

Myth Busting: Food Sensitivity Testing

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What are we covering today?

- Prevalence of adverse food reactions
- Immune complexes and the FIT Test
- Common myths
- Red flags
- 6-step workflow
- **BIG** announcement!
- Special offer
- Please ask questions as we go...

Meet the UK Team



Charlotte Hunter
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Events



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Operations Manager



Natasha Khan
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Emily Birch
Clinical Support



Patterns & Prevalence Food Allergy (PAFA) Report (2024)

Food Reactions in Adults



>30% of adults reported some types of adverse reactions when eating food - meaning they had an illness or trouble when eating a particular food.

Allergies in Adults



6% of the UK adult population are estimated to have a clinically confirmed food allergy. This equates to around 2.4 million adults in the UK

Your thoughts on food sensitivity tests?

Unreliable
and inaccurate

I want
my clients
to eat more – not less!

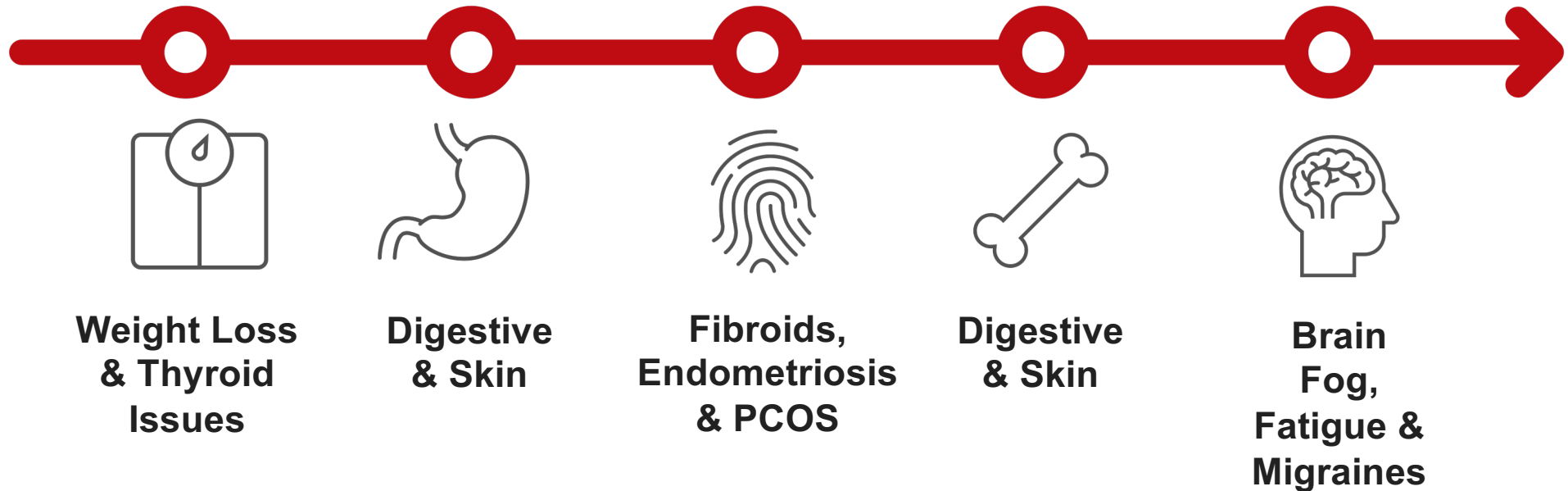
Waste of money

They only
measure recent
consumption

Elimination
Diets are the
Gold standard

They are not
Scientific

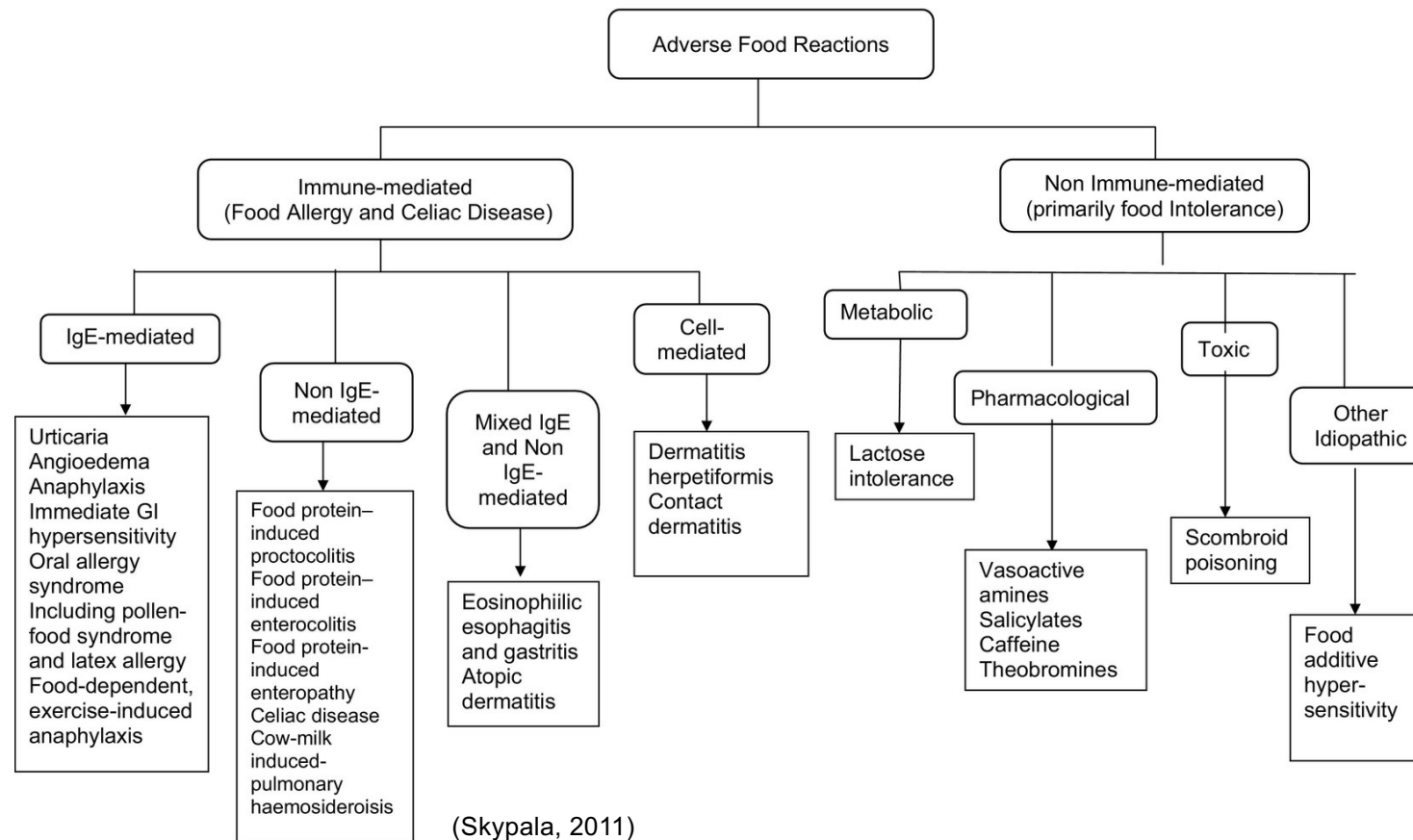
Why test food sensitivities?



Dr Joel Evans

“The immune complexes and inflammation associated with foods are an underlying problem for all of the conditions I see daily.”

Classification of adverse food reactions



How do we broadly define food reactions?



**Food
Allergy**



**Food
Intolerance**



**Food
Sensitivity**



The Immune System

The immune system provides 3 levels of defence against disease causing organisms.

1. Barriers

Prevent Entry

- Skin & mucus membranes
- Stomach acid & digestive enzymes
- Beneficial bacteria that live in the colon (the gut microbiota)

2. Innate Immunity

General Defence

- WBCs called neutrophils & macrophages engulf & destroy foreign invaders & damaged cells

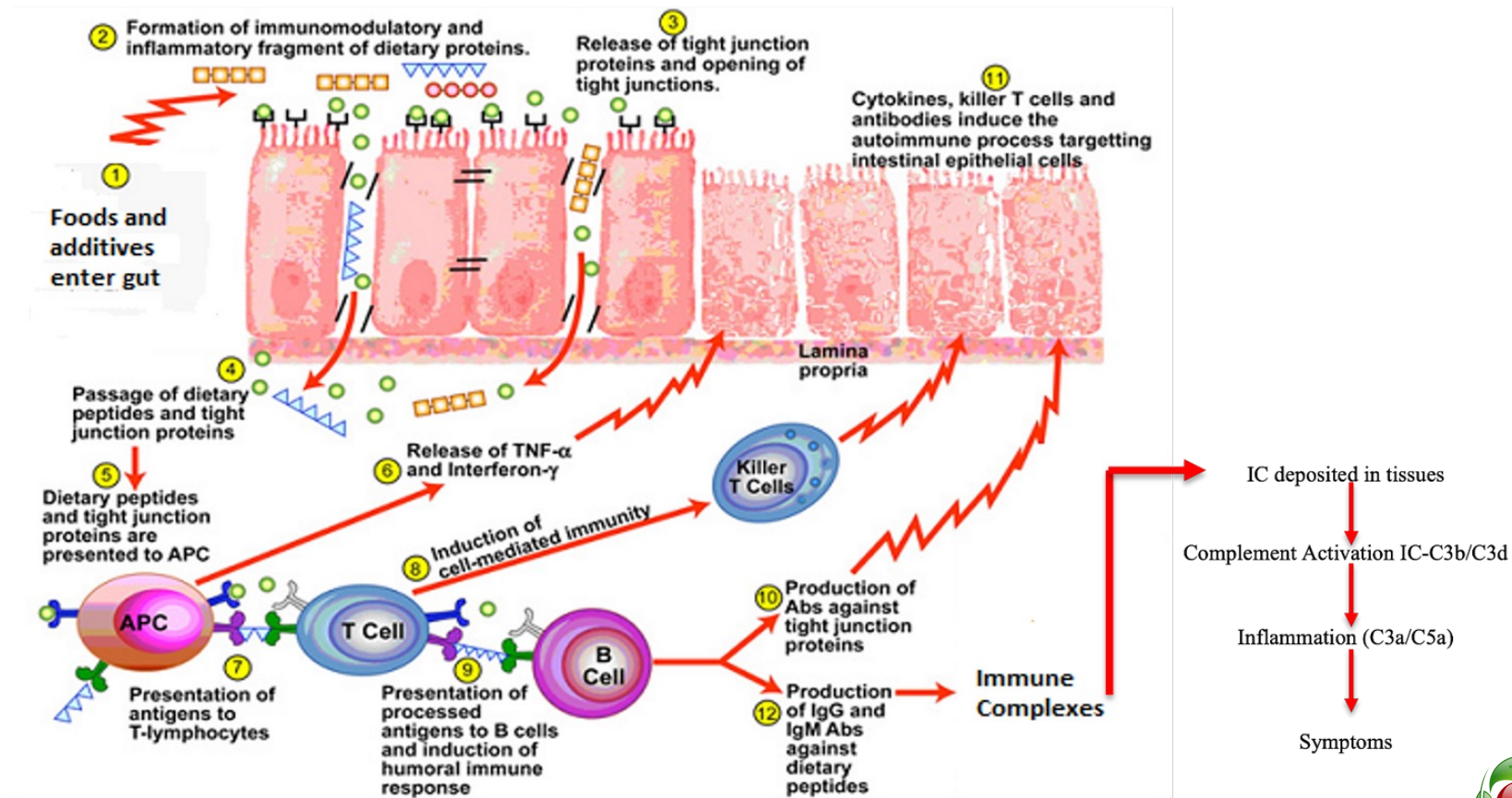
3. Adaptive Immunity

Specific Defence

- WBCs (T lymphocytes or T cells) target & destroy infected or cancerous cells
- WBCs called B lymphocytes (B cells) & plasma cells produce antibodies that target & destroy infected /cancerous cells

(Informed Health, 2023 and Paludan et al., 2020)

Immune Complexes



The Food Inflammation Test (FIT)



Foods We Test

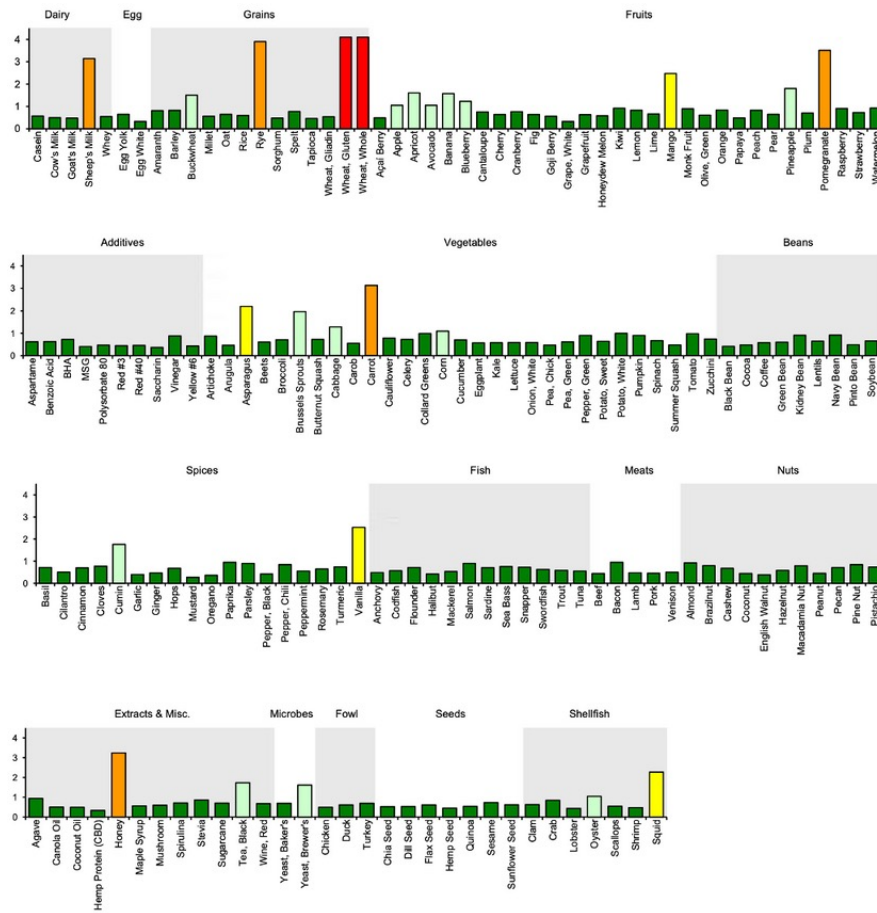
176 Foods & Gut Barrier Panel						
132 Foods & Gut Barrier Panel						
22 Foods						
DAIRY/EGGS	FISH	GRAINS	VEGETABLES	FRUITS	NUTS/SEEDS	SPICES/ MISCELLANEOUS
Casein Cow's Milk Egg White Egg Yolk MEATS Beef Chicken	Salmon SEAFOOD Shrimp	Wheat, Gluten Wheat, Whole BEANS Coffee Soy Bean	Corn Potato, White Tomato	Banana Pineapple	Almond Peanut	Candida Turmeric Yeast, Brewer's
Goat's Milk Whey Bacon Duck Lamb Pork Turkey	Codfish Flounder Halibut Sea Bass Snapper Swordfish Trout Tuna Clam Crab Lobster Scallops	Barley Millet Oat Quinoa Rice Rye Cocoa Kidney Bean Lentils Navy Bean Pinto Bean	Artichoke Asparagus Pumpkin Beets Spinach Broccoli Zucchini Butternut Squash Cabbage Carob Carrot Cauliflower Celery Collard Greens Cucumber Lettuce Pea, Chick Pea, Green Pepper, Green	Apple Avocado Blueberry Cantaloupe Cherry Cranberry Grape, White Grapefruit Honeydew Melon Lemon Lime Olive, Green Onion, White Orange Peach Pear	Cashew Coconut Cola Nut Dill Seed English Walnut Flax Seed Hazelnut Pecan Sesame Seed Sunflower Seed	Agave Aspartame Basil Benzoic Acid BHA Canola Oil Cinnamon Garlic Ginger Hops MSG Mushroom Mustard Oregano Paprika Pepper, Black Pepper, Chili Peppermint Polysorbate 80 Red #3 Red #40 Rosemary Saccharin Spirulina Sugarcane Tea, Black Vanilla Wine, Red Yellow #6
Sheep's Milk Venison	Anchovy Mackerel Sardine Oyster Squid	Amaranth Buckwheat Gliadin Sorghum Spelt Black Bean Green Bean	Arugula Brussel Sprouts Cilantro Kale Parsley Summer Squash	Acai Berry Apricot Eggplant Fig Kiwi Goji Berry Mango Monk Fruit Papaya	Brazil Nut Chia Seed Hemp Seed Macadamia Nut Pine Nut Pistachio	Cloves Coconut Oil Cumin Hemp Protein (CDB) Honey Maple Syrup Stevia Tapioca Vinegar

Food selection contains 'real-world' foods, encompassing raw and cooked.

The FIT132 and FIT176 both include the Gut Barrier Panel.



The Food Inflammation Test (FIT) Report



4+ Reactions:	Wheat, Gluten Wheat, Whole
3+ Reactions:	Sheep's Milk Rye Pomegranate Carrot Honey
2+ Reactions:	Mango Asparagus Vanilla Squid


- Easy to read
- Colour coded
- Client-friendly
- Easy interpretation
- Efficient practice
- Easy to repeat tests

Compliance Tools

Mobile App

We offer a mobile app to patients, available on both iOS and Android devices. The mobile app allows patients to take their results on-the-go. Patients can also view their meal plan on the app.


The app allows patients constant, convenient access to their test information.



The image shows four white smartphones arranged horizontally, each displaying a different screen from the mobile app. The first screen shows a 'Results' page with a green header and a list of items. The second screen shows a 'My Profile' page with a user's profile picture and various settings. The third screen shows a 'All 132 Reactions' page with a list of reactions and a progress bar. The fourth screen shows a 'Breakfast' page with a picture of a sandwich and a list of ingredients.




Practitioner's Guide



PROVIDER HANDBOOK

The Practitioner's Guide to Delayed Food Sensitivities

Written by:
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About the Author

Dr. Dorval has over 40 years of experience in strategic management of research, manufacturing, and regulatory affairs in the fields of medical devices and diagnostics, including 18 years focused on food sensitivity testing. Previously, Dr. Dorval held several management positions and served as an advisor to the World Health Organization committee on vaccines and diagnostics. Dr. Dorval has several patents, including the KBMO Diagnostic food sensitivity test, rapid assays for viruses, bacteria, and biomarkers, and a novel Polio Virus vaccine formulation. Dr. Dorval holds a Ph.D. in Medical Microbiology and Immunology from the College of Medicine, Ohio State University. He also performed postdoctoral studies and was a Visiting Scholar in the Department of Chemistry at the Massachusetts Institute of Technology.






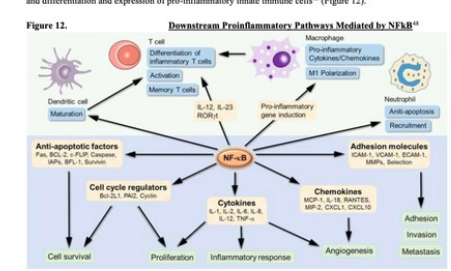


Figure 10. Systemic Inflammatory Effects of LPS-induced Metabolic Endotoxemia

As a critical modulator of inflammatory pathways, expression of NFκB triggers a multitude of downstream inflammatory signaling pathways, resulting in the upregulation of other pro-inflammatory genes, expression of cytokines, chemokines, ILs, and differentiation and expression of pro-inflammatory innate immune cells⁴⁶ (Figure 12).

Figure 12. Downstream Proinflammatory Pathways Mediated by NFκB⁴⁶



The net effect of chronically low levels of LPS in the bloodstream and LPS-TLR4 signaling is enhanced inflammatory activity, both locally within the gut and systemically, linking LPS to the diverse array of inflammation-mediated conditions. In the case of Leaky Gut Syndrome, LPS plays a cyclical role in triggering inflammation of the gut epithelia, leading to the production of Zonulin and opening of tight junctions. In turn, endogenous LPS escapes the gastrointestinal tract and further exacerbates the inflammatory pathways at the root of gut permeability.

Food Intolerance: Enzyme deficiency, Food Additives, Damage to the Gut Lining, Chemicals & Toxins

Food intolerance occurs when the body reacts to foods because there is a lack of an enzyme, damage to the gut lining from disease or antibiotics, or the food contains certain chemicals **but is not mediated by antibodies**. In general, there is a genetic component that predisposes a person to food intolerance. Food intolerance occurs in most races and ranges in frequency from a low of 15% in Caucasians to a high of 90% for Asians whereas, Mediterranean descendants are in the mid-range at about 50%. Common symptoms of food intolerance are abdominal cramping, and diarrhea which may be accompanied by weight loss or skin reactions, vomiting or even headaches. The onset of symptoms can be rapid (minutes) or develop over days after ingestion of a specific food. It is difficult to distinguish food intolerance from food allergy (IgE) or food sensitivity (IgG/Immune complexes) because both the onset of symptoms and the symptoms themselves are very similar.

The FIT Test does not measure Food Intolerance

Lactose Intolerance: Lactase Enzyme Deficiency

Lactose intolerance is caused by the lack of the enzyme, Lactase. Lactase breaks down the sugar (lactose) found in milk and the associated products made from milk. The inability to enzymatically break down lactose causes food intolerance and the resulting symptoms. Lactose intolerance is thought to occur because of un-digested lactose that resides in the gut and causes the osmotic movement of water from the tissues into the lumen of the gut resulting in abdominal pain and diarrhea. In addition, the gut bacteria consume the lactose resulting in the production of gas that results in bloating. Avoidance of foods containing lactose is quite effective in halting this type of intolerance but in practice total avoidance is impractical. A common way to alleviate most of the symptoms is to take a lactase-enzyme supplement which is commercially available. Lactose intolerance occurs in all ages of most races and is the most common type of food intolerance.

Supplement Guidance



Myth #1: IgG = Allergy

- IgG reflects exposure/tolerance, not allergy
- FIT is not for anaphylaxis or IgE allergy risk; use only in non-IgE symptom clusters
- IgG / IgG4 testing **ALONE** should not be used to diagnose food allergy or intolerance, due to lack of clinical correlation and potential for misinterpretation (Garmendia et al, 2025)

Myth #2: No Evidence

- IBS RCTs: IgG-guided elimination improved symptoms (2004, 2025)
- Migraine RCTs: reduced attack frequency (2010, 2011 short-term)
- Open-label IBS-M: better QoL vs low-FODMAP (2021)
- Evidence is strongest for IBS & migraine subgroups

Published Evidence

Randomized Controlled Trial > Headache. 2013 Mar;53(3):514-25.

doi: 10.1111/j.1526-4610.2012.02296.x. Epub 2012 Dec 6.

IgG-based elimination diet in migraine plus irritable bowel syndrome

Elif Ilgaz Aydinlar ¹, Pinar Yalinay Dikmen, Arzu Tiftikci, Murat Saruc, Muge Aksu, Hulya G Gunsoy, Nurdan Tozun

> J Clin Med. 2021 Sep 23;10(19):4317. doi: 10.3390/jcm10194317.

Igg Food Antibody Guided Elimination-Rotation Diet Was More Effective than FODMAP Diet and Control Diet in the Treatment of Women with Mixed IBS-Results from an Open Label Study

Lucyna Ostrowska ¹, Diana Wasiluk ¹, Camille F J Lieners ², Mirosława Gałęcka ², Anna Bartnicka ², Dag Tveiten ³

Randomized Controlled Trial > Cephalalgia. 2010 Jul;30(7):829-37.

doi: 10.1177/0333102410361404. Epub 2010 Mar 10.

Diet restriction in migraine, based on IgG against foods: a clinical double-blind, randomised, cross-over trial

Kadriye Alpay ¹, Mustafa Ertas, Elif Kocasoy Orhan, Didem Kanca Ustay, Camille Lieners, Betül Baykan

Randomized Controlled Trial > Gastroenterology. 2025 Jun;168(6):1128-1136.e4.

doi: 10.1053/j.gastro.2025.01.223. Epub 2025 Jan 31.

A Novel, IBS-Specific IgG ELISA-Based Elimination Diet in Irritable Bowel Syndrome: A Randomized, Sham-Controlled Trial

Prashant Singh ¹, William D Chey ², Will Takakura ², Brooks D Cash ³, Brian E Lacy ⁴, Eamonn M M Quigley ⁵, Charles W Randall ⁶, Anthony Lembo ⁷

Clinical Trial > Gut. 2004 Oct;53(10):1459-64. doi: 10.1136/gut.2003.037697.

Food elimination based on IgG antibodies in irritable bowel syndrome: a randomised controlled trial

W Atkinson ¹, T A Sheldon, N Shaath, P J Whorwell



Clinical Studies

Interlaboratory Reproducibility

- Accuracy of the FIT176 & GBP in dried bloodspot samples demonstrated across independent labs in Chengdu, China, New Delhi, India, and Hopedale, MA (KBMO)
- **FIT176 Test:** Average agreement of 98.8% among 176 food antigens (n=8)
- **GBP Test:** >90% for almost all analytes (Chengdu, n=39; New Delhi, n=16).
- Robust reproducibility under varying laboratory settings, sample and reagent shipment conditions, sample stability, etc.

Alanber-KBMO Gut Barrier Panel Interlaboratory Validation (n=39)				
	Zonulin IgG	Occludin IgG	Candida IgG	LPS IgG
Correlation	94.9%	100.0%	94.9%	100.0%
	Zonulin IgA	Occludin IgA	Candida IgA	LPS IgA
Correlation	97.4%	100.0%	94.9%	100.0%

Clinical Studies

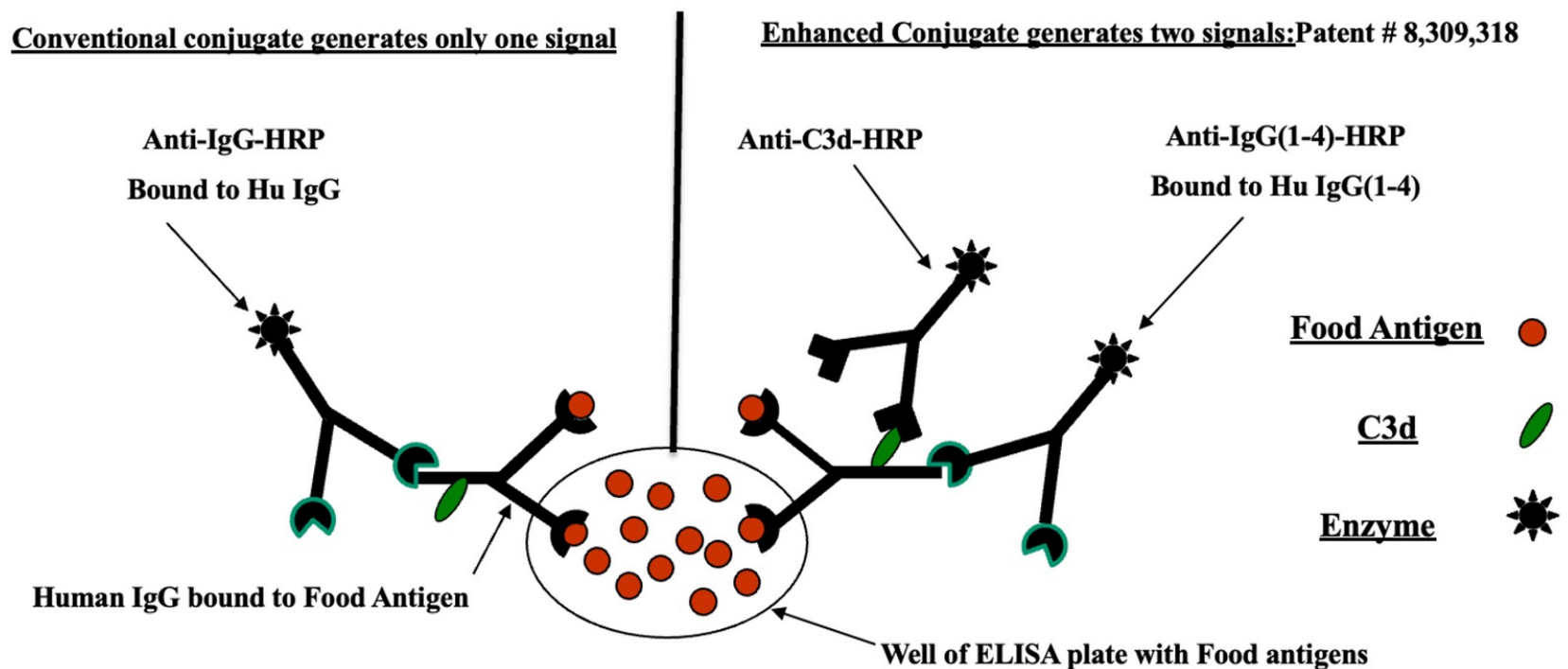
FIT Test Food Elimination Studies

- IBS and Food Sensitivities: Single blinded randomized controlled study to assess how the FIT Test can improve clinical outcomes in IBS patients (2017)
 - **-14% hospitalization rate/ER use** and **-50% office visits** compared to control
 - **-126.89 IBS-SSS (FIT Test)** vs. -46 IBS-SSS (control)
 - Greater decreases in homocysteine and CRP compared to control
- Alanber Health Laboratory (2023):
 - 82% of the study population (n=74) reported decreases in symptoms (GI, dermatitis, joint pain, headache, fatigue, etc.) following a 3-month elimination diet
- Miyazawa, M.D. Clinical Study (2025):
 - Average change of +1.0 health score following 3-month elimination diet (1-10 scale)
 - Symptom improvement in 85% (n=13); Significant symptom improvement in 23% (n=13)
 - Food challenge testing demonstrated symptom recurrence upon reintroduction of identified foods

Myth #3: False Positives

- Assays differ in antigen libraries, subclasses, detection
- FIT is unique: IgG1–4 + C3d immune complexes
- C3d highlights complement-engaged foods
- May reduce false positives if IgG-only

Technology for Enhanced Sensitivity



Myth #4: Increased Restriction

- FIT-guided = targeted, nutrient adequate
- 6–8-week elimination, then structured rechallenge
- Rotation strategy to avoid long-term restriction
- Nutrition support ensures diversity & safety

Why is isolated IgG testing problematic?

1

IgG antibodies are found in healthy adults so most likely reflect exposure

2

High rate of false positives

3

Unnecessary dietary restrictions









Myth #5: Absence of Clinical Context

- Yes, IgG-only tests lack clinical context unlike the FIT
- Gut Barrier Panel includes zonulin, occludin, candida and LPS
- Adds mechanistic relevance: immune reactivity + barrier dysfunction
- Guides targeted interventions (e.g., diet + gut barrier support)

The Gut Barrier Panel

Gut Barrier Panel

KBMO has created a unique Gut Barrier Panel which in recognition that leaky gut occurs across a spectrum we have included the following gatekeeper markers: Candida, Zonulin and Occludin and LPS. For each marker, we measure IgG 1-4 /C3d in addition to IgA 1 and 2.

Gut Barrier Panel						
	IgG1-4+C3d			IgA1-2		
		Cut off			Cut off	
Candida	Negative			Positive		
Zonulin	Negative			Positive		
Occludin	Negative			Negative		
LPS	Negative			Positive		

Myth #6: Sensitivities are Permanent

- Reality: Many sensitivities are dynamic and reversible
- FIT reactivity can reduce after elimination + gut repair
- Structured rechallenge often allows safe reintroduction
- Goal = restore tolerance & dietary diversity, not restriction

Case Study: Sensitivities Can Resolve

- 38-year-old woman, IBS-D, fatigue, skin flares
- Initial FIT Test: High reactivity to egg white, dairy, and almonds
- Gut Barrier Panel: elevated zonulin + LPS
- Intervention: 8-week elimination + gut repair (prebiotics, zinc carnosine, polyphenols)
- Re-test at 6 months: Egg white & dairy antibodies ↓ markedly
- Reintroduced successfully without symptoms
- Almonds remained reactive → continued rotation

Myth #7: Not 'scientific enough!'

- Patented methodology: US Patent 8,309,318 (immune complex detection)
- Measures IgG1–4 + C3d immune complexes (not IgG alone)
- Includes Gut Barrier Panel: zonulin, occludin, candida, LPS antibodies
- CLIA-certified, CAP-accredited laboratory testing standards
- Clinical evidence
- Results linked to immune mechanisms (complement, barrier integrity, tolerance)

When to be cautious

- Not for IgE-mediated allergy or anaphylaxis risk
- Not for coeliac diagnosis
- Avoid in eating disorder risk
- Must always include elimination–rechallenge
- Use in clinical context only, not as standalone ‘diagnosis’

6-Step Workflow

1. Pre-screen: rule out red flags (weight loss, bleeding, family history of IBD/CRC)
2. Order FIT ± Gut Barrier Panel
3. Elimination (6–8 weeks depending on context): remove only high-reactivity foods; maintain nutrient quality
4. Rechallenge: sequential reintroduction, symptom diary (IBS-SSS etc.)
5. Rotation: maintain dietary diversity; avoid unnecessary long-term restriction
6. Re-test selectively: only if ongoing symptoms or to support patient engagement

The Hormone Insights Test (HIT)



Powered by the Advanced Urine Hormone Metabolites Test by ZRT

- Measures **44 hormone-related markers**
- 13 oestrogens, 8 androgens
- Diurnal cortisol & melatonin patterns
- Includes **BPA** (rarely assessed endocrine disruptor)

The Hormone Insights Test (HIT)



- Provides insight into **metabolism & detoxification** of:
- Oestrogens, progesterone, androgens
Cortisol, melatonin
- One of the **most detailed hormone metabolism tests** available
- Practitioner Price: £249
- Patient Price: £299



Special Offer for You!

FIT176 (including the Gut Barrier Panel) for £180
instead of £300.

This is your opportunity to experience the test firsthand, explore the results, and see how it can transform your practice

Must be redeemed by Thursday 4th September 2025



Thank You



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