Frequently Asked Questions

About ImuPro Test

Dr. Bakshi's™ Advance Diagnostics

General Questions

Q: Do the results of the standard allergy test and the ImuPro test correspond?

A: No, the results are not comparable because the object of the investigation is different. The ImuPro test detects delayed food allergies which are mediated by a build-up of IgG antibodies in the blood against a particular food. The standard allergy test (like the skin prick/scratch test) is designed to detect immediate reactions to ingested food mediated by IgE antibodies.

Q: What is the difference between IgG and IgE?

A: IgG stands for “Immunoglobulin G”. These are the antibodies found in the human blood. They are used by the immune system to identify, neutralize, and destroy foreign objects, such as bacteria and viruses, or other large foreign molecules. Everybody has IgG antibodies, but occasionally they start to react against foods. This is what can cause food allergies or delayed-onset food allergies (food hypersensitivities, commonly also known as food intolerance). IgE mediated allergies (type I) are completely different from IgG mediated allergies (type III). An IgE allergy is a traditional “true” allergy, its symptoms occur immediately and remain for your whole life. IgG food allergies occur delayed and may decrease or disappear if the change in diet according to the ImuPro results is strictly followed. For this change the IgE findings must be taken into account, and the respective food must always be avoided.

Q: What exactly is the difference between food intolerance and food sensitivity?

A: Food intolerance is commonly no reaction of the immune system but associated with gastrointestinal symptoms stemming from the problems of the digestive system with certain foods. Food sensitivity is the reaction of the body´s immune system with a wide spectrum of symptoms and mechanisms.

Q: Do vaccinations affect the ImuPro test?

A: Vaccinations have a strong immune stimulating effect with the goal to produce high levels of IgG antibodies against the selected virus or bacteria. Some individuals react violently to such vaccinations. It is highly probable that in such cases unspecific bindings occur and lead to unspecific IgG positive reactions in the ImuPro test. We therefore recommend keeping a time gap of at least 9 months between the vaccination and the blood drawing for the test.

Q: Does a blood or plasma transfusion alter the ImuPro results?

A: Yes, blood and plasma transfusions will probably have an impact on the ImuPro result, unless it is an autologous blood donation. With a blood transfusion from another person, all his IgG antibodies are also transferred. ImuPro will certainly detect the patient´s own

antibodies to food, but it can't discriminate between own and acquired antibodies. In this case the number of IgG reactions can be elevated.

Q: Do low total IgG levels or monoclonal gammopathy affect the ImuPro results?

A: The ImuPro test is calibrated for normal IgG immune response. We recommend not taking the ImuPro test, if the total IgG value is more than 20 % below the lower reference value. In the case you know that you have values below the reference range, the ImuPro lab should be informed. The same applies to monoclonal gammopathy because too large amounts of monoclonal IgG antibodies may lead to impaired results.

Q: From which age on do you recommend the ImuPro test?

A: A baby´s immune system has the IgG inherited from its mother during pregnancy and is not fully developed until the age of one year. For children under 12 months, we therefore recommend that the mother be tested. In case of nursing mothers and children from the age of 12 months and older, both the baby and the mother should be tested, and the mother should adapt her diet accordingly.

Q: Does a cold or fever speak against the ImuPro test?

A: From our experience there are no problems with patients who have a cold or even a fever. Though, as a precaution, we advise waiting until after it has gone before having their blood sample drawn.

Q: Is fasting necessary before the ImuPro test?

A: It is sufficient if you have fasted 2 to 4 hours prior to the blood withdrawal. A 12-hour fasting is not mandatory for IgG tests. However, you should bear in mind that blood samples taken shortly after a meal are often lipemic and show a considerably worse test variance. We therefore recommend that the last meal eaten before the blood withdrawal should not have been a fatty meal. In practice, this means: There is no problem if, for example, you have had a normal breakfast at 8 o'clock and come for the blood withdrawal at 11:00. Yet it is not advisable if you have had a heavy lunch at 1 o'clock and come for the test at 2.30.

Q: Which medication can affect the test results or change in diet?

A: A long course of immunosuppressant medication, such as cortisone, steroids, prednisone, etc., may affect the results. Likewise, a long course of antibiotics can distort the results. Antibiotics can damage the intestinal flora which may lead to more reactions in the ImuPro test. TNF blockers have so far not been shown to have any adverse effect on results from an ImuPro test. Also, steroid based inhalers and cortisone cream are no contraindication to the test. Their concentrations are low, and their effects are local. However, you should let the ImuPro team know your concern about your medication prior to ordering the test so that the team can tell you whether it will be a problem. To be

absolutely sure we recommend determining the total IgG value in serum. If it is not decreased below the reference range, no negative impact on the ImuPro result should occur

Q: How about autoimmune diseases?

A: We believe that ImuPro is successful in almost all autoimmune diseases including Lupus, Psoriasis, Crohn´s disease, Hashimoto, and the rare autoimmune disorder ITP (Idiopathic Thrombocytopenic Purpura). Therefore, we encourage patients to do the test. Even though food hypersensitivity may not be the primary cause, it will maintain and aggravate autoimmun diseases. Changing the diet according to ImuPro test results and recommendations can significantly improve the symptoms.

Q: What symptoms might I be suffering from if I have a food intolerance?

A: IgG mediated food intolerance leads to underlying inflammation in the body. This can manifest in a range of symptoms: gastrointestinal complaints (IBS, bloating, constipation, diarrhea, stomach cramps), headaches/migraines, fibromyalgia, joint pain, arthritis, skin conditions, chronic weight problems, difficulty concentrating, depression, anxiety, and many more.

Q: What if I have been on a restricted diet before the test?

A: You may find that foods you haven't strictly eaten for a long period of time do not show up on the ImuPro test, however, this generally applies to situations where the food has been avoided for at least 1 year.

This just means your body is no longer producing IgG antibodies toward the proteins in that food, so it is no longer causing you inflammation. This is really what you want to happen, it means your intolerance levels have lowered (or are lowering) – which is the way the body works with food intolerances. It does not mean the test is inaccurate or does not give a true reflection of your intolerances.

Once you stop eating an offending food, after a while your body will stop producing IgG antibodies towards it and your existing IgG levels will start to lower and eventually disappear. It can take months, or sometimes years, for all existing IgG levels to an offending food to disappear entirely and this is why we recommend avoiding foods with elevated IgG levels for a minimum of 5 weeks to 1 year (depending on the outcome of your provocation phase). So, some of the foods you have been avoiding may still come up in the test (they may just be a mild elevation), or they may not come up at all if your IgG antibody levels have disappeared. In this case we would recommend you rotate these foods every 4 days to prevent developing another intolerance.

We often have people ask us if they should start eating previously avoided foods again prior to testing, in order to get an 'accurate result'. There really is no point bringing those foods back into your diet for a certain result, and as you can see it can take months to

increase your IgG antibodies to a level that is detectable by ImuPro. The best thing to do is to take the test now and you will get a snapshot of where you are currently at with all of your intolerance levels and can then adjust your diet accordingly.

Q: Is there any need to be re-tested down the track?

A: No, this is not normally necessary. Even if a retest does not detect particular antibodies, this does not mean that you can recommence eating foods or additives to which an intolerance was detected.

The immune system has a memory and reactivates the production of antibodies when it comes in contact with a food or additive to which it previously had a reaction.

However, the production of antibodies is generally reduced through implementing dietary changes to cut out offending foods.

The test would only need to be repeated if the symptoms re-occur, although this is unlikely if you are keeping to your diet and rotation plan instructions.

If the test is repeated, we recommend at least a two year wait between tests.

Q: My GP performed a standard allergy test on me. Do I still need an IgG test?

A: The ImuPro test detects IgG mediated food intolerance responses which may occur between 8 and 72 hours after the consumption of the offending food or additive. These food intolerances are mediated by a build-up of IgG antibodies in the blood.

Standard allergy tests (like the skin prick/scratch test) are designed to detect immediate reactions to ingested food, mediated by IgE antibodies. Classic Type 1 allergies are different to the IgG intolerances (delayed onset Type 3 allergy) that the ImuPro test is looking for.

Q: Will the ImuPro test detect if I am intolerant to salicylates or amines in foods?

Q: The ImuPro test looks for IgG mediated food allergy (intolerances to foods) only. Salicylate and amine intolerance are not IgG mediated and therefore will not be picked up by the ImuPro test.

Q: What are the most common allergens?

A: ImuPro studies have shown that milk and dairy products, as well as varieties of cereals, trigger immunological reactions in a large number of people.

Gluten, egg white, dairy products and brewers/baker's yeast can cause a high level of intolerance and should be avoided if an intolerance is detected – this is not always easy as these food types are often hidden in innumerable manufactured products.

Q: Where is the ImuPro test conducted?

A: The ImuPro test is conducted in our specialised diagnostic labs in Germany (CTL Laboratories). CTL have been conducting the ImuPro test for over 20 years and are experts in the field of delayed IgG mediated food intolerance. Your blood sample will be shipped from our Sydney office to Germany and your results will take around 10-14 days

Q: I have tested negative to Coeliac disease. Can I still be intolerant to gluten?

A: Yes, you can definitely test negative to Coeliac but still have what is known as Non-Coeliac Gluten Sensitivity mediated by IgG antibodies, which is what ImuPro will detect.

Q: Will the ImuPro Test tell me if I have fructose intolerance?

A: Fructose intolerance occurs when the fructose (sugar) in food is not absorbed properly in the small intestine. The undigested fructose is then carried on to the colon where it is fermented by the body's normal bacteria causing the intestine to swell and produce gastrointestinal complaints such as bloating, cramping, gas and diarrhea. Fructose intolerance is really localised in the gut and does not initiate the release of IgG antibodies, so it cannot be diagnosed with ImuPro.

Q: Do I need to get a doctor's referral to do the ImuPro Test?

A: You do not need a referral for ImuPro testing – you can order your test quickly and easily via our website or over the phone. ImuPro will provide you with the required Pathology paperwork to have your blood sample drawn and your results will be sent back to you within 10-14 business days. However, if your healthcare practitioner has referred you for testing, we will send the results back to them for follow up. Your ImuPro test may be a standalone or part of a larger protocol for treatment.

Q: Can my GP refer me?

A: While you do not need a GP referral to do the ImuPro test, you certainly have the option of going through your GP if you prefer. Simply contact ImuPro to receive a referral template to present to your doctor.

Please note if you are going through your Doctor, your ImuPro results will need to be sent back to the referring practitioner unless they give permission for you to receive them directly.

Q: Can I test if I am pregnant?

A: Yes absolutely, in fact it is recommended. IgG antibodies are the only ones small enough to pass through the placenta on to your child, so it is a good idea to test if you are pregnant to ensure the best possible outcome for your baby.

Q: What type of food intolerances do you test?

A: ImuPro tests for type 3 allergy toward food proteins, mediated by IgG antibodies. Because type 3 food reactions are often delayed and are not life-threatening, they are often referred to as "food intolerances". However, unlike other types of intolerances (lactose, fructose, salicylates), IgG food allergies involve an immune response to food that triggers low grade inflammation and chronic symptoms. We also test for DAO histamine intolerance, which can be conducted on the same blood sample.

Q: How do I know if my patient needs to test for IgG food reactions?

A: ImuPro tests are suitable for both preventative and corrective health care. Many patients choose to test even without obvious symptoms. This is because inflammation does not always lead to a visible or felt symptom, and identifying potential food triggers is an excellent step to prevent symptom onset. However, there are some telltale signs that your patient is living with delayed food allergies:

- Irritable Bowel Syndrome & Inflammatory Bowel Disease
- Chronic headache or migraine
- Chronic skin conditions incl eczema or acne
- Joint pain, rheumatoid arthritis
- Chronic fatigue
- Can't lose weight despite calorie deprivation
- Difficulty recovering from exercise

Q: Do you test for yeast and is this related to Candida?

A: Yes. Yeast is covered in all ImuPro IgG food intolerance tests. If you have elevated antibodies towards yeast you will need to carefully avoid any foodstuffs containing yeast such as beer, bread, dried or overripe fruits and fermented products like sauerkraut, yoghurt, kefir and buttermilk.

While many of these foods are touted as healthy and indeed do have many health benefits – they can contribute to inflammation in a person with IgG mediated hypersensitivity and should be avoided accordingly.

Only the ImuPro Complete 270 test will also detect the presence of IgG antibodies in your blood toward Candida albicans – a commensal yeast that can become overgrown and increase the likelihood of developing food intolerances due to its actions on the intestinal lining. If you test positive for Candida albicans with ImuPro, this may indicate a past or present infection which should be confirmed via a stool analysis with your Practitioner.

Q: The test has shown that I am intolerant to yeast, does this mean that I can't eat bread?

A: A great alternative to bread containing yeast is sourdough bread. Pure sourdough fermentation is mainly done by lactobacilli, a bacterial strain, and hardly any yeast. So if the baker doesn't add yeast on purpose, sourdough bread should not contain yeast.

Q: What should I avoid in case of a reaction to egg protein?

A: Avoid all products containing egg white. Egg white is contained in quite a number of food products. Egg white proteins may be hidden behind the following naming: yolk egg white, ovalbumin, livetin, albumin, lysozyme, E 1105, globulin, ovomucoid, lecithin, E233. If you have to avoid egg white, you can replace the binding effect by mixing 1 tablespoon of soybean flour with 2 tablespoons of water to a paste. In case of soybean incompatibility, the soybean flour may be replaced by maize flour and potato flour by rice flour. Be aware that wine can contain egg white.

Q: My results show intolerances to foods I have never eaten. How can this be possible?

A: Some foods belong to the same family. For example, potato, aubergine, tomato and tobacco are all members of the nightshade family. Related foods can often produce a similar immunological response.

It is also possible that you react to a food (such as soy), even though you are sure that you have never eaten soy.

This is because soy and its extracts are added to a large number of foods, so you may have consumed soy without your knowledge. Another example is poppy seed, which is frequently contained in drugs as a modified component.

Another possibility is the occurance of a “cross-reaction”. What this means is that the antibodies recognise not only the antigen for which it was originally formed but also other antigens which belong to other food stuffs. This is possible because some foods have identical molecules even though they may not be directly related to each other.

Cross reactions can even occur with environmental allergens which share a similar molecular construction to a certain food.

Q: Some of my symptoms are still there, even though I followed the ImuPro diet. Why is this?

A: Some of your symptoms / complaints may be caused by something other than IgG mediated food intolerance. These causes cannot be detected with an IgG test, like ImuPro. They include certain defects in the intestinal flora, enzyme defects and hormonal problems (particularly in women). Other sources can be environmental contaminants, heavy metal burden and dental metals. You should follow up with your practitioner in this instance and investigate other possibilities for your symptoms.

Q: Should I avoid skin products that contain ingredients I am intolerant to?

A: Yes. We know that antigens can also be absorbed by the skin so be sure to read the ingredients of cosmetics, shower gels, hair products and moisturisers, etc to ensure it does not contain anything you are intolerant to.

The skin is a very reactive immune organ, and the experience we have had showed us that products on the skin or even inhaled antigens like lavender have led to symptoms. We also know from our experience in environmental medicine, that if someone reacts to titanium oxide, they have to eliminate all cosmetics and toothpaste containing TiO2.

About the Test

Q: How does ImuPro work?

A: First of all, the ImuPro test detects IgG antibodies against food, i.e. delayed food allergies which cause chronic inflammatory diseases, such as diarrhoea, flatulence, migraine, overweight, auto-immune diseases, or skin diseases. We provide you with the test results, your personal recipe book containing recipes tailored to your personal needs, and your individual nutritional guide which helps you through the following three phases.

During the elimination phase the foods you react to are excluded from your diet so the inflammatory burden is reduced, and your body can recover. In the provocation phase these eliminated foods are reintroduced to the diet one by one to help you find you personal "trigger food ". If the symptoms reappear, you will know that the food you just have reintroduced may be responsible for your complaints. (This strategy is also used in IgE mediated classic allergy.)

After the identification of your trigger foods, they ALL should be avoided for at least one year in the stabilization phase so that the IgG antibodies can degrade and your body can recover. Allowable foods can be rotated on a 4 to 5 days basis. If you do not want to go through provocation phase, you must avoid all positive tested foods for at least one year – without any exception.

How reliable is the ImuPro test? Critics say that not all foods tested positively lead to a symptom and so IgG tests deliver "false positive" results.

Generally, the ImuPro test is performed using the ELISA method which is a well-established standard procedure in laboratory analysis. Our results are reliable and reproducible and are checked through regular quality controls in labs across different countries.

Regarding the results: First of all, just because there is no visible symptom caused by IgG antibodies, it doesn't mean there is no reaction at all. If the immune system builds IgG antibodies to attack a certain food you have eaten, this may lead to an inflammatory process which might not be visible from the outside or by obvious symptoms. Secondly, ImuPro doesn't claim to show a connection between food and a certain symptom. It is a first step in finding food that might cause or contribute to your problems.

Q: Does the ImuPro test have any certification?

A: The ImuPro tests and antigens are manufactured by the German company R-Biopharm AG, Darmstadt under strict quality management ISO 9001 and ISO 13485 systems, accredited by the DQS according to the international standards ISO 9001 and EN 46001 (medical devices). In 2003, the company gained ISO 13485 quality management

certification. All reagents used in the test are IVD-CE approved. Plus: ImuPro tests are processed in more than 20 laboratories worldwide, each run by specialists in this field – this enables us to conduct inter-laboratory trials on a yearly basis to ensure the consistency and quality of each and every step of this test.

Q: A great majority of obese adult patients exhibit the same hypersensitivity when the ImuPro 300 test is done: to gluten, to eggs, and to milk products (cow). Is this a coincidence or a general characteristic of this category of patients?

A: Indeed, people with metabolic syndrome and obesity often exhibit this combination of food hypersensitivity. This is due to their nutrition which often consists of these basic foods. So, it is not surprising to find these items positive in our test. The problem is not limited to these foods. Each positive food contributes to obesity and metalbolic syndrome in predisposed patients. And they generally also have leaky guts.

Regarding the change in Diet

Q: Is there a correlation between the IgG level and the intensity of a symptom?

A: No. The intensity of a symptom rather depends on the amount of the food consumed and on the type of tissue, its sensitization and ability to bind circulating immune complexes which result from the interaction of food and IgG. However, in case of an increased IgG level, you should avoid the respective food for a longer time to let the IgG degrade.

Q: Why does food trigger to be avoided for a whole year?

A: First of all, the IgG has to be eliminated so that you can eventually start eating these foods again – at least now and then in small quantities as part of your rotation diet. This can only be achieved through strict avoidance for at least a year. After this you can check in another provocation phase if this food still triggers symptoms.

Q: How is the procedure in case of many reactions?

A: To avoid malnutrition and simplify your change in diet, we suggest writing down the foods you have consumed for more than twice a week. If a certain food show increased or highly increased results, it is to be avoided for a year. Most of the time the food is eaten on a regular basis, which cause problems.

Q: In which case should food be avoided for 5 weeks, in which for 8 weeks?

A: We recommend avoiding food until the greater number of symptoms has improved. The general advice is to eliminate it for at least 5 weeks, extending it to 8 weeks if the symptoms haven´t changed for the better. If in doubt, eliminate the respective food for 8 weeks or agree to consult your therapist after 5 weeks.

Experience has shown that 95 % of the patients recognize an improvement after 5 weeks. The physical conditions have stabilized – a perfect moment to start provocation phase, since the patient now knows how it feels to be doing well and best recognizes the return of a symptom to find out which food causes it.

Q: What should be considered for the change in diet in terms of known type I allergies?

A: Type I allergies are caused by IgE antibodies as immediate reactions to certain foods. The symptoms are redness, itching or rashes, and even vomiting or anaphylactic shock. So, if you have known type I allergies, you should definitely avoid these foods – even if the ImuPro test shows no results for them. ImuPro determines IgG levels to detect delayed food allergies or food hypersensitivities.

Do reactions to certain foods occur within 30 minutes hours after consumption, it is very useful to also test for IgE induced allergies. The RIDA qLine Allergy Panel 1 by R-BioPharma

tests for the 20 most important foods, the RIDA qLine Allergy Panel 4 is especially designed for children, since the symptoms of their reactions to food and inhalation allergens are hard to distinguish

Q: Does heat change the tolerability of foods?

A: Heat can change the antigenicity of the food proteins. Some of them are destroyed and lose their antigenicity, others can remain or can be created. For this reason, ImuPro tests raw and cooked food when appropriate, so that you don't miss an intolerant food.

Q: What about following the ImuPro diet and eating out? What level of adherence is needed for results? Is it impossible to achieve 100 % food avoidance, could be soy sauce that is in so many foods or due to travel?

A: 100% avoidance of identified food is best, of course. Not all IgG positive food leads to a specific symptom but is always involved in an inflammatory response. You have to find out which food causes which symptoms after its reintroduction following the elimination phase. If it is identified as harmful, you must avoid it 100 %. If the food reintroduced is not causing any symptoms, then we still recommend avoiding it, but an occasional intake is not dramatic. In the end it is very individual, depending on the amount of forbidden food or ingredients and the frequency of ingestion. In any case, it is better to stick to the diet, even if you cannot comply 100 %, rather than do nothing. If you don't avoid the food concerned 100%, you risk never eliminating the IgGs and staying sensitive the rest of your life.

If you rarely cook for yourself, it makes the change in diet a bit more complicated – but not impossible. Some hints might help: In the restaurant or canteen sauces should be left out. Grilled meat or fish with potatoes or rice, vegetables or salad normally don't cause problems – if not from the problematic food groups. You may order the salad without dressing and then use a dressing you brought along with you. Especially in the canteen, you can bring your own food: Make dinner your main meal and cook a larger portion to use the leftovers for a salad for lunch next day. In the restaurant you can ask the waiter which ingredients were used to cook a particular dish. However, we strongly recommend consulting a nutritionist, since nowadays it is not easy to identify hidden food ingredients.

Q: How about trying an untested food or a craving for a particular foodstuff?

A: All foods and additives not tested should be avoided during the first 8 to 10 weeks following the test. Afterwards, the procedure should be as follows: If you try a food which has not been tested, only introduce one food at a time and note any health problems that occur in the following week. If you do not have any adverse reactions, you may continue to include the food in your rotational diet. Also observe your body weight. An increase of approximately 1 kg or more overnight after the introduction of non-tested food is a sign of an inflammatory response with the retention of water which you can see on your scale.

Then and in case of uncertainty we recommend taking the comprehensive test for 270 foods.

When you feel a craving for foodstuffs, try to hold out. These episodes normally subside after 3 to 5 days.

Q: Isn´t there a risk that ImuPro leads to general malnutrition or an undersupply of calcium when all dairy products must be eliminated?

A: For two reasons malnutrition doesn't occur with ImuPro: rotation and reintroduction. Based on the ImuPro findings of your possible trigger foods, a diet plan is created that removes them and rotates allowable foods on a 4-to-5-day basis. This maintains variety and nutrition which ensures that your body is supplied with everything it needs. After the provocation phase, certain foods may possibly be reintroduced back into your diet. So, you will have even more food to rotate, guaranteeing a diversified and balanced diet.

There also is no risk of an undersupply of calcium if you stick to the rotation. Most milk alternatives are calcium enriched. Broccoli, for example, contains a high proportion of calcium. In case of an increased requirement of calcium, we recommend the intake of an orthomolecular dose with meals.

Q: What if athletes react to all gluten containing grains. Do they have to worry that cutting out carbohydrates will affect their energy levels and training?

A: ImuPro and sports are not mutually exclusive but complement each other in an ideal way. Supplying your body with carbohydrates in foods you are reacting to, especially gluten, will drain your energy and physical power due to inflammatory processes. There are still some carbohydrates which you can eat (e.g. rice, potatoes, corn, etc.) so you can get your carbohydrate intake with those.

If there is no positive result for yeast, you can eat gluten-free breads. You may have to eat larger portions or more regularly and could also increase protein and fat intake with high quality fats rich in omega-3. Calcium supplements are a good idea, as a lot of minerals are lost during competition. Study results with athletes show that an increase of VO2max, reduction of lactate, better recovery, and better body/fat composition are achieved while adopting an ImuPro diet.

Q: Does making a mistake in the change in diet mean you have to start all over again?

A: No. If you accidentally consume a foodstuff containing a prohibited hidden ingredient, you might feel less well for 3 days. If you do not repeat this mistake, your body will recover soon. However, we advise you to pay extra attention to what you eat since the success of your change in diet depends on how strictly you adhere to the guidelines. Also, the guidance of a nutritionist could help you adhere to your change in diet.

Q: How long do the IgG antibodies stay in the body? There is a long list of foods that I do not eat every week or month. How long must I have eaten the food for the test to be effective?

A: The half-life of antibody producing lymphocytes is 5-6 weeks. IgG's generally have a half-life of 23 days. Therefore, it will take around 6-9 months to eliminate IgG antibodies when you strictly avoid the foods in question.

This depends on several factors:

1. the amount of IgG present (The higher the existing concentration, the longer it will take.)
2. the strictness of avoidance
3. possible cross reactivity to non-foods (Food can cross react with non-food items, such as pollen, viruses, and or dust mites. If such a cross reaction exists, it may take a very long time to eliminate the IgG's or in some cases, they don't disappear at all. This is mostly the case when you have never eaten the food before and still have antibodies present. Therefore, the antibody wasn't triggered by the food, but by a non-food antigen of an unknown origin or which is ubiquitously present.

Regarding Specific Food Groups

Q: Is alcohol allowed while following the ImuPro guidelines?

A: Alcoholic beverages should be avoided during the first stage when the immune system is stabilized. Later in the dietary change you may allow yourself a glass of dry or sparkling wine now and then.

The ImuPro tests do not analyze the beverages themselves but rather their ingredients – grapes, cereals, yeast, and malt. If you have increased quantities of IgG antibodies to one of these, you will have to do completely without the beverages (alcoholic and non-alcoholic) produced from these items during the avoidance period. If you are gluten intolerant, all fermented drinks made from gluten containing grains must be avoided, such as beer but also malt drinks and some industrial smoothies and milk shakes. All spirits are gluten free unless gluten was added after distillation (cocktails). Malt whiskeys are gluten free, as nothing was added after distillation.

Q: How about coffee and caffeine?

A: We test coffee beans as a whole and do not distinguish between coffee and caffeine. It could be that you react to both elements and only one of them. At the start avoid both. Wait for at least 3 weeks, or until your symptoms have stabilized, and then try a drink with caffeine in it. Coffee itself is not recommended, even if no reaction was detected in the test. Its roasting substances have an irritating effect on the intestinal mucosa and increase the permeability of the intestine for foodstuffs. They also increase the acid production in the stomach, leading to heartburn, bloated feeling, and sickness and additionally straining the intestinal mucosa. Our experience has shown that going without coffee has a positive effect. The stimulating effect of caffeine can be obtained by drinking black or green tea – drunk in rotation and not every day.

Q: Are sweets allowed?

A: Yes. You should, however, attune your sweets to the rotation plan. Choose for example sweet maize biscuits if you use maize on that day or spelt crackers on your “spelt day”. Plus, you should avoid industrially produced sweets, such as chocolate or cake, and prefer dried fruits or nuts instead, according to your reactions.

Q: How about vegetable and fruit juices or smoothies – are they allowed?

A: Of course, only fruit and vegetables without reaction are allowed. Plus: Juices or smoothies are not really drinks but rather liquid food, often very high in sugar, since very large amounts of fruit or vegetables are necessary for a glass of juice. If you still want to drink some now and then, buy juice with 100 % fruit content without added sugar and dilute it with water.

Q: Should also cosmetics and tablets be avoided which contain extracts of IgG positive foods?

A: Definitely yes. The skin is a very reactive immune organ which can absorb antigens. We have recognized that products on the skin or even inhaled antigens like lavender have led to symptoms. If you react to titanium oxide, eliminate all cosmetics and toothpaste containing TiO2. If you have high levels of IgG antibodies to milk products, avoid cosmetics like shower gel containing ingredients such as shea butter, milk protein and lactose.

Q: With reactions to milk, is it OK to have lactose or casein free milk or buffalo milk?

A: No in all three cases. With ImuPro, we are testing the production of antibodies on specific proteins of the food concerned. We don´t test for lactose, because it is not a protein but sugar which does not trigger antibody production. You might have a type III food allergy to dairy products, but this does not necessarily mean you are lactose intolerant and vice versa. Lactose-free milk contains the same proteins as normal milk – up to 30 major proteins. The major milk protein is casein, but we don't differentiate in our test which protein causes a reaction. So, if you consume casein-free milk, you might be able to tolerate it but we cannot predict this. It would be best to totally eliminate milk products for the recommended time. After that, you should reintroduce one product at a time. All this applies to buffalo milk, too.

Q: What does "milk, cooked"mean? The same as pasteurized milk?

A: Cooked milk is boiled milk for at least 30 minutes, cooled down and the developed skin is removed. Boiling degrades the proteins of the milk and destroys most of the antigenic structures. Most patients with a reaction to cow's milk can tolerate boiled cow's milk. It contains the same amount of calcium as raw milk.

Note: Pasteurized milk is only heated for 15 seconds at 75°C. UHT milk is heated for 1 to 2 seconds to 135°C; this is to decontaminate it. The quality of the proteins is not altered – with regard to ImuPro pasteurized milk and UHT milk are to be considered raw mil

Q: Does a reaction to rennet cheese (cow) mean that cheese without rennet is okay? And why is Halloumi cheese tested individually as well as goat's and sheep's milk?

A: Cheese with and without rennet still contains the proteins from the cow's milk used to make the cheese. We therefore would advise you not to have it.

Halloumi is special. The milk (cow, sheep, or goat) used for its production is cooked in several steps for a longer time up to 90°C. During this process it loses some of its antigenicity which makes this cheese more tolerable for people with a milk allergy. So we test for Halloumi, in order to offer a possible additional alternative to patients with a milk allergy.

Q: Does a reaction to milk products mean one has to also avoid lactofermented vegetables like sauerkraut or pickles?

A: No, you might eat them. Lactic acid has nothing to do with milk.

Q: If someone reacts to soybeans, will the reaction be the same as fermented soybeans, like in soy sauce, and miso?

A: Yes, we consider fermented soy products to have the same reaction as soybeans. If soybeans are tested positive, we advise to also eliminate all soy derived products.

Q: How can someone have wheat or kamut hypersensitivity but not hypersensitivity to gluten?

A: The fact that wheat (durum wheat has the same antigens) is positive and gluten is negative is a very normal situation. Wheat proteins consist of gluten and wheat specific proteins which are investigated with two completely different tests. It is possible to be sensitized to either of them or both. The same applies to kamut and other cereals: You can show no reaction to gluten but react to different sorts of flour if you have hypersensitivity to the specific proteins of the cereal.

Q: If someone reacts to gluten, are foods allowed with "May contain traces of gluten"written on the package?

A: There is little likelihood that the products contain gluten. This expression means that the product was produced in an environment where also gluten containing foods are processed. So, if you don´t have celiac disease you are free to enjoy them.

Q: What is to be avoided in case of a reaction to egg protein?

A: All foods containing egg white – which are quite a number of products. Its proteins may be behind the following naming: yolk, egg white, ovalbumin, livetin, albumin, lysozyme, E 1105, globulin, ovomucoid, lecithin, E233. Be aware that also wine can contain egg white.

In cooking, you can replace the binding effect of egg white by mixing 1 tablespoon of soybean flour with 2 tablespoons of water to a paste. Depending on your reactions, you may as well use maize flour, potato flour, or rice flour.

Q: In case of a positive test result for yeast you recommend sourdough as a suitable alternative. How could this be if yeast is produced during fermentation? Isn't it the same with vinegar?

A: Pure sourdough fermentation is mainly done by lactobacilli, a bacterial strain, and hardly any yeast. So, if yeast isn´t added on purpose, sourdough bread should contain only small quantities of yeast. The same with vinegar: Its final fermentation is done by bacteria, acetic acid bacteria mostly from high percentage alcohol, not yeast.

Q: Does a reaction to lemon imply that also citric acid has to be avoided?

A: No. You have reacted to the proteins contained in lemon and citric acid is a single (not allergy inducing) molecule produced chemically.

Q: Does a reaction to vanilla imply that vanilla also has to be avoided?

A: No. Vanillin is a chemically produced flavour and has a different composition.

Q: What does a reaction to "honey (mixture) "mean?

A: ImuPro doesn't test for a specific honey produced from just one kind of flower because you can get numerous specific honeys, mostly locally. So, we opted for the "general honey" you can buy in the supermarket. These honeys are from pooled nectar from different bee colonies harvesting on different flowers. Therefore, it is called "honey (mixture) ". After a positive test the patient should avoid any honey for the recommended period.

Q: With a positive result for tannins what foods should be avoided?

A: Tannin covers a large group of substances and is not uniform from one food or plant to another. As tannins have reduced water solubility, the number of tannins in our food extracts is not high and varies with the ripeness of the fruit. So you cannot relate or correlate the reaction to tannin to the proper reaction of a tannin containing food. We use synthetic tannic acid in our tests. Sensitization is more likely due to exposure to added tannic acid in either drugs, creams, or transformed food. The advice is to reduce rich tannic food. The risk for adverse reaction of this patient´s immune system is probably more to added tannic acids in products rather than in naturally complex tannin containing foods. If you are uncertain about tannin in foods, we recommend consulting a nutritionist.

Q: Can the Aspergillus Niger fungus be eradicated from a food by either freezing or boiling it?

A: Aspergillus is a mould that forms spores. They can survive a long time and under extremely harsh conditions and are extremely resistant to heat, cold, and dryness. Freezing doesn't achieve anything, making it even worse. Heating to boiling point for at least 30 minutes can kill all living form but not the spores which would germinate after cooling. To kill them you must sterilize them, meaning at 125°C at high pressure. So it's easier to avoid the food concerned like nuts, seeds, and dried fruit.

Q: How do you explain to someone who seldomly eats fish when his ImuPro results display a wide range of hypersensitivities to fish? Do omega-3 capsules play a role?

A: First of all, there is no link between omega-3 fatty acids and reactions to fish as for the capsules the fatty acids are separated from the fish proteins.

Secondly, you should be aware that fish proteins are found in a lot of processed foods, where you wouldn't expect them, for example in Caesar salad and Caesar salad dressing, Worcestershire sauce, bouillabaisse, imitation or artificial fish, or shellfish (surimi), meatloaf, barbecue sauce, or caponata, a Sicilian aubergine relish.

Thirdly, it might be a matter of cross-reactivity which between fish is quite complex and has not yet, to our knowledge, been conclusively defined. It depends on what specific protein(s) your antibodies are directed towards. Many patients can eat certain fish, whereas they react (sometimes severely) to others. There is no definitive data regarding cross-reactivity that we can apply to fish in order to guide patients in their choices. However, the fact that they are in separate families does not rule out potential cross-reactivity.

Q: With a reaction to crayfish, should crabmeat be avoided?

A: Crayfish, crabs, shrimp, and lobsters are all crustaceans. With individual results for any of these foods go by that result. If you get a positive result for 1 or 2 of them but the others are not covered due to the size of test you have chosen, then it is best to initially stay away from all of the listed foods you don't have a result for. This is because they share some of the same proteins. Once your symptoms have settled down, try introducing them one at a time into your diet. If you don't feel any adverse effects, then include them in your rotation diet.

Q: Can someone react to bananas and pineapples who has never eaten banana before?

A: Yes, you can. Bananas are present in a lot of flavoured milks, yoghurts, and fruit juices. It is also possible to have a cross-reaction: Bananas and pineapples have common allergenic structures with latex – so if you are allergic or sensitive to latex, a cross-reaction with bananas is possible. There may also be cross-reactions with avocados and melons. The indoor plant Benjamin's fig is another possible source for this allergen which you shouldn´t have in your house if you are sensitive to it.

Q: How is it possible to have a reaction to Brazil nuts having never eaten one, but almonds?

A: If you have a reaction against a food you never ate, it doesn't mean that this is necessarily a false positive reaction. The reason could be a cross-reaction to another food or non-food. Cross-reactions are a well-known phenomenon in all allergic diseases and respective diagnostics.

There is a marked cross-reactivity between almonds and Brazil nuts. There are even more cross-reactions possible between: hazelnuts, cashews, Brazil nuts, pistachios, and almonds. These form a group of moderately cross-reactive tree nuts. So maybe you reacted to one of the other nuts in this group.

It is not possible that the observed reaction to Brazil nuts is caused by the consumption of almonds. If that is the case, then you definitely must also have a reaction against

almonds. So, the reaction is either caused by a cross-reaction to other nuts (if one of them is positive), or another unknown antigen. Other cross-reactions of the 2S Albumin (main epitope) may also occur with cocoa beans, sunflower seeds, rape seeds, castor beans, English walnuts (Jug r 1), mustard seeds (Sin a 1) and sesame seeds. (Ses i 2)

You should also be aware of unexpected exposures from global everyday products. For example: Brazil nut oil is often used in soaps, shampoos, hair conditioning/repair products, and skin moisturizers. The extracts of the Brazil nut pods can be used in insect repellents.

To establish, whether a positive IgG reaction is clinically significant, the ImuPro concept englobes the so-called “provocation phase”. After a 5-8 weeks strict elimination of all IgG-positive foods, food related ailments have improved or have disappeared. This is the ideal time to clinically check if an IgG positive food induces a symptom or not. Each IgG-positive food is now introduced into the diet one by one. This enables you to identify your personal trigger food to be avoided for a longer period of time and those being clinically insignificant, and which could be gradually reintroduced into your diet. For details, please refer to your personal nutritional guide provided with your ImuPro results.

The ImuPro concept is the only IgG food hypersensitivity test system offering this approach, also accepted as the golden standard in allergy diagnostics

Q: How about nutritional yeast? Does it have to be avoided if the test results show a reaction to yeast?

A: We recommend avoiding it since nutritional yeast is in most cases Saccharomyces cerevisiae, the same strain which is tested in ImuPro.

Even though nutritional yeast is deactivated, which means that it can´t multiply anymore, it might not have completely lost its antigenicity. It is probably the same as with yeast used in bread which is also inactive after baking but still has its allergic effect. So, you better avoid yeast during the elimination phase.

When it is reintroduced in the provocation phase you will quickly notice any adverse reaction.

Regarding the Impact and changes induced

Q: How long does it take until the body starts going back to normal after the start of the new diet and how long until some kind of positive changes will be visible?

A: That depends largely on the type of symptoms. Some changes are seen after 2 to 3 days, namely loss of around 2 kg of weight due to release of inflammation related excess water. Digestive symptoms start to improve after 3 to 5 days. Generally, patients report that they feel much better after 3 to 5 days. However, some symptoms, like arthritis or more severe immunological diseases, may take weeks to see a result. And some of your symptoms may not go away because they originate from something other than food hypersensitivities. These include certain defects in the intestinal flora, enzyme defects, and hormonal problems (particularly in women). Other sources can be environmental contaminants, heavy metal burden, and dental metals. All these causes cannot be detected with ImuPro.

Q: Might the symptoms get worse initially?

A: This is very individual. It can happen while your body rids itself of toxins. But most of the time it doesn’t. Normally patients do not experience worsening symptoms for longer than 3 weeks.

Q: If the ImuPro test comes up with a number of reactions, is there any need to be re-tested months down the line?

A: No. Even if a new test does not detect particular antibodies, this doesn´t mean that you can recommend eating all the foods and additives to which a hypersensitivity was detected. Implementing the necessary diet changes reduces the general production of the antibodies which the resumption of the natural function of the intestine is an indicator for. The memory of your immune system reactivates the production of antibodies only when it comes in contact with something it has previously reacted to. So, the test would only need to be repeated if the symptoms were to recur, which is unlikely if you are keeping to your diet and rotation plan instructions. For a repetition of the test, we recommend a waiting period of at least 2 years.

Q: How can it be that despite a high level of IgG antibodies the consumption of this food is allowed once a week and the antibody level will still go down?

A: ImuPro is designed to detect trigger foods responsible for symptoms or increase in weight. That´s why we introduced the provocation phase to find out which foods are responsible for these symptoms. If food causes no reactions, it can be assumed that it is not responsible for the patient´s health problems. If it is not consumed on a regular basis, the respective IgG level will decrease, even though the antibodies might never completely disappear.

Q: What happens after the one-year stabilization? Should food rotation be continued and for how long?

A: Of course, it would be perfect to continue rotation of foods, even though we know that this sometimes is not quite easy to do. Generally speaking, we recommend continuing rotation. Foods which were tested IgG positive but are without symptoms should be further on rotated after the one-year stabilisation – as generally, a varied diet is the best to offer your body a versatility of foods.

Regarding the foods you avoid during the stabilization phase you can start another provocation. Introduce them one by one and see how your body reacts. Food which doesn´t cause a return of symptoms or an increase of body weight after this second provocation can be included into your diet. You may also find out that there are still one or two foods you react to. These you will have to avoid permanently.

FAQs on How Food Categories Impact Your Health

Grains Containing Gluten Sensitivity

Q: What is gluten-containing grains?

A: Gluten-containing grains include those that naturally contain *gluten*, a group of storage proteins found in the prolamin family. Gluten is primarily found in:

- Wheat (including spelt, farro, Kamut)
- Barley
- Rye
- Triticale (a hybrid of wheat and rye). These grains contain proteins such as gliadin and glutenin (in wheat) or hordein (in barley) that give dough its elasticity and texture.

Q: What is gluten intolerance vs. celiac disease?

A: Celiac disease is an autoimmune disorder where ingesting gluten causes damage to the small intestinal lining, specifically flattening of the villi, which impairs nutrient absorption. It is diagnosed through blood tests and biopsy.

Non-celiac gluten sensitivity (NCGS) or gluten intolerance involves gastrointestinal or systemic symptoms in response to gluten ingestion, but without autoimmune markers or intestinal damage seen in celiac disease.

Q: What are the symptoms of intolerance to gluten grains?

A: Symptoms include:

- Digestive issues: bloating, gas, abdominal pain, diarrhoea, constipation
- Neurological symptoms: brain fog, fatigue, headaches
- Skin issues: eczema, rashes
- Mood disturbances: anxiety, depression
- Joint or muscle pain. Symptoms are often due to immune or inflammatory responses to gluten.

Q: Which grains typically contain gluten?

A: Gluten is found in:

- Wheat (including derivatives like durum, semolina, and spelt)
- Barley
- Rye
- Triticale Other grain products can be contaminated with gluten during processing, especially oats.

Q: Can I be intolerant to wheat but not barley or rye?

A: Yes, it's possible. Wheat contains gliadin, while barley and rye contain hordein and secalin, respectively. Some individuals may be sensitive specifically to wheat proteins

(such as in wheat allergy or non-celiac wheat sensitivity) but tolerate other gluten-containing grains.

Q: Are ancient grains like spelt or Kamut safe?

A: No. Spelt and Kamut® are types of wheat and do contain gluten. While they may have slightly different gluten structures, they are not safe for individuals with celiac disease or gluten intolerance.

Q: What foods commonly hide gluten-containing grains?

A: Gluten can be hidden in:

- Processed foods (soups, sauces, seasoning mixes)
- Soy sauce and marinades
- Gravy and dressings
- Imitation meats and vegetarian patties
- Beer and malt beverages
- Liquorice and some candies Always check labels for terms like "wheat starch," "malt extract," or "modified food starch."

Q: Is gluten-free the same as grain-free?

A: No. Gluten-free means a food contains no gluten proteins, but it may still include gluten-free grains like rice, corn, and quinoa. Grain-free means the food contains no grains at all, including both gluten-containing and gluten-free grains.

Q: **Can I tolerate sourdough bread if I have gluten intolerance?**

A: Some individuals with non-celiac gluten sensitivity may tolerate traditionally fermented sourdough because long fermentation reduces gluten content. However, it still contains gluten and is not safe for those with celiac disease.

Q: Are gluten-containing grains used in sauces or dressings?

A: Yes. Many sauces and dressings contain wheat flour, soy sauce (which includes wheat), malt vinegar, or thickeners derived from gluten-containing grains. Always check ingredient lists or opt for certified gluten-free options.

Q: Is gluten intolerance permanent?

A: Celiac disease is a lifelong autoimmune condition, and gluten must be avoided permanently. Non-celiac gluten sensitivity may be long-term or temporary. Some individuals may recover gut health and later tolerate small amounts, while others remain sensitive indefinitely.

Q: Can stress or gut imbalance make gluten sensitivity worse?

A: Yes, both stress and gut imbalance can worsen gluten sensitivity. Chronic stress increases intestinal permeability (leaky gut) and alters immune responses, allowing more gluten peptides to enter the bloodstream and trigger symptoms. Gut imbalance (dysbiosis) reduces beneficial bacteria and impairs digestion and immune regulation, making the body more reactive to gluten.

Gluten-Free Grains & Alternatives

Q: What is gluten-free grains?

A: Gluten-free grains are cereal grains that do not contain *gluten*, a protein complex found in wheat, barley, and rye. Examples include rice, corn, millet, sorghum, teff, and amaranth. These are safe for individuals with celiac disease or non-celiac gluten sensitivity.

Q: Can I be intolerant to gluten-free grains too?

A: Yes. Some people may react to non-gluten proteins or other compounds like lectins or saponins in gluten-free grains. This is especially common in individuals with leaky gut, IBS, or autoimmune conditions.

Q: What symptoms are linked to gluten-free grain intolerance?

A: Common symptoms include:

- Bloating, gas, and abdominal discomfort
- Fatigue or brain fog
- Diarrhoea or constipation
- Skin rashes or eczema
- Joint pain or headaches. These are often due to inflammatory or immune responses to certain grain components.

Q: Which gluten-free grains are most commonly reactive?

A: **Corn**: High in zein (a prolamin), potentially inflammatory
Oats: Contain avenin, which can mimic gluten
Rice: May accumulate arsenic; hard to digest for some
Millet and sorghum: Can be high in FODMAPs

Q: Are pseudo-grains like quinoa and buckwheat safe?

A: Yes, generally. However, quinoa contains saponins (gut irritants if not rinsed), and buckwheat may cause allergic reactions in sensitive individuals or those with cross-reactivity to latex or other foods.

Q: Can grain intolerance lead to bloating or fatigue?

A: Yes. Poor digestion or immune responses to grain proteins can lead to:

- Gut inflammation and gas production
- Nutrient malabsorption
- Chronic fatigue and mental fog

Q: Are flours made from these grains also a problem?

A: Yes. Flours may be more reactive due to finer particles and quicker absorption, leading to faster spikes in blood sugar and intensified immune responses if the whole grain itself causes intolerance.

Q: What are good alternatives to grains in cooking?

A: **Vegetables**: Cauliflower rice, zucchini noodles
Roots: Sweet potato, cassava, plantain
Flours: Coconut, cassava, arrowroot, green banana flour. These options are less inflammatory and often easier to digest.

Q: Are gluten-free grains safe for IBS or leaky gut?

A: Not always. Many gluten-free grains contain fermentable carbohydrates (FODMAPs) or antinutrients that can worsen symptoms in people with IBS, SIBO, or increased intestinal permeability.

Q: Can quinoa or buckwheat trigger reactions despite being gluten-free?

A: Yes. Quinoa's saponins and buckwheat's proteins may cause gut irritation or allergic responses in some sensitive individuals, even though they contain no gluten.

Q: Do gluten-free oats still cause issues?

A: Yes. Even certified gluten-free oats contain avenin, a protein like gluten. Cross-contamination during processing is also common, making oats problematic for some.

Q: What are the signs of improvement after removing gluten-free grains?

A: Many individuals notice the following positive changes:

- Reduced bloating and abdominal pain
- More stable digestion and bowel movements
- Increased energy and clarity
- Improved skin and mood
- Decreased inflammation-related symptoms like joint pain These improvements suggest better digestive health and reduced immune activation.

Eggs

Q: What is egg intolerance?

A: Egg intolerance is a **non-allergic sensitivity** to components of eggs, usually due to difficulty digesting egg proteins like **ovalbumin** (egg white) or **vitellin** (egg yolk). It triggers **delayed symptoms** after egg consumption but does not involve an IgE-mediated immune response like an allergy.

Q: What symptoms can egg cause if I'm intolerant?

A: Common symptoms include:

- Bloating, gas, or stomach cramps
- Diarrhea or constipation
- Fatigue or brain fog
- Headaches or joint pain
- Skin issues like eczema or acne Symptoms typically appear **hours or even a day later** and are related to inflammation or poor digestion.

Q: Can I be intolerant to egg white or yolk only?

A: Yes. Some people react specifically to **egg white proteins** (like ovalbumin, Ovo transferrin) or to **yolk components** (such as lipoproteins). It's possible to tolerate one but not the other

Q: Are baked eggs less reactive?

A: Often, yes. Heating alters the structure of egg proteins, especially in long baking at high temperatures. This can make them **less recognizable to the immune system**, making baked eggs more tolerable for some people with mild intolerance or allergy.

Q: Do vaccines or medications with egg protein affect me?

A: Some vaccines (like certain flu vaccines) are produced using **egg-based culture media**. People with egg **allergy** may react, but those with intolerance usually do **not** experience issues. Always inform your healthcare provider.

Q: What foods commonly contain hidden egg ingredients?

A: Eggs may be present in:

- Baked goods, pancakes, waffles
- Mayonnaise, aioli, salad dressings
- Meatballs, burgers, or processed meats
- Pasta (especially fresh)
- Glazes on breads or pastries Watch for ingredients like **albumin, lecithin (E322 if from egg), globulin, and lysozyme** on labels.

Q: What are good egg replacements in cooking or baking?

A: Effective Egg Substitutes in Cooking & Baking:

- **Flaxseed or chia seed gel** (1 tbsp seed + 3 tbsp water = 1 egg)
- **Mashed banana or applesauce**
- **Silken Tofu**
- **Aquafaba** (chickpea brine, great for whipping)
- **Commercial egg replacers** like Ener-G or Bob's Red Mill

Q: Can I reintroduce eggs after eliminating them?

A: Yes, under guidance. After a **strict elimination period** (usually 4–12 weeks), reintroduction can be done gradually to assess tolerance. Start with small amounts of **well-cooked eggs**, monitoring symptoms.

Q: Are duck or quail eggs less reactive than chicken eggs?

A: Sometimes. Duck and quail eggs contain **slightly different proteins**, and some individuals tolerate them better. However, cross-reactivity is possible, so testing is advised before trying them.

Q: Is egg intolerance common in children?

A: Yes. Egg intolerance or allergy is **one of the most common food sensitivities in children**, but many outgrow it by age 5–7. Intolerance (non-allergic) may persist or resolve with gut maturation.

Q: Can intolerance to eggs go away over time?

A: Yes. Egg intolerance may **resolve** as gut health improves, or the immune system adapts. Regular monitoring and reintroduction trials can help determine if tolerance has returned.

Q: Can I still eat baked goods with eggs in small amounts?

A: Possibly. People with **mild intolerance** often tolerate **eggs in baked goods**, where the proteins are altered by heat. Those with **severe symptoms or true allergy** should avoid all forms, including baked.

Meat

Q: What is meat intolerance?

A: Meat intolerance is a non-allergic food sensitivity where the body has difficulty digesting or reacting negatively to meat proteins, fats, or additives. It differs from a meat allergy, which involves an immune IgE response. Intolerance typically leads to **delayed, non-immune symptoms**.

Q: What symptoms can meat intolerance cause?

A: Symptoms may include:

- Bloating, gas, indigestion
- Fatigue or brain fog
- Nausea or reflux
- Headaches or joint pain
- Skin issues (e.g., acne, rashes)
- Constipation or diarrhea. These are usually due to poor digestion, inflammatory reactions, or intolerance to meat components.

Q: Which meats are most involved?

A: Common culprits include:

- **Red meats**: beef, lamb, pork
- **Processed meats**: sausages, ham, bacon, deli meats
- **Game meats**: venison, duck. Reactions can also occur with poultry or seafood in some cases.

Q: Can I be intolerant to one type of meat and not others?

A: Yes. Some people are intolerant to specific meats like beef but tolerate poultry or fish. Differences in protein structures (e.g., myosin, actin) and fat content may explain selective reactions.

Q: Is processed meat more likely to trigger symptoms?

A: Yes. Processed meats often contain **additives**, **preservatives** (like nitrates/nitrites), **flavour enhancers**, and **gluten or soy fillers**, all of which can contribute to intolerance symptoms. They are harder to digest and more inflammatory for some individuals.

Q: Can meat intolerance cause digestive discomfort or fatigue?

A: Absolutely. Poor digestion of meat proteins or fats can cause bloating, gas, and discomfort. Inflammatory or metabolic reactions can lead to **fatigue, brain fog, or sluggishness** after eating meat.

Q: Are meat broths or extracts also problematic?

A: They can be. **Bone broth, meat stock, and meat extracts** contain proteins, fats, and in some cases **histamines or glutamates** that may trigger symptoms in sensitive individuals, especially if meat intolerance is involved.

Q: What are protein alternatives if I avoid meat?

A: Effective protein alternatives if avoid meat:

- Legumes (lentils, chickpeas, black beans)
- Tofu or tempeh
- Quinoa, amaranth
- Nuts and seeds (if tolerated)
- Plant-based protein powders (pea, rice, hemp)
- Eggs and dairy (if not restricted)

Q: Is intolerance linked to how meat is cooked (e.g., grilled vs. boiled)?

A: Yes. Cooking method can influence tolerance. **Grilled or fried meat** may contain more **advanced glycation end products (AGEs)** and oxidized fats, which are more inflammatory. **Slow-cooked or boiled meats** are often gentler on digestion.

Q: Can red meat vs. white meat trigger different symptoms?

A: Yes. **Red meat** is higher in fat, iron (heme), and certain proteins, which can be harder to digest. Some people react only to red meat while tolerating **white meats** like chicken or turkey.

Q: Are collagen or gelatin supplementing an issue if I react to meat?

A: Potentially. **Collagen and gelatin** are derived from animal connective tissues and may trigger symptoms in people who react to meat, especially if the issue is protein related. However, some tolerate these better due to their hydrolysed form.

Q: Does meat intolerance mean I should go vegetarian?

A: Not necessarily. While reducing or avoiding meat may improve symptoms, it's important to ensure adequate **protein, iron, zinc, and B12** intake. A balanced **plant-based** or **flexitarian** approach may be suitable, but individual needs vary.

Milk & Dairy Products

A: Dairy intolerance is a **non-allergic reaction** to components in milk products, usually due to difficulty digesting **lactose (milk sugar)** or reacting to **milk proteins** such as **casein** or **whey**.

Q: How is dairy intolerance different from lactose intolerance?

A: **Lactose intolerance** involves a **deficiency of lactase**, the enzyme that digests lactose. **Dairy intolerance** can include reactions to **milk proteins** (casein, whey) or **other additives**, even in lactose-free dairy products.

Q: What are the symptoms of milk product intolerance?

A: The symptoms of milk product intolerance:

- Bloating, gas, cramps
- Diarrhea or constipation

- Brain fog or fatigue
- Headaches or joint pain
- Skin flare-ups (e.g., acne or eczema). Symptoms are often **delayed** and non-IgE mediated.

Q: Which dairy products are commonly reactive?

A: Commonly reactive Dairy products in Food Intolerance Testing:

- Milk (cow, goat, sheep)
- Cream, butter, cheese
- Yogurt, ice cream
- Whey protein powders
- Processed foods containing milk solids or caseinates

Q: Can I be intolerant to cow's milk but tolerate goat's or sheep's milk?

A: Yes. Cow's milk proteins differ slightly from those in goat's or sheep's milk. Some individuals tolerate non-cow dairy better, though **cross-reactivity is common**.

Q: Are fermented dairy products (like yogurt) better tolerated?

A: Sometimes. Fermentation reduces **lactose content** and partially breaks down proteins. Some people tolerate **yogurt, kefir, or aged cheeses** better than fresh milk.

Q: What foods often contain hidden dairy?

A: Dairy ingredients are frequently used in processed foods, even when not obvious. Here are common foods where hidden dairy may be found:

- Baked goods and pastries
- Processed meats and sausages
- Chocolate and candies
- Sauces, soups, and salad dressings
- Instant foods and protein bars. Look for ingredients like **casein, whey, milk solids, butterfat, and lactoglobulin**.

Q: What is the best dairy-free alternative?

A: Depends on tolerance:

- **Plant milks**: oat, rice, coconut, almond (check for additives)
- **Dairy-free yogurts** made from coconut or soy
- **Vegan cheese**: nut- or starch-based
- **Calcium-fortified** versions are recommended

Q: Can I be intolerant to milk proteins like casein or whey specifically?

A: Yes. Some people react to either **casein (curd protein)** or **whey (liquid protein)**. This intolerance can occur **independently of lactose issues**.

Q: Is lactose-free milk okay for people with dairy intolerance?

A: Only if the issue is lactose. If you react to **casein or whey**, lactose-free milk may still cause symptoms.

Q: Can dairy intolerance cause brain fog or joint pain?

A: Yes. Systemic inflammation from dairy intolerance may contribute to **brain fog**, **headaches**, or **muscle and joint discomfort** in some individuals.

Q: What happens if I eat dairy by mistake?

A: Symptoms may appear within hours or the next day and may include bloating, fatigue, or skin flare-ups. Severity depends on the level of intolerance and the amount consumed.

Q: If we cut out dairy products completely, wouldn't we run the risk of calcium deficiency?

A: Not necessarily. Calcium can be obtained from:

- Leafy greens (e.g., kale, bok choy)
- Fortified plant milks and juices
- Almonds, sesame seeds (if tolerated)
- Tofu (calcium-set), sardines (if non-vegan)

Q: A patient is reacting to milk. If he uses lactose-free or casein-free milk, will the problem be resolved?

A: It depends. If the reaction is due to **lactose**, lactose-free milk is fine. If it's due to **casein or whey**, removing those specific proteins is necessary. True intolerance must be matched to the trigger.

Q: What does 'baked milk' mean? Isn't it the same as pasteurized milk?

A: No. **Baked milk** refers to milk heated at high temperatures **within baked goods** (e.g., muffins, pancakes). It alters the milk proteins, making them less reactive. **Pasteurization** heats milk only briefly to kill bacteria but doesn't denature proteins as much.

Q: I have a reaction to rennet cheese (cow). Does this mean I can eat cheese without rennet?

A: Possibly. Rennet is used in cheese-making to coagulate milk. Some people react to **rennet-derived peptides**, while others react to **milk proteins** regardless of rennet. Try cheese made with microbial or plant-based coagulants if advised.

Q: If I am lactose intolerant, will this show up in the ImuPro test?

A: No. **ImuPro** measures **IgG antibody levels to proteins**, not enzyme deficiencies. It detects **intolerances to milk proteins** (casein, whey), not lactose, which is a sugar.

Q: Halloumi is cheese made from sheep and goat milk. Why is this cheese also being tested when goat and sheep milk are already tested separately at ImuPro?

A: Because **processing and fermentation** can modify milk proteins. Halloumi may contain unique peptides or additives do not present in pure goat or sheep milk, making it potentially reactive on its own.

Fruits

Q: What is fruit intolerance?

A: Fruit intolerance is a **non-allergic food sensitivity** where certain fruits cause **digestive or systemic symptoms** due to immune reactions (often IgG-mediated), enzyme deficiencies (e.g., fructose malabsorption), or chemical sensitivities (e.g., salicylates, histamine).

Q: What are the common symptoms caused by fruit intolerance?

A: The common symptoms caused by fruit intolerance:

- Bloating, gas, or cramps
- Diarrhea or constipation
- Fatigue or brain fog
- Itchy mouth or throat (oral allergy syndrome)
- Skin rashes or hives
- Sinus congestion or headaches Symptoms are usually **delayed (hours to days)** and not life-threatening.

Q: Can I be intolerant to only one type of fruit?

A: Yes. Intolerance can be **specific to a single fruit** or **grouped by type** (e.g., stone fruits, citrus, tropical fruits). It depends on individual immune responses or enzyme activity.

Q: Are raw fruits more reactive than cooked ones?

A: Often yes. **Cooking breaks down proteins and enzymes** that may cause reactions. Many people tolerate **baked or stewed fruits** better than raw.

Q: What are the most flagged fruits?

A: The most flagged fruits:

- Apples
- Bananas
- Strawberries

- Citrus fruits (orange, lemon)
- Kiwi
- Grapes
- Melons
- Pineapple. These may be flagged due to **fructose**, **salicylates**, or **protein cross-reactions**.

Q: Are fruit juices or smoothies also problematic?

A: Yes. Juices and smoothies can concentrate **fructose and reactive compounds**. They also lack Fiber, leading to **faster sugar absorption** and potentially **stronger symptoms**.

Q: Can fruit intolerance cause skin or sinus issues?

A: Yes. Reactions may include:

- Eczema or rashes
- Hives
- Nasal congestion
- Postnasal drip or sinus pressure This is due to **immune response-related inflammation**.

Q: What are good fruit alternatives or substitutes?

A: Good fruit alternatives or substitutes:

- Low-fructose fruits like **berries**, **papaya**, or **kiwi** (if tolerated)
- Stewed fruits
- Unsweetened vegetable purées (e.g., pumpkin, carrot)
- Natural flavourings (vanilla, cinnamon)
- Small amounts of tolerated fruit for flavour

Q: Can dried fruits cause the same reaction as fresh?

A: Yes, and sometimes worse. Dried fruits are **concentrated sources of sugars**, **sulfites**, and **fermentable carbs**, making them more reactive for sensitive individuals.

Q: Are fruit peels more reactive than fruit itself?

A: In some cases, yes. Peels may contain **higher levels of salicylates, pesticides**, and plant defence proteins. Peeling fruit can reduce reactivity.

Q: Can I be fine with juice but react to whole fruit?

A: Rarely. Most often, it's the opposite—**whole fruits** (with Fiber and enzymes) are better tolerated than concentrated **juice**, though individual responses vary.

Q: What fruits are lowest in natural sugar and easiest on the gut?

A: Lowest Fruits in natural sugar and easiest on the gut:

- **Berries** (e.g., raspberries, strawberries)
- **Avocado** (technically some fruit)
- **Kiwi** (low fructose)
- **Papaya** (gentle on digestion)
- **Lemon and lime** (very low sugar)
- **Rhubarb** (usually cooked). These are often better tolerated by those with fructose sensitivity or gut imbalance.

Seeds & Nuts

Q: What is intolerance to seeds and nuts?

A: Seed and nut intolerance is a **non-allergic immune reaction** or **digestive sensitivity** to specific proteins or oils found in seeds or nuts. Unlike allergies (which can cause immediate, severe reactions), intolerances typically result in **delayed symptoms** and are usually **IgG-mediated** or involve **digestive enzyme insufficiency**.

Q: What symptoms are related to seed/nut intolerance?

A: Seed and nut intolerances can trigger delayed IgG-mediated responses, leading to a range of non-immediate symptoms. These may include:

- Bloating, gas, or stomach cramps
- Headaches or fatigue
- Skin issues (eczema, rashes)
- Joint pain or inflammation
- Constipation or diarrhea
- Brain fog or irritability Symptoms are typically **delayed (hours to days)** after consumption.

Q: Can I be intolerant to just one seed or nuts?

A: Yes. Intolerance can be **specific** to one type (e.g., almonds, sesame) or a **group**. It depends on **individual immune responses** or sensitivity to specific proteins or compounds.

Q: Are raw seeds/nuts more reactive than roasted?

A: In many cases, yes. **Raw seeds and nuts contain active enzymes and anti-nutrients** like lectins and phytates, which can increase reactivity. **Roasting** may reduce some of these compounds, making them more tolerable for some individuals.

Q: Are seed oils (like sesame oil) also problematic?

A: Yes. **Cold-pressed or unrefined oils** retain protein traces that can trigger intolerance. Highly refined oils may be better tolerated but still pose a risk in sensitive individuals.

Q: Which seeds and nuts are most flagged?

A: Certain seeds and nuts are more frequently identified as reactive in IgG-based food intolerance tests like ImuPro. These include:

- Almonds
- Walnuts
- Cashews
- Hazelnuts
- Peanuts (a legume but commonly tested)
- Sesame seeds
- Sunflower seeds
- Chia and flaxseeds These are commonly flagged in food sensitivity tests due to their protein content and oil structure.

Q: What products commonly contain hidden nuts or seeds?

A: Products That Commonly Contain Hidden Nuts or Seeds:

- Granola bars, protein bars
- Nut-based flours (almond flour)
- Seed oils (sunflower, sesame, flax)
- Pesto (pine nuts)
- Vegan cheeses or milks
- Baked goods and desserts
- Crackers, cereals, dressings, and sauces

Q: What are safe snacks or protein alternatives?

A: Safe Snack and Protein Alternatives:

- Cooked legumes (if tolerated)
- Coconut (if not sensitive)
- Rice protein or pea protein (check for cross-reactivity)
- Roasted chickpeas or lentil chips
- Pumpkin or squash purée (for creamy textures)
- Carrot, cucumber sticks with hummus (if safe)

Q: Are nut butters like almond or peanut butter reactive if I'm intolerant?

A: Yes. Nut butters contain **concentrated proteins and oils**, which can trigger symptoms if you're intolerant. Even small amounts may lead to delayed reactions.

Q: Can roasting reduce the reactivity of nuts or seeds?

A: Yes, in some cases. **Heat denatures proteins**, reducing immune reactivity. However, roasting doesn't eliminate all reactive compounds, and some individuals still react.

Q: Are seeds or nut milk (like almond milk) safe?

A: If you're intolerant to the source (e.g., almonds), nut milks are **not safe**, even if diluted. They contain **residual proteins** that can trigger symptoms.

Q: What are safe, crunchy, or healthy fat alternatives?

A: Healthy, Crunchy, and Safe Fat Alternatives for Sensitive Individuals:

- **Olives or olive oil**
- **Avocado slices or guacamole**
- **Roasted chickpeas or lentils**
- **Coconut chips (if tolerated)**
- **Roasted vegetables** (e.g., carrot or beet chips)
- **Rice cakes or popped sorghum**

Salads & Raw Vegetables

Q: What is intolerance to salads or raw vegetables?

A: This is a **non-allergic food sensitivity** in which the digestive system reacts negatively to raw vegetables or salads. It often involves **delayed immune responses (IgG)**, **enzyme deficiencies**, or **gut microbiota imbalances** leading to poor digestion of raw plant fibers.

Q: What symptoms can raw vegetable intolerance cause?

A: Symptoms Linked to Raw Vegetable Intolerance:

- Bloating or gas
- Abdominal cramps or discomfort
- Nausea
- Loose stools or constipation
- Fatigue
- Brain fog These symptoms may appear **several hours after eating** and vary in intensity.

Q: Which salad vegetables are commonly involved?

A: Commonly Reactive Salad Vegetables in Food Intolerance:

- Lettuce (romaine, iceberg)
- Cabbage
- Kale
- Spinach
- Broccoli

- Cauliflower
- Onions
- Garlic
- Cucumbers These vegetables are often high in **FODMAPs**, **insoluble fiber**, or **plant defense compounds** (e.g., oxalates, lectins).

Q: Is it the raw form that causes problems?

A: Yes. Raw vegetables are **harder to digest** due to **tough cell walls, higher fiber**, and **enzyme inhibitors**. Cooking breaks down many of these compounds, making the vegetables easier on the gut.

Q: Can I still eat cooked vegetables if I'm intolerant to raw ones?

A: Usually yes. **Steaming, boiling, or roasting** softens fiber and reduces fermentable sugars, making cooked vegetables **more tolerable** for most individuals with raw vegetable intolerance.

Q: Why do raw vegetables cause bloating or discomfort?

A: Raw veggies contain **fermentable fibers (like FODMAPs)** and **resistant starches** that gut bacteria ferment, producing gas. If you have **gut dysbiosis**, **IBS**, or **enzyme deficiencies**, this fermentation can cause bloating and discomfort.

Q: Should I avoid all salads if I'm intolerant to one ingredient?

A: Not necessarily. Intolerance is often **ingredient specific**. Try eliminating suspected vegetables and reintroduce others slowly. A **symptom diary or IgG test** can help identify specific triggers

Q: Can juicing or blending help reduce symptoms?

A: Yes, for some people. **Blending** (as in smoothies) partially breaks down fiber, aiding digestion. **Juicing** removes fiber entirely, which may reduce symptoms, but also **removes beneficial nutrients**. Introduce slowly and monitor tolerance.

Spices & Herbs

Q: What is intolerance to spices and herbs?

A: Spice and herb intolerance refers to a **non-allergic reaction** where the body reacts to specific compounds in herbs or spices. It is typically **IgG-mediated** or related to **digestive sensitivity** and does not involve an immediate immune (IgE) response like allergies do.

Q: What are the symptoms of spice or herb intolerance?

A: Symptoms of Spice and Herb Intolerance:

- Bloating, nausea, or indigestion

- Headaches
- Skin reactions (rashes, itching, acne)
- Fatigue or brain fog
- Nasal congestion or sinus issues. Symptoms are **delayed**, often appearing **several hours to days after exposure**.

Q: Which spices/herbs are commonly reactive?

A: Spices and Herbs Most Commonly Flagged in Intolerance Tests:

- Black pepper
- Cinnamon
- Paprika
- Chili powder
- Coriander
- Cumin
- Garlic powder
- Ginger
- Mustard seed
- Turmeric These are common due to their potent bioactive compounds and frequent use in processed foods.

Q: Can I be intolerant to only one spice or herb?

A: Yes. Intolerance is often **specific to individual herbs or spices**. It depends on how your immune system or digestive tract reacts to particular components, such as **essential oils**, **phenols**, or **alkaloids**.

Q: Are powdered spices more problematic than fresh ones?

A: Often, yes. **Powdered spices are more concentrated** and may contain **additives or preservatives**. Drying and processing can alter their chemical structure, potentially making them more reactive.

Q: Are spice blends a risk?

A: Yes. Spice blends often contain **multiple ingredients**, including hidden allergens or fillers. They increase the risk of exposure to **reactive or cross-contaminated compounds**.

Q: What can I use as a seasoning alternative?

A: Seasoning Alternatives for Spice or Herb Intolerance:

- Fresh herbs (like parsley, basil, or dill) (if tolerated)
- Lemon juice or zest
- Apple cider vinegar
- Coconut aminos (if not sensitive)

- Slow-cooked onions or garlic (if raw is intolerant)
- Mineral-rich salts (like pink salt) These offer flavor without triggering sensitive pathways.

Q: Can spice intolerance cause skin breakouts or inflammation?

A: Yes. Spices can influence **systemic inflammation**, especially if they trigger an **immune or gut reaction**. This may manifest as **acne, eczema, hives, or flushing** in sensitive individuals.

Fish & Seafood

Q: What is fish or seafood intolerance?

A: Fish or seafood intolerance is a **non-allergic food sensitivity** where the body has difficulty digesting or processing components in fish or shellfish. It may involve **IgG immune responses**, **enzyme deficiencies**, or **gut imbalances**, leading to delayed symptoms.

Q: How is this different from a seafood allergy?

A: A seafood allergy is an **IgE-mediated** reaction involving the immune system, which causes immediate and sometimes severe symptoms (e.g., hives, swelling, anaphylaxis). Intolerance is **non-IgE-mediated**, delayed, and **less severe**, but still uncomfortable.

Q: What symptoms does seafood intolerance cause?

A: Symptoms of Seafood and Shellfish Intolerance:

- Bloating or indigestion
- Headaches
- Fatigue
- Skin rashes
- Nasal congestion
- Brain fog
- Joint pain or inflammation. These symptoms typically occur **hours or days after consumption**.

Q: Which fish and seafood items commonly cause intolerance?

A: Fish and Seafood Items Commonly Involved in Intolerance:

- Tuna
- Salmon
- Cod
- Shrimp
- Crab
- Mussels

- Oysters. Some people react to the **muscle proteins**, while others may be sensitive to **histamines** or **contaminants** like mercury in fish.

Q: Can I be intolerant to one type of seafood but not others?

A: Yes. Intolerance can be **specific to a single species or group** (e.g., shellfish vs. finned fish). Testing or a careful elimination diet can help identify which items are safe.

Q: Are canned or processed seafood safer?

A: Not always. Canned or processed seafood may contain **preservatives, histamines, or additives** that worsen intolerance symptoms. However, some people tolerate them better due to **reduced protein structure from cooking**.

Q: Can I get omega-3s from other sources if I avoid fish?

A: Yes. **Algal oil** (derived from marine algae) is a **plant-based omega-3 source** rich in EPA and DHA. Flaxseeds and chia also provide ALA (a precursor to omega-3), though conversion in the body is limited.

Q: Does fish oil cause a reaction in seafood-intolerant individuals?

A: It can. Fish oil supplements may still contain **trace proteins or contaminants** that trigger symptoms. Individuals with intolerance should consider **molecularly distilled** or **algae-based omega-3** as safer alternatives.

Teas

Q: What is tea intolerance?

A: Tea intolerance refers to a **non-allergic sensitivity** to certain compounds found in tea, which can cause **delayed digestive, neurological, or skin-related symptoms**. It is not the same as a tea allergy, which is an immune-mediated IgE reaction.

Q: Which types of tea can cause intolerance?

A: Commonly reactive teas include:

- Black tea
- Green tea
- Oolong tea
- White tea These teas come from the *Camellia sinensis* plant and contain caffeine, tannins, and polyphenols, which can trigger sensitivities.

Q: What symptoms are common?

A: General Symptoms Associated with Food Intolerances:

- Bloating or stomach upset
- Headaches or brain fog

- Fatigue
- Skin rashes or acne
- Anxiety or palpitations
- Acid reflux These symptoms can appear **hours after consumption**.

Q: Is the reaction due to caffeine?

A: Sometimes. People with **caffeine sensitivity or slow caffeine metabolism** may react to tea. However, reactions may also occur due to **other compounds**, such as **tannins or flavonoids**.

Q: Can herbal teas also trigger intolerance?

A: Yes. Herbal teas (e.g., chamomile, peppermint, licorice, hibiscus) may cause intolerance due to their **bioactive compounds, essential oils, or plant-specific allergens**. Some people react to specific herbs even if they tolerate others.

Q: Is decaffeinated tea safer?

A: Possibly. **Decaf tea reduces caffeine exposure**, which may help those with caffeine intolerance. However, decaf tea still contains **tannins, flavonoids, and other compounds** that can cause reactions in sensitive individuals.

Q: Can I drink rooibos or fruit teas if I react to regular tea?

A: Rooibos and fruit teas are **naturally caffeine-free** and come from different plants. They are often better tolerated but can still cause symptoms in some individuals, especially if blended with spices or citrus peels.

Q: Are cold teas and iced teas equally reactive?

A: Yes. The temperature of the tea does not significantly affect its **chemical composition**. Cold or iced teas may still cause reactions if the underlying compounds are not tolerated.

Coffee & Tannins

Q: What is coffee intolerance?

A: Coffee intolerance is a **non-allergic food sensitivity** where the body has difficulty processing certain compounds in coffee, such as **caffeine, chlorogenic acid, or tannins**, leading to **digestive, neurological, or skin symptoms**. It is not an IgE-mediated allergy.

Q: Is it caused by caffeine?

A: Not always. While caffeine is a **common trigger** due to its stimulating effects, some people are intolerant to **other components** in coffee, such as **acids, oils (cafestol), or polyphenols**.

Q: What are tannins and why are they a problem?

A: Tannins are **plant-based polyphenols** found in coffee, tea, wine, and some fruits. They can bind to proteins and iron in the gut, potentially causing **digestive irritation, nausea, or reduced nutrient absorption** in sensitive individuals.

Q: What symptoms are linked to coffee or tannin intolerance?

A: Symptoms Related to Coffee or Tannin Intolerance:

- Bloating, acid reflux, or stomach pain
- Headaches or brain fog
- Fatigue or jitteriness
- Palpitations or anxiety
- Skin breakouts
- Loose stools or gut inflammation Symptoms may occur **1–12 hours after ingestion** and are usually **dose-dependent**.

Q: Can I tolerate decaf if I react to coffee?

A: Possibly. Decaffeinated coffee reduces caffeine content, which may help those sensitive to it. However, **tannins and acids** are still present, so decaf may still cause symptoms for some individuals.

Q: Are plant-based coffee alternatives safer?

A: Yes, alternatives like **chicory root, dandelion root, roasted barley, or carob** may be better tolerated. However, people with **gluten sensitivity** should avoid barley-based substitutes. Chicory may also trigger reactions in some.

Q: Can I still take caffeine through other sources?

A: It depends. Some people tolerate **green tea, guarana, or caffeine pills** better than coffee. However, **slow caffeine metabolizers** may experience similar symptoms regardless of the source.

Q: Can coffee cause skin breakouts or gut inflammation?

A: Yes. Coffee can increase **cortisol levels** and **stimulate the gut lining**, contributing to **inflammation, breakouts, or leaky gut** in sensitive individuals. This is especially true for those with **pre-existing gut or hormonal imbalances**.

Mushrooms

Q: What is mushroom intolerance?

A: Mushroom intolerance is a **non-allergic food sensitivity** where the body has difficulty digesting or reacting to **compounds in fungi**, especially the carbohydrates or proteins

found in edible mushrooms. Unlike an allergy, this response does not involve the immune system's IgE antibodies.

Q: Which mushrooms commonly cause intolerance?

A: Mushrooms Most Commonly Associated With Food Intolerance:

- Bay boletus
- boletus
- Chanterelle
- Meadow mushrooms
- Oyster mushrooms
- Shiitake

Q: What are the symptoms of mushroom intolerance?

A: Symptoms of Mushroom Intolerance:

- Bloating or gas
- Stomach cramps
- Nausea or diarrhea
- Headaches
- Brain fog
- Fatigue
- In some cases, skin irritation or rashes

These symptoms often appear **several hours after consumption** and are usually related to poor digestion or immune reactivity.

Q: Are all types of mushrooms problematic?

A: Not necessarily. Some individuals may react only to specific types. **Medicinal mushrooms** like reishi or cordyceps may also cause issues, especially in extract form, due to their high concentration of **bioactive compounds**.

Q: Can cooking mushrooms reduce the reaction?

A: Yes, partially. **Cooking breaks down some of the complex carbohydrates and proteins**, making mushrooms easier to digest and reducing the potential for symptoms. However, cooking may not eliminate all triggers.

Q: Are mushroom powders or extracts safe?

A: These products can be **more concentrated** and may cause stronger reactions in sensitive people. **Powders, capsules, or tinctures** made from reishi, lion's mane, or shiitake may be problematic if you're intolerant.

Q: What foods commonly contain hidden mushrooms?

A: Foods That May Contain Hidden Mushrooms:

- Gravies and soups
- Broths and stocks
- Plant-based meat substitutes
- Sauces (especially Asian cuisine)
- Seasoning mixes
- Nutritional supplements (e.g., mushroom blends)

Always read ingredient labels to check for terms like fungal extract, mycoprotein (e.g., Quorn), or umami enhancer.

Q: Can I replace mushrooms with something else for umami flavour?

A: Yes. Umami-rich, mushroom-free alternatives include:

- Sun-dried tomatoes
- Caramelized onions
- Seaweed (like kombu or nori)
- Black garlic
- Coconut **aminos**

These options can mimic the savory, umami depth mushrooms provide without triggering symptoms.

Special Ingredients (Cocoa, Vanilla, etc.)

Q: What falls under the "Specials" category in food intolerance testing?

A: This category includes **commonly consumed but non-essential items** such as cocoa, vanilla, coconut, honey, gelatin, caffeine, and other non-grain, non-meat, non-fruit ingredients often added for flavour or function.

Q: What are the common symptoms of intolerance to these items?

A: Common Symptoms of Intolerance to Special or Mixed Ingredients:

- Digestive discomfort (bloating, cramps, nausea)
- Headaches or migraines
- Skin rashes or acne
- Fatigue
- Mood changes or brain fog
- Respiratory or sinus symptoms in some cases

Q: Can I be intolerant to only cocoa or vanilla?

A: Yes. It is possible to be intolerant to **one specific compound**, such as **theobromine in cocoa** or **vanillin in vanilla**, without reacting to the entire category.

Q: Does this mean I have to avoid all chocolate?

A: Not always. It depends on whether your reaction is to **cocoa solids, cocoa butter, or added ingredients**. You may tolerate **white chocolate** (which has no cocoa solids) or chocolates with low cocoa content.

Q: What are good chocolate alternatives?

A: Safe Alternatives to Chocolate for Sensitive Individuals:

- Carob powder or chips
- Coconut-based desserts
- Fruit-based treats (like date or fig bars)
- Vanilla or cinnamon-flavoured alternatives

These mimic chocolate's richness without containing cocoa.

Q: Can natural vanilla cause reactions?

A: Yes. Some people react to **natural vanilla extract**, which contains alcohol and vanillin. Others may tolerate **synthetic vanillin** better—or vice versa.

Q: What if I react to gelatin or honey?

A: Gelatin is an **animal protein** (collagen-based) and can trigger symptoms in those with **meat-related or protein intolerances**. Honey, being high in **fructose and enzymes**, may cause digestive symptoms in sensitive individuals.

Q: Does coconut intolerance include coconut oil or milk?

A: Often yes, but it depends. **Coconut oil contains mostly fat**, while **coconut milk and flesh contain proteins and sugars** that may be more reactive. People intolerant to coconut often react to all forms.

Q: I react to vanilla. Should I avoid vanillin?

A: Possibly. Vanillin, whether natural or synthetic, is often the **trigger compound** in vanilla sensitivity. If you react to natural vanilla, it's advisable to avoid both until tested separately.

Algae

Q: What is algae intolerance?

A: Algae intolerance is a non-IgE-mediated sensitivity characterized by adverse reactions to bioactive compounds in edible algae. It often involves IgG-mediated immune responses or digestive difficulties with sulfated polysaccharides (e.g., alginate, fucoidan), proteins, and pigments that the human gut cannot fully break down.

Q: Which algae types can cause reactions?

A: Types of Algae That Can Trigger Food Intolerance:

- Microalgae: Spirulina (*Arthrospira*), Chlorella
- Cyanobacteria (blue-green algae)
- Macroalgae (seaweeds): Nori (*Porphyra*), Dulse (*Palmaria palmata*), Wakame (*Undaria pinnatifida*), Kelp (*Laminaria*)

Q: What are the symptoms?

A: Typical Symptoms of Algae Intolerance:

- Gastrointestinal: bloating, cramps, diarrhea, nausea (due to fermentation of polysaccharides)
- Neurological: headaches, dizziness, brain fog (possibly histamine release)
- Systemic: fatigue, muscle weakness
- Dermatological: rashes, itching (in histamine-sensitive individuals)

Q: Why are algae becoming more common triggers?

A: Algae consumption has soared as a “superfood” and supplements. Their incorporation into protein powders, snacks, natural colorants (e.g., spirulina blue, dulse red), and hydrocolloids (carrageenan, agar) exposes more people to algal compounds.

Q: Can I be intolerant to one type of algae but tolerate another?

A: Yes. Individual sensitivity profiles vary by species and preparation. For example, a person may tolerate nori but react to spirulina, depending on the specific proteins or polysaccharides they contain.

Q: Where are hidden algae ingredients found?

A: Sources of Hidden Algae in Everyday Foods:

- Hydrocolloids: carrageenan, agar-agar, alginates in dairy alternatives, desserts, and sauces
- Natural colorants: spirulina extract in candies and beverages
- Protein blends: vegan powders and bars
- Seaweed snacks and sushi wraps

Q: Is seaweed the same as algae?

A: Yes. Seaweed refers to edible macroalgae (large aquatic plants). Microalgae (e.g., spirulina) are microscopic but share many compounds and can trigger similar sensitivities.

Q: Are algae-based supplements safe during elimination?

A: No. All algal products—including powders, capsules, and foods containing algae derivatives—should be avoided during an elimination phase. After symptoms resolve, individual species can be reintroduced under professional guidance.

Sweeteners

Q: What is sweetener intolerance?

A: Sweetener intolerance is a digestive sensitivity to certain artificial or natural sweeteners, where the body has difficulty processing them, leading to uncomfortable symptoms. This is not an allergy, and it involves non-IgE-mediated responses, typically related to digestive or metabolic issues.

Q: Which sweeteners can trigger intolerance?

A: Common sweeteners that can trigger intolerance include:

- Artificial sweeteners: Aspartame, sucralose, saccharin, acesulfame K.
- Sugar alcohols: Sorbitol, xylitol, mannitol, erythritol.
- Natural sweeteners: Stevia, monk fruit (in sensitive individuals), agave nectar (in some cases).

Q: What symptoms are linked to sweetener intolerance?

A: Symptoms of sweetener intolerance can include:

- Digestive issues: Bloating, gas, diarrhea, stomach cramps.
- Headaches or migraines.
- Fatigue and mood swings.
- Skin issues: Rashes, acne, or irritation.
- Brain fog or mental fatigue.

Q: Is sugar intolerance the same as sweetener intolerance?

A: No, sugar intolerance is typically a sensitivity to natural sugars like fructose or sucrose, which can cause digestive issues or metabolic reactions. Sweetener intolerance, on the other hand, refers to a sensitivity to artificial or sugar substitutes, including sugar alcohols and natural sweeteners.

Q: Why are sugar alcohols often problematic?

A: Sugar alcohols (such as sorbitol, xylitol, and erythritol) are poorly absorbed by the body and can ferment in the gut, leading to gas, bloating, diarrhea, and other digestive discomforts. These are often included in sugar-free products and can be problematic for sensitive individuals.

Q: Is stevia safe if I'm avoiding sugar?

A: For most people, stevia is considered a safe alternative to sugar. It is a natural sweetener that does not cause significant spikes in blood sugar levels and is unlikely to trigger intolerance for most individuals. However, some people may still experience digestive discomfort or mild allergic reactions to stevia or its compounds.

Q: Where are hidden sweeteners commonly found?

A: Hidden sweeteners can be found in many processed foods and drinks, such as:

- Sugar-free or low-sugar products: Candy, gum, ice cream, and baked goods.
- Diet sodas and beverages (including sugar substitutes like aspartame or sucralose).
- Pre-packaged sauces, dressings, and condiments.
- Packaged snacks like granola bars and protein bars.
- Vitamins and medications (sugar alcohols are sometimes used as fillers).

Q: What can I use as a sweet alternative?

A: There are several natural and less problematic alternatives to sweeteners:

- Monk fruit: A natural, low-calorie sweetener with no impact on blood sugar.
- Stevia: As mentioned, it's a natural alternative that doesn't affect blood sugar.
- Maple syrup (in moderation): Contains natural sugars and can be a better option for some people than refined sugars or artificial sweeteners.
- Honey (for non-vegans): A natural sweetener that is less processed than refined sugar.