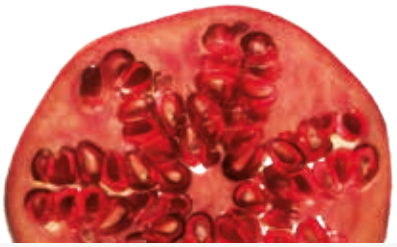
ImuXPro

RIGHT FOOD.
BETTER HEALTH.

DIAGNOSIS & TREATMENT OF IgG FOOD ALLERGIES AS INDIVIDUAL AS YOUR PATIENTS SYMPTOMS

IgG FOOD ALLERGIES

IgG food allergies (type III) are causing more and more health challenges. Such IgG-mediated allergies often remain undetected because the symptoms only occur a few hours or even days after the consumption of a “trigger food”, making them **extremely difficult to identify**.



Fortunately, a **reliable diagnostic test and nutritional concept can help: ImuPro**. With ImuPro, you will find out whether or not an IgG food allergy could be the cause of your patients chronic complaints.

How does an IgG food allergy develop?

With type III food allergies, the immune system reacts to harmless food allergens and produces specific IgG antibodies. Due to medicines, infections, mycosis, stress and environmental poisons, the integrity of the intestinal wall can be damaged and food components can slip between the intestinal cells. In some cases this triggers an immune response and the immune system starts to produce specific IgG antibodies against them.

These antibodies and the food antigens form immune complexes which can adhere to organs and tissues. When the immune complexes are destroyed by phagocytic cells and the complement system, the surrounding tissues can be damaged. This leads to **low-grade inflammatory conditions**, which can become chronic. The symptoms are delayed.

POSSIBLE SYMPTOMS

Gastrointestinal Complaints

- Bloating
- Constipation
- Crohn’s disease
- Diarrhoea
- Irritable Bowel Syndrome (IBS)
- Nausea

Chronic Pain

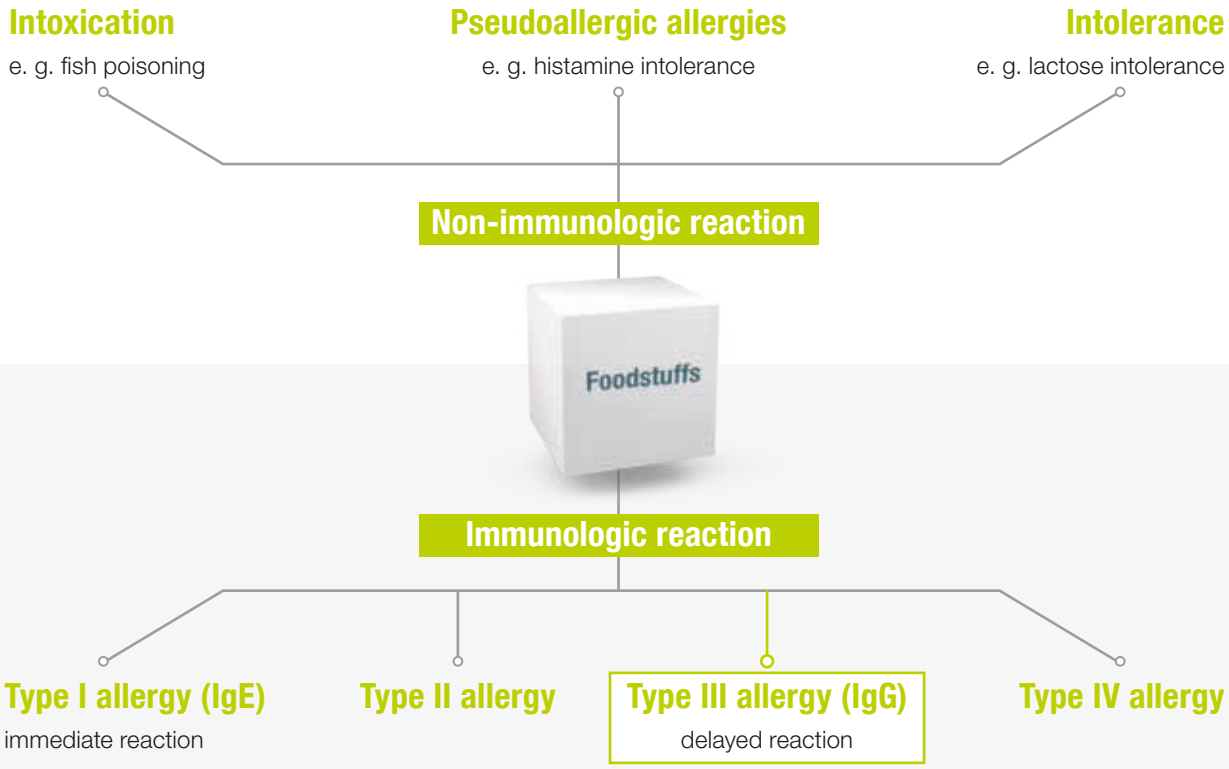
- Headaches
- Migraines

Excess Weight

- Chronic weight problems
- Obesity

Skin Problems

- Atopic dermatitis-like skin problems
- Eczema
- Psoriasis



What is the difference between a classic allergy and delayed food allergy?

What both allergies have in common is that the immune system is involved. But there are some differences in the way it reacts.

A classic type I allergy is when the immune system produces specific **IgE antibodies.** These antibodies lead to an immediate allergic reaction. The symptoms appear within seconds or minutes: severe swelling, breathing difficulty, rash, itching skin or even anaphylactic shock. **ImuPro does not detect these IgE-mediated food allergies**.

A type III food allergy is when the immune system produces specific **IgE antibodies**. These antibodies can lead to inflammatory processes. The symptoms appear up to three days after the consumption of a trigger food.

The origin of a large number of chronic complaints has not been identified yet. It is assumed that IgG food allergies (type III) play a role in some chronic complaints and thus might offer an interesting and promising therapeutic approach. However, these interactions are not scientifically proven yet and are still being discussed among scientists. On the other hand, a growing number of publications and a large amount of anecdotal evidence support the idea that elimination diets based on foodstuff specific IgG antibody measurements result in improved symptoms in patients.

THE IMUPRO CONCEPT

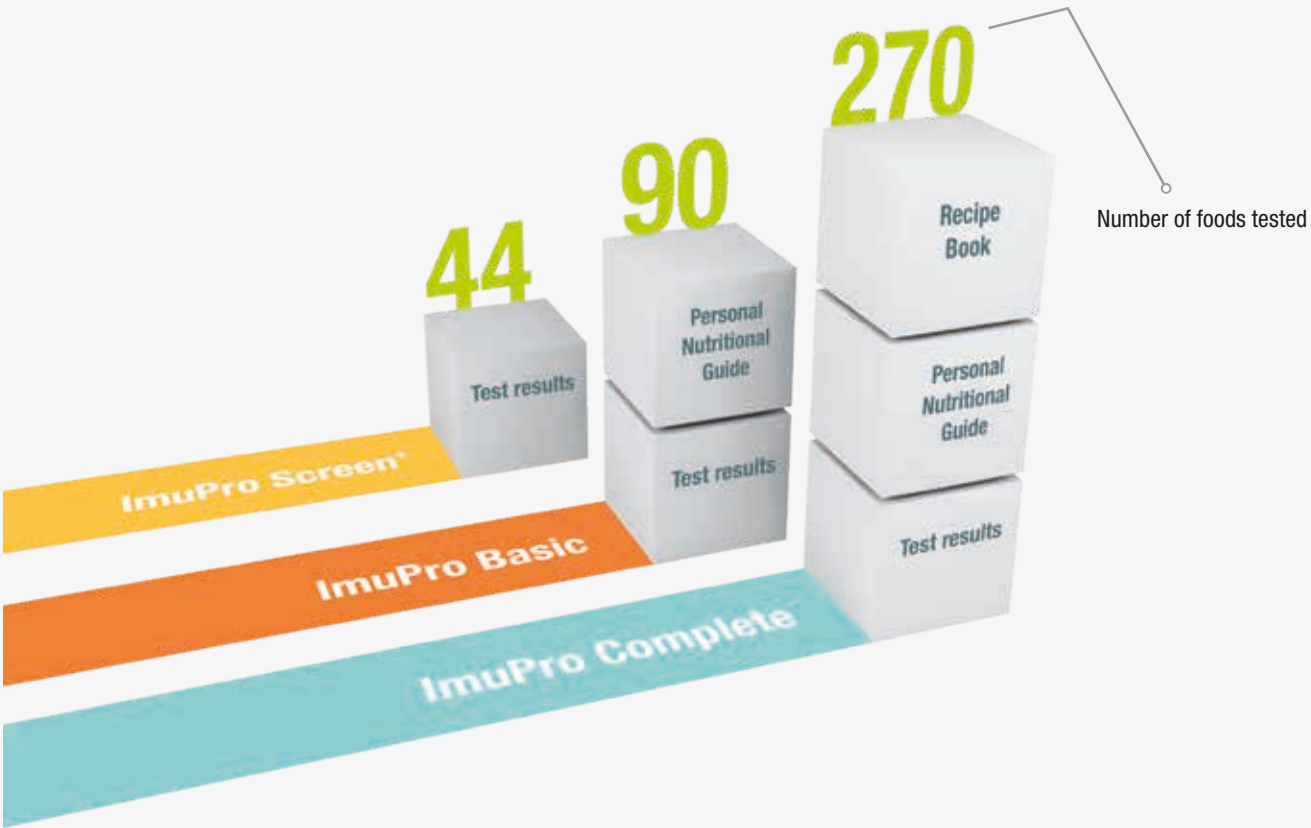
ImuPro is a concept that combines a **sophisticated and reliable blood analysis** for IgG food allergies with **unique post-test guidance**.

In an extensive laboratory analysis, high levels of IgG antibodies specific to particular food proteins are identified. Testing foods individually allows the patients to change their diet very selectively based on their results and limits the level of restriction required, **increasing their chance of success**.

Along with the test results, comprehensive nutritional guidelines and professional support are provided for you and your patients.

BUILDING BLOCKS TO A HEALTHIER LIFE:

- Elaborate and reliable IgG test
- Individual dietary recommendations
- Tasty personalised recipes
- Handy rotation and provocation plan
- Helpful wallet card with the patient's possible trigger foods
- Practical tips for everyday life
- Professional scientific and nutritional advice



THE DIAGNOSTICS

The **ImuPro test** is performed by a highly professional and specialised in-vitro diagnostic laboratory. The lab analyses the patient's sample and determines the presence of specific IgG antibodies to a broad variety of foodstuffs in the patient's blood. The test is carried out using the **E**nzyme **L**inked **I**mmunoSorbent **A**ssay (ELISA) test method, a very reliable standard procedure in laboratory analysis.

Based on the results of the antibody titre, the foodstuffs are categorised into three groups: "not elevated", "elevated" and "highly elevated". The lab provides you and your patient with **test results** and **personal nutritional guidelines**.

Procedure

Physician-patient consultation:
Is it likely to be an IgG food allergy?

Blood withdrawal and shipment:
You take the patient's sample and send it to the laboratory.

Laboratory analysis and evaluation:
The sample is analysed in the specialised lab using the ELISA technique.

Sending of results and nutritional guidelines:
Within a short time, you receive test results and comprehensive documents for the patient.

Physician-patient consultation:
You discuss the results with your patient and advise them regarding their dietary changes.

ImuPro is a trusted German product. The diagnostics of R-Biopharm's quality management systems have been certified according to the international standard ISO 9001 and ISO 13485.
All tests are validated, CE-marked according to IVDD and used by accredited testing laboratories.

THE NUTRITIONAL STRATEGY

ImuPro supports you and your patients with nutritional guidelines based on the individual test results. These guidelines contain three important building blocks: elimination phase, provocation phase and stabilisation phase.

The nutritional guidelines contain 3 important building blocks:

1 Elimination phase

During the elimination, phase the patient may consume all the foods without raised levels of IgG antibodies in a **4-day rotation cycle**. This helps to prevent the development of new delayed food allergies and malnutrition. All foods with high levels of IgG-antibodies **are avoided** during this phase. By avoiding them, inflammatory processes can be reduced or even stopped.

2 Provocation phase

After the elimination phase, the patient starts a provocation diet and gradually includes the avoided foods one by one. The provocation phase helps to find the personal **trigger foods**. Only one new food at a time should be reintroduced in order to find out whether it might be responsible for the patient's complaints.

3 Stabilisation phase

During the stabilisation phase, the trigger foods identified in the provocation phase are avoided for at least one year so that the IgG antibodies can degrade and **the body can recover**. Then the patient starts another provocation phase. There may be one or two foods that the patient will have to avoid permanently

THE IMUPRO OPTIONS

ImuPro Screen+ provides an individual analysis of **44 common foods**, such as dairy products, cereals and chicken egg. The patient will receive a comprehensive report with accurate results at a glance. Dietary recommendations are not included.

- Comprehensive report containing accurate results for all the tested foods at a glance

ImuPro Basic tests the **90 most important foods**, such as typical kinds of meat, vegetables, fruits, cereals, dairy products and chicken egg. As well as a comprehensive report with accurate results at a glance, the patient will receive personal nutritional guidelines which include individual recommendations for the 4-day rotation.

- Comprehensive report containing accurate results for all the tested foods at a glance
- Personalised nutritional guide

ImuPro Complete tests **270 foods and additives** (incl. the 90 foods in ImuPro Basic). In addition to the typical kinds of meat, vegetables, fruits, cereals, milk and egg, their alternatives and region-specific foods are also tested. Furthermore, a huge number of spices, tea, coffee, wine and also thickening agents and preservatives are examined. The diet can be changed very selectively based on the findings. This means that the patient will have a variety of alternatives for the 4-day rotation. The patients will receive a comprehensive report with accurate results at a glance and personal nutritional guidelines which lead them through their change in diet. The results pack also includes individual recommendations for their 4-day rotation and a recipe book which is specifically tailored to the patients' needs.

- Comprehensive report containing accurate results for all the tested foods at a glance
- Personalised nutritional guide
- Individual recipe book specifically tailored to their personal needs

IMUPRO – FOR SATISFIED PATIENTS AND A THRIVING PRACTICE

Position yourself as an expert in the field of IgG food allergies and reap the benefits of ImuPro.

Personalised diagnosis and **post-test guidance**

High precision, accuracy and **reproducibility** – all key components for performing the test are **manufactured in Germany**

Clinical studies performed with ImuPro covering a wide range of complaints

International case studies and testimonials from doctors and patients

Professional **scientific and nutritional** advice

Marketing material to inform patients

IMUPRO: THE TESTED FOODS AT A GLANCE

MEAT

- Beef
- Chicken
- Deer
- Duck
- Goat meat
- Goose
- Hare
- Lamb
- Ostrich meat
- Pork
- Quail
- Rabbit
- Roe deer
- Turkey hen
- Veal
- Wild boar

ALTERNATIVES TO CEREALS AND STARCHY PRODUCTS

- Amaranth
- Arrowroot
- Buckwheat
- Carob
- Cassava
- Fonio
- Jerusalem artichoke
- Lupine
- Maize, sweet corn
- Millet
- Quinoa
- Rice
- Sweet chestnut
- Sweet potato
- Tapioca, cassava
- Teff

CEREALS (WITH GLUTEN)

- Barley
- Gluten
- Kamut
- Oats
- Rye
- Spelt
- Wheat

VEGETABLES

- Artichoke
- Asparagus
- Aubergine
- Bamboo shoots
- Beetroot
- Broccoli
- Brussels sprouts
- Carrots
- Cauliflower
- Celeriac, knob celery
- Chard, beet greens
- Chili Cayenne[3]
- Chili Habanero[1]
- Chili Jalapeno[2]
- Chinese cabbage
- Courgette
- Cucumber
- Fennel
- Kale, curled kale
- Kohlrabi (turnip cabbage)
- Leek
- Molokhia
- Okra, lady's finger
- Olive
- Onion
- Parsnip
- Potato
- Pumpkin
- Radish red and white
- Red cabbage
- Rutabaga
- Savoy cabbage
- Spinach
- Stalk celery
- Sweet pepper
- Tomato
- White cabbage

MUSHROOMS

- Bay boletus
- Cep (boletus)
- Chanterelle
- Meadow mushrooms
- Oyster mushrooms
- Shiitake

SPICES & HERBS

- Alfalfa
- Allspice
- Aniseed
- Basil
- Bay leaf
- Capers
- Caraway
- Cardamom
- Chervil
- Chive
- Cinnamon
- Clove
- Coriander
- Cumin
- Curcumin (E100)
- Curry
- Dill
- Garden cress
- Garlic
- Ginger
- Horseradish
- Juniper berry
- Lavender
- Lemon balm
- Lovage
- Marjoram
- Mustard seed
- Nutmeg
- Oregano
- Paprika, spice
- Parsley
- Pepper, black
- Pepper, white
- Rosemary
- Saffron
- Sage
- Savory
- Thyme
- Vanilla
- Wild garlic

SWEETENERS

- Agave nectar
- Cane sugar
- Honey (mixture)
- Maple syrup

SALADS

- Butterhead lettuce
- Chicory
- Dandelion
- Endive
- Iceberg lettuce
- Lamb's lettuce
- Lollo rosso
- Radicchio
- Rocket
- Romaine / cos lettuce

LEGUMES

- Broad bean
- Chickpeas
- Green bean
- Green bean, pea
- Green pea
- Lentil
- Mung bean, green gram
- Soyabean

FISH & SEAFOOD

- Anchovy
- Angler, monkfish
- Blue mussels
- Carp
- Cod, codling
- Crayfish
- Eel
- Gilthead bream
- Haddock
- Hake
- Halibut
- Herring
- Iridescent shark
- Lobster
- Mackerel
- Ocean perch
- Octopus
- Oysters
- Plaice
- Pollock
- Red Snapper
- Sardine
- Salmon
- Scallop
- Sea bass
- Shrimp, prawn
- Shark
- Sole
- Squid, cuttlefish
- Swordfish
- Trout
- Tunafish
- Zander

EGG

- Chicken egg
- Chicken egg-white
- Chicken yolk
- Goose egg
- Quail eggs

FRUITS

- Apple
- Apricot
- Avocado
- Banana
- Blackberry
- Blueberry
- Cherry
- Cranberry
- Currant
- Date
- Fig
- Gooseberry
- Grape
- Grapefruit
- Guava
- Honeydew melon
- Kiwi
- Lemon
- Lime
- Lingonberry
- Lychee
- Mandarin
- Mango
- Nectarine
- Orange
- Papaya
- Peach
- Pear
- Plum
- Pineapple
- Pomegranate
- Prickly pear
- Quince
- Raspberry
- Rhubarb
- Sea buckthorn
- Strawberry
- Yellow plum
- Watermelon

SEEDS & NUTS

- Almond
- Brazil nut
- Cashew kernels
- Cocoa bean
- Coconut
- Flax, linseed
- Hazelnut
- Macadamia nut
- Pine nut
- Peanut
- Pistachio
- Poppy seeds
- Pumpkin seeds
- Sesame
- Sunflower seed
- Walnut

TEA, COFFEE & WINE

- Camomile
- Coffee
- Nettle
- Peppermint
- Rooibus tea
- Rose hip
- Tannin
- Tea, green
- Tea, black

MILK PRODUCTS

- Camel's milk
- Goat milk and cheese
- Halloumi
- Kefir
- Mare's milk
- Milk cooked
- Milk (cow)
- Ricotta
- Rennet cheese (cow)
- Sheep milk and cheese
- Sour-milk products (cow)

YEAST

- Yeast (beer, bread)

PRESERVATIVES

- Benzoic acid (E211)
- Sorbic acid (E200)

THICKENING AGENTS

- Agar-agar (E406)
- Carrageen (E407)
- Guar flour (E412)
- Pectin (E440)
- Tragacanth (E413)
- Xanthan gum

ALGAE

- Red algae (Nori)
- Spirulina

SPECIALS

- Aloe vera
- Aspergillus niger
- Candida
- Candied lemon peel
- Vine leaves

ImuPro Screen+

- Comprehensive report containing accurate results for all the tested foods at a glance

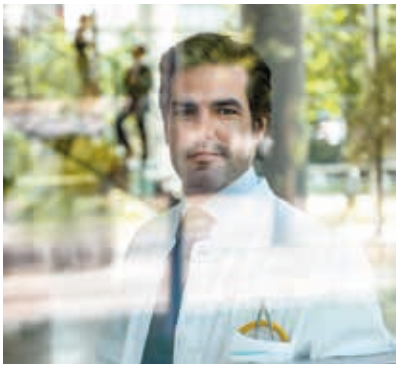
ImuPro Basic

- Comprehensive report containing accurate results for all the tested foods at a glance
- Personalised nutritional guide

ImuPro Complete

- Comprehensive report containing accurate results for all the tested foods at a glance
- Personalised nutritional guide
- Individual recipe book specifi cally tailored to their personal needs

[1] caps. chinense
[2] caps. annum
[3] caps. frutescens



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R-Biopharm AG
An der neuen Bergstraße 17
64297 Darmstadt
Germany

P +49 61 51 81 02 – 417
F +49 61 51 81 02 – 40

info@imupro.com
imupro.com