

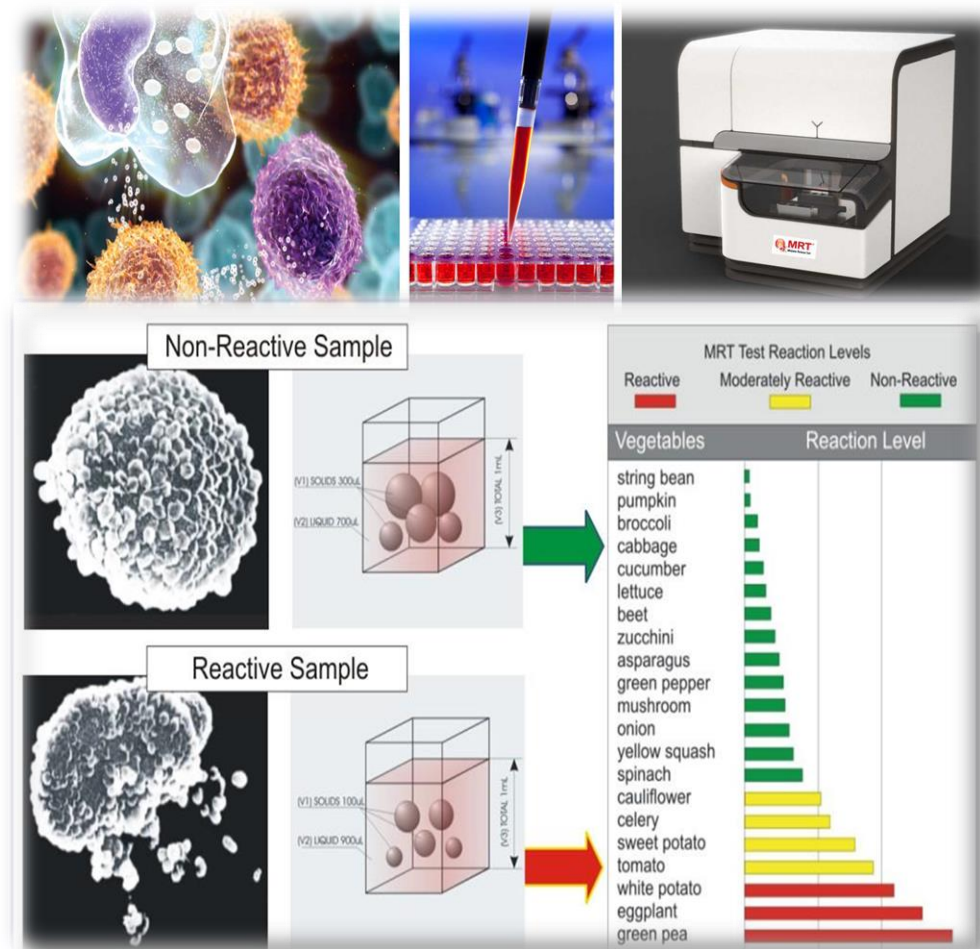


Tips for Successful Implementation of the MRT Eating Plan

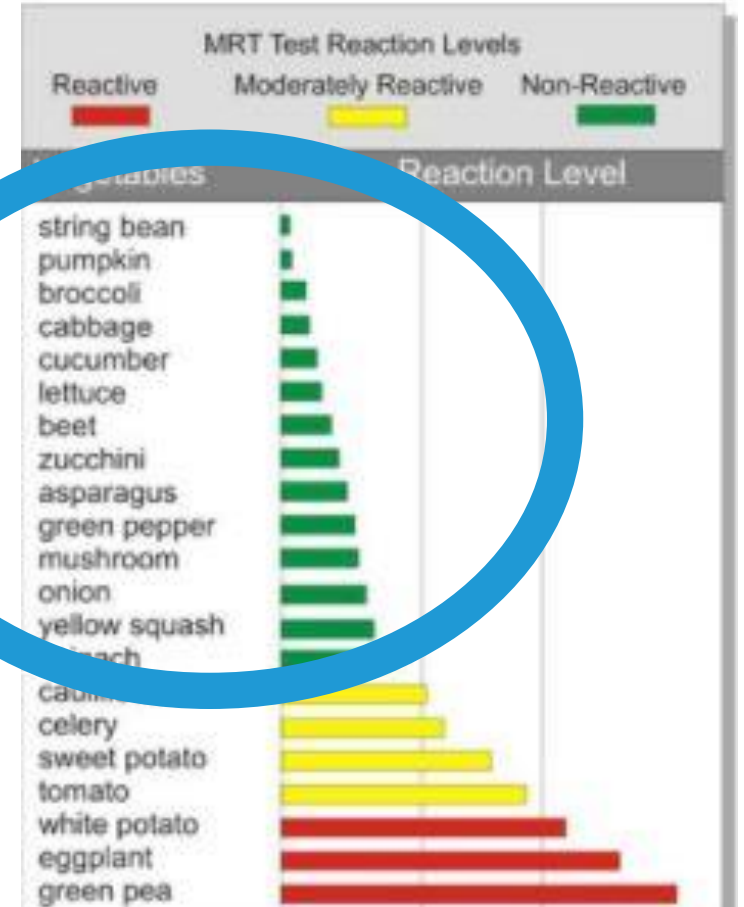
Susan Linke

MBA, MS, RDN, LDN, CLT, CGP

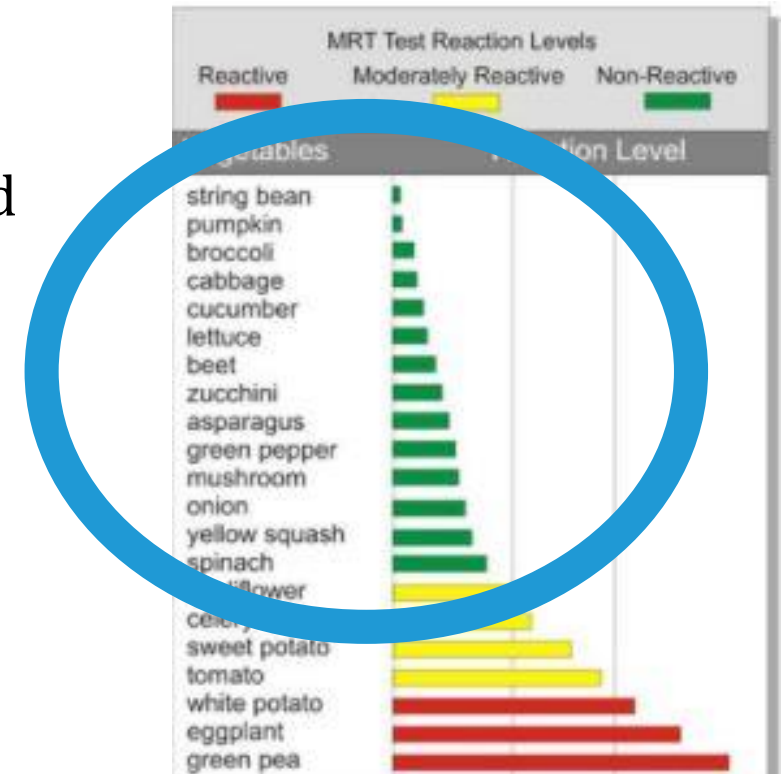
The MRT Diet Protocol is a Highly effective Anti-Inflammatory Diet Based on the MRT Test



Avoidance vs. Inclusion



- For approximately 4-6 weeks, the patient eats only tested, safe foods.
- In theory, the patient could avoid 100% of their tested and untested reactive foods.
- **The anti-inflammatory impact of this is unparalleled.**
- Patients typically “turn a corner” within 10 days, then continue to improve in the ensuing weeks.
- In the end, the goal of the protocol is to establish a “safe” diet for the client from all perspectives – delayed hypersensitivities, allergy, and non-immune adverse food reactions.





“Eat only MRT-tested, safe foods and ingredients for a determined period of time.”

The MRT Eating Plan is Designed to:

- Reduce the level of inflammation and symptoms as quickly as possible
- Through a series of oral challenges, identify any additional contributors to symptoms not caused by delayed hypersensitivity reactions in order to generate a customized safe diet
- Identify clients or symptoms that need more rigorous follow-up or a referral to another medical team member
- Transition the client to a normalized, long-term, healthy eating pattern that is easy to implement



The MRT Eating Plan Consists of 3 Phases:



Phase 1: 10-14 days,
or until the client notices a significant improvement in symptoms

Phase 2: 20-35 days,
or until the client is ready to begin challenging untested foods

Phase 3: 30-60+ days, or as needed

The MRT Diet Protocol:

Purpose:

- Achieve appreciable reduction in symptoms
- Establish a new baseline for subsequent oral challenges

Tools Needed:

- Client MRT Results
- Food/Symptom Diary (optional)
- Recipe ideas
- Symptom Survey
- Relevant health history information





The MRT Diet protocol allows for flexibility!

- Practitioners will have clients that present with a wide variety of health conditions, lifestyles, taste preferences, religious backgrounds, cooking skills, etc.
- The protocol is amenable to clients' needs and preferences which improves adherence and outcomes.
- The goal should be an educated and motivated patient.

Initial Symptom Survey

Date:	Patient Name:	Dietitian:

INSTRUCTIONS: Score every symptom based on your experience **OVER THE PAST MONTH.** Using the SCALE OF SYMPTOM POINTS listed below, FILL IN the appropriate score in the corresponding field for EVERY symptom listed. Note score in the boxes to the left of symptoms. Also note the number of missed work days in the last month due to illness.

SCALE OF SYMPTOM POINTS		Grand Total:	# Missed Work Days
IF you did not suffer from the symptom ever or almost never, leave it blank			
1	2		
3	4		
5	6		
7	8		
9	10		
11	12		
13	14		
15	16		
17	18		
19	20		
21	22		
23	24		
25	26		
27	28		
29	30		
31	32		
33	34		
35	36		
37	38		
39	40		
41	42		
43	44		
45	46		
47	48		
49	50		
51	52		
53	54		
55	56		
57	58		
59	60		
61	62		
63	64		
65	66		
67	68		
69	70		
71	72		
73	74		
75	76		
77	78		
79	80		
81	82		
83	84		
85	86		
87	88		
89	90		
91	92		
93	94		
95	96		
97	98		
99	100		

IF you did not suffer from the symptom ever or almost never, leave it blank.

1 = **OCCASIONALLY** (less than 2 times per week), and symptom was **MILD**

2 = **FREQUENTLY** (2 or more times per week), and symptom was **MILD**

3 = **OCCASIONALLY** (less than 2 times per week), and symptom was **SEVERE**

4 = **FREQUENTLY** (2 or more times per week), and symptom was **SEVERE**

[illegible]

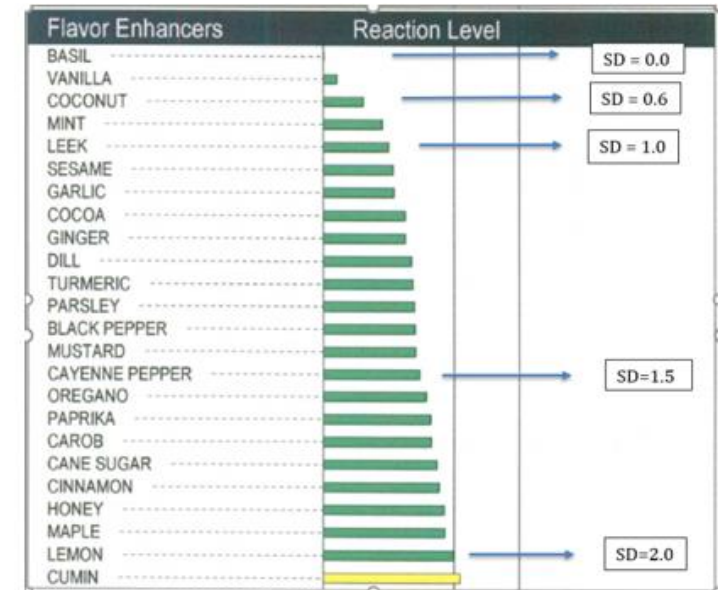
Phase 1:

10-14 days, or until the client notices a significant improvement in symptoms



Standard Deviation Values:

- Give you the ability to choose “allowed” foods with greater precision.
- Allow you to choose the lowest inflammatory foods while providing enough variety and food choices to make the diet as easy and palatable as possible.
- Make it easier and less stressful for the client.

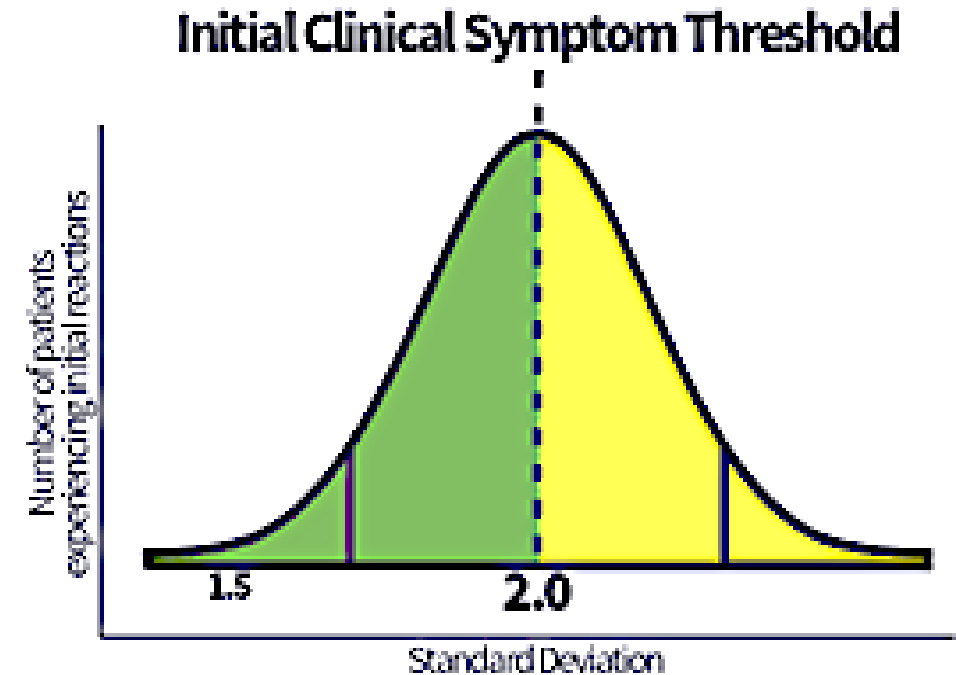


Flavor Enhancers

0.0 BASIL	1.1 SESAME	1.4 PARSLEY	1.6 PAPRIKA	1.9 MAPLE
0.2 VANILLA	1.1 GARLIC	1.4 BLACK PEPPER	1.7 CAROB	2.0 LEMON
0.6 COCONUT	1.3 GINGER	1.4 MUSTARD	1.7 CANE SUGAR	
0.9 MINT	1.4 DILL	1.5 CAYENNE PEPPER	1.8 CINNAMON	
1.0 LEEK	1.4 TURMERIC	1.6 OREGANO	1.9 HONEY	

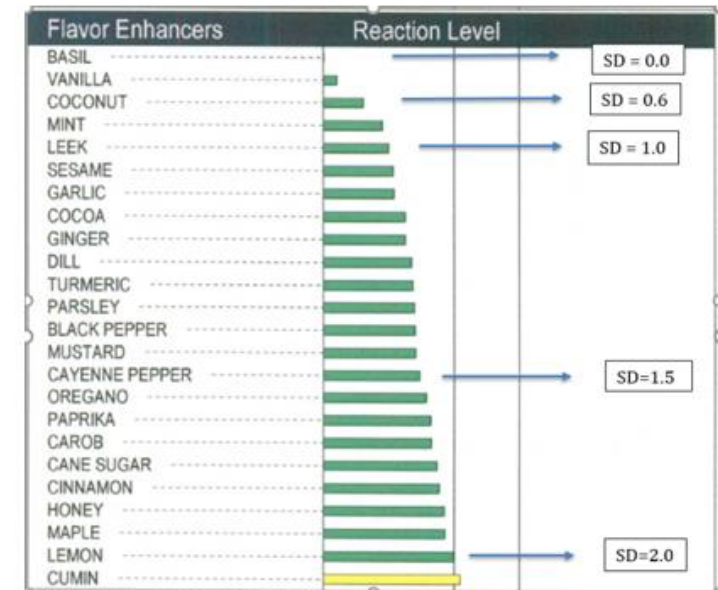
Bell Curve Analogy

- The bell curve depicts the normal distribution of clinical symptom manifestation.
- Some portion of the population will exhibit symptoms on one side of the bell, while others won't notice symptoms until they are well into the "yellow" side.
- Food sensitivities are often dose and frequency dependent.



Constructing the Diet

- Food choices should ideally consist of items that have a reactive value of 1.0 – 1.5 or below.
- Flexibility is important!
- Maintain “normalcy” as much as possible.
- The key is to balance the diet by keeping it as low reactive as possible while making sure the client has the necessary choices to make it doable.



Flavor Enhancers

0.0 BASIL	1.1 SESAME	1.4 PARSLEY	1.6 PAPRIKA	1.9 MAPLE
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0.9 MINT	1.4 DILL	1.5 CAYENNE PEPPER	1.8 CINNAMON	
1.0 LEEK	1.4 TURMERIC	1.6 OREGANO	1.9 HONEY	

Phase 1 Tips: Start with Chemicals

- Reactive chemicals will affect food selection.
- A food that contains a “naturally occurring” or endogenous chemical component should be temporarily removed even if the actual food is not reactive on the MRT results.
- If a food contains a naturally occurring reactive chemical, remove the food that contains the chemical for approximately 2 weeks if the chemical is “yellow” or 3 weeks if the chemical is “red.”
- In some cases, reactive chemicals are also found in a client’s prescription medications. A good website for checking medication ingredients is rxlist.com.
- If possible, avoid any non-essential supplements for 2-4 weeks since many of them contain untested or reactive excipients that the client may have a sensitivity to.

Phase 1 Tips: Chemicals to Note

- If salicylic acid is a reactive chemical, for the first 10-14 days, choose foods that are comparatively lower in salicylate content.
- If the client suffers from migraines, avoid tyramine and phenylethylamine regardless of test results.
 - <http://www.mc.vanderbilt.edu/documents/neurology/files/Tyramine%20Menu%20Book%2006227101.pdf>
- There's no need to automatically remove caffeinated coffee/tea unless it's higher reactive.
- However, caffeine, tyramine, and phenylethylamine are stimulants, so if someone has insomnia, we don't recommend these chemicals, regardless of test results.

Phase 1 Tips: A Note about Dairy

- Dairy should (ideally) be avoided for the first 10-14 days regardless of MRT results.
- IgE allergic reactions to milk are common and MRT doesn't measure IgE reactions.
- Milk is not a homogeneous substance, but a "mix" of over 20 different proteins, and any of those can act as an antigen.
- There is also a difference between allergies (non-dose dependent) and food sensitivities (dose dependent).
- Lactose intolerance is common.
- The composition of "dairy" antigens can also differ based on the type of diet the cow is eating.

Phase 1 Tips: Other Important Points

- If possible, include a sweet and a sour flavor enhancer.
- Might need to pay attention to personal care/hygiene items.
- Don't worry about foods in food families.
- A strict rotation diet is not necessary and too difficult in my opinion. Focus on variety.
- Alcoholic beverages should be excluded until untested foods are ready to be challenged.
- Too many/much nuts or too much fructose may be problematic with IBS.

Phase 1 Tips: Other Important Points

- “Free” items include distilled white vinegar, salt (watch ingredients), baking soda, and water.
- Baking powder can be homemade from baking soda and an acid, such as cream of tartar (source: grapes), lemon juice, or white vinegar.
- Strive to keep fiber recommendations as close to the client’s usual intake to avoid unpleasant symptoms from large changes in fiber or other macronutrients.
- Pay close attention to food dyes.

Phase 1 Tips: Some Hidden Ingredients

- “Pure Vanilla Powder” contains maltodextrin.
- Tuna often contains soy and veggie broth.
- Wheat flour often contains barley.
- Corn syrup often contains vanilla.
- Powdered sugar often contains cornstarch.
- Salt sometimes has anticaking agents and added dextrose.
- Soy sauce has gluten.
- Vitamin C is generally corn derived.

Phase 1 Tips: Hydration

- Fluid intake, especially during the first 10 days, is very important and should be emphasized because fluid retention is a common hallmark of inflammation.
- As inflammation is reduced, clients can become dehydrated if fluids are not adequately consumed, potentially creating temporary side effects such as constipation, headaches, dizziness, muscle or back aches, and excessive fatigue.
- Monitoring patients' weight can give an indication if symptoms are related to dehydration. Many patients lose 1-3 pounds of fluids the first 10 days, but occasionally some lose more.

Phase 1 Tips: Hydration cont.

- Electrolyte drinks seem to hydrate more effectively.
- A sample recipe for DIY electrolyte drink would be:
 - 1 ½-2 cups water or coconut water
 - Juice of ½ lemon
 - 1/8 to 1/4 tsp sea salt
 - 2 tsp raw honey

Phase 2:

20-35 days, or until the client is ready to begin
challenging untested foods



Phase 2

- The main purpose is to begin expanding the diet and adding variety while, simultaneously, conducting an oral challenge.
- The oral challenge is a critical tool used to unmask other immune and non-immune reactions that might be impacting the client's health.
- The goal at the end of this phase is to identify a list of foods that are safe, from all perspectives, for the client to eat.

Phase 2: Basic Instructions

Fill out symptom survey #2.

Initial Symptom Survey		
Date:	Patient Name:	Dietitian:
INSTRUCTIONS: Score every symptom based on your experience OVER THE PAST MONTH . Using the SCALE OF SYMPTOM POINTS listed below, FILL IN the appropriate score in the corresponding field for EVERY symptom listed. Note score in the boxes to the left of symptoms. Also note the number of missed work days in the last month due to illness.		
SCALE OF SYMPTOM POINTS IF you did not suffer from the symptom ever or almost never, leave it blank. 1 = OCCASIONALLY (less than 2 times per week), and symptom was MILD 2 = FREQUENTLY (2 or more times per week), and symptom was MILD 3 = OCCASIONALLY (less than 2 times per week), and symptom was SEVERE 4 = FREQUENTLY (2 or more times per week), and symptom was SEVERE		Grand Total: # Missed Work Days
CONSTITUTIONAL Fatigue (sluggish, tired) Hyperactive (nervous energy) Restless (can't relax/sit still) Daytime sleepiness Insomnia at night Malaise (feeling lousy) Seizures TOTAL (0-28)	NASAL/SINUS Post nasal drip Sinus pain Runny nose Stuffy nose Sneezing TOTAL (0-20) MOUTH/THROAT Sore throat Swollen throat Swelling/burning lips/tongue Gagging/throat clearing Canker sores Difficulty swallowing TOTAL (0-24) LUNGS Wheezing Chest congestion Dry cough Wet cough Shortness of breath TOTAL (0-20) EYES Red or swollen eyes Watery eyes Itchy eyes Dark circles or "bags" Sensitivity to light Aura TOTAL (0-24) GENITOURINARY Increased urinary frequency Painful urination Bladder pain Bedwetting TOTAL (0-16)	MUSCULOSKELETAL Joint pains Stiff joints Muscle aches Stiff muscles Ticks (facial or otherwise) Muscle spasms Muscle cramps TOTAL (0-28) CARDIOVASCULAR Irregular heartbeat High blood pressure TOTAL (0-8) DIGESTIVE Heartburn/reflux Stomach pains/cramps Intestinal pains/cramps Constipation Diarrhea Bloating sensation Gas (of any kind) Nausea Vomiting Painful elimination TOTAL (0-40) WEIGHT MANAGEMENT Current weight: Fluctuating weight Food cravings Water retention Binge eating or drinking Purging (all methods) TOTAL (0-20) LIST OTHER SYMPTOMS:
EMOTIONAL/MENTAL Depression Anxiety (fears, uneasiness) Mood swings (rapid changes) Irritability Forgetfulness Lack of concentration/Brain fog Low sex drive TOTAL (0-28)	HEAD/EARS Headache (not migraine) Migraine Earache Ear infection Ringing in ears Itchy ears Discharge from ears Sensitivity to sound TOTAL (0-32)	SKIN Blemishes, acne Rashes or hives Eczema or psoriasis "Rosy" cheeks Flushing Itchy skin TOTAL (0-24)



Phase 2: Basic Instructions

- Evaluate the food/symptom diary.
- If client has experienced significant symptom improvement (usually at least 50%), begin adding one new food per day from the remaining list of tested foods for the next 20-35 days or until the client's symptoms have improved significantly and stabilized.
- If a client's health is "fragile," a food can be added every 3 days.
- Foods with endogenous reactive chemicals can be considered in this phase as well.
- Alcoholic beverages should continue to be excluded.

Phase 2: Troubleshooting

- If the client's symptoms have not improved as expected, the most common reason is lack of adherence to the diet.
- Another common reason is too much fructose and too many nuts
- The first course of action should always be to look at the patient's food/symptom diary.
- Look carefully for hidden ingredients as well as untested items.
- Not all symptoms are related to food sensitivities or allergies, and the food/symptom diary can help detect those patterns.
- The dietary recommendations should be consistent with evidence-based recommendations for the client's clinical presentation.

Phase 3:

30-60+ days, or as needed



Phase 3

The purpose of this final phase is to continue to expand and “normalize” the diet by challenging with:

- a) any remaining MRT-tested foods
- b) untested foods
- c) a combination of both
- d) desired supplements
- e) Alcohol if desired/appropriate

Phase 3: Basic Instructions

Fill out symptom survey #3.

Initial Symptom Survey		
Date:	Patient Name:	Dietitian:
INSTRUCTIONS: Score every symptom based on your experience OVER THE PAST MONTH . Using the SCALE OF SYMPTOM POINTS listed below, FILL IN the appropriate score in the corresponding field for EVERY symptom listed. Note score in the boxes to the left of symptoms. Also note the number of missed work days in the last month due to illness.		
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EMOTIONAL/MENTAL Depression Anxiety (fears, uneasiness) Mood swings (rapid changes) Irritability Forgetfulness Lack of concentration/Brain fog Low sex drive TOTAL (0-28)	HEAD/EARS Headache (not migraine) Migraine Earache Ear infection Ringing in ears Itchy ears Discharge from ears Sensitivity to sound TOTAL (0-32)	SKIN Blemishes, acne Rashes or hives Eczema or psoriasis "Rosy" cheeks Flushing Itchy skin TOTAL (0-24)



Phase 3: Basic Instructions

- Evaluate the food/symptom diary.
- If client has experienced significant symptom improvement (usually 75-100%), begin adding one new food every 1-3 days. Use clinical judgement.
- Foods can be chosen from any remaining tested, safe foods.
- Some untested foods can be “weaved in” along with the remaining tested foods.
- If the client is doing well and stable, alcoholic beverages can be challenged.

Phase 3: Important Notes

- To support a healthy microbiome and provide a nutrient dense diet, variety should continue to be encouraged.
- Food choices should be rich in antioxidants and phytochemicals and should contain appropriate fatty acid ratios, as well as overall nutritional balance.
- Use supplementation as needed.
- Consider prebiotic and probiotic foods.
- Organic choices are preferable, but it's important to work within the confines of a patient's financial means.

Case Study 1

- Roger, 53-year-old male, with IBS-D, colitis, and depression
- Extreme stomach pains, cramps, intestinal pain, gas, diarrhea, and nausea for a period of 8 months
- Unable to work for months; job in jeopardy
- On 13 medications per day for diarrhea, insomnia, IBS, HTN, anxiety, and depression
- No known food sensitivities
- Original symptom survey score was 107 points

Case Study 1: MRT Test Results



Highly Reactive Foods

Olive	Mint	Mushroom
Green Pea	Dill	Grape
Shrimp	Garlic	Grapefruit

Moderately Reactive Foods

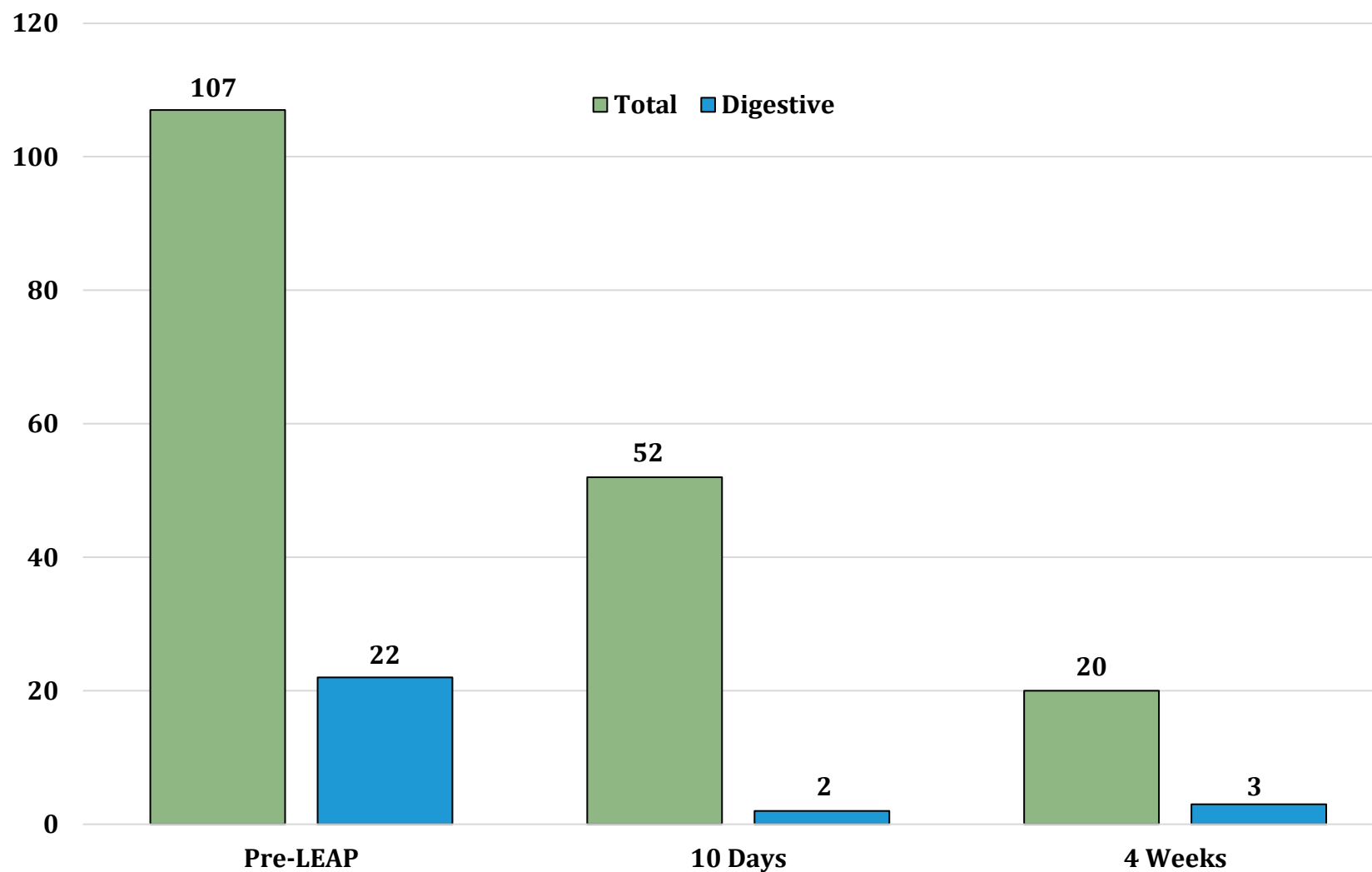
Broccoli	Blueberry	Nutmeg
Green Pepper	Egg	Lentil
Cauliflower	Cola Nut	Cow's Milk
Oat	Salicylic Acid	Blue Cheese
Millet	Ginger	Swiss Cheese
Cantaloupe	Basil	

Case Study 1: Foods Allowed (First 10 Days)



- ✓ Beef
- ✓ Tuna
- ✓ Clam
- ✓ Soybean
- ✓ Barley
- ✓ Corn
- ✓ Amaranth
- ✓ Tomato
- ✓ Yellow Squash
- ✓ Asparagus
- ✓ Beet
- ✓ Raspberry
- ✓ Cranberry
- ✓ Honeydew Melon
- ✓ Watermelon
- ✓ Yogurt
- ✓ Corn Oil
- ✓ Sunflower Seeds
- ✓ Pistachio
- ✓ Paprika
- ✓ Oregano
- ✓ Turmeric

Case Study 1: Symptom Survey Chart



Case Study 1: Results

- After 9 months on sick leave, Roger was able to return to work in 10 days!
- His need for medication was greatly reduced.
- One year later, Roger continued to do very well!

Case Study 2



- Tyler, 4 ½-month-old male, severe eczema
- Uncomplicated vaginal delivery – no sedatives
- Mom given IV antibiotics during labor due to GBS
 - Reduced or eliminated lactobacillus from birth canal
- Breastfed for 14 months
- Healthy at 4 months, no sickness or antibiotics
- Vaccine at 2 months and 4 months for DTAP

Case Study 2



4 ½ months

Immune
System
Went
Haywire



5 months

Case Study 2: Dietary Protocol



- Dietary protocol - in addition to healthy diet
 - Remove gluten & dairy from Tyler & mom
 - Add fermented foods
- Testing
- Environmental
- Supplements

Case Study 2: Supplements



- Dietary protocol
- Testing
- Environmental
- Supplements–
 - Diamine Oxidase (to dampen reaction to exogenous histamine)
 - Oral probiotics
 - Fermented foods
 - As needed to replete deficiencies, plus phosphatidylcholine (PC), EPO, & omega-3 FA

Case Study 2: MRT Test Results

MRT Results for T. Anderson, page 1 of 2

Physician: Dr. Jack Pasula
Patient: Tyler
Identifier: 125672
Profile: MRT Test ML150
Test Date: 11/13/2012
Technician: EH



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