Overview of Food Sensitivity

• Food Sensitivity and related diseases affect at least 100 million people worldwide.
• The prevalence of Food Sensitivities has increased > 50% in adults and children in the past few years.
• Symptoms include a variety of illnesses from skin rashes and headaches to chronic intestinal diseases.
• 90% of sensitivities are in eight food groups: Milk, Soy, Eggs, Wheat, Peanuts, Tree Nuts, Fish, Shellfish.
• One or all of the foods in a specific group may cause Food Sensitivity.
• Delayed Food sensitivities occur hours or days after food ingestion.

  Delayed Food sensitivities are caused by IgG 1-4 and Immune Complexes that activate Complement
The FIT Test: **When I Use It**

- If my patient doesn’t feel well.
- If my patient has Thyroid Problems (Primarily Hashimoto’s).
- If my patient has arthritis.
- If my patient has brain fog.
- If my patient has fatigue.
- If my patient has digestive/gut issues.
- If my patient has infertility or first trimester loss.
- If my patient has fibroids, endometriosis or breast cancer.
- If my patient has any other cancer.
The FIT Test: Why I Use It

The Immune Complex Issues and Inflammation that can be associated with foods are an underlying problem for all of the conditions I see on a daily basis.
Why Focus on the Gut and Food Reactions?

- What organ of the body produces 3/4 of its neurotransmitters?
- What organ of the body contains 2/3 + of the immune tissue?
- What organ of the body contains 10 times more cells than the rest of the body combined?
- What organ of the body houses a genome 100 times larger than the human genome?
- What organ of the body has a metabolic activity greater than the liver?
The Gut
The First Gut Issue to Understand:

Increased Intestinal Permeability
“the mucosa is directly exposed to the external environment and taxed with antigenic loads consisting of commensal bacteria, dietary antigens, and viruses at far greater quantities on a daily basis than the systemic immune system sees in a lifetime”.

The FIT Test: Immune Complex Formation

1. Foods and additives enter gut

2. Formation of immunomodulatory and inflammatory fragment of dietary proteins.

IC deposited in tissues
Complement Activation
Inflammation
Symptoms
The FIT Test: Immune Complex Formation

1. Formation of immunomodulatory and inflammatory fragment of dietary proteins.
2. Foods and additives enter gut
3. Release of tight junction proteins and open tight junctions.
The FIT Test: Immune Complex Formation

1. Foods and additives enter gut
2. Formation of immunomodulatory and inflammatory fragment of dietary proteins.
4. Passage of dietary peptides and tight junction proteins
5. Dietary peptides and tight junction proteins are presented to APC
6. Release of TNF-α and Interferon-γ
7. Activation of immunity

IC deposited in tissues
Complement Activation
Inflammation
Symptoms
The FIT Test: Immune Complex Formation

Modified from Ari Vojdani © 2009
The FIT Test: Immune Complex Formation

1. Foods and additives enter gut
2. Formation of immunomodulatory and inflammatory fragment of dietary proteins.
4. Passage of dietary peptides and tight junction proteins
5. Dietary peptides and tight junction proteins are presented to APC
6. Release of TNF-α and Interferon-γ
7. Induction of cell-mediated immunity
8. Presentation of processed antigens to T-lymphocytes
9. Presentation of processed antigens to B cells and induction of humoral immune response
10. Cytokines, killer T cells and antibodies induce the autoimmune process targeting intestinal epithelial cells
11. Production of Abs against tight junction proteins
12. Production of IgG and IgM Abs against dietary peptides
13. Immune Complexes

Modified from Ari Vojdani © 2009
The FIT Test: Immune Complex Formation

1. Foods and additives enter gut
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11. Production of IgG and IgM Abs against dietary peptides
12. Immune Complexes
13. Cytokines, killer T cells and antibodies induce the autoimmune process targeting intestinal epithelial cells
14. IC deposited in tissues
15. Complement Activation
16. Inflammation
17. Symptoms

Modified from Ari Vojdani © 2009
Healthy Gut

- Healthy Villi
- Good Absorption
- Healthy Cell Junctions
Leaky Gut

Damaged Villi/ Poor Absorption

Damaged Cell junctions
The intestinal mucosa...must balance the needs for a barrier against a hostile environment, like the skin, with the necessity of active and passive transport, like the renal tubule. An intact intestinal barrier is, therefore, critical to normal physiological function and prevention of disease.
What are the Causes of increased IP and how does it relate to illness?

- Poor Dietary Choices & nutrient insufficiencies
- Stress
- Infections/Dysbiosis
- Medications
- Systemic Disease
- Low Stomach Acid & other insufficiencies
- Toxic Exposures

**Altered Intestinal Permeability**

- Food Allergy and sensitivity
- Poor Absorption Malnutrition
- Immune Activation
- Toxic Overload
- Elevated Total Toxic & Antigenic Burden

Systemic Disease
I’ve just explained what’s wrong with having increased intestinal permeability?

**It leads to disease!**
Conditions associated with Increased intestinal permeability

Bacteraemia, infected necrosis, organ failure, and mortality were all associated with intestinal barrier dysfunction early in the course of acute pancreatitis.

Migraines
Choleliathiasis
Chronic Fatigue Syndrome

A variety of auto-immune diseases including:

• Type 1 Diabetes
• Coeliac Disease
• Rheumatoid Arthritis
• Psoriasis
• Hashimoto’s Thyroiditis


9. A randomized, double-blind, placebo-controlled pilot study of a
Reproductive Issues

Infertility and First Trimester Loss
INTRODUCTION

Proinflammatory Th1 cytokines such as interleukin (IL)-1, tumor necrosis factor (TNF)-α, and interferon (IFN)-γ have been implicated in causation of infertility, implantation failure, recurrent miscarriage (abortion), preeclampsia and/or fetal growth restriction, and in precipitation of premature labor.¹–⁷


PROBLEM: Study of mechanisms causing spontaneous abortion of the vascularized

Key words:
Natural selection, pregnancy immunology, spontaneous abortion
Presidential Address

Thinking Outside the Box: Mechanisms of Environmental Selective Pressures on the Outcome of the Materno-fetal Relationship

Figure 1 summarizes data relating intestinal flora, intestinal permeability, and abortion rates.


PROBLEM: Study of mechanisms causing spontaneous abortion of the vascularized

Key words: Natural selection, pregnancy immunology, spontaneous abortion
278 / CLARK ET AL.

Thinking of the Outcome

<table>
<thead>
<tr>
<th></th>
<th>CB17&lt;sup&gt;+/+&lt;/sup&gt;</th>
<th>CB17&lt;sup&gt;SCID/+&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schaedler flora</td>
<td>18 %</td>
<td>41 %</td>
</tr>
<tr>
<td>&quot; + Staph. sp.</td>
<td>39 %&lt;sup&gt;*&lt;/sup&gt;</td>
<td>55 %&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
<tr>
<td>CBA x DBA/2 matings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>26 %</td>
<td>19 %</td>
</tr>
<tr>
<td>Tetracycline po</td>
<td>13 %&lt;sup&gt;*&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Indomethacin po</td>
<td></td>
<td>31 %&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Fig. 1. Some effects of 'intestinal' flora on abortion rates. Staph., sp. ¼ Staphylococcus species. *Denotes a statistically significant effect.

President Ad

Environmental selection, pregnancy immunology, spontaneous abortion


PROBLEM: Study of mechanisms causing spontaneous abortion of the vascularized
Cancer

Causation
A leaky gut may be the root of some cancers forming in the rest of the body, a new study published online Feb. 21 in *PLoS ONE* by Thomas Jefferson University researchers suggests.
Cancer

Causation of Breast and Colon
Obesity-induced metabolic stresses in breast and colon cancer

Epidemiological studies have suggested that excess body weight gain may be a major risk factor for colon and breast cancer. A positive energy balance creates metabolic stresses, including the excess production of reactive oxygen species (ROS), hyperinsulinemia, the elevated adipokine secretion, and increased gut permeability.

Hyochangwon-gil, Yongsan-gu, Seoul 140-742, Korea. mksung@sm.ac.kr
Cancer

Issues After Cancer Treatment
Summary: Intestinal permeability testing...may represent a tool for noninvasive objective assessment of intestinal toxicity of anticancer therapy.
Increased Intestinal Permeability is Obviously Quite Important

Did you know?
Intestinal Permeability and Food Intolerance

50-100% of Food Intolerant patients have increased intestinal permeability.

So understanding and testing for food sensitivities and food induced inflammation is critical for your practice!
Adverse health effect arising from a specific immune response that occurs reproducibly on exposure to a given food

Type 1 hypersensitivity (IgE)
4-8% US population have allergies that fit within the NIAID definition.
According to the NIAID, there are additional groups of patients with food reactions.

Approximately 12% of the US population can be diagnosed with reactions to food (IgE food allergies, Food intolerances, Celiac disease, Non-IgE FA such as eosinophilic oesophagitis/gastroenteritis).
But...
National Institute of Allergy and Infectious Diseases says..

*Up to 90% of presumed food allergies are NOT allergies*

Conservative estimates suggest that a third of the US population believe they have a reaction to some food

**Food allergy**: Immunologic IgE-mediated type 1 hypersensitivity

**Food sensitivity**: Immunologic reaction to food (IgA or IgG-mediated delayed hypersensitivity)

**Food intolerance**: Non-immunologic reaction to food (e.g. lactose intolerance)
Immunoglobulin G (IgG)

- IgG makes up 75% of total immunoglobulins
- Half life of ~21-23 days
- Therefore, IgG elimination diets should be at least 3 weeks to decrease IgG by half
# Symptoms Associated with IgG Delayed Hypersensitivity Reactions

<table>
<thead>
<tr>
<th><strong>Systemic:</strong></th>
<th><strong>Joints, muscles, connective tissue:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fever</td>
<td>• Food-allergic arthritis</td>
</tr>
<tr>
<td>• Fatigue</td>
<td>• Pain</td>
</tr>
<tr>
<td>• Sweating</td>
<td>• Stiffness</td>
</tr>
<tr>
<td>• Chills</td>
<td>• Swelling</td>
</tr>
<tr>
<td>• Weakness</td>
<td></td>
</tr>
<tr>
<td>• Reduced exertional tolerance</td>
<td></td>
</tr>
<tr>
<td><strong>Digestive tract:</strong></td>
<td><strong>Skin:</strong></td>
</tr>
<tr>
<td>• Abdominal pain</td>
<td>• Itching</td>
</tr>
<tr>
<td>• Bloating</td>
<td>• Rashes</td>
</tr>
<tr>
<td>• Nausea</td>
<td>• Hives</td>
</tr>
<tr>
<td>• Vomiting</td>
<td>• Thickening</td>
</tr>
<tr>
<td>• Diarrhoea</td>
<td>• Redness</td>
</tr>
<tr>
<td></td>
<td>• Swelling</td>
</tr>
<tr>
<td></td>
<td>• Scaling (as in eczema or psoriasis)</td>
</tr>
<tr>
<td><strong>Lungs:</strong></td>
<td></td>
</tr>
<tr>
<td>Food-induced bronchitis and asthma</td>
<td></td>
</tr>
</tbody>
</table>

*Nutr Clin Pract 2010 April 25(2): 192-8*
## Symptom Characteristics: IgE vs. IgG

<table>
<thead>
<tr>
<th></th>
<th>IgE ‘ALLERGY’</th>
<th>IgG ‘SENSITIVITY’</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onset</strong></td>
<td>Rapid (minutes)</td>
<td>Delayed (hours)</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>Brief (hours)</td>
<td>Prolonged (days)</td>
</tr>
<tr>
<td><strong>Mechanism</strong></td>
<td>Mast Cell</td>
<td>Circulating Complexes</td>
</tr>
<tr>
<td><strong>Quantity of Food</strong></td>
<td>Tiny</td>
<td>Dose Dependent</td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td>Any (uncommon)</td>
<td>Common Foods</td>
</tr>
<tr>
<td><strong>Patient Awareness</strong></td>
<td>Often</td>
<td>Rarely</td>
</tr>
<tr>
<td><strong>Persistence of Antibody</strong></td>
<td>Lifelong</td>
<td>Months After Elimination</td>
</tr>
</tbody>
</table>
After 12 weeks, the true diet resulted in a 10% greater reduction in symptom score than the sham diet with this value increasing to 26% in fully compliant patients.

78.5% of participants had resolution of symptoms after following IgG4-based exclusion diet, and follow-up IgG4 testing showed that values decreased after 2 months of diet in 89.5% of these patients.
Obese juveniles showed a highly significant increase in IMT, elevated CRP values and anti-food IgG antibody concentrations compared to normal weight juveniles. Anti-food [total] IgG showed tight correlations with CRP and IMT.
IgG testing and Migraines

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

Kadriye Alpay¹, Mustafa Ertaş¹, Elif Kocasoy Orhan¹, Didem Kanca Üstey², Camille Lieners³ and Betül Baykan¹

Abstract

Introduction: It is well-known that specific foods trigger migraine attacks in some patients. We aimed to investigate the

This is the first randomised, cross-over study in migraineurs, showing that diet restriction based on IgG antibodies is an effective strategy in reducing the frequency of migraine attacks

Results: The average count of reactions with abnormally high titre was 24 ± 11 against 266 foods. Compared to baseline, there was a statistically significant reduction in the number of headache days (from 10.5 ± 4.4 to 7.5 ± 3.7; P < 0.001) and number of migraine attacks (from 9.0 ± 4.4 to 6.2 ± 3.8; P < 0.001) in the elimination diet period.

Conclusion: This is the first randomised, cross-over study in migraineurs, showing that diet restriction based on IgG antibodies is an effective strategy in reducing the frequency of migraine attacks.
IgG testing and Crohn’s

- Clinical relevance of IgG antibodies against food antigens in Crohn's disease: a double-blind cross-over diet intervention study
- In 84% and 83% of the CD patients (n=79), IgG antibodies against processed cheese and yeast were detected.
- Significant reduction in stool frequency and abdominal pain on IgG diet as compared to controls on sham diet.

Digestion. 2010;81(4):252-64.
Commonly Reported Symptoms in Patients with IgG Food Reactions

Nasal congestion
Nasal drainage
Sinus headaches
Fatigue after meals
Throat clearing
Chronic fatigue
Dry cough
Sneezing
Hoarseness
Migraine headaches
Itchy eyes
Nausea

Watery eyes
Itchy skin
Cramps
IgG Testing and Treatment:

• Eliminate reactive foods for at least 4 weeks to assess improvement.

• Response may show an exacerbation before improvement.

• If test shows reaction to many foods, or yeast, consider underlying intestinal permeability.
IgG Testing Summary

- **Testing has demonstrated clinical utility**
- **Testing may improve adherence**
- **Elevation of IgG may be evidence of underlying inflammation - symptoms or not**
- **Use consistent and trusted laboratory like KMBO**
Why KMBO is my trusted lab:
The FIT Test: KBMO

- Founded in 2004

12,000sq ft facility with manufacturing and CLIA High Complexity lab

- ISO 13485 certified quality and FDA registered Manufacturing Facility

- Patent Granted October 2012: Detection of Antigen Specific Immune Complexes: #8,309,318

- Over 100,000 tests manufactured and growing
The FIT Test: Format and Technology showing Enhanced Sensitivity

Comparison of conventional conjugate: anti-IgG with enhanced conjugate: anti-IgG(1-4) and anti-C3d

Conventional conjugate generates only one signal

- Anti-IgG-HRP
- Bound to Hu IgG

Enhanced Conjugate generates two signals: Patent # 8,309,318

- Anti-C3d-HRP
- Bound to Hu IgG(1-4)

- Anti-IgG(1-4)-HRP

Well of ELISA plate with Food antigens

Human IgG bound to Food Antigen

Food Antigen

C3d

Enzyme
The FIT Test: Overview

• The FIT Test measures 132 Foods and Additives
• Finger stick enables is a quick and easy way to obtain a sample
• The Patient Report is easy to understand
• A check list of common food-related symptoms is provided
### The FIT Test: Foods and Additives Tested

The 132 Foods and Additives we test on the FIT Test

<table>
<thead>
<tr>
<th>Additives</th>
<th>Plant Foods: Beans</th>
<th>Plant Foods: Berries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspartame</td>
<td>Cocoa</td>
<td>Avocado</td>
</tr>
<tr>
<td>Benzoic Acid</td>
<td>Coffee</td>
<td>Blueberry</td>
</tr>
<tr>
<td>BHA</td>
<td>Green,string</td>
<td>Cranberry</td>
</tr>
<tr>
<td>MSG</td>
<td>Kidney</td>
<td>Grape, White seedless</td>
</tr>
<tr>
<td>Polysorbate 80</td>
<td>Lima</td>
<td>Raspberry</td>
</tr>
<tr>
<td>Red #2</td>
<td>Navy</td>
<td>Strawberry</td>
</tr>
<tr>
<td>Red #3</td>
<td>Pinto</td>
<td>Extracts/Misc.</td>
</tr>
<tr>
<td>Red #40</td>
<td>Soy</td>
<td>Canola Oil</td>
</tr>
<tr>
<td>Succinhar</td>
<td>Wax</td>
<td>Gelatin</td>
</tr>
<tr>
<td>Yellow #6</td>
<td>Plant Foods: Fruits</td>
<td>Sugar,cane</td>
</tr>
<tr>
<td>Dairy</td>
<td>Apple</td>
<td>Tea</td>
</tr>
<tr>
<td>Casein</td>
<td>Apricot</td>
<td>Mushroom</td>
</tr>
<tr>
<td>Milk, Cow</td>
<td>Banana</td>
<td>Microbial</td>
</tr>
<tr>
<td>Egg,white,chick.</td>
<td>Cantaloupe</td>
<td>Yeast,baker's</td>
</tr>
<tr>
<td>Fish</td>
<td>Cherry</td>
<td>Yeast,brewer's</td>
</tr>
<tr>
<td>Catfish</td>
<td>Grapefruit</td>
<td>Poultry</td>
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<tr>
<td>Codfish</td>
<td>Honeydew Melon</td>
<td>Chicken</td>
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<tr>
<td>Flounder</td>
<td>Lemon</td>
<td>Duck</td>
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<tr>
<td>Grouper</td>
<td>Lime</td>
<td>Turkey</td>
</tr>
<tr>
<td>Halibut</td>
<td>Olive,green</td>
<td>Seeds</td>
</tr>
<tr>
<td>Orange Roughy</td>
<td>Onion,white</td>
<td>Cotton</td>
</tr>
<tr>
<td>Salmon</td>
<td>Orange</td>
<td>Dill</td>
</tr>
<tr>
<td>Snapper</td>
<td>Peach</td>
<td>Safflower</td>
</tr>
<tr>
<td>Sole</td>
<td>Pear</td>
<td>Sesame</td>
</tr>
<tr>
<td>Swordfish</td>
<td>Pineapple</td>
<td>Sunflower</td>
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<tr>
<td>Trout</td>
<td>Plum</td>
<td>Shellfish</td>
</tr>
<tr>
<td>Tuna</td>
<td>Watermelon</td>
<td>Clam</td>
</tr>
<tr>
<td>Grains</td>
<td>Plant Foods: Vegetable</td>
<td>Crab</td>
</tr>
<tr>
<td>Barley</td>
<td>Artichoke</td>
<td>Lobster</td>
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<tr>
<td>Buckwheat</td>
<td>Asparagus</td>
<td>Scallops</td>
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<tr>
<td>Millet</td>
<td>Broccoli</td>
<td>Shrimp</td>
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<tr>
<td>Oat</td>
<td>Beets</td>
<td>Spice</td>
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<tr>
<td>Rice</td>
<td>Cabbage</td>
<td>Basil</td>
</tr>
<tr>
<td>Rye</td>
<td>Carob</td>
<td>Cinnamon</td>
</tr>
<tr>
<td>Wheat, gullet</td>
<td>Lettuce</td>
<td>Garlic</td>
</tr>
<tr>
<td>Wheat, whole</td>
<td>Carrot</td>
<td>Ginger</td>
</tr>
<tr>
<td>Meats</td>
<td>Cauliflower</td>
<td>Hops</td>
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<tr>
<td>Beef</td>
<td>Celery</td>
<td>Mustard</td>
</tr>
<tr>
<td>Lamb</td>
<td>Corn,sweet</td>
<td>Oregano</td>
</tr>
<tr>
<td>Pork</td>
<td>Cucumber</td>
<td>Paprika</td>
</tr>
<tr>
<td>Nuts</td>
<td>Pea,green</td>
<td>Pepper,Black</td>
</tr>
<tr>
<td>Almond</td>
<td>Potato, sweet</td>
<td>Pepper,Chili</td>
</tr>
<tr>
<td>Cashew</td>
<td>Potato, white</td>
<td>Pepper,Green</td>
</tr>
<tr>
<td>Coconut</td>
<td>Pumpkin</td>
<td>Pepper,Red Cayenne</td>
</tr>
<tr>
<td>Colanut</td>
<td>Spinach</td>
<td>Peppermint</td>
</tr>
<tr>
<td>Walnut, English</td>
<td>Squash Mix</td>
<td>Rosemary</td>
</tr>
<tr>
<td>Hazelnut</td>
<td>Tomato</td>
<td>Tumeric</td>
</tr>
<tr>
<td>Peanut</td>
<td>Zucchini</td>
<td>Vanilla</td>
</tr>
<tr>
<td>Pecan</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The FIT (Food Inflammation Test) Fingerstick Shipping and Reporting:

### Fingerstick, Shipping and Reporting

**Instructions:**

1. Use the side of the fingertip on either the middle or ring finger for the finger stick. Do not use the center pad of the finger it is the most sensitive area.

2. Warming your finger may be necessary to acquire the correct amount of blood. Simply run warm to hot water over it for a few minutes and dry it well before gently massaging the finger from the base to the tip until the finger turns red.

3. Clean the site you will use the finger stick with the provided alcohol swab and allow to air dry.

4. Position the lancet provided over the area you just cleaned and press lancet firmly against puncture site. Once the site has been punctured, set the lancet aside. Gently massage from the hand toward the puncture site to obtain required volume. Do not squeeze or apply strong repetitive pressure to the site as it may damage the sample.

5. Fill each circle on the provided collection card with blood. It is important to fill each circle to ensure enough sample can be obtained to properly administer the test. At least three circles must be filled, but if possible please fill all five.

6. Following collection, clean the area with the second provided alcohol wipe and press clean gauze or cotton on the area until bleeding has stopped.

7. Label the collection card with name and date the sample was collected. Wait a few minutes until the blood has dried completely on the card before placing it inside the provided biohazard bag, sealing it and placing it inside the provided return envelope.

8. Ship the envelope in the mail to:

```
KBMO Diagnostics
1a Business Way
Hopedale MA, 01747
```

KBMO Diagnostics will analyze the sample and e-mail a complete report in 5-7 days.

For Further Information and more Draw Kits Contact: [INFO@KBMODiagnostics.com](mailto:INFO@KBMODiagnostics.com)
Call with any questions at 6179905741 or Send an e-mail:
FIT (Food Inflammation Test) Test: Good Spot versus a Rejected one
The FIT Test: Symptoms Checklist

If you have one or more symptoms, you’ll probably benefit from a food sensitivity test. Place a check for each symptom and include symptoms that you’ve ‘learned to live with’. Return the completed checklist to your physician.

**Digestive Tract**
- Belching
- Bloated feeling
- Constipation
- Diarrhea
- Nausea
- Passing gas
- Stomach pains
- Vomiting

**Ears**
- Drainage
- Ear aches
- Ear infections
- Hearing loss
- Itchy ears
- Ringing

**Emotions**
- Aggressiveness
- Anxiety/fear
- Depression
- Irritability/anger
- Mood swings
- Nervousness

**Energy & Activity**
- Apathy

**Lungs**
- Asthma/bronchitis
- Chest congestion
- Difficulty breathing
- Shortness of breath
- Wheezing

**Mind**
- Confusion
- Learning disability
- Poor concentration
- Poor memory
- Stuttering

**Mouth & Throat**
- Canker sores
- Chronic coughing
- Gagging
- Often clear throat
- Sore throat
- Swollen tongue
- Swollen lips/gums

**Nose**
- Excessive mucous
- Hay fever
- Sinus problems
- Sneezing attacks

**Skin**
- Acne
- Dermatitis
- Eczema
- Excessive sweating
- Flushing/hot flashes
- Hair loss
- Hives/rashes
- Itching

**Weight**
- Binge eating
- Compulsive eating
- Cravings
- Excessive weight
- Underweight
- Water retention

**Other**
- Anaphylactic reaction
- Chest pains
- Frequent illness
- Genital itch
- Irregular heartbeat
- Rapid heartbeat
- Urgent urination
The FIT Test: Patient Report
The FIT Test: Typical Report
The FIT Test: Clinical

Test before elimination Diet

Test after elimination Diet

Data was analyzed for 30 patients tested before and after the elimination diet. There was a significant reduction in number of sensitivities reported after the elimination diet which indicates the FIT Test could predict specific food sensitivities.
The FIT Test: Clinical Testing Results

Significant Improvement in Symptoms was observed after the elimination diet

<table>
<thead>
<tr>
<th>Complaint/Symptom</th>
<th>Number of Patients Reporting on Initial Test</th>
<th>Number of Patients Reporting on Second Test</th>
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<tbody>
<tr>
<td>Memory/Concentration</td>
<td>22</td>
<td>3</td>
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<tr>
<td>Anxiety/Mood/Depression</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>Bloating/Stomach Pain</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Fatigue</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Sleeplessness/Insomnia</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Joint Pain / Stiffness / Swelling</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Muscle Aches</td>
<td>13</td>
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<tr>
<td>Craving Sugar</td>
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<tr>
<td>Sleeplessness/Insomnia</td>
<td>12</td>
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</tr>
<tr>
<td>Lightheaded/Dizzy</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Allergies/Sinus</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Cold Intolerance</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Inability to lose weight</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Libido/Impotence</td>
<td>9</td>
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</tr>
<tr>
<td>Constipation</td>
<td>8</td>
<td>2</td>
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<tr>
<td>Diarrhea</td>
<td>7</td>
<td>1</td>
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<tr>
<td>Halitosis</td>
<td>7</td>
<td>1</td>
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<tr>
<td>Tearing Eyes</td>
<td>6</td>
<td>1</td>
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<tr>
<td>Brittle Nails/Dry Skin/Dry Mouth</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Bruising</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Headaches</td>
<td>5</td>
<td>3</td>
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<tr>
<td>Irregular Heart Beat</td>
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<tr>
<td>Numbness Hands/Feet</td>
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<tr>
<td>Sinus Problems</td>
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<tr>
<td>Thyroid</td>
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<td>Eczema</td>
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<tr>
<td>Drowsiness</td>
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<tr>
<td>PMS</td>
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</table>
### My Case:

The Center for Women's Health

**Name:** Kimberly

**Address:** 

<table>
<thead>
<tr>
<th>Menses</th>
<th>Onset</th>
<th>Regularity</th>
<th>Intermenstrual Bleeding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Contraception</th>
<th>Breast Discharge or Lumps</th>
<th>STD</th>
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<tr>
<td>Femur</td>
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</table>

<table>
<thead>
<tr>
<th>Last Pap</th>
<th>Last Mammo</th>
<th>Bone Density</th>
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<tbody>
<tr>
<td>2</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>GYN History</th>
<th>Sexual History</th>
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### PREGNANCIES:

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Hospital</th>
<th>Dur. of Gestation</th>
<th>Dur. of Labor</th>
<th>Type of Delivery</th>
<th>Born A or D</th>
<th>Weight</th>
<th>Mother</th>
<th>Complications</th>
<th>Child</th>
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<tbody>
<tr>
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<td>Rs0 x1</td>
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</tr>
<tr>
<td>2</td>
<td></td>
<td>Td x1</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### MEDICAL HISTORY:

Got well until 3 yrs ago then ward woke up I stomach "soreness" - feels worse - not worse.

Lost 1st lab 2 mo go for vtr so

### SURGICAL HISTORY:

O

### STRESSORS:

Not very bad, can relax emotionally - good;

Spiritually - atheist - great.

### MEDS:

Fencon

### ALLERGIES:

O
SUMMARY OF PROBLEMS:
61 Issqg - 27Rs

TREATMENT PLAN:
Before HTT hormonal
FT T hormone
renetor study
CUP - HTT Da 2 68, all labs, Bil, Dttens
6/20/15: Explained metanatrics and nutrEval to Pt.
Gave Pt. Broch, Did FIT today.

7/15/15: Spoke to Pt and informed her FIT results are in. Pt has consult scheduled 7/21/15.
Pt stated she did not do metanatrics or nutrEval.
6/20/15 Explained metametrics and nutrEval to M.
Gave Pt. Brochure. Did Fit today.

7/13/15 Spoke to Pt and informed her Fit results are in. Pt has consult scheduled 7/21/15. Pt stated she did not do metametrics or nutrEval.

Thank Consult.

Dried fit test
<table>
<thead>
<tr>
<th>4+ Items</th>
<th>Wheat, Gluten Wheat, Whole</th>
</tr>
</thead>
<tbody>
<tr>
<td>3+ Items</td>
<td></td>
</tr>
<tr>
<td>2+ Items</td>
<td>Cow's Milk, Egg White, Oregano, Lobster</td>
</tr>
</tbody>
</table>
6/20/15 explained metabolomics and nutrEval to M.
Gave pt. Bid WK. Did FIT today.
7/15/15 spoke to pt and informed her FIT results are in. Pt has consult scheduled 7/21/15.
Pt stated she did not do metabolomics or nutrEval.

Thank Consult

Dread FIT test

Will away after test - avoid gym, diet, caffeine, lax, clean, stool, cold

Will do other test.
10-20-15 Consult
11-3-15 Consult

I feel great.
I feel really sad.
Let's discuss it all soon.
Will meet next week.

[Signature]
The FIT Test: Conclusions

• The test is highly sensitive and accurate
• Manufactured using a ISO 13485 quality system in a FDA registered facility to ensure quality, reliability and reproducibility
• Patented technology which ensures patients the best in class technology
• Excellent clinical outcomes demonstrating a reduction in symptoms
• A growing list of thought leaders are adopting this test in their practices