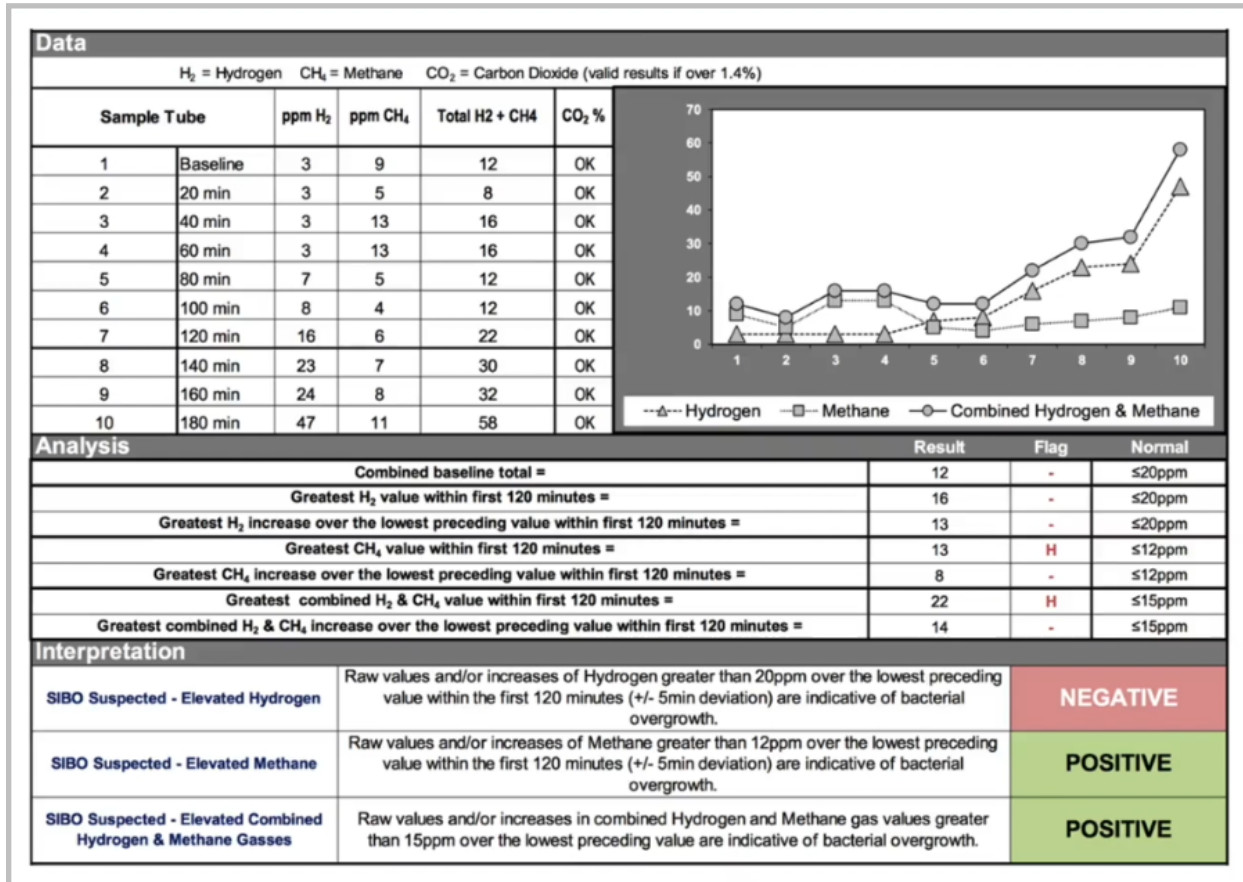


Full Case Reviews I - Part Two



SIBO breath test results suggest mild elevation of methane. She is at 13 at 60 minutes as a peak. Also, mild elevation of combined hydrogen and methane. That is largely coming from the late single peak of hydrogen at 120 minutes, or at 140 minutes when it starts to elevate, but I would say that this test result would be negative for hydrogen because it is just a late single peak, and that could be entering her colon. The methane results are positive because of the 13. Dr. Pimentel has suggested that any methane value above 3 is elevated, as you know from the SIBO unit.

Comprehensive Stool Analysis / Parasitology x3

BACTERIOLOGY CULTURE		
Expected/Beneficial flora	Commensal (Imbalanced) flora	Dysbiotic flora
4+ Bacteroides fragilis group NG Bifidobacterium spp. 4+ Escherichia coli 1+ Lactobacillus spp. 4+ Enterococcus spp. 4+ Clostridium spp. NG = No Growth	1+ Enterobacter cloacae complex 2+ Klebsiella pneumoniae ssp pneumoniae 2+ Morganella morganii	

BACTERIA INFORMATION

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 propagating anti-tumor and anti-inflammatory factors.

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 *C. difficile* associated disease is suspected, a Comprehensive Clostridium culture or toxigenic *C. difficile* DNA test is recommended.

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.

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.

YEAST CULTURE	
Normal flora	Dysbiotic flora
No yeast isolated	

MICROSCOPIC YEAST	
Result:	Expected:
<input type="checkbox"/> None	None - Rare
<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>	

YEAST INFORMATION

Yeast normally can be found in small quantities 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 unviable.

Comprehensive Stool Analysis / Parasitology x3

PARASITOLGY/MICROSCOPY *	PARASITOLGY INFORMATION
<p>Sample 1 None Ova or Parasites</p> <p>Sample 2 None Ova or Parasites</p> <p>Sample 3 None Ova or Parasites</p> <p><small>*A trichrome stain and concentrated iodine wet mount slide is read for each sample submitted.</small></p>	<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 exam is not designed to detect <i>Cryptosporidium</i> spp, <i>Cyclospora cayetanensis</i> or <i>Microsporidia</i> spp.</p>

GIARDIA/CRYPTOSPORIDIUM IMMUNOASSAY			
	Within	Outside	Reference Range
Giardia intestinalis	Neg		Neg
Cryptosporidium	Neg		Neg

Giardia intestinalis (Iamblia) 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 shows no growth of Bifidobacteria and only a +1 for Lactobacillus. Then there are some commensal imbalanced flora. Otherwise, no parasites or fungal overgrowth detected.

Comprehensive Stool Analysis / Parasitology x3

DIGESTION / ABSORPTION			
	Within	Outside	Reference Range
Elastase	> 500	> 200	> 200 μg/mL
Fat Stain	Mod	None - Mod	None - Mod
Muscle fibers	None	None - Rare	None - Rare
Vegetable fibers	Rare	None - Few	None - Few
Carbohydrates	Neg	Neg	Neg

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.

INFLAMMATION			
	Within	Outside	Reference Range
Lactoferrin	0.7	< 7.3	< 7.3 μg/mL
Calprotectin*	< 10	<= 50	<= 50 μg/g
Lysozyme*	440	<= 600	<= 600 ng/mL
White Blood Cells	None	None - Rare	None - Rare
Mucus	Neg	Neg	Neg

Lactoferrin and **Calprotectin** are reliable markers for differentiating organic inflammation (IBD) from functional 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.

IMMUNOLOGY			
	Within	Outside	Reference Range
Secretory IgA*	111	51 - 204	51 - 204 mg/dL

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.

Comprehensive Stool Analysis / Parasitology x3

SHORT CHAIN FATTY ACIDS			
	Within	Outside	Reference Range
% Acetate	60		40 - 75 %
% Propionate	11		9 - 29 %
% Butyrate	26		9 - 37 %
% Valerate	3.1		0.5 - 7 %
Butyrate	2.3		0.8 - 4.8 mg/mL
Total SCFA's	9.1		4 - 18 mg/mL

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.

INTESTINAL HEALTH MARKERS			
	Within	Outside	Reference Range
Red Blood Cells	None		None - Rare
pH	6.2		6 - 7.8
Occult Blood	Neg		Neg

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.

MACROSCOPIC APPEARANCE		
	Appearance	Expected
Color	Brown	Brown
Consistency	Soft	Formed/Soft

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.

Everything else on the stool test is normal. There is some insufficiency dysbiosis going on here, but it doesn't seem to be producing significant problems, such as inflammation or deficiency of butyrate short-chain fatty acids.

GI Pathogen Screen with H. pylori Antigen - 401H	
Parameter	Result
*** Stool Culture ***	
Preliminary Report	Normal flora after 24 hours
Final Report	* Escherichia coli isolated *
Amount of Growth	Abundant
*** Ova & Parasites ***	
Ova & Parasites #1	No Ova/Parasites detected
Ova & Parasites #2	No Ova/Parasites detected
Ova & Parasites #3	No Ova/Parasites detected
Ova & Parasites #4	No Ova/Parasites detected
Trichrome Stain	No Ova/Parasites detected
*** Stool Antigens ***	
Cryptosporidium Antigen	Not detected
Giardia lamblia Antigen	Not detected
*** Additional Tests ***	
Fungi	No fungi isolated
C. difficile Toxin A	Not detected
C. difficile Toxin B	Not detected
Yeast	No yeasts isolated
Occult Blood	Not detected
Helicobacter Pylori Stool Antigen	
H. pylori Antigen	* Detected *
<p style="font-size: small;">This stool analysis determines the presence of ova and parasites such as protozoa, flatworms, and roundworms; Cryptosporidium parvum, Entamoeba histolytica, and Giardia lamblia antigens; bacteria, fungi (including yeasts), and occult blood; and Clostridium difficile colitis toxins A and B. Sensitivity to pathogenic organisms will be reported as necessary.</p>	

However, BioHealth did pick up H. pylori, and that could certainly be contributing to her symptoms.




0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Summary of Abnormal Findings

	<u>Findings</u>	<u>Intervention Options</u>	<u>Common Metabolic Association</u>
Fatty Acid Metabolism			
Adipate	High	Carnitine, B2	Fatty acid oxidation
Ethylmalonate	High	Carnitine, B2	Fatty acid oxidation
Carbohydrate Metabolism			
β-Hydroxybutyrate	Very High	Cr, V, Lipoic Acid, Mg, Mn	Ketosis
Energy Production Markers			
Citrate	High	Arginine	Renal ammonia loading
Cis-Aconitate	High	Arginine	Renal ammonia loading
Succinate	High	CoQ10	ATP production
Malate	Very High	CoQ10	ATP production
B-Complex Vitamin Markers			
α-Keto-β-Methylvalerate	High	Lipoic Acid, B1, B2, B3, B5	Impaired Isoleucine metabolism
β-Hydroxyisovalerate	High	Biotin, B2	Impaired Isoleucine metabolism
Methylation Cofactor Markers			
No Abnormality Found			
Neurotransmitter Metabolism Markers			
Homovanillate	High	Evaluate stress issues	Dopamine turnover stimulation
Oxidative Damage and Antioxidant Markers			
p-Hydroxyphenyllactate	High	Vitamin C, Vitamin E	Increased cell turn over
8-Hydroxy-2-deoxyguanosine	Very High	Vitamin C, Vitamin E	DNA oxidation product
Detoxification Indicators			
Glucarate	Very High	N-acetylcysteine, Hepatic support	Hepatic Phase I and II detox



0091 Organix® Comprehensive Profile - Urine

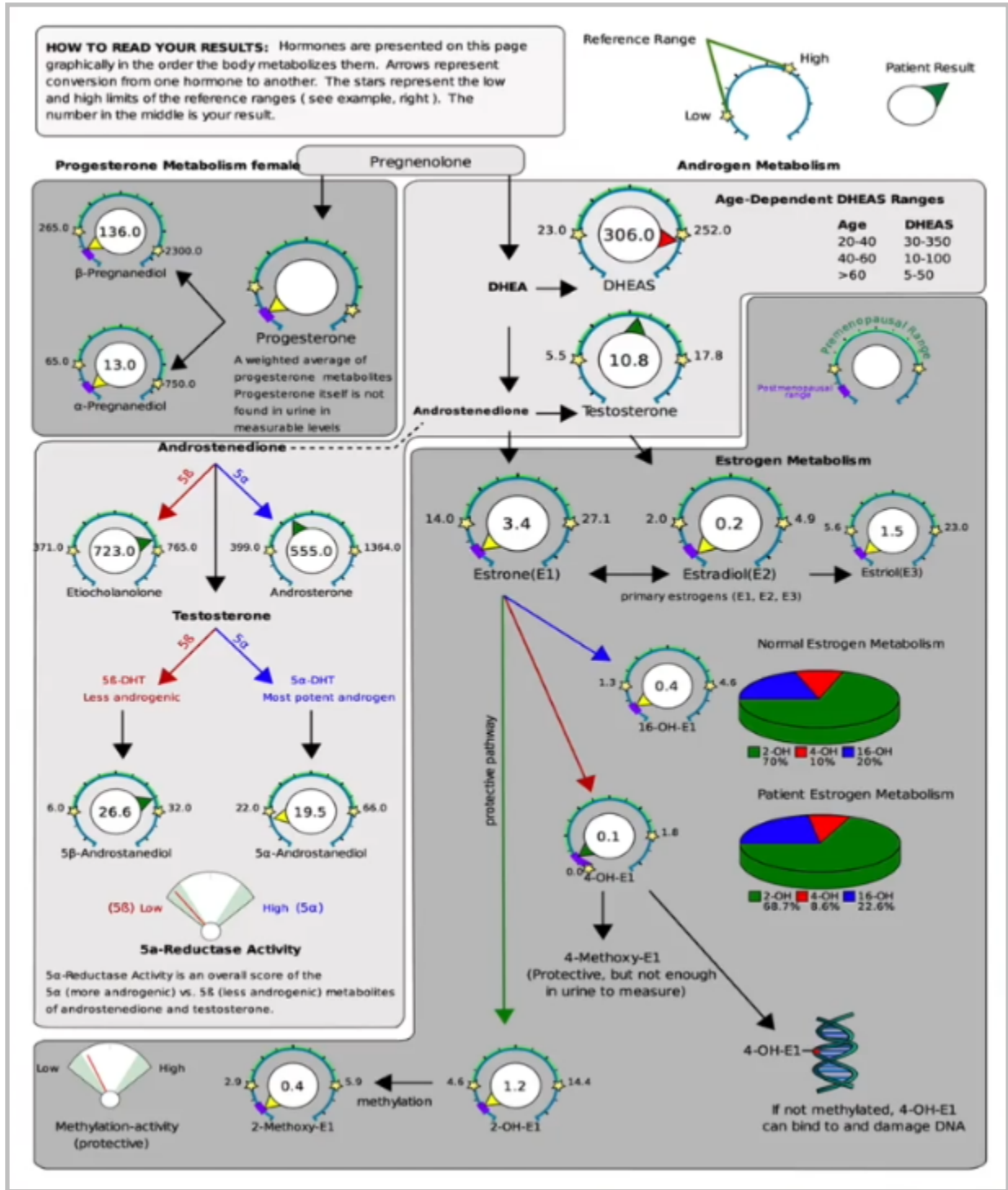
Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Pyroglutamate	High	N-acetylcysteine, other sulfur containing amino acids	Glutathione wasting
Bacterial - General			
p-Hydroxyphenylacetate	High	Probiotics	Intestinal Bacterial Overgrowth
L. acidophilus / general bacteria			
D-Lactate	Very High	Non D-lactate-forming Probiotics	Intestinal bacterial overgrowth (L. acidophilus)
Clostridial Species			
No Abnormality Found			
Yeast/Fungal			
D-Arabinitol	High	Antifungals	Yeast Overgrowth

Urine organic acids, surprisingly, showed normal FIGLU and MMA. I say surprising because of her homocysteine of over 13, but there were several markers of bacterial overgrowth, including high D-lactate, very high actually, as well as a marker for fungal overgrowth, D-arabinitol. Then there are several markers of impaired energy production, oxidative stress, impaired detox, and fat metabolism, as well as low B vitamins. We're not covering these markers in ADAPT Level One, but they are all consistent with her case.

Category	Test	Result	Units	Normal Range
Progesterone Metabolism				
	β-Pregnanediol	Below range	136.0	ng/mg 265 - 2300
	α-Pregnanediol	Below range	13.0	ng/mg 65 - 750
Androgen Metabolism				
	DHEAS	Above range	306.0	ng/mg 23 - 252
	Androsterone	Low end of range	555.0	ng/mg 399 - 1364
	Etiocholanolone	High end of range	723.0	ng/mg 371 - 765
	Testosterone	Within range	10.8	ng/mg 5.5 - 17.8
	5α-DHT	Low end of range	3.7	ng/mg 3.7 - 8.8
	5α-Androstanediol	Below range	19.5	ng/mg 22 - 66
	5β-Androstanediol	Within range	26.6	ng/mg 6 - 32
	Epi-Testosterone	Low end of range	4.8	ng/mg 4.5 - 22.3
Estrogen Metabolites				
	Estrone(E1)	Below range	3.4	ng/mg 14 - 27.1
	Estradiol(E2)	Below range	0.2	ng/mg 2 - 4.9
	Estriol(E3)	Below range	1.5	ng/mg 5.6 - 23
	2-OH-E1	Below range	1.2	ng/mg 4.6 - 14.4
	4-OH-E1	Within range	0.1	ng/mg 0 - 1.8
	16-OH-E1	Below range	0.4	ng/mg 1.3 - 4.6
	2-Methoxy-E1	Below range	0.4	ng/mg 2.9 - 5.9
	2-OH-E2	Below range	0.15	ng/mg 0.4 - 1.2

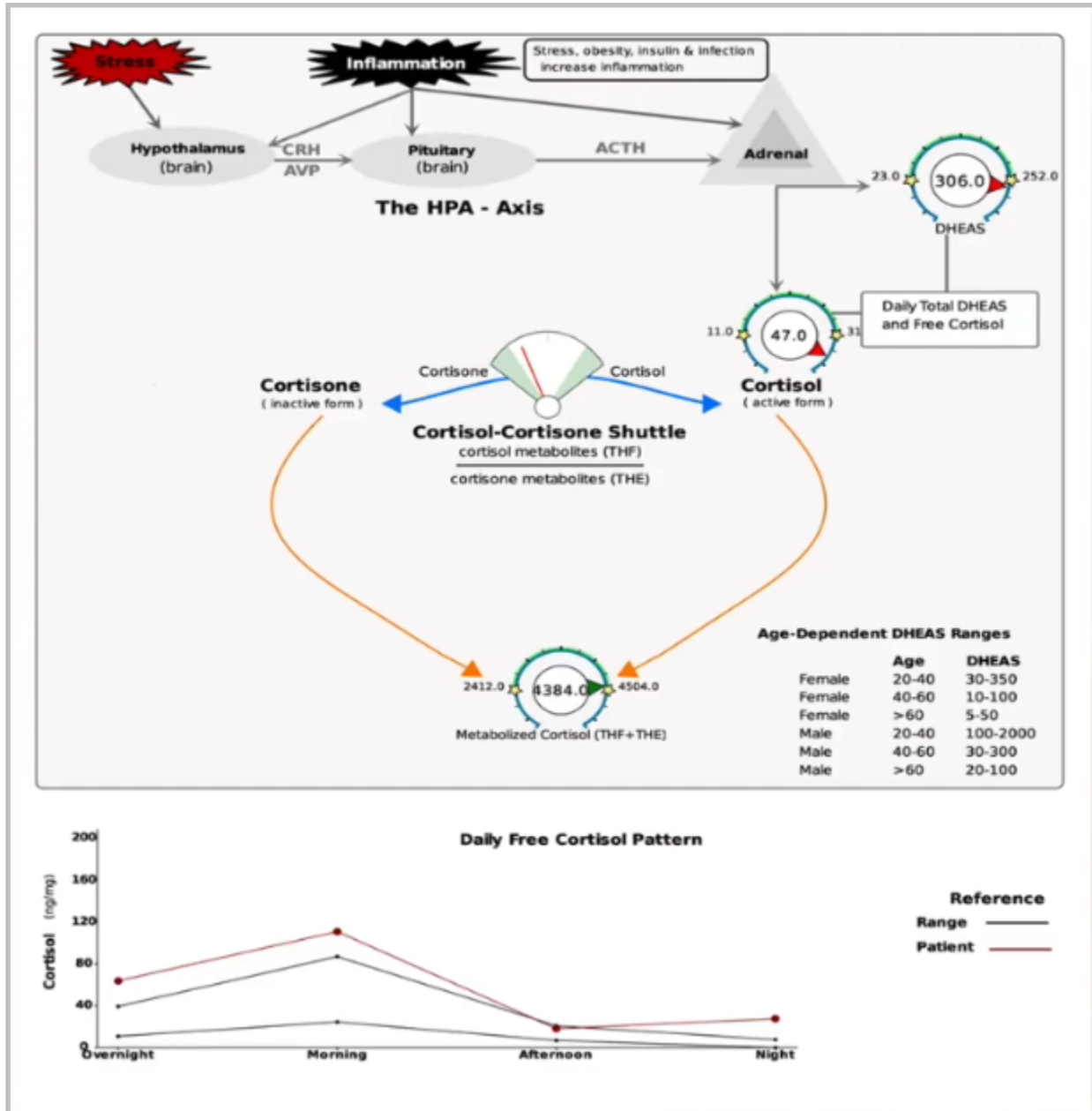
Normal Ranges	Luteal	Postmenopausal	Follicular	Ovulatory
Estrone (E1)	14-27.1	1.3-6.7	4.0-12.0	22-68
Estradiol (E2)	2.0-4.9	0.2-0.8	1.0-2.0	4.0-12.0
Estriol (E3)	5.6-23	0.8-3.7	N/A	N/A
2-OH-E1	4.6-14.4	0.4-1.9	N/A	N/A
4-OH-E1	0-1.8	0-0.3	N/A	N/A
16-OH-E1	1.3-4.6	0.1-0.6	N/A	N/A
2-Methoxy-E1	2.9-5.9	0.2-1.0	N/A	N/A
a-Pregnanediol	80-750	5.0-34	25-100	25-100
b-Pregnanediol	400-2300	28-135	100-300	100-300



Here we have the DUTCH hormone results. The sex hormone results primarily are listed here, and again, we're not covering this in detail in ADAPT, but I want to point out a few things. This is the old version of the report from Precision Analytical, but you'll notice her progesterone metabolites and estrogen metabolites are all marked below range. That is true if you use the premenopausal range, which the report defaults to, but she is in menopause. If you use the menopausal range, her levels are

all normal or low-normal, except beta-pregnanediol, which is actually slightly high in the menopausal range. DHEA sulfate is also slightly high, which is consistent with an active stress response.

Category	Test	Result	Units	Normal Range
Creatinine				
	Creatinine A (Overnight)	Below range	0.37	mg/ml 0.5 - 3
	Creatinine B (Morning)	Within range	0.52	mg/ml 0.5 - 3
	Creatinine C (Afternoon)	Within range	0.56	mg/ml 0.5 - 3
	Creatinine D (Night)	Below range	0.41	mg/ml 0.5 - 3
Daily Free Cortisol and Cortisone				
	Cortisol A	Above range	63.7	ng/mg 10.8 - 39.3
	Cortisol B	Above range	110.8	ng/mg 24.5 - 87
	Cortisol C	High end of range	18.1	ng/mg 6.8 - 20.8
	Cortisol D	Above range	27.6	ng/mg 0 - 7.6
	Cortisone A	Within range	75.8	ng/mg 47.2 - 142.9
	Cortisone B	Low end of range	134.7	ng/mg 103.7 - 267.5
	Cortisone C	Low end of range	51.4	ng/mg 46.5 - 135.5
	Cortisone D	Above range	63.6	ng/mg 0 - 52.3
	Cortisol-24hr (AUC)	Above range	47.0	ug 11 - 31
	Cortisone-24hr (AUC)	Within range	72.0	ug 49 - 131
Cortisol Metabolites and DHEAS				
	b-Tetrahydrocortisol (b-THF)	Above range	1340.0	ng/mg 783 - 1317
	a-Tetrahydrocortisol (a-THF)	Low end of range	144.0	ng/mg 134 - 281
	b-Tetrahydrocortisone (b-THE)	Above range	2899.0	ng/mg 1490 - 2795
	Metabolized Cortisol (THF+THE)	High end of range	4384.0	ng/mg 2412 - 4504
	DHEAS	Above range	306.0	ng/mg 23 - 252
Melatonin (*measured as 6-OH-Melatonin-Sulfate)				
	Melatonin* (Overnight)	Below range	9.969	ng/mg 10 - 50



Her free cortisol is high at 47. The upper limit is 31, and her free cortisone is normal. Metabolized cortisol is high-normal, and DHEA sulfate again is high, especially for her age and sex. The DHEA range for a female of her age is 5 to 50, and she is at 306. Her nighttime cortisol is particularly high, and that is suppressing melatonin production. Melatonin is low, so it is interesting that she didn't complain as much of sleep issues on the case review, although if you remember back to the initial consult, she said her sleep is not good, and this makes sense of that. Cortisol-to-cortisone metabolite balance is normal, slightly favoring cortisone.



CASE REVIEW REPORT OF FINDINGS

Patient Name: "Marie"

Date: 9-21-16

Underlying Patterns

PATTERN	SUPPORTING MARKERS	COMMENTS
Possible dysglycemia	A1c	Additional testing to confirm/rule out
Inflammation	Ferritin, CRP, homocysteine	Rule out iron overload
Hypercholesterolemia	Total cholesterol, LDL cholesterol	Advanced lipid testing
Possible vitamin D deficiency	25D, calcium	PTH to confirm
Functional anemia (B12/folate)	Homocysteine, RBC, Hgb,	Methylation Pathways panel
SIBO (methane predominant)	NCNM breath test	also D-Lactate on Organix
Intestinal dysbiosis	DD CSAP; Organix	NG Bifido, 1+ Lacto; D-Lactate
H. pylori infection	BioHealth	
Hypercortisolism	DUTCH	High free cortisol
HPA axis dysregulation	DUTCH	High nighttime cortisol; low
Impaired fat/carb metabolism	Organix	
Impaired energy production	Organix	
B-vitamin deficiency	Organix	Secondary to SIBO?
Impaired phase II detox capacity	Organix	
Oxidative stress	Organix	

<http://ccfmed.com>



Recommendations for further testing

TEST	PURPOSE	COMMENTS
THD blood panel	Advanced lipids and metabolic	Includes PTH for vitamin D assess.
Glucometer testing	Post-meal blood sugar testing	
HDRI methylation pathways	Methylation/cause of anemia	
QS Mercury TriTest	Mercury toxicity	

Recommendations for Treatment

TREATMENT	PURPOSE	COMMENTS
Antimicrobial protocol	SIBO, H. pylori, dysbiosis, fungal	See handout for details; 60 days then re-test
HPA Balance	High cortisol/DHEA	
Phosphatidylserine	High cortisol/cognitive fx.	200 mg once per day with dinner
Stress management	Address active stress response	See handout

<http://ccfmed.com>

Here is a report of findings. Possible dysglycemia based on the A1c, which we would do additional testing to confirm or rule out. Inflammation evidenced by ferritin, CRP, and homocysteine. Hypercholesterolemia: We're seeing that in the total cholesterol and particularly LDL being elevated but with HDL and triglycerides being normal. If HDL and triglycerides were abnormal, we would call that dyslipidemia. Possible vitamin D deficiency. I would even say probable, given 25(OH)D and calcium, so you could use PTH to confirm, or you could just treat. Probable functional

anemia due to the high homocysteine, red blood cells, and hemoglobin. You could do methylation pathways panel to follow up on that.

SIBO, methane-predominant, from the breath test. Also, D-lactate on the organic acids test. You may remember that in the organic acids presentation, I mentioned that D-lactate is being considered as an additional marker for SIBO. Intestinal dysbiosis, in this case insufficiency dysbiosis, from the Doctor's Data stool test. H. pylori infection from BioHealth. Then, we have hypercortisolism from DUTCH, high free cortisol and borderline high metabolized. HPA axis dysregulation with the high nighttime cortisol and low melatonin. A number of issues on the Organix panel: impaired fat and carbohydrate metabolism, energy production, and detox capacity as well as B vitamin deficiency and oxidative stress.

For follow-up testing, I would do the True Health Diagnostics* blood panel for the advanced lipids and metabolic markers, but I would also do glucometer testing for post-meal blood sugar. HDRI methylation pathway to see what is going on with the folate, especially since FIGLU and MMA were normal. Then, I'd do a mercury tri-test given that she is eating tuna every day.

<* **Note:** *True Health Diagnostics is no longer in business. See [this post](#) for the latest updates.*>

For treatment, we would start with the antimicrobial protocol to deal with the SIBO, H. pylori, dysbiosis, and possible fungal overgrowth from the organic acids panel. A couple of things for the high cortisol, not the entire protocol because the antimicrobial protocol already has quite a few supplements, and I don't like to overwhelm patients. I would just choose HPA Balance and phosphatidylserine to reduce cortisol. Then I would suggest stress management. We have a handout for that, which I'm providing for you, that I would give her. Also, discuss how she might be able to cultivate more social support in her life.

Antimicrobial protocol

Nutriceutical	Dosage
GI Synergy	1 packet BID (with breakfast and dinner)
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
Broccomax	One BID 30 min before breakfast and dinner
Saccharomyces boulardii	3-4 billion CFU BID at lunch and before bed

Here is the antimicrobial protocol I prescribed. This should be familiar to you by now. It is just the core protocol with two additions. BroccoMax, which is sulforaphane for H. pylori, and then Saccharomyces boulardii, which has a dual purpose here. It is for H. pylori and also for the possible fungal overgrowth with the D-arabinitol. If this is not successful for H. pylori on the retest, you could add mastic gum and cranberry juice and do it again before proceeding to pharmaceutical options.



Bill
Initial Consult

60 y.o. Male CC: Improve physical health and lose weight. Wants to be faster and more fit for endurance events.

No current medications and **no formal diagnoses**.

Was in the **Marine Corp** and flew jets for many years; then **stockbroker** for Merrill Lynch: High stress; now in a low stress position.

Does **exercise** up to the point just where he feels he's not going to be injured.

Currently weighs about **200 pounds** so runs more slowly.

Diet: Tries to **limit sugar, eats good fats**.

Drinks **beer** but has cut back on it in the past two months.

Heart palpitations: Seemed to be stress induced.

Loss of body and underarm hair, cold hands and feet: **thyroid?**

Okay, the next patient is Bill, a 60-year-old male with chief complaint he wants to improve his physical health and lose weight. He wants to be faster and more fit for endurance events. He is an endurance athlete.

No current medications and no formal diagnoses. He was in the Marine Corps and flew jets for many years. He was then a stockbroker for Merrill Lynch, so pretty high-stress past, but now he says his life is very much low stress. He does exercise just to the point where he feels he is not going to be injured, so he works out very hard. I think Bill is a type A personality, obviously, with the Marine Corps and then being a stockbroker. Now he approaches exercise in much the same way.

Currently, he weighs about 200 pounds, so he runs more slowly than he used to. For diet, he tries to limit sugar and eat good fats. He does drink beer, but he has cut back on it in the past two months. He is having some heart palpitations, which seem to be stress-induced, which is interesting because he said he lives a low-stress life. Just as a little pause here, we can't always take our patient's word for that. Some people have an accurate perception of their stress levels, and other people don't. Some people don't perceive stress in the same way. We have to do a little bit more digging as clinicians, especially when we see that they are having heart palpitations and even mention that they might be stress induced. That was shortly after him saying that he had a low-stress life, so we really need to be aware of these kinds of contradictions. We're all human, and we don't always see our own life and our own symptoms in an accurate and objective way.

Bill also reported loss of body and underarm hair with cold hands and feet, which of course could be thyroid, and he was wondering about that.

01/19/2016
Video Consult

CC: Improve physical health and lose weight -- wants to be faster and more fit for endurance events

Focused PMH:
No current medications and no formal diagnoses
Prior rotator cuff surgery

Recently did 14Four

Was in the Marine Corp and flew jets for many years
Was a stockbroker for Meril Lynch -- high stress
Now in a very low stress position

Does exercise up to the point just where he feels he's not going to be injured.
Currently weighs about 200 pounds so runs more slowly

Diet - tries to limit sugar, eats good fats
Drinks beer but has cut back on it in the past two months
Tried CK "weight loss" supplements, including probiotics, probiotics and magnesium

Heart palpitations -- seemed to be stress induced
Magnesium seemed to help
Hasn't been able to take out caffeine

Question of food intolerances, but no clear triggers
Rare heartburn
Tried HCl

Body hair -- loss of most of underarm hair and hair on shins
Question thyroid function, cold hands and feet
Describes "zits" on the back of his head since flying a jet in Desert Storm that seem to fluctuate with carbohydrate intake

In 2005 had amalgams removed, about 15 to 20

Assessment and Plan:

It was a pleasure speaking with you. Below is a summary of the recommended tests we discussed.

- Case review blood panel, which is a standard set of labs including complete blood count, electrolytes, cholesterol, thyroid panel and iron panel.
- Evaluate for dysbiosis with Doctor's Data and Bio-Health stool tests and evaluate for SIBO using a breath test which detects both hydrogen and methane gas.
- Complete hormone profile to evaluate hormone levels and ratios and to screen your functional methylation. This test will also assess your daily cortisol rhythm and cortisol metabolites to assess your stress response.
- Given your history of mercury amalgams, we will check for possible mercury toxicity using the Quicksilver Scientific Mercury Tri-Test to see if metal detoxification is warranted. This test will evaluate both organic and inorganic mercury levels.
- Based on your history and symptoms I would also recommend a blood metals panel to screen for additional toxicities including cadmium and lead.
- Testing for wheat and gluten sensitivity using Cyrex Labs Array 3. A handout in your portal details the preparation for this test.
- After you've prepared for the wheat and gluten sensitivity test as described in the handout, then please follow a Paleo elimination diet for at least 30 days. A handout describing the dietary principles and guidelines is available through your portal.

Please send us a message through the portal if you have any questions. I look forward to meeting you in person and working with you.

Append a Comment
Append Follow-Up SOAP Note

SIGNED

Assessment Diagnosis

Prim: Overweight (E66.3 - ICD10)
Palpitations (R00.2 - ICD10)
Heartburn (R12 - ICD10)

Plan Rx/ Orders/ Vaccines

- ORD DUTCH Comp Hormone
- ORD DD CSAP x3
- ORD NUNM SIBO
- ORD BioHealth #401H
- ORD Cyrex Array #3
- ORD QS Mercury Tri-Test
- ORD QS Blood Metals Panel
- ORD CR Blood Panel [LabCorp] (F) (pre 6-29-16)
- ORD T3, Free & T4, Free Panel

Charges / Payments

Unsign Exit

Date Signed 01/22/16 by Amy Nett

Cyrex Array 3 Testing Info

Attach Document or Image

Paleo Reset Dietary Guidelines

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Let admins know that note is ready for them to handle

Follow up in 6 weeks GO

We ordered a standard set of labs, but we also added the Quicksilver tri-test and blood metals panel because he had been in Iraq during the Gulf War and had several amalgams removed about 10 years prior to coming to see us. We ordered Cyrex Array 3 and Array 4 because he was still eating gluten, drinking beer, and also consuming grains and dairy, and he wondered if these were affecting him.

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

-
-
-
-
-

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower abdominal pain relieved by passing stool or gas	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alternating constipation and diarrhea	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diarrhea	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Constipation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hard, dry, or small stool	<input checked="" type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gas immediately following a meal	<input checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of fullness during and after meals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficulty digesting fruits and vegetables; undigested food found in stools	<input checked="" type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heartburn when lying down or bending forward	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Temporary relief by using antacids, food, milk, or carbonated beverages	<input type="radio"/>	<input type="radio"/>	<input checked="" 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 type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Category IV	0	1	2	3
Roughage and fiber cause constipation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indigestion and fullness last 2-4 hours after eating	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pain, tenderness, soreness on left side under rib cage	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excessive passage of gas	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nausea and/or vomiting	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stool undigested, foul smelling, mucous like, greasy, or poorly formed	<input checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bitter metallic taste in mouth, especially in the morning	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Burpy, fishy taste after consuming fish oils	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>
Yellowish cast to eyes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stool color alternates from clay colored to normal brown	<input checked="" type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excessive hair loss	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Overall sense of bloating	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Bodily swelling for no reason	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hormone imbalances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weight gain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Poor bowel function	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>
Depend on coffee to keep going/get started	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Chief complaints that he listed as part of the case review paperwork were weight, so he emphasized that more, and palpitations. He also mentions indigestion and muscle soreness. This is a little different than what he mentioned during the initial consult. I've found that this is not unusual, especially with men and especially when a man is talking to a female clinician during the

initial consult. Men can sometimes, especially with certain generations, be reluctant to talk about their health concerns at all, especially more sensitive issues, such as digestive problems or sexual dysfunction. They may be reluctant to reveal those in an initial consult, especially to a female clinician. You just want to keep that in mind. This is why we have this really detailed intake questionnaire. Not just men, but also women, will often be much more forthright about their symptoms in this questionnaire than they will be during the initial consult.

Main GI symptoms here are heartburn. He also has some symptoms that are possibly related to gallbladder function. You can see in that category there are quite a few marked off as well as in the liver category. Itchy skin, dry skin, greasy or high-fat foods causing distress, hair loss, bloating, body swelling, weight gain. Then he also lists that he is irritable if meals are missed and depends on coffee to keep going or get started.

Get light-headed if meals are missed	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eating relieves fatigue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel shaky, jittery, or have tremors	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agitated, easily upset, nervous	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor memory/forgetful	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blurred vision	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category VIII	0	1	2	3
Fatigue after meals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Crave sweets during the day	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eating sweets does not relieve cravings for sugar	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Must have sweets after meals	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Waist girth is equal or larger than hip girth	<input type="radio"/>	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crave salt	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Slow starter in the morning	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afternoon fatigue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dizziness when standing up quickly	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afternoon headaches	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Headaches with exertion or stress	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weak nails	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category X	0	1	2	3
Cannot fall asleep	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perspire easily	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Under high amount of stress	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weight gain when under stress	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wake up tired even after 6 or more hours of sleep	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Muscle cramping	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor muscle endurance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Frequent urination	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frequent thirst	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crave salt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abnormal sweating from minimal activity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alteration in bowel regularity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inability to hold breath for long periods	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shallow, rapid breathing	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XII	0	1	2	3
Tired/sluggish	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel cold?hands, feet, all over	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Require excessive amounts of sleep to function properly	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Increase in weight even with low calorie diet	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Gain weight easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Difficult, infrequent bowel movements	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Depression/lack of motivation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Morning headaches that wear off as the day progresses	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outer third of eyebrow thins	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Thinning of hair on scalp, face, or genitals, or excessive hair loss	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Dryness of skin and/or scalp	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mental sluggishness	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XIII	0	1	2	3
Heart palpitations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insomnia	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Night sweats	<input checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Menstrual disorders or lack of menstruation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased ability to eat sugars without symptoms	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Category XV	0	1	2	3
Increased sex drive	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

He has fatigue after meals, difficulty losing weight, so these are some blood sugar issues, both of those Categories VII and VIII. Then he lists some HPA axis dysfunction stuff in Category IX. Then several symptoms, in fact, in the hypothyroid category, cold hands and feet, requires excessive sleep, thinning of the outer third of the eyebrow, which is quite specific to hypothyroidism, and palpitations. He obviously asked about thyroid in the initial consult, and he definitely has some symptoms, so you would want to pay attention to that in the labs.