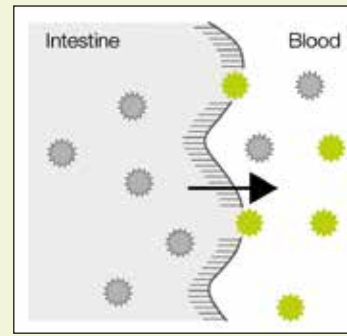
### 1.4 Cross-reactions

Occasionally a reaction is found to a food that the person has never eaten before. This is not a false reading from our test. This may be due to 'cross-reactions', i.e. the antibody that the body has produced not only recognises the antigen for which it was originally formed but also other antigens which belong to other foodstuffs. Some molecules or parts of molecules which make up a food can be identical, even if the foods are not directly related.

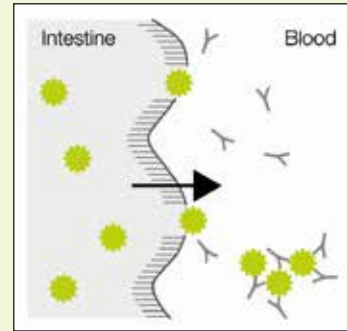
**Example:** Tropomyosin is the main allergen found in dust mites. This allergen is also found in invertebrates, e.g. mussels, oysters, scampi, squid, shrimps and lobsters. If you have sensitivity to the tropomyosin in dust mites or in one of these foods, then you may have high levels of IgG antibodies against any of them even if you have never eaten one before.

### Legend

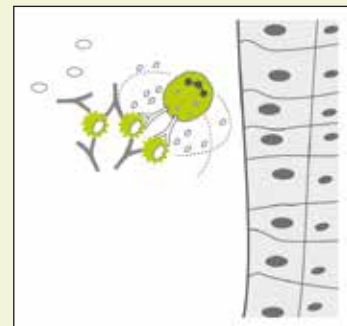
- |   |  |   |   |
|---|--|---|---|
|  | Food protein recognised as being harmful (not digested correctly)        |  | Immune complex with complement proteins |
|  | Food protein <u>not</u> recognised as being harmful (digested correctly) |  | Receptor (cellular adhesion molecule)   |
|  | Antibody   |  | Immune cell (neutrophils)               |
|  | Intestinal wall  |  | Complement protein                      |
|  | Immune complex   |  | Tissue                                  |



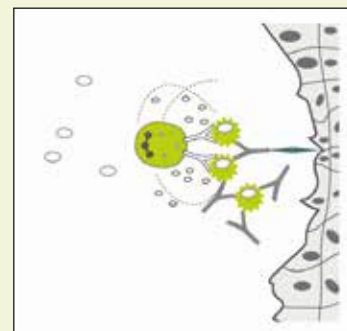
Intestinal wall is damaged: food components can slip between intestinal cells



Immune system starts immune response: formation of immune complexes



Immune complexes are destroyed: inflammatory process without tissue damage may result in systemic symptoms (e. g. hypertension, metabolic disorders)



Immune complexes are destroyed: inflammatory process with tissue damage may result in specific symptoms (e. g. IBS, migraine)

## 2. Nutritional Guidelines



Your nutritional guidelines are based on three important building blocks.

Each tested food runs through the three phases.

### 2 Provocation phase

Once your symptoms are significantly reduced, you are welcome to gradually reintroduce foodstuffs which you avoided in the elimination phase. This step will help you to identify the food which really caused your problems and eventually enables you to start eating the foods you enjoy again.



### 1 Elimination phase

This phase consists of two parts. As the name suggests, one part of the elimination phase is the strict elimination of all the foodstuffs you have elevated IgG levels for. This elimination will help you to recover from your health problems. One other central aspect of the elimination phase, however, is the rotation of the foods you are allowed to eat. You will also use the rotation later to reintroduce foodstuffs that you were initially no longer allowed to eat.

### 3 Stabilisation phase

Good job, you are nearly done! You successfully identified your personal “trigger foods”; you also learned how to ensure a varied diet without promoting new type III food allergies. To stabilise your body, you now avoid your trigger foods for at least one year, so that the IgG antibodies can degrade. After one year you may start another provocation and reintroduce the foods you are still avoiding one by one.

On the following pages you will find detailed information on every phase.



## 2.1. Elimination Phase

As we briefly explained to you already, the elimination phase consists of two parts: the **rotation** and the **elimination**.

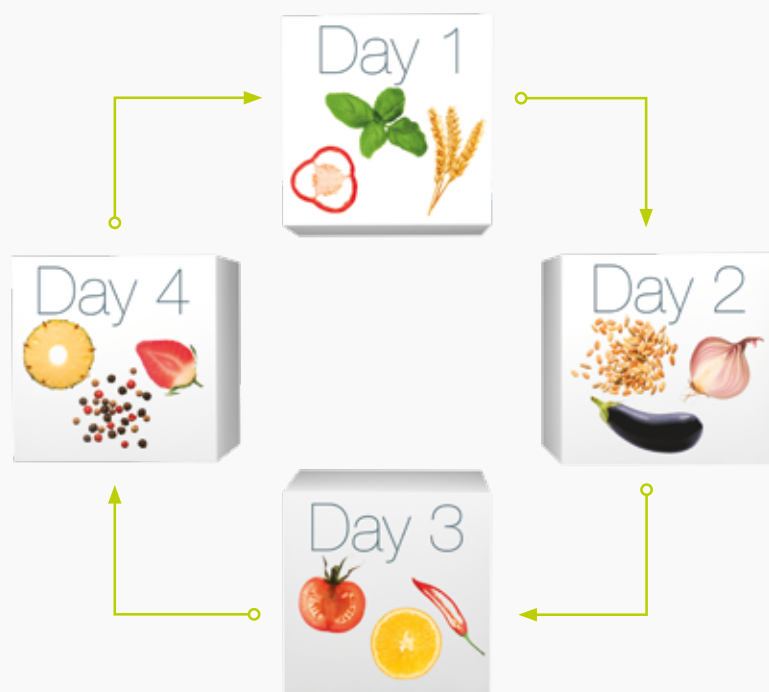
The goal is to prepare your body for the following provocation phase by helping it to recover from IgG mediated inflammations in your body.

### Part 1: Rotation

All the foods you are allowed to eat can be used to create your individual diet in a four-day cycle.

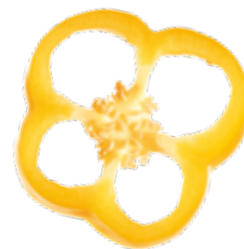
If you eat a certain selection of foods on the first day, you should avoid eating these for the next three days. This helps your body to heal from current IgG food allergies while reducing the possibility of forming new ones. It also ensures that you get all the vitamins and minerals you would expect from a varied diet.

Make up your individual “menu” of the allowed foods according to the 4-day rotation. It is up to you whether you plan your menu as you go or for the whole week. Just try it – you will soon find the most suitable approach for you.



**“List 2 - Foods allowed and foods to avoid” shows you your personal selection of foods without elevated levels of IgG antibodies that can be eaten in rotation.**





### Practical tips:

- Rotating these new groups of foods means that the selection you eat today should be avoided for the next three days. This means you may have less variety on one day but more variety over the week. Similar foods could be included for lunch and supper over a day, either raw or cooked.
- Use the rotation plan provided to help plan your meals in advance. Write down all ingredients that make up your snacks, drinks and meals. Note how you feel each day and monitor your weight. The important information recorded here will help you if you have any problems during your change in diet.
- If you make a mistake, don't worry. An isolated incident won't set you back too much. You may feel a bit worse for a couple of days but continue to avoid all suggested foods and you will get back to normal quickly.
- Drink plenty of water. It helps your circulation and to detoxify.



**Note:** A good way to monitor your new diet in addition to keeping the rotation food diary is to weigh yourself every day at the same time under the same conditions. An increase in body weight of approximately 1 kg or more overnight is a significant indicator of an inflammatory process. In this case you probably unknowingly ate a possible trigger food.

A suggestion for your rotation diet plan can be found in your individual report. Your suggested foods are allocated to four days, so that you can choose from a variety of foods on each day.



## Part 2: Elimination

The foods with elevated and highly elevated values of IgG antibodies are strictly avoided during this phase. The initial elimination phase takes five to eight weeks. Please consult your health professional, a qualified dietician or nutritional expert to define the timeframe in your individual case.

**Important:** The level of IgG reflects the amount of IgG in your blood. Whether the IgG detected is relevant for a symptom or not does not depend on the amount of IgG. Even low levels of IgG to a food might cause severe symptoms, while high levels of IgG might not be responsible for a symptom. This means that elevated levels of IgG are as important as highly elevated levels.

By strictly avoiding the IgG positive foods, inflammation processes could be reduced or even stopped. This is an important preparation for the following provocation phase.



### Practical tips:

- Read all labels on foods to make sure that you know what you are eating. Some foods can hide behind alternative names or can be contained in processed foods. Eggs, for instance, are used in many processed foods, such as cakes, meringues, ice cream or mayonnaise. They can be found under ingredient names like albumin, lysozyme, ovalbumin or ovoglobulin. Remember to check medications, beauty products, household products and your environment as well.
- Try to choose unprocessed foods whenever possible. There are a lot of additives in processed foods.
- Avoid products derived from IgG reactive foods. For example, if you have a reaction to cereals and yeast, also avoid beer. If you have a problem with grapes, then avoid wine, grape juice and raisins. The same applies to oils.
- Avoid the problem foods as strictly as possible. Your wellbeing will depend on your compliance during the elimination phase.

**Note:** At the beginning of the change in diet you might feel worse than before. This deterioration in how you feel can actually be a good sign. It could be due to your body detoxing. Drink plenty of fluids to help the process and keep to your new plan. Once the body has rid itself of any harmful substances, you will feel much better for it. The longest amount of time that this should last for is ten days. If the deterioration in your condition is extreme or goes on for longer than ten days, please consult your doctor.

“List 2 - Foods allowed and foods to avoid” indicates which foods you need to eliminate.



## 2.2 Provocation Phase

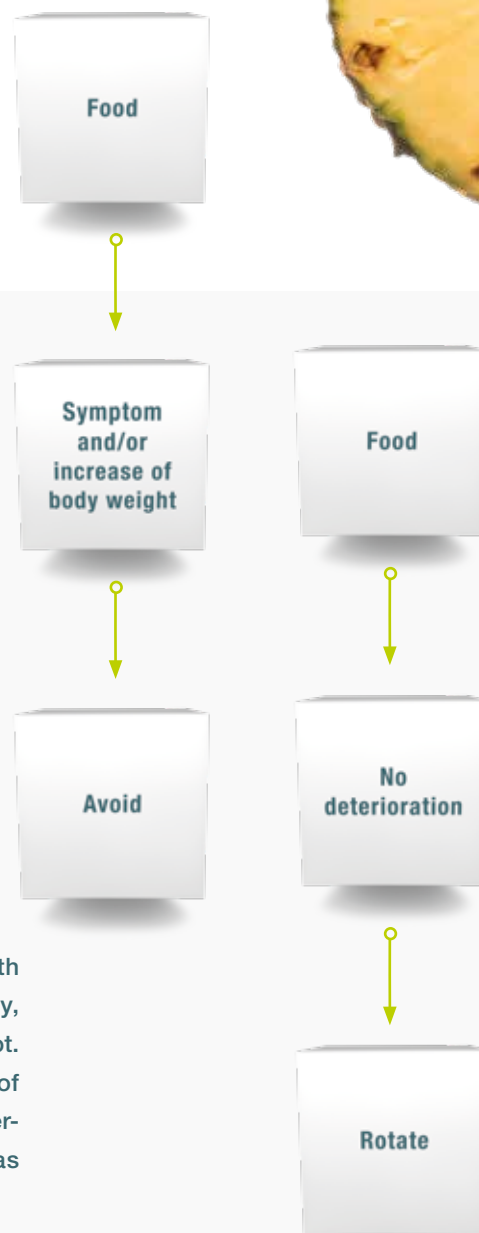
**Important:** If you have an existing classic IgE allergy (type I) or any other known food intolerances, please do not start eating that particular food again. These foods must be excluded from the provocation phase.

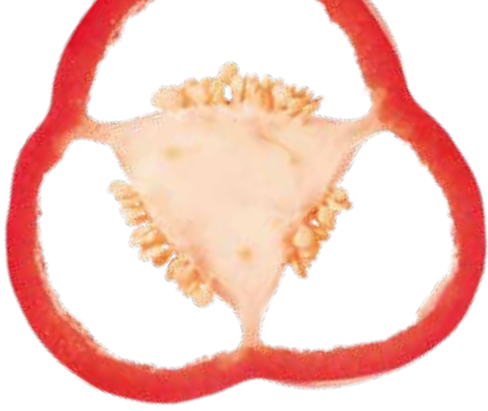
Not all of the identified IgG reactive foods indicate the cause of certain symptoms. The provocation phase helps you to identify your personal trigger foods.

You now start your provocation diet and gradually reintroduce the previously eliminated foods one by one, with three days in between, back into your diet (see example on the following page). Start with the foods which are in the group “elevated” in your test results (orange). After completing the orange category, move on to the foods which are in the group “highly elevated” (red).

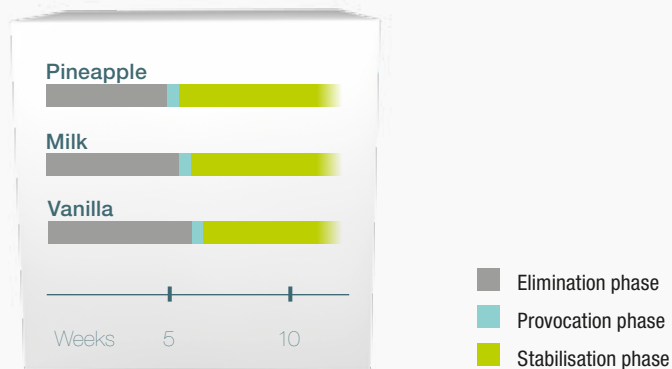
**Note:** You might find it easier to start the provocation phase with some of your favourite foods that were tested positive. This way, you will learn right away if your favourites cause symptoms or not. Please keep in mind that if these foods caused a reappearance of your symptoms you have to avoid them for at least one year. Afterwards you proceed with the foods from the category “elevated” as described above.

A trigger food may cause a specific symptom or lead to an increase in body weight. The increase of body weight is caused by the retention of water due to the inflammatory response to the food eaten. This food can lead to potential health risk in the future. Therefore, we recommend the following: If a reintroduced food causes returning symptoms or leads to an increase in body weight of approximately 1 kg or more overnight, then it must be left out of your diet for at least one year. If the food does not cause symptoms to return or an increase in body weight, it can be included in your diet again (we will come back to this when we talk about the stabilisation phase).





**Example:** You consulted your health practitioner and agreed on an initial elimination phase of five weeks, for instance. After five weeks you introduce the first food from the orange category, e.g. pineapple. On the first day you consume pineapple several times a day to guarantee that the amount ingested is enough to possibly induce a symptom. Then you avoid it for the following three days and observe your body. You notice no deterioration. Thus, you may include pineapple back into your diet as described in the stabilisation phase. Then you introduce the next food, e.g. milk. Within the following three days your migraine returns. Consequently, you avoid milk for at least one year.



**Note:** Try to eat as varied a diet as possible during the provocation phase to supply your body with all the nutrients needed. This also helps to prevent the development of new delayed food allergies. A good way to ensure a varied diet is to keep rotating the foods as described in the elimination phase.

“List 2 - Foods allowed and foods to avoid” lists the foods with elevated levels of IgG antibodies sorted by reaction class.



### Practical tips:

A provocation diary will help you to keep track of the reintroduced foods as well as the foods you need to avoid for one year. Just download the table and print it or make your own handwritten one. Below you will find an example of how to use the table.

- Start with the foods with elevated levels (orange).
- Pick one food from this category to include in a meal. Make sure that you eat a sufficient amount of the food and that it is the pure form of the food rather than a processed form, e.g. for hazelnuts you would start with the whole nut and not with a hazelnut cake. Note this food and the date of the reintroduction in the table.
- Note your health over the following three days and take your body weight daily. Do not reintroduce any new food yet.
- Have you had any adverse symptoms? Did any symptom that disappeared during the elimination phase reoccur? Did your body weight increase overnight as mentioned? If not, then you may continue to eat this food once a week. Fill in "No" in the columns "Symptom / increase in body weight" and "Avoid 1 year".
- If any symptoms have reappeared or new ones have developed, then you need to avoid this food for at least one year. Note the symptoms in the column "Symptom / increase in body weight" and fill in "Yes" in the column "Avoid 1 year". Then note the date one year from now in the column "Date of next provocation".
- Repeat these steps again for the other foods from this category with three days in between reintroductions. Then start on the foods with highly elevated levels (red).

### Example "Provocation Diary"

Reintroduced food	Date of first provocation	Symptom / increase of body weight	Avoid 1 year	Date of next provocation
<i>Pineapple</i>	<i>01/09/2014</i>	<i>No</i>	<i>No</i>	-
<i>Milk (cow)</i>	<i>05/09/2014</i>	<i>Migraine 1.2 kg</i>	<i>Yes</i>	<i>09/09/2015</i>
<i>Vanilla</i>	<i>09/09/2014</i>	<i>No</i>	<i>No</i>	-

**Note:** You can download your individual provocation diary here:  
<https://imupro.com/provocation-diary>



## 2.3 Stabilisation phase

The provocation phase helped you to find your personal **trigger foods**. During the stabilisation phase these foods are now avoided for at least one year, so that the IgG antibodies can be degraded and your body can recover.

The foods that do not cause any symptoms or gain in body weight overnight during the provocation phase may be reintroduced into your diet. This doesn't mean that it was a false positive result for this food. It means that this food does not induce a symptom yet, but still represents a potential threat to your health. To enable your body to eliminate IgG antibodies against this food we recommend eating it only once a week.

**Note:** If old symptoms or new symptoms appear during the stabilisation phase, one or more of the previously IgG positive foods could be the cause. In this case, repeat the elimination phase for five weeks for these foods. If your symptom disappears, one of the avoided foods is responsible for it. To identify the food(s), repeat the provocation phase with these foods, as described above. If your symptom does not disappear, either you have developed a reaction to a new food or food is not responsible for it. In this case we recommend consulting your therapist or physician.

After one year you can then start another provocation with the foods that you are still avoiding and reintroduce them one by one. You may find that there are one or two foods that you will even have to avoid permanently. If the food doesn't cause a return in symptoms or an increase in body weight after this second provocation, it can be included in your diet.

### Practical tips:

- If you make a mistake, don't worry. An isolated incident won't set you back too much. You may feel a bit worse for a couple of days but continue to avoid all problem foods and you will get back to normal quickly.
- Try not to eat a food that was positive to IgG antibodies too often. If you manage to eat these foods only once a week you may tolerate them again.
- Make a habit of a varied diet to ensure that you get all the vitamins and minerals you need. By rotating the foods you may have less variety in one day but more variety over the week.
- Keep a record of your body weight, even if you don't have weight problems. An increase in body weight overnight of approximately 1 kg or more is an indication that you consumed a non-tolerated food the day before.
- If a new symptom which might be related to chronic inflammation occurs within or after 12 months and you still comply with your diet, then a new trigger food might be present. This could be an indication for a new ImuPro test.



## 2.4 Additional tips to help your change in diet

- You may find that some of your favourite breakfast foods are now off the list. Don't panic! Use a little imagination and look at all the other foods which can make very tasty alternatives. All you have to do is find four different breakfasts. People are putting more and more recipes online. Why not spend a few minutes searching for some ideas?
- Alcoholic beverages should be avoided initially to allow your immune system to stabilise. This will also help you to detox.
- Even if you have had a negative result for coffee (if tested), caffeine can irritate the intestinal lining. This increases the permeability of the intestine to foodstuffs, allowing more partially undigested food particles to cross this barrier into the bloodstream setting off more immunological reactions. Rotate this as you would any food.
  - Some colas and carbonated beverages also contain caffeine. The high phosphate content of some of these beverages can bind to calcium stopping the body from being able to use it. The high sugar content, colourings and additives also make it best to avoid these drinks.
  - Fruit and vegetable smoothies are liquid foods rather than drinks. The fiber is very important for digestion, but too much of one type of vegetable or fruit protein is consumed because large quantities of them are required to make one glass of squeezed juice. If you want to consume smoothies, then dilute the juice with some water.
  - In a restaurant or canteen, sauces can often hide ingredients you may need to avoid. Grilled meat or fish with potatoes or rice, vegetables or salad are normally unproblematic. You could order the salad without dressing and then use a dressing you brought along with you.





## 2.5 Summary



### 2 Provocation Phase

#### Avoided foods

- 1-day reintroduction
- 3-day observation

#### Allowed foods

- rotation

### 1 Elimination Phase

#### Foods to avoid

- strict 5-8 week elimination

#### Allowed foods

- 4-day rotation

### 3 Stabilisation Phase

#### Trigger foods

- 1-year avoidance

#### Allowed foods

- rotation