

Full Case Assignments II - Part Two



Lori
—
Case #2

31 y.o. Female CC: 4.5 years of G.I. issues.

Issues started 4.5 years ago while traveling overseas; suspected **parasites**.

Referred to ID doc who diagnosed with parasites and was treated with **albendazole** and **tinidazole**.

Symptoms worsened after treatment; low energy, nausea, vomiting, fatigue, constipation.

Was on OC for many years until March; since then several symptoms suspects are **hormonal** (spotting, light menses, anovulation).

Okay, the next case we'll call Lori, a 31-year-old female with chief complaint of gastrointestinal issues over the past four-and-a-half years. They started when she was traveling overseas, and she suspected she had parasites. She was referred to an infectious disease doctor who diagnosed her with parasites and then treated her with albendazole and tinidazole. Her symptoms worsened after treatment. She had low energy, nausea, vomiting, fatigue, and constipation. She was on oral contraceptives for many years until March, and since then, several symptoms that she suspects are hormonal in origin, such as spotting, light menses, and anovulation.

Please list the 5 major health concerns in your order of importance

- GI Issues - chronic nausea, constipation, general discomfort
- Chronic + severe fatigue
- Headaches, sleeplessness, anxiety, depression
- Hormonal imbalance - anovulatory cycles
-

Please check the appropriate number on all questions below. 0 as least/never to 3 as most/always.

Category I	0	1	2	3
Feeling that bowels do not empty completely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Lower abdominal pain relieved by passing stool or gas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Alternating constipation and diarrhea	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Diarrhea	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Constipation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Hard, dry, or small stool	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Coated tongue or "fuzzy" debris on tongue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pass large amount of foul-smelling gas	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
More than 3 bowel movements daily	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use laxatives frequently	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category II	0	1	2	3
Excessive belching, burping, or bloating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Gas immediately following a meal	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Offensive breath	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficult bowel movement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Sense of fullness during and after meals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Difficulty digesting fruits and vegetables; undigested food found in stools	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Category III	0	1	2	3
Stomach pain, burning, or aching 1-4 hours after eating	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Use antacids	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel hungry an hour or two after eating	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heartburn when lying down or bending forward	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Temporary relief by using antacids, food, milk, or carbonated beverages	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digestive problems subside with rest and relaxation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heartburn due to spicy foods, chocolate, citrus, peppers, alcohol, and caffeine	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category IV	0	1	2	3
Roughage and fiber cause constipation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Indigestion and fullness last 2-4 hours after eating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pain, tenderness, soreness on left side under rib cage	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excessive passage of gas	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nausea and/or vomiting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Stool undigested, foul smelling, mucous like, greasy, or poorly formed	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frequent urination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased thirst and appetite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category V	0	1	2	3
Greasy or high-fat foods cause distress	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower bowel gas and/or bloating several hours after eating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Bitter metallic taste in mouth, especially in the morning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Burpy, fishy taste after consuming fish oils	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Difficulty losing weight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unexplained itchy skin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Yellowish cast to eyes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stool color alternates from clay colored to normal brown	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Reddened skin, especially palms	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dry or flaky skin and/or hair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
History of gallbladder attacks or stones	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have you had your gallbladder removed?	<input type="radio"/> Yes <input checked="" type="radio"/> No			
Category VI	0	1	2	3
Acne and unhealthy skin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Excessive hair loss	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall sense of bloating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Bodily swelling for no reason	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Hormone imbalances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Weight gain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Poor bowel function	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Excessively foul-smelling sweat	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category VII	0	1	2	3
Crave sweets during the day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable if meals are missed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Depend on coffee to keep going/get started	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Get light-headed if meals are missed	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eating relieves fatigue	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel shaky, jittery, or have tremors	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

In addition to GI issues, she also listed severe fatigue, headaches, anovulation, and hormone imbalance on her intake. She has several symptoms in the GI, liver, and gallbladder categories as well as blood sugar.

Agitated, easily upset, nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Poor memory/forgetful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Blurred vision	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Category VIII	0	1	2	3
Fatigue after meals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crave sweets during the day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Eating sweets does not relieve cravings for sugar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Must have sweets after meals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Waist girth is equal or larger than hip girth	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frequent urination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased thirst and appetite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Difficulty losing weight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Category IX	0	1	2	3
Cannot stay asleep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Crave salt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Slow starter in the morning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Afternoon fatigue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Dizziness when standing up quickly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Afternoon headaches	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Headaches with exertion or stress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Weak nails	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Category X	0	1	2	3
Cannot fall asleep	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perspire easily	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Under high amount of stress	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Weight gain when under stress	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Wake up tired even after 6 or more hours of sleep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Excessive perspiration or perspiration with little or no activity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XI	0	1	2	3
Edema and swelling in ankles and wrists	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Muscle cramping	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Poor muscle endurance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Frequent urination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frequent thirst	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Crave salt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Abnormal sweating from minimal activity	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Alteration in bowel regularity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Inability to hold breath for long periods	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Shallow, rapid breathing	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XII	0	1	2	3
Tired/sluggish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Feel cold? hands, feet, all over	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Require excessive amounts of sleep to function properly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Increase in weight even with low calorie diet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Gain weight easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Difficult, infrequent bowel movements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Depression/lack of motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Morning headaches that wear off as the day progresses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outer third of eyebrow thins	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinning of hair on scalp, face, or genitals, or excessive hair loss	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dryness of skin and/or scalp	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mental sluggishness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Category XIII	0	1	2	3
Heart palpitations	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inward trembling	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased pulse even at rest	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous and emotional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Insomnia	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Night sweats	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficulty gaining weight	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XIV	0	1	2	3
Diminished sex drive	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Menstrual disorders or lack of menstruation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Increased ability to eat sugars without symptoms	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XV	0	1	2	3
Increased sex drive	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tolerance to sugars reduced	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
"Splitting" - type headaches	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Category XVI (Males Only)	0	1	2	3
Urination difficulty or dribbling	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Frequent urination	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Pain inside of legs or heels	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

More symptoms in blood sugar, pretty severe stuff going on in the HPA axis category. Also CVD and heart, thyroid, and pituitary.

Feeling of incomplete bowel emptying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Leg twitching at night	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XVII (Males Only)	0	1	2	3
Decreased libido	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decreased number of spontaneous morning erections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decreased fullness of erections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficulty maintaining morning erections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spells of mental fatigue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inability to concentrate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Episodes of depression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Muscle soreness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decreased physical stamina	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unexplained weight gain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase in fat distribution around chest and hips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sweating attacks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More emotional than in the past	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XVIII (Menstruating Females Only)	0	1	2	3
Perimenopausal	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Alternating menstrual cycle lengths	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Extended menstrual cycle (greater than 32 days)	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Shortened menstrual cycle (less than 24 days)	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Pain and cramping during periods	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Scanty blood flow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heavy blood flow	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Breast pain and swelling during menses	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pelvic pain during menses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable and depressed during menses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Acne	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Facial hair growth	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Hair loss/thinning	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XIX (Menopausal Females Only)	0	1	2	3
How many years have you been menopausal?	<input type="text"/> years			
Since menopause, do you ever have uterine bleeding	<input type="radio"/> Yes	<input type="radio"/> No		
Hot flashes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mental foginess	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disinterest in sex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Quite a few symptoms in the hormone category.

Mood swings ☐ ☐ ☐ ☐

Depression ☐ ☐ ☐ ☐

Painful intercourse ☐ ☐ ☐ ☐

Shrinking breasts ☐ ☐ ☐ ☐

Facial hair growth ☐ ☐ ☐ ☐

Acne ☐ ☐ ☐ ☐

Increased vaginal pain, dryness, or itching ☐ ☐ ☐ ☐

How many alcoholic beverages do you consume per week? How many caffeinated beverages do you consume per day?

How many times do you eat out per week? How many times a week do you eat raw nuts or seeds?

How many times a week do you eat fish? How many times a week do you workout?

List the three worst foods you eat during the average week:

List the three healthiest foods you eat during the average week:

Do you smoke? ☐ Yes | ☒ No

Do you currently have mercury amalgams (fillings) ☐ Yes | ☒ No

Have you had mercury amalgam fillings removed in the past? ☐ Yes | ☒ No

Rate your levels of stress on a scale of 1-10 during the average week:

Please list any medications you currently take and for what conditions:

Please list any natural supplements you currently take and for what conditions:

Prescript-Assist Probiotics - GI health
Saccharomyces Boulardi Lyo - GI health
GI Revive - keeps me relatively regular
Butyrate Sodium / Potassium - due to low butyrate levels in stool sample
Argentyn 23
Tricycline - herbal anti-parasitic
Amino D-Tox - liver support
Liposomal Glutathione - liver support
Minerals 650 w/ Cu & Fe - low copper levels in blood

She doesn't drink alcohol or eat out very much. She has a pretty clean diet, but she still is eating wheat. She is taking several supplements, mostly probiotics. GI Revive, which helps keep her regular. That includes some gut-nourishing nutrients. Butyrate and then some antimicrobial stuff, Amino-D-Tox, and glutathione for detox support. She is taking minerals, copper, and iron for low copper levels in the blood, I assume from a previous practitioner who diagnosed that. No smoking or mercury amalgams.

Indicate the frequency with which you eat the following foods by marking in the appropriate box. **FREQUENT**= at least once a day, **OFTEN**= several times per week, **OCCASIONAL**= once a week or less, **SELDOM**= once or twice a month or less, **NEVER**= total avoidance.

	Frequent	Often	Occas.	Seldom	Never
Alcoholic Beverages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Eat Out at Restaurants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pastries, Cookies, Candy, Ice Cream and Other Sweets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
White Flour: Bread, Pasta, Pancakes, Crackers, Muffins, etc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Add Sugar to Coffee, Tea, Cereals, or Other Foods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Sodas or Soft Drinks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diet Soft Drinks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Fruit Juices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Artificial Sweeteners (NutraSweet, Saccharin, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Natural Sweeteners (Honey, Maple Syrup, Agave, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Breakfast Cereals (Hot or Cold)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Packaged Foods: Chips, Crackers, Puffs, Pretzels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Vegetable Oils (Sunflower, Safflower, Canola, Corn, Soy)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Margarine or Tub Vegetable Oil Spreads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Deep-Fried Foods	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Olive Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avocados	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saturated Fats (Butter, Ghee, Lard, Coconut, Palm, Tallow)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fatty Fish (Salmon, Mackerel, Sardines, Herring)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nuts and Seeds, Nut/Seed Butters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pasteurized Dairy (Check: <input type="checkbox"/> Nonfat, <input type="checkbox"/> Low-Fat, <input type="checkbox"/> Whole)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Raw Dairy Products (Check: <input type="checkbox"/> Nonfat, <input type="checkbox"/> Low-Fat, <input checked="" type="checkbox"/> Whole)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fermented Dairy Products (Yogurt, Kefir, Cheese)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eggs (Check: <input checked="" type="checkbox"/> Free-Range, <input type="checkbox"/> Pastured, <input type="checkbox"/> Organic, or <input type="checkbox"/> Conventional)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poultry or Fowl (Chicken, Turkey, Duck, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Pork	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Red Meat (Beef, Lamb)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Processed Meats (Bacon, Sausage, Salami, Ham, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Organ Meats (Liver, Kidney, Sweetbreads, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Soy Products (Tofu, Tempeh, Soy Milk, Edamame)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Salads, Uncooked Vegetables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Fermented Vegetables (Sauerkraut, Kim Chi, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Non-Starchy Vegetables (Greens, Squash, Carrots)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Starchy Vegetables (Potatoes, Yams, Sweet Potatoes)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fresh Fruits	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beans and Legumes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whole Grains and Whole Grain Breads (Wheat, Gluten)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alternative Grains (Quinoa, Buckwheat, Teff, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Herbs and Spices (Fresh or Dried)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate (Check: <input type="checkbox"/> Milk or <input checked="" type="checkbox"/> Dark)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Herbal Teas	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coffee (Check: <input checked="" type="checkbox"/> Regular or <input type="checkbox"/> Decaffeinated)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Caffeinated Teas (Check: <input checked="" type="checkbox"/> Black or <input type="checkbox"/> Green)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Salt (Check: <input type="checkbox"/> Iodized or <input checked="" type="checkbox"/> Sea Salt)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate if you are on any special diet:

☐ Ovo-lacto-vegetarian
 ☐ Vegetarian
 ☐ Other

☐ Diabetic ADA
 ☐ Vegan

☐ Dairy-free
 ☐ Paleo

☐ Gluten-free
 ☐ GAPS

If you checked any, how long have you been on this diet?

If you checked any, how strictly are you on it? For example: 80/20, or all the time, except certain holidays

Please check any and all boxes below that describe your current eating styles:

☐ Eat while driving, in front of a TV or computer, or multi-tasking
 ☒ **Fast eater**

☒ **Irregular eating habits (eating times, portion sizes, etc)**
☐ Eat too much

☐ Eat late at night
 ☐ Eat in the middle of the night

☐ Time constraints
 ☐ Travel Frequently

☐ Eat more than 50% meals away from home
 ☐ Don't care to cook, or never learned

☐ Confused about nutritional advice
 ☐ Don't really enjoy meals; eat mostly for fuel or calories

☐ Eat lots of pre-made or pre-packaged foods and snacks
 ☐ Lack of choice of healthy foods in neighborhood

☐ Don't eat breakfast or dinner together as a family unit
 ☐ Don't share same meals, even if seated together at table (special dietary needs and/or food preferences)

☒ **Emotional eater (when sad, bored)**
☐ Have a negative relationship to food

As I said, her diet is pretty clean, but she is eating whole grains, gluten, beans, and legumes. While those may be well tolerated for some people, they are typically not well tolerated for people with GI issues, so that is something you may want to address. She is also consuming dairy, which again, I think full-fat, fermented dairy is healthy when it is well tolerated, but if someone is having GI

issues, and they haven't tried eliminating dairy, I think that is definitely worth doing at least for 30 or 60 days to see if there is a benefit.

Breakfast is eggs and veggies. Lunch and dinner are good. Cooking herself using real foods. Main questions, as I've already mentioned, are the legumes, the bread, the grains, and the dairy.

8) Do you wake up hungry in the middle of the night? ☐ Yes ☒ No ☐ Sometimes
If so, do you eat? What do you eat?

Additional Comments

Chronic nausea and stomach cramps make eating regularly difficult. I try to be as consistent as I can but some days I just can't. On days when I don't eat well, I definitely experience hypoglycemic freak outs!! Will crave fruit, chocolate, fat. When that happens, it usually doesn't correct for the rest of the day (like, I'll have several pieces of bread with butter because my body feels freak-out starving, then I won't be hungry for dinner. I try to avoid this as much as possible but it does happen).

I'll get all kinds of cravings depending on the day - water, salt, fat, sugar. I have a very clean diet so even when I binge on something it'll be fruit, maybe bread (not usually), almond butter, etc.

Also, I tend to have a high thirst drive. Not sure if that's something to worry about but I've been known to drink a gallon or more some days, and still feel very thirsty.

She has strong food cravings and a lot of thirst. You may need to address the cravings in order for her to be able to comply with the treatment protocol.

ENVIRONMENTAL EXPOSURE

Please answer the following questions:

	Yes	No	Unknown
1) Do you have exposure to the interior building of a water damaged building and/or microbial growth? If yes, please answer the next three (3) questions:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
a. Do you have samples/evidence of spore or genus and species of fungus (air test, ERMI test, etc.)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
b. Is there visible microbial growth (mold)?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
c. Is there a presence of musty smells?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
2) Do you remember a tick bite occurring before your illness beginning? If yes, please answer the next two (2) questions:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
a. Did you have an unexplained rash after the bite?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Did you experience flu-like illness after the bite?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Have you had a brown recluse or other poisonous spider bite? If yes:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
a. Did you experience flu-like illness after the bite?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Did you become ill after eating fish?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
5) Did you become ill after exposure to a body of fresh water?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
6) Did you become ill after exposure to the ocean during a 'Red Tide' or other bloom?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
7) Did you become ill after exposure to an estuary fish kill?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
8) Did you become ill after exposure to a closed shell fish bed area?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

ASSOCIATED ILLNESSES

Please mark yes or no:

Illness	Yes	No
Tick borne illness	<input type="radio"/>	<input checked="" type="radio"/>
Lyme Disease	<input type="radio"/>	<input checked="" type="radio"/>
Fibromyalgia	<input type="radio"/>	<input checked="" type="radio"/>
Chronic Fatigue Syndrome	<input checked="" type="radio"/>	<input type="radio"/>
Gulf War Syndrome	<input type="radio"/>	<input checked="" type="radio"/>
Chemical Sensitivity	<input checked="" type="radio"/>	<input type="radio"/>
Sick Building Syndrome	<input type="radio"/>	<input checked="" type="radio"/>
Fungus or Mycotoxicosis	<input type="radio"/>	<input checked="" type="radio"/>
Depression	<input checked="" type="radio"/>	<input type="radio"/>
Chronic Soft Tissue Injury	<input type="radio"/>	<input checked="" type="radio"/>
Irritable Bowel Syndrome	<input checked="" type="radio"/>	<input type="radio"/>
Bacteria	<input type="radio"/>	<input checked="" type="radio"/>
Bell's Palsy	<input type="radio"/>	<input checked="" type="radio"/>
Pfiesteria	<input type="radio"/>	<input checked="" type="radio"/>

Sensory Neural Hearing Loss	<input type="radio"/>	<input checked="" type="radio"/>
Ciguatera Seafood Poisoning	<input type="radio"/>	<input checked="" type="radio"/>
Any Learning Disability	<input type="radio"/>	<input checked="" type="radio"/>
Autism	<input type="radio"/>	<input checked="" type="radio"/>
Attention Deficit Disorder	<input checked="" type="radio"/>	<input type="radio"/>
Charcot Marie Tooth Syndrome	<input type="radio"/>	<input checked="" type="radio"/>
Alzheimer's Disease	<input type="radio"/>	<input checked="" type="radio"/>
Parkinson's Disease	<input type="radio"/>	<input type="radio"/>
Amyotrophic Lateral Sclerosis	<input type="radio"/>	<input checked="" type="radio"/>
Multiple Sclerosis	<input type="radio"/>	<input checked="" type="radio"/>
Diabetes	<input type="radio"/>	<input checked="" type="radio"/>
Ocular Disease (e.g., cataract)	<input type="radio"/>	<input checked="" type="radio"/>
Retinal Disease (e.g., glaucoma)	<input type="radio"/>	<input checked="" type="radio"/>
Low Vision or Blindness	<input type="radio"/>	<input checked="" type="radio"/>
Another Condition Involving Neurological Function	<input type="radio"/>	<input checked="" type="radio"/>

Environmental survey was unremarkable.

The single most important criteria for effective case management is a comprehensive and detailed health history. Please answer the following questions with as much detail as possible. It is important for me to know everything about you and your case. Even when you feel the questions may not be directly relevant to your situation, please do your best to answer them.

It takes tremendous time and energy for any healthcare provider to manage a complicated case. My practice is limited to a small number of patients and therefore the case review process is very important.

Instructions: Please type answers to the following questions with as much detail as possible. Please answer each question independently.

HEALTH HISTORY QUESTIONS

1) Please list the following

Education:

Profession:

Interests (sports, hobbies, etc.):

2) List your chief complaints in order of your importance:

severe fatigue

chronic nausea, lack of appetite, irregular bowels

daily headaches of varying intensity; frequent migraines

obvious hormonal imbalances - anovulatory, amenorrhea, low energy, skin issues, mood issues, headaches

anxiety, depression, unable to focus, foggy-headedness

poor circulation - always cold

body aches - mostly in muscles, some joint crackling

3) List all diagnoses given to you in a timeline sequence and your personal opinions about them.

March/April 2013 - IBS

--after many tests, no adequate diagnosis was reached.

December 2015 - Doctors Data stool test showed very elevated sig-A count: 834 mg/dL (reference range is 51-204 mg/dL)

--no diagnosis was reached

July 2016 - diagnosed with *e. histolytica* and whipworm (via rectal swab), given anti-parasitics (Tinidazole, Albenza, and Triclycline)

-- given anti-parasitics without overall health assessment to determine whether my system could handle them. Result was severe fatigue and GI symptoms continued and worsened.

September 2016 - Parawellness stool test showed *blastocystis hominis* and *endolimax nana* cysts

--glad to have identified them, but I suspect there's more going on in my system than parasites. Seems to be one piece of a much bigger puzzle.

4) What's your opinion on what has happened to your health?

In January 2013, SOMETHING happened. I was on an intense work trip abroad and got food poisoning. I suspect that the food poisoning uncovered a parasitic infection that my body was trying to handle, and the food poisoning gave it an opportunity to take a firmer grasp on my body. For many months, I had chronic and intense nausea (could not eat or drink without throwing up, was given Ondansetron to alleviate symptoms

On the questionnaire, she listed the same complaints as before, but she added poor circulation, anxiety, depression, and body aches. In July 2016, she was diagnosed with *Entamoeba histolytica* and whipworm via a rectal swab from the infectious disease doctor. Sometimes if patients have negative stool test results and you really suspect they have a parasite, referring to an infectious

disease doctor who does in-office rectal swab tests for parasites can actually be the best way to detect those parasites.

On a personal note, many of you know that I struggle with a digestive condition that started after I was traveling in Indonesia for many years. For the first couple of years, I took a whole bunch of stool tests that turned out to be negative, and then eventually I did get a positive result at an infectious disease doctor in New York who did this kind of testing.

She was treated with antiparasitics by that doctor, but her symptoms worsened rather than improve. In September 2016, she did another parasite test through ParaWellness, which is another lab that specializes in parasite testing, and the results were positive for *Blastocystis hominis*. Symptoms started in January 2013 after a food poisoning experience while traveling for work. There are many theories now that suggest that GI issues often begin after food poisoning. In fact, Dr. Pimentel has now created a new test for IBS. I think it is called IBS Check that is predicated on this idea that food poisoning is the initial triggering event for many cases of IBS.

enough for me to function. Worth mentioning that I was in a very demanding and stressful job (80-90 hour weeks for about 5 years, frequent travel all over the world, etc. from January 2011-November 2015). After too many tests to count, nothing was diagnosed and I just moved on.

For the next several years, I experienced severe GI issues: chronic nausea, some vomiting, alternating diarrhea & constipation, gas, etc.

I was on the Mirena IUD throughout this time and had it removed in October 2015, replaced with Implanon arm implant. Had the Implanon removed in March 2016 due to severe reaction (cystic acne, and some others). Since then, I have not regained a normal menstrual cycle and have been anovulatory (confirmed with LH strips and lack of temperature change).

Putting it all together, I obviously have/had some severe GI infection - probably parasitic - that went undiagnosed and untreated for many years. Combined with the chronic job stress and hormonal birth control, my body was not able to recover. When I took the strong anti-parasitics, my body was not prepared to handle drugs of that strength and die-off from parasites, and I bottomed out.

5) List any treatments, medications, or supplements that have improved your health.

Glutagenics GI Powder - have tried other versions, but this is the only one that keeps me regular (likely due to higher Glutamine content @ 3.5g 2x/day)

6) List any treatments, medications, or supplements that have caused reactions or decreased your health.

Tinidazole, Albenza

Probiotics have not seemed to make a difference, though I continue to take them.

7) List in a timeline sequence any medical procedures or surgeries you have had:

no surgeries or procedures but:

March 2013: endoscopy, fluroscopy

September 2016: complete pelvic & transvaginal ultrasound (came back clear)

PERSONAL OPINION QUESTIONS

Please do not answer "I don't know" to any of these questions.

1) Why do you think healthcare practitioners have failed with your case?

There are so many clues as to what is happening in my body, but no one can seem to piece them together. Whether for lack of interest or lack of ability, I remain without a complete understanding of the various issues I'm experiencing and how they relate.

For example: it's uncommon in the western world to have a copper deficiency. But I do. Why? What is causing that? I eat copper-dense foods (mushrooms, leafy greens, etc) but somehow I'm not absorbing it.

Which leads to me to believe that I'm likely not absorbing other vitamins and minerals. Which ones? How do I get them into my system? If my body isn't absorbing via food, can supplements be expected to help?

This is one of a thousand examples of clues I have, but though I've worked with some of the best specialists out there, no one seems to take the time to be curious and piece it all together.

2) What are you looking for in a healthcare practitioner?

Curiosity!
Not accepting of a piece-meal approach

Thoughtful, respectful, and smart about labs (versus just ordering everything under the sun, they are an emotional and financial burden, which I'm willing to undertake if I understand WHY I'm doing them and WHAT we're looking for)
Specific and communicative around medications and supplements. I don't want the kitchen sink approach. I want to fully understand and get behind every decision we make and why it's the right call for MY body and my case.
Communicative of the long-term vision: what signs I should be looking for to indicate improvement. It's tough in a case like mine where my symptoms fluctuate all the time; it can be difficult to detect when things improve or worsen. Having specific information of what to look for helps tremendously in navigating that. Also, what labs do I repeat and at what periodicity? What do we look for? How do we correct different imbalances that happen along the way? When does it all start to get too obsessive and when should we just let the body do its thing?
Responsive if I have questions along the way.
Honest and crystal clear about what we're certain of and what we're not certain of.
Unrushed, takes time to answer all my questions fully

AND:

Someone with awe and respect for the human body and its tremendous capabilities to heal itself. Whose goal is to support that process, rather than override it. My goal is long-term health. If, based on my genetics or whatever I need to be on a particular supplement life-long, fine. But I won't do it if I'm not fully bought in.

3) What do you consider a realistic window of time to see changes in your health under our care?

I understand this is a journey. It's been several years already. I would like to see some improvements in the next couple months (energy levels, GI symptoms, etc) but if it takes a year+ to get fully well again, I'm prepared to do what it takes.

4) Are you prepared to pay for the laboratory testing, consulting fees and nutritional supplements that may be required to successfully manage your condition?

Yes, in for a penny, in for a pound!

5) On a scale of 1 to 10, how committed are you to recovering your health? Why?

It's been long enough :) It took me years to reach this point and I've overcome a lot of fear and feelings of being overwhelmed at not having a proper diagnosis. Being chronically sick for years has certainly given me a new perspective on the importance of long-term health and I remain fully committed to pursuing that for the rest of my life.

6) What obstacles or beliefs, if any, stand in the way of you recovering your health?

I feel the need to understand the ways things are playing out in my body. Taking the example above: why do I have a copper deficiency? What clue is that? Anything that seems anomalous on test results -- how do those things point us to the bigger picture? It's possible that after years of illness and inadequate diagnoses, I'm overthinking things. Maybe it is just leaky gut and hormonal imbalances. If so, fine. But I want to understand why we've reached that conclusion and how we're going to treat my case specifically, based on lab data and our best intelligence and intuition.

7) Are there emotional or psychological issues that may be contributing to your health problems? If so, please explain them briefly.

I've experienced anxiety and depression. They do run in the family, but I've never struggled with these issues until recently.

8) Do you enjoy your work? Do you believe your work contributes to your health problems?

I left my job last November in order to focus on life and health. Before that, it certainly did contribute to my health problems in a major way.

Glutagenics GI powder keeps her regular, which is interesting. It has a pretty high dose of glutamine, I believe, and that often actually makes patients constipated, so that is curious, but it seems to be working for her. No difference with probiotics. Nothing remarkable in the rest of her

responses. She is highly committed, and her expectations for how long treatment may take are totally reasonable.

9) Do you have a purpose in life?

Oh, still figuring that one out :) I'm certain I do, but I'd say that I'm at a point in life where I get to discover and define it.

10) Where else do you find support? Friends? Church or religious group? Nature?

I have a very supportive family and friend network. I love being out in nature, but it's been a struggle to walk down the block some days let alone go for a hike. I'd love for that to improve soon.

11) How did you feel about answering all of these questions and the case review process?

I appreciate the process. It's been empowering and enlightening to have to put words behind many of these thoughts and feelings that I've been having for the last several years. Thank you :)

She is very supportive of the intake process.

Marker	Value	Functional Range	Lab Range
Glucose	68	75 - 90	65 - 99
Hemoglobin A1c	5.3	4.4 - 5.4	4.8 - 5.6
BUN	12	13 - 18	6 - 20
Creatinine	0.93	0.7 - 1.0	0.57 - 1
BUN/Creatinine Ratio	13	9 - 23	9 - 23
eGFR if Non-African American	83		> 59
eGFR if African American	95		> 59
Sodium	142	135 - 140	134 - 144
Potassium	4.3	4.0 - 4.5	3.5 - 5.2
Chloride	100	100 - 106	97 - 108
CO ₂	26	25 - 30	18 - 29
Calcium	9.8	9.2 - 10.1	8.7 - 10.2
Parathyroid Hormone, Intact	22	15 - 60	15 - 65
Protein, total	6.9	6.9 - 7.4	6.0 - 8.5
Albumin	4.9	4.0 - 5.0	3.5 - 5.5
Globulin	2.0	2.4 - 2.8	1.5 - 4.5
A/G ratio	2.5	1.5 - 2.0	1.1 - 2.5
Bilirubin, total	0.6	0.1 - 1.2	0.0 - 1.2
Alkaline Phosphatase	38	42 - 107	39 - 117
AST	24	0 - 23	0 - 40
ALT	34	0 - 20	0 - 32
TIBC	259	275 - 425	250 - 450
UIBC	180	175 - 350	131 - 425
Iron	79	40 - 135	27 - 159
Iron saturation	31	17 - 45	15 - 55
Ferritin	59	30 - 100	15 - 150
Vitamin B-12	343	450 - 2000	211 - 946
Calcitriol (1,25 di-OH Vitamin D)	66	19.9 - 79.3	19.9 - 79.3
Vitamin D, 25-hydroxy	36.3	35 - 60	30.0 - 100.0
Cholesterol, total	196	150 - 230	100 - 199
Triglycerides	59	50 - 100	0 - 149
HDL	73	55 - 85	> 39
LDL	111	0 - 140	0 - 99
T. Chol / HDL Ratio	2.7	< 3	0 - 4.4
Triglycerides / HDL Ratio	0.81	< 2	< 3.8

Marker	Value	Functional Range	Lab Range
CRP-hs	0.3	< 1.0	0.00 - 3.00
Homocysteine	8.1	< 7.0	0.0 - 15.0
TSH	1.350	0.5 - 2.0	0.45 - 4.50
T4, total	5.9	6.0 - 12	4.5 - 12
T3 Uptake	28	28 - 35	24 - 39
T3, Total	104	100 - 180	71 - 180
T3, Free	2.6	2.5 - 4.0	2 - 4.4
T4, Free	0.99	1 - 1.5	0.82 - 1.77
Reverse T3	14.7	9 - 21	9.2 - 24.1
Thyroid - TPO Ab	8		0 - 34
Thyroid - TGA	<1.0		0 - 0.9
Copper	65	81 - 157	72 - 166
Zinc	73	64 - 126	56 - 134
Zinc / Copper Ratio	1.12	> 0.85	
Serum Methylmalonic Acid (MMA)	195	< 300	0 - 378
WBC	6.5	5.0 - 8.0	3.4 - 10.8
RBC	4.31	4.4 - 4.9	3.77 - 5.28
Hemoglobin	13.0	13.5 - 14.5	11.1 - 15.9
Hematocrit	36.6	37 - 44	34 - 46.6
MCV	91	85 - 92	79 - 97
MCH	30.2	27.7 - 32.0	26.6 - 33.0
MCHC	33.2	32 - 35	31.5 - 35.7
RDW	12.8	11.5 - 15.0	12.3 - 15.4
Platelets	263	150 - 379	150 - 379
Neutrophils	53	40 - 60	
Lymphocytes	40	25 - 40	
Monocytes	5	4.0 - 7.0	
Eosinophils	1	0.0 - 3.0	
Basophils	1	0.0 - 3.0	
Folate, Hemolysate	311.9		
Folate, RBC	852		> 498
DHEA-Sulfate	237.1		84.8 - 378

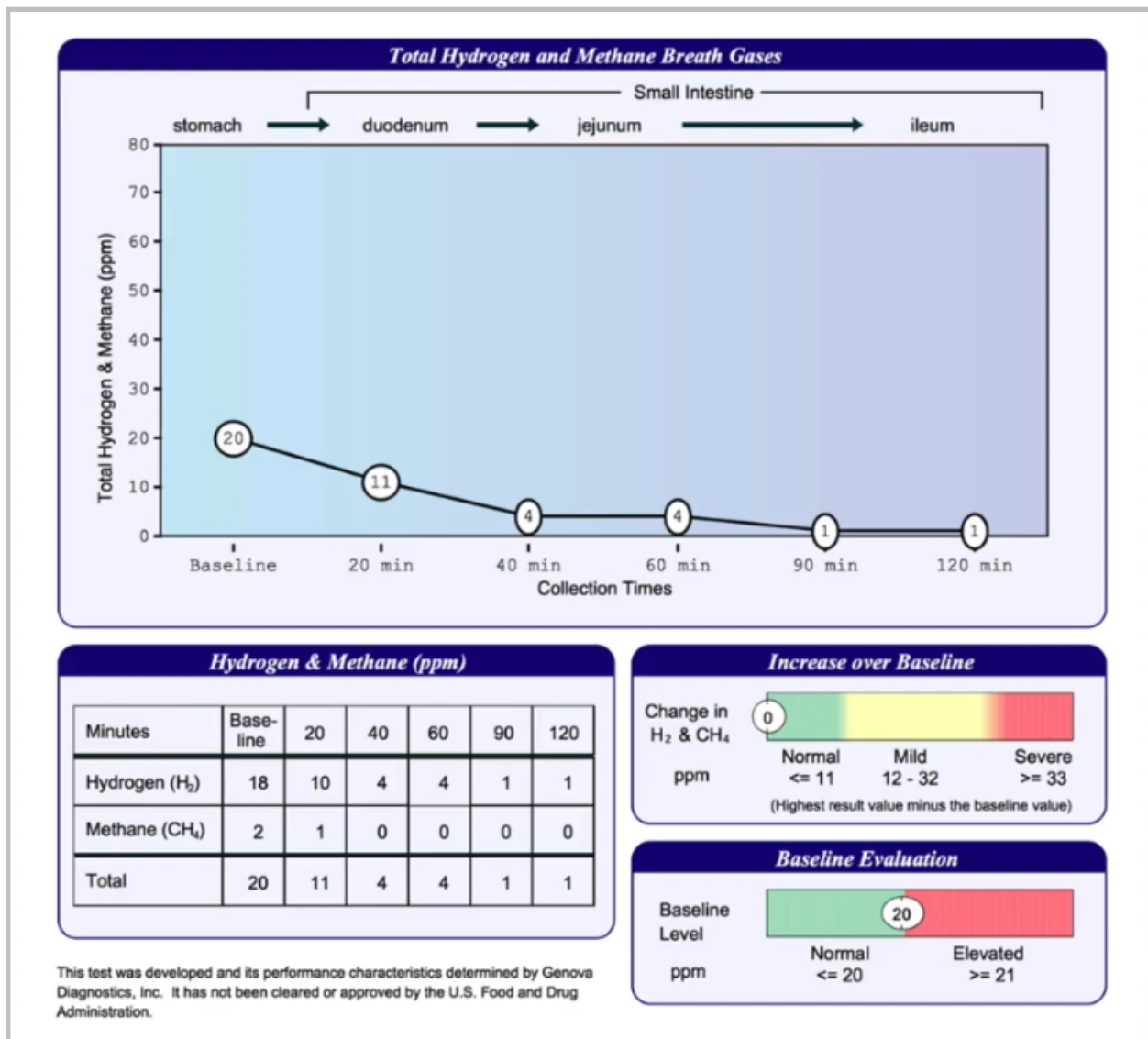
Fasting glucose is a little low. She has some symptoms of hypoglycemia such as lightheadedness, anxiety, and fatigue. Alkaline phosphatase is low, so you're thinking thyroid and zinc. Zinc is low-normal, but as we know, serum is not necessarily accurate. Copper is frankly low here. It's 65, and the range is 72 to 166, and she mentioned low copper on blood tests before.

AST and ALT are a little elevated. The patient is not overweight. Given her normal blood sugar, insulin resistance and nonalcoholic fatty liver are unlikely. Iron panel and ferritin are normal except TIBC, which is functionally low, probably not significant. As I just mentioned, her serum copper is lab-low, so hopefully you're thinking about the possibility of Wilson's disease here because her liver enzymes are elevated. Iron levels are normal. We know that serum copper can be low in

Wilson's disease despite the fact that Wilson's disease is characterized by copper toxicity. Serum copper levels are typically low in Wilson's, so you'd want to run ceruloplasmin and 24-hour urine copper to screen for it, especially given the high ALT and AST. You might also screen for hepatitis given that her issues started with foreign travel.

Serum B12 is low-normal. Serum MMA is normal, so we would want to look at urine MMA and FIGLU, although in this case she didn't do an organic acids test. Homocysteine is a little higher than optimal, not much, at 8.1, and serum folate is normal.

Red blood cells, hemoglobin, and hematocrit are all slightly low. MCV is normal, so we're wondering at this point with all of these markers if there may be B12- or folate-deficiency functional anemia that we're picking up on here.



This is the Genova SIBO test that we were doing at the time. This patient came to us a few years ago. Her baseline hydrogen is high, but then it levels out, and it is low the rest of the test. Methane is very low. This finding usually indicates inadequate test preparation, and that may not be surprising because Genova, at this time, did not instruct patients to prepare properly for the test. The patient should really only be eating jasmine rice, meat, and some oils prior to the test, but Genova's diet is broader and includes some things that could be fermented by intestinal bacteria and throw off the results. If you see a patient come in with a lab like this, I would definitely reorder another breath test from NUNM, or now BioHealth is offering them or possibly Commonwealth.

Comprehensive Stool Analysis / Parasitology x3

BACTERIOLOGY CULTURE		
Expected/Beneficial flora	Commensal (Imbalanced) flora	Dysbiotic flora
4+ Bacteroides fragilis group	2+ Citrobacter freundii complex	
4+ Bifidobacterium spp.	4+ Gamma hemolytic strep	
3+ Escherichia coli	2+ Klebsiella pneumoniae ssp pneumoniae	
1+ Lactobacillus spp.	2+ Proteus vulgaris group	
4+ Enterococcus spp.		
1+ Clostridium spp.		
NG = No Growth		

BACTERIA INFORMATION
<p>Expected /Beneficial bacteria make up a significant portion of the total microflora in a healthy & balanced GI tract. These beneficial bacteria have many health-protecting effects in the GI tract including manufacturing vitamins, fermenting fibers, digesting proteins and carbohydrates, and propegeting anti-tumor and anti-inflammatory factors.</p> <p>Clostridia are prevalent flora in a healthy intestine. Clostridium spp. should be considered in the context of balance with other expected/beneficial flora. Absence of clostridia or over abundance relative to other expected/beneficial flora indicates bacterial imbalance. If <i>C. difficile</i> associated disease is suspected, a Comprehensive Clostridium culture or toxigenic <i>C. difficile</i> DNA test is recommended.</p> <p>Commensal (imbalanced) bacteria are usually neither pathogenic nor beneficial to the host GI tract. Imbalances can occur when there are insufficient levels of beneficial bacteria and increased levels of commensal bacteria. Certain commensal bacteria are reported as dysbiotic at higher levels.</p> <p>Dysbiotic bacteria consist of known pathogenic bacteria and those that have the potential to cause disease in the GI tract. They can be present due to a number of factors including: consumption of contaminated water or food, exposure to chemicals that are toxic to beneficial bacteria; the use of antibiotics, oral contraceptives or other medications; poor fiber intake and high stress levels.</p>

YEAST CULTURE	
Normal flora	Dysbiotic flora
1+ Geotrichum spp	

MICROSCOPIC YEAST		YEAST INFORMATION
Result: <div>Few</div>	Expected: None - Rare	<p>Yeast normally can be found in small quantifies in the skin, mouth, intestine and mucocutaneous junctions. Overgrowth of yeast can infect virtually every organ system, leading to an extensive array of clinical manifestations. Fungal diarrhea is associated with broad-spectrum antibiotics or alterations of the patient's immune status. Symptoms may include abdominal pain, cramping and irritation. When investigating the presence of yeast, disparity may exist between culturing and microscopic examination. Yeast are not uniformly dispersed throughout the stool, this may lead to undetectable or low levels of yeast identified by microscopy, despite a cultured amount of yeast. Conversely, microscopic examination may reveal a significant amount of yeast present, but no yeast cultured. Yeast does not always survive transit through the intestines rendering it unvialble.</p>
<p>The microscopic finding of yeast in the stool is helpful in identifying whether there is proliferation of yeast. Rare yeast may be normal; however, yeast observed in higher amounts (few, moderate, or many) is abnormal.</p>		

Comprehensive Stool Analysis / Parasitology x3

PARASITOLOGY/MICROSCOPY		PARASITOLOGY INFORMATION	
Sample 1 None Ova or Parasites Rare Yeast		<p>Intestinal parasites are abnormal inhabitants of the gastrointestinal tract that have the potential to cause damage to their host. The presence of any parasite within the intestine generally confirms that the patient has acquired the organism through fecal-oral contamination. Damage to the host includes parasitic burden, migration, blockage and pressure. Immunologic inflammation, hypersensitivity reactions and cytotoxicity also play a large role in the morbidity of these diseases. The infective dose often relates to severity of the disease and repeat encounters can be additive.</p> <p>There are two main classes of intestinal parasites, they include protozoa and helminths. The protozoa typically have two stages; the trophozoite stage that is the metabolically active, invasive stage and the cyst stage, which is the vegetative inactive form resistant to unfavorable environmental conditions outside the human host. Helminths are large, multicellular organisms. Like protozoa, helminths can be either free-living or parasitic in nature. In their adult form, helminths cannot multiply in humans.</p> <p>In general, acute manifestations of parasitic infection may involve diarrhea with or without mucus and or blood, fever, nausea, or abdominal pain. However these symptoms do not always occur. Consequently, parasitic infections may not be diagnosed or eradicated. If left untreated, chronic parasitic infections can cause damage to the intestinal lining and can be an unsuspected cause of illness and fatigue. Chronic parasitic infections can also be associated with increased intestinal permeability, irritable bowel syndrome, irregular bowel movements, malabsorption, gastritis or indigestion, skin disorders, joint pain, allergic reactions, and decreased immune function.</p> <p>In some instances, parasites may enter the circulation and travel to various organs causing severe organ diseases such as liver abscesses and cysticercosis. In addition, some larval migration can cause pneumonia and in rare cases hyper infection syndrome with large numbers of larvae being produced and found in every tissue of the body.</p> <p>One negative parasitology x1 specimen does not rule out the possibility of parasitic disease, parasitology x3 is recommended. This test is not designed to detect <i>Cyclospora cayetanensis</i> or <i>Microsporidia</i> spp.</p>	
Sample 2 None Ova or Parasites Rare Yeast			
Sample 3 None Ova or Parasites Few Yeast			

GIARDIA/CRYPTOSPORIDIUM IMMUNOASSAY			
	Within	Outside	Reference Range
<i>Giardia duodenalis</i>	Neg		Neg
<i>Cryptosporidium</i>	Neg		Neg

Giardia duodenalis (AKA *intestinalis* and *lamblia*) is a protozoan that infects the small intestine and is passed in stool and spread by the fecal-oral route. Waterborne transmission is the major source of giardiasis.

Cryptosporidium is a coccidian protozoa that can be spread from direct person-to-person contact or waterborne transmission.

Doctor's Data stool test: Beneficial bacteria were pretty good except for 1+ for Lactobacillus. She had some commensal imbalance flora and then mild fungal overgrowth.

Comprehensive Stool Analysis / Parasitology x3

DIGESTION / ABSORPTION				<p>Elastase findings can be used for the diagnosis or the exclusion of exocrine pancreatic insufficiency. Correlations between low levels and chronic pancreatitis and cancer have been reported. Fat Stain: Microscopic determination of fecal fat using Sudan IV staining is a qualitative procedure utilized to assess fat absorption and to detect steatorrhea. Muscle fibers in the stool are an indicator of incomplete digestion. Bloating, flatulence, feelings of "fullness" may be associated with increase in muscle fibers. Vegetable fibers in the stool may be indicative of inadequate chewing, or eating "on the run". Carbohydrates: The presence of reducing substances in stool specimens can indicate carbohydrate malabsorption.</p>
	Within	Outside	Reference Range	
Elastase	340		> 200 µg/mL	
Fat Stain	Few		None - Mod	
Muscle fibers	None		None - Rare	
Vegetable fibers	Rare		None - Few	
Carbohydrates	Neg		Neg	

INFLAMMATION				<p>Lactoferrin and Calprotectin are reliable markers for differentiating organic inflammation (IBD) from function symptoms (IBS) and for management of IBD. Monitoring levels of fecal lactoferrin and calprotectin can play an essential role in determining the effectiveness of therapy, are good predictors of IBD remission, and can indicate a low risk of relapse. Lysozyme* is an enzyme secreted at the site of inflammation in the GI tract and elevated levels have been identified in IBD patients. White Blood Cells (WBC) and Mucus in the stool can occur with bacterial and parasitic infections, with mucosal irritation, and inflammatory bowel diseases such as Crohn's disease or ulcerative colitis.</p>
	Within	Outside	Reference Range	
Lactoferrin	< 0.5		< 7.3 µg/mL	
Calprotectin*	< 10		<= 50 µg/g	
Lysozyme*	195		<= 600 ng/mL	
White Blood Cells	None		None - Rare	
Mucus	Neg		Neg	

IMMUNOLOGY				<p>Secretory IgA* (sIgA) is secreted by mucosal tissue and represents the first line of defense of the GI mucosa and is central to the normal function of the GI tract as an immune barrier. Elevated levels of sIgA have been associated with an upregulated immune response.</p>
	Within	Outside	Reference Range	
Secretory IgA*	76.3		51 - 204 mg/dL	

Comprehensive Stool Analysis / Parasitology x3

SHORT CHAIN FATTY ACIDS				
	Within	Outside	Reference Range	
% Acetate	75		40 - 75 %	Short chain fatty acids (SCFAs): SCFAs are the end product of the bacterial fermentation process of dietary fiber by beneficial flora in the gut and play an important role in the health of the GI as well as protecting against intestinal dysbiosis. Lactobacilli and bifidobacteria produce large amounts of short chain fatty acids, which decrease the pH of the intestines and therefore make the environment unsuitable for pathogens, including bacteria and yeast. Studies have shown that SCFAs have numerous implications in maintaining gut physiology. SCFAs decrease inflammation, stimulate healing, and contribute to normal cell metabolism and differentiation. Levels of Butyrate and Total SCFA in mg/mL are important for assessing overall SCFA production, and are reflective of beneficial flora levels and/or adequate fiber intake.
% Propionate	13		9 - 29 %	
% Butyrate	9.4		9 - 37 %	
% Valerate	2.9		0.5 - 7 %	
Butyrate		0.36	0.8 - 4.8 mg/mL	
Total SCFA's		3.8	4 - 18 mg/mL	

INTESTINAL HEALTH MARKERS				
	Within	Outside	Reference Range	
Red Blood Cells	None		None - Rare	Red Blood Cells (RBC) in the stool may be associated with a parasitic or bacterial infection, or an inflammatory bowel condition such as ulcerative colitis. Colorectal cancer, anal fistulas, and hemorrhoids should also be ruled out. pH: Fecal pH is largely dependent on the fermentation of fiber by the beneficial flora of the gut. Occult blood: A positive occult blood indicates the presence of free hemoglobin found in the stool, which is released when red blood cells are lysed.
pH	6.7		6 - 7.8	
Occult Blood	Neg		Neg	

MACROSCOPIC APPEARANCE				
	Appearance	Expected		
Color	Brown	Brown	Color: Stool is normally brown because of pigments formed by bacteria acting on bile introduced into the digestive system from the liver. While certain conditions can cause changes in stool color, many changes are harmless and are caused by pigments in foods or dietary supplements. Consistency: Stool normally contains about 75% water and ideally should be formed and soft. Stool consistency can vary based upon transit time and water absorption.	
Consistency	Soft	Formed/Soft		

Butyrate and total short chain fatty acids are low. Given the anti-inflammatory role of butyrate and its importance in gut health, that could be contributing to her symptoms.

Test: Comprehensive Parasite Evaluation

Test Date: September 2016

Findings:

Urine: No ova, parasites or yeast identified.

Stool: Blastocystis hominis cysts (protozoa) – rare amount

Endolimax nana cysts (protozoa) – few

History of diarrhea: Immune antigen testing for the presence of the protozoans Giardia and Cryptosporidium were both negative.

Methodology: direct smear, Trichrome Stain Gomori modification, Modified Acid Fast Stain of Kinyoon, Trichrome Microsporidium Blue Stain, Selective Immune Antigen Testing

Raphael d'Angelo, M.D. MT(AAB) / electronic signature

American Society for Tropical Medicine and Disease

American Society for Parasitology

American Association of Bioanalysts (AAB)

American Society for Microbiology

ParaWellness tests from 2016: Blastocystis was rare. It is not clear again whether this is pathogenic. She didn't get better with antiparasitic drugs, so that may argue against the pathogenicity of Blastocystis, or it may just be that the treatment was inadequate.

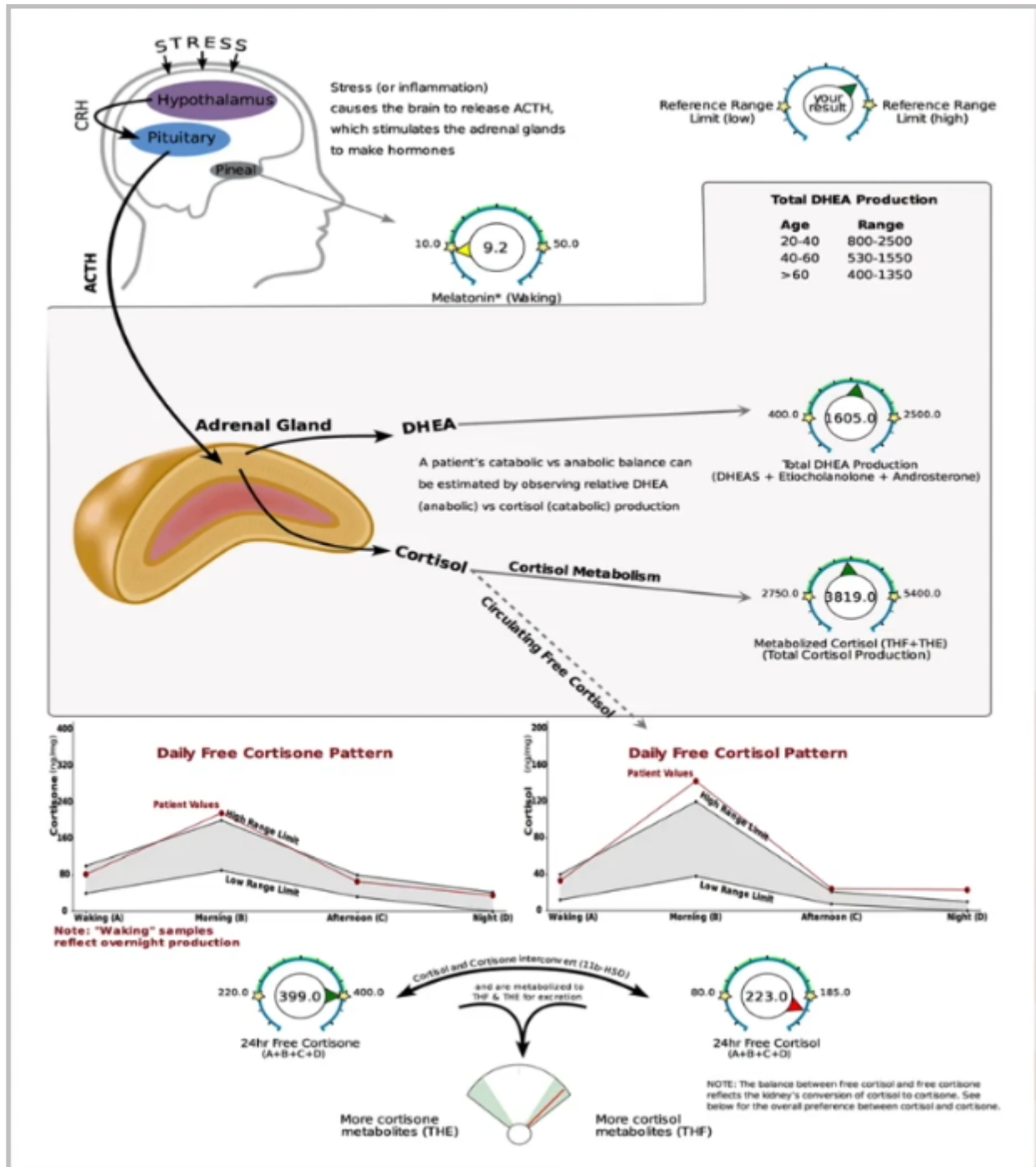
TEST	RESULT			
	IN RANGE (Normal)	EQUIVOCAL*	OUT OF RANGE	REFERENCE (ELISA Index)
Array 3 – Wheat/Gluten Proteome Reactivity & Autoimmunity				
Wheat IgG	1.08			0.3-1.5
Wheat IgA	0.36			0.1-1.2
Wheat Germ Agglutinin IgG	0.87			0.4-1.3
Wheat Germ Agglutinin IgA	0.21			0.2-1.1
Native & Deamidated Gliadin 33 IgG		1.19		0.2-1.2
Native & Deamidated Gliadin 33 IgA	0.24			0.1-1.1
Alpha Gliadin 17-mer IgG	0.67			0.1-1.5
Alpha Gliadin 17-mer IgA	0.24			0.1-1.1
Gamma Gliadin 15-mer IgG	0.97			0.5-1.5
Gamma Gliadin 15-mer IgA	0.31			0.1-1.0
Omega Gliadin 17-mer IgG	0.66			0.3-1.2
Omega Gliadin 17-mer IgA	0.24			0.1-1.2
Glutenin 21-mer IgG	0.78			0.1-1.5
Glutenin 21-mer IgA	0.31			0.1-1.3
Gluteomorphin + Prodynorphin IgG	0.73			0.3-1.2
Gluteomorphin + Prodynorphin IgA	0.26			0.1-1.2
Gliadin-Transglutaminase Complex IgG		1.15		0.3-1.4
Gliadin-Transglutaminase Complex IgA	0.27			0.2-1.5
Transglutaminase-2 IgG		1.31		0.3-1.6
Transglutaminase-2 IgA	0.43			0.1-1.6
Transglutaminase-3 IgG	0.84			0.2-1.6
Transglutaminase-3 IgA	0.36			0.1-1.5
Transglutaminase-6 IgG	0.74			0.2-1.5
Transglutaminase-6 IgA	0.22			0.1-1.5

On Cyrex Array 3, which we ordered for her because she was still eating wheat, she was positive for native and deamidated gliadin, gliadin transglutaminase complex, and transglutaminase 2. These are all of the markers that are the most specific and sensitive for celiac disease, so it is probable that she has celiac.

TEST	RESULT			
Array 4 – Gluten-Associated Cross-Reactive Foods and Foods Sensitivity **	IN RANGE (Normal)	EQUIVOCAL*	OUT OF RANGE	REFERENCE (ELISA Index)
Rye, Barley, Spelt, Polish Wheat	0.98			0.4-1.4
Cow's Milk			1.71	0.1-1.3
Casein (Alpha & Beta)			2.05	0.1-1.7
Casomorphin	1.02			0.2-1.6
Milk Butyrophilin			1.81	0.2-1.8
Whey Protein			2.47	0.1-1.3
Chocolate (Milk)			2.02	0.1-1.4
Oats	0.54			0.2-1.0
Yeast		1.16		0.2-1.2
Coffee	0.47			0.3-1.9
Sesame	0.59			0.1-1.3
Buckwheat			1.79	0.4-1.3
Sorghum	0.67			0.3-1.2
Millet	0.32			0.3-1.5
Hemp	0.44			0.3-1.5
Amaranth		1.28		0.2-1.3
Quinoa	0.30			0.5-1.5
Tapioca	0.54			0.1-1.1
Teff	0.42			0.2-1.1
Soy	0.44			0.5-1.5
Egg	0.90			0.2-1.7
Corn	0.69			0.3-1.4
Rice	0.82			0.4-1.6
Potato	0.53			0.6-1.4

She is reacting strongly to dairy products, which she is eating, so she needs to exclude those. She is also reacting to buckwheat, yeast, and amaranth, so she would want to take those out too and make sure she is not eating any gluten-free packaged products that contain these.

Category	Test		Result	Units	Normal Range
Creatinine					
	Creatinine A (Waking)	Within range	1.54	mg/ml	0.2 - 2
	Creatinine B (Morning)	Within range	0.46	mg/ml	0.2 - 2
	Creatinine C (Afternoon)	Within range	0.73	mg/ml	0.2 - 2
	Creatinine D (Night)	Within range	1.34	mg/ml	0.2 - 2
Daily Free Cortisol and Cortisone					
	Cortisol A (Waking)	Within range	33.1	ng/mg	12 - 40
	Cortisol B (Morning)	Above range	142.6	ng/mg	38 - 120
	Cortisol C (Afternoon)	Above range	24.2	ng/mg	7.3 - 21
	Cortisol D (Night)	Above range	23.0	ng/mg	0 - 10
	Cortisone A (Waking)	Within range	81.5	ng/mg	40 - 100
	Cortisone B (Morning)	Above range	216.3	ng/mg	90 - 200
	Cortisone C (Afternoon)	Within range	65.6	ng/mg	32 - 80
	Cortisone D (Night)	High end of range	35.3	ng/mg	0 - 42
	24hr Free Cortisol	Above range	223.0	ug	80 - 185
	24hr Free Cortisone	High end of range	399.0	ug	220 - 400
Cortisol Metabolites and DHEAS					
	a-Tetrahydrocortisol (a-THF)	Within range	122.0	ng/mg	75 - 265
	b-Tetrahydrocortisol (b-THF)	High end of range	1941.0	ng/mg	1050 - 2070
	b-Tetrahydrocortisone (b-THE)	Low end of range	1757.0	ng/mg	1550 - 3150
	Metabolized Cortisol (THF+THE)	Within range	3819.0	ng/mg	2750 - 5400
	DHEAS	Low end of range	46.0	ng/mg	23 - 350
Melatonin (*measured as 6-OH-Melatonin-Sulfate)					
	Melatonin* (Waking)	Below range	9.2	ng/mg	10 - 50



Free cortisol levels on DUTCH were high, and free cortisone is also nearly out of the lab range, which supports that finding. Melatonin is low, which isn't surprising because the cortisol suppresses melatonin. Total cortisol is normal as is DHEA, but she is significantly favoring cortisol over cortisone. You would want to make sure she is not taking licorice, which can do that. She didn't list it, but you always want to double-check. Her nighttime cortisol is particularly high, and that is likely, again, interfering with sleep and melatonin production.



CALIFORNIA CENTER *for*
FUNCTIONAL MEDICINE

CASE REVIEW REPORT OF FINDINGS

Patient Name: "Lori"

Date: 10-26-16

Underlying Patterns

PATTERN	SUPPORTING MARKERS	COMMENTS
Hypoglycemia?	Fasting glucose	
Possible zinc deficiency	Low-normal zinc, alk phos	
Elevated liver enzymes	AST, ALT	
B12 deficient functional anemia?	B12, RBC, Hgb, Hct, Hcy	Urine MMA and figlu
Low serum copper	Serum copper	Copper deficiency or Wilson disease?
Impaired methylation	B12, Hcy	
Dysbiosis & fungal overgrowth	DD CSAP	
Low butyrate	DD CSAP	
Blastocystis hominis	Parawellness	Pathogenicity unclear
Probable celiac disease	Cyrex Array 3	
Food intolerances	Cyrex Array 4	Dairy, buckwheat, amaranth,
HPA axis dysregulation	DUTCH	High free cortisol, high nighttime cortisol, low melatonin

<http://ccfmed.com>



Recommendations for further testing

TEST	PURPOSE	COMMENTS
24-hour urine copper and ceruloplasmin	Screen for Wilson disease	
Hepatitis panel	Screen for hepatitis	
Organix comprehensive	Urine MMA/figlu (B12/folate deficiency)	

Recommendations for Treatment

TREATMENT	PURPOSE	COMMENTS
Antimicrobial protocol	Fungal overgrowth, dysbiosis, parasites	See handout
Paleo Reset Diet	Remove gluten/dairy, gut, energy	See handout
HPA Balance	High cortisol/HPA	
Phosphatidylserine	High cortisol/HPA	
Low blood sugar diet recommendations	Regulate energy levels	Eat high protein breakfast, eat every 2-3 hours, eat snack before bed
Stress management	HPA axis	See handout

<http://ccfmed.com>

Here is the report of findings. Hypoglycemia possibly because of the lowish fasting glucose and her symptoms. Possible zinc deficiency with a low-normal zinc and alkaline phosphatase. Elevated liver enzymes with AST and ALT. Possible B12- or folate-deficient functional anemia. You would want to run urine MMA and FIGLU. Low serum copper, which could be copper deficiency, or it could be Wilson's disease, so you would want to look into that. That may be contributing to the anemia because even when iron levels are sufficient, as you recall, if copper is actually deficient, iron

doesn't get into the cells, and that can cause an anemia presentation. It may be that B12 and folate are normal, and the functional anemia we're seeing is actually caused by copper deficiency, and that could explain why MCV is normal as well. Impaired methylation because of the B12 and homocysteine. Dysbiosis and fungal overgrowth with Doctor's Data stool test. Low butyrate on the Doctor's Data test. Blastocystis from the ParaWellness, although we don't know if that is actually contributing. Probable celiac disease from Cyrex Array 3. Food intolerances from Array 4. HPA axis dysregulation from the DUTCH panel.

For follow-up testing, we want to do 24-hour urine copper and ceruloplasmin for Wilson's disease, hepatitis panel to screen for that, and Organix comprehensive for urine MMA and FIGLU.

For treatment, we would want to do antimicrobial protocol to cover the fungal overgrowth, dysbiosis, and parasites. Paleo reset diet. Have her remove gluten and be strict about that given that she likely has celiac. Also remove dairy. I think in the gluten intolerance unit I talked about how in some studies, 50 percent of people with celiac disease are also intolerant of dairy, so we're seeing just one result that supports that here. HPA Balance and phosphatidylserine to lower the high free cortisol and help regulate the HPA axis. The low blood sugar diet recommendations that we talked about earlier in the course, things such as eating a high-protein breakfast, eating more regular meals throughout the day, and possibly even eating a snack before bed. Then, stress management.

Note that the low blood sugar recommendations may not be possible because of her nausea, if she gets more nausea when she eats, but you may want to try it. That may actually help with the nausea.

If the tests come back negative for Wilson's, I would encourage eating both copper- and zinc-rich foods because of the lowish zinc and low copper, but you would want to wait for those results because you don't want to risk worsening copper toxicity if Wilson's disease is present.

Be cautious with the antimicrobial protocol since she didn't do well on antiparasitics. You may want to have her start one supplement at a time.

Antimicrobial protocol

Nutriceutical	Dosage
GI Synergy	1 packet BID (<i>with breakfast and dinner</i>)
Lauricidin	1 scoop TID with each meal
Interfase Plus	3-4 capsules BID on empty stomach
Prescript Assist	One BID upon rising and before bed
MegaSporeBiotic	One capsule with lunch
A-FNG	Start with 3 drops BID; increase to 20-30 drops BID if possible

Here is the antimicrobial protocol. It is basically the core protocol with PHGG removed and A-FNG.

Okay, that's it for the full case assignments. I hope these were really helpful, and we'll talk to you soon.