Welcome!

SAFM™ Deep Dive Clinical Courses

- Take lots of notes! The more often you see these connections, the more readily you will be able to recall them in your practice.
- An online Q&A bulletin board for this course is available to you for follow-up at any time (on the SAFM course page). Make use of this option to expand your and others’ learning. Please note this tool is for expanding and clarifying questions on the course material itself and not detailed case study review.
- Plan to review this course material again, at least once more in the short-term (and ideally a third time later in the future) to help you retain this knowledge. Remember: Repetition breeds Retention.
- If you ever have any technical trouble with your SAFM membership or the system, please don’t hesitate to contact our team at Admin@SchoolSAFM.com

All Disease Begins in the Gut 202

Part 1
Today's Agenda

- A Quick Refresher
  - Key Principles
- Diving Back into the GI Tract
- Welcome to the Wild Kingdom!
- Bacterial Infection
- Dysbiosis and IBS
- Candida and Yeast Overgrowth
- Resources for More Information

A Quick Refresher

Mysteries of the Human Body

- Tens of trillions of cells
- Each capable of living on its own. Differentially into ~200 types of cells (starting from two single cells).
- About 25,000 different encoding groups which can stimulate the body to make over 100,000 different types of proteins configurations.
- Cells form into 70+ complex organs of tissues that have a common purpose (e.g., liver, heart, skin, lungs, eye)
- Eleven major organ systems with complex regulation capabilities to respond to the stimuli of all the other systems.
- Almost inconceivable amounts of interconnection and dependency.
- And each one is unique.
Over 14,000 unique disease, syndromes and illness in the ICD-10 Guidebook

No wonder your clients can feel overwhelmed, scared, and disempowered.

Making It Simple

“There is no ‘disease’ in the body, only dis-ease. The origin is always unique – always.”

Dr. Jeffrey Blund

 ENVIRONMENT
The Good, The Bad, and the Ugly

 GENES

 WELLNESS

 ILLNESS

Optimal Health is Not Complicated

*Maximize*
- Put in what’s needed for this unique person
  - Sustenance: your body needs to function and heal
  - Oxygen, Water, Vitamins, Minerals, Antioxidants, Protein, Healthy Fats
  - Belief that the therapy one is choosing is effective and safe

*Minimize*
- Take out what’s harmful for this unique person
  - Toxins, Infections, Allergies, Stress, Trauma
- Limiting beliefs, fear, negative expectations

*Prioritize*
- Create an environment for healing for this unique person
  - Sleep, Rest, Laughter, Stress Reduction
  - Exercise, Stretching, Breathing
  - Meaningful Relationships
- Positive visualizations and associations

Of course, we are not very good at doing these three things consistently. The result: Chronic Dise-as in the body.

This is Why Your Clients and Patients Need You!
Typical American Lifestyle

- Nutrient poor diet
  - Little vegetables and fruit
  - High in processed foods
  - Sugar, preservatives, trans fats, chemical additives
- Unprecedented exposure to toxins
  - Air, water, food, drugs, soil, playgrounds, furniture
- Growing risk of infections
  - Superbugs, long-term effects of antibiotics

“The Rest is Still Unwritten” – Natasha Bedingfield

- Our overall genetic code changes very slowly (e.g. <0.1% every 10,000+ years of evolution).
- REI: everything we do changes what genes (stories in our unique book) are expressed at a given time in our lives.
- Genes are turned off or on by our aggregate experience – what we eat, drink, say, do, think, feel, etc.. This begins in the womb!
  - Food changes what genes are expressed: Dietgenetics.
- Gene expression can actually be inherited (epigenetics), but it is also reversible. We usually behave our way into or out of many “health” tendencies.
- Generally, we are less what we inherit and more what we express.

Epigenetics: An example

- Almost all people with celiac disease have specific variants of the IL1A-DQ2a and IL2-DQ8 genes.
- These genes appear to increase the risk of an inappropriate immune response to gluten.
- However, these variants are found in ~30% of the general population (yet only 1 in ~100 develops celiac disease).
- Only 3% of individuals with the gene variants develop celiac disease.
- Only 1 in 22 people with celiac disease also have a direct family member with the diagnosis.
- We are NOT defined by our genes.
Diving Back into the Gastro-Intestinal Tract

Your Best Friend?

- "Gastrointestinal Tract" or Digestive System
- ~25-30 ft in length
- Many glands, cavities, hormones
- Wave-like muscle action called peristalsis moves it
- Gateway of nourishment for every cell in the body
- Primary waste disposal route in the body
- Includes an "organ" of 100,000,000,000,000 microbes

Commonly Misunderstood Gut Truths

- All health begins in the gut (most nourish every cell)
- Gut feelings are real (and sleep and move are highly affected by gut status)
- All disease begins in the gut (major protective frontier: over 2/3 of immune system in there)
- Bacteria outnumber us 10x (our health depends on their health & balance)
- We are what we absorb (not just what we eat)
- Stress has a major impact on gut function and health (but it doesn’t)
- Constipation and diarrhea are symptoms of gut dysfunction, not illnesses in themselves (take both seriously; if chronic, can lead to major complications)
- Acid reflux is almost never caused by excessive stomach acid overall (rather it is acid in the wrong place – and often triggered by insufficient acid)
- Acid-suppressing medications are dangerous and have serious long-term health consequences (work diligently to address root causes of their GI/GU and get your clients off of them)
- Stomach acid is vital! And we lose it as we age (and often this is the gateway to the physical limitations observed in the senior population)
Etiology of Disease: In the Gut

<table>
<thead>
<tr>
<th>Dysfunction</th>
<th>Affects</th>
<th>Resulting In (e.g.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low stomach acid</td>
<td>Low Vitamin B12</td>
<td>Low energy, weak muscles, Atrial fibrillation</td>
</tr>
<tr>
<td>Low stomach acid</td>
<td>Low magnesium</td>
<td>Osteoporosis, heart attacks, constipation, muscle spasms, renal failure, hypertensions, GERD</td>
</tr>
<tr>
<td>Low stomach acid</td>
<td>Low iron</td>
<td>Anemia, low HbC, fatigue, poor tissue oxygenation, heart, brain, spinal cord</td>
</tr>
<tr>
<td>Bacterial imbalance or overgrowth</td>
<td>Poor essential fat absorption</td>
<td>Depression, anxiety, dry skin, elevated triglycerides</td>
</tr>
<tr>
<td>Bacterial imbalance or overgrowth</td>
<td>Poor nutrient assimilation</td>
<td>Irritable bowel, depression, constipation</td>
</tr>
<tr>
<td>Low digestive enzymes</td>
<td>High dairy casualties in patients</td>
<td>Bloating, flatulence, fatigue, bacterial overgrowth, constipation</td>
</tr>
<tr>
<td>Low digestive enzymes</td>
<td>Low lysine</td>
<td>Hypoproliferation, ADHD/DDD, depression, restless leg syndrome</td>
</tr>
</tbody>
</table>

The Wild Frontier

- The GI tract is essentially “outside” of the body, like the hole in a doughnut.
  - It’s an exchange area where:
    - Nutrients come in
    - Toxins and foreign invaders are kept out
    - Waste is deposited for excretion
  - The body SENSES our environment
- The critical lining of all cavities in the GI tract has a vital role of separating the Good from the Bad.
  - 2/3 of our entire immune system is just below the precious mucosal gut lining. If it’s damaged, we are less well-protected.
    - In the stomach, gastritis or ulcer
    - In the intestines: malnutrition or leaky gut
    - In the colon: diverticulitis
  - What happens in the gut affects the rest of the body!
    - Not just Nutrient intake/deficiency but Inflammation

Inflammation & Cellular Communication

- Inflammation is the body’s response to threat or injury. It is necessary for healing.
  - E.g. wound healing/inflammation, tooth infection
- Harmful if chronic and (often) systemic
  - Cells secrete cytokines (e.g. IL-1, IL-6) which communicate for need to (release) or down-regulate (inhibit) inflammatory response
  - Alarm the body (inflammatory)
- Remember: everything you eat, drink, breathe, do, and experience can cause one reaction or the other.
  - Common chronic inflammatory symptoms are often what our clients think of as “just getting old”
    - Sore joints, arthritic, gout, anxiety, depression, headaches, dizziness, constipation, GERD, ulcers, skin rashes, digestive issues, burning, poor memory, inflammation, brain fog
  - But they become things we learn to be highly debilitating or deadly
    - Diabetes, Alzheimer’s, Asthma, MS, Alzheimer’s, Cancer...
Inflammation (often!) Begins in the Gut

- Pathogenic microbes (e.g., parasite, bacteria, yeast)
  - Perhaps compounded by toxins secreted by the microbes
- Dysbiosis (an imbalance in indigenous, human gut bacteria OR species of bacteria in the wrong place in the gut)
  - Toxins (e.g., pesticides, Red X, birth control pills, artificial sweeteners, mouthwash, mercury, alcohol)
- Clinical Tip: NSAIDs are prescribed to stop inflammation. However, they are particularly damaging to the previous lining of the stomach and intestines, potentially causing pain, digestive limitations, immune system dysfunction, AND systemic inflammation.

Who’s the Host?

- We have hundreds of trillions of microbes within us! Together they are the largest “organ” in the GI tract (~ 4 lbs).
- Approximately 500 different species — bacteria, yeast, fungi, parasites — all competing for space and food and nutrients.

Our health depends on the health of our microbial partners: beneficial bacteria

- Those microbes eat sugars from our diet (e.g., fiber, sugars, maltodextrin, starch) and produce vitamins, beneficial fats (e.g., LA/ALA), and hormones.
- Balanced bacteria in our gut help to keep our immune system active and not over reactive (e.g., allergy, asthma, inflammation such as arthritis, or auto-immune disease).
- It is normal (and well tolerated in most people) to have small amounts of potentially pathogenic microbes (e.g. H. pylori, C. albicans).
- True microbes (e.g. dactilis difitida, overgrowth of either H Pylori or C. albicans) can break down our normal micro, while beneficial bacteria (e.g. lactobacillus) build it up.

The Human Microbiome

- Gut colonization begins rapidly after birth.
- About 8 families of bacteria (~40 total species) make up 80+ % of our gut flora population.
- Primary families and their typical Share of the gut*: **
  - Bifidobacteria (~20 species) ~20%
  - Bacteroides (~20 species) ~11%
  - Bifidobacteria (~10 species) ~9%
  - Bacteroides (~5 species) ~9%
  - Ruminococcus (~11 species) ~4%
  - Lactobacilli ~3%
  - Clostridia ~1%
  - Enterobacteria, E coli, Klebsiella, Aerobacter, etc. < 0.9%

* Percentages may vary due to the vast diversity of the microbiome.
** Some overlap in bacterial families.

(Images and text from various sources, with permission.)
Bodacious Bacteria: Earning their Keep

- Manufacture nutrients (e.g., most of the B vitamins, Vitamin K)
- Enhance mineral absorption (e.g., magnesium, zinc, calcium)
- Increase resistance to food poisoning, helps prevent microbial overgrowth, and helps to prevent pathogenic bacterial infection (by competitive inhibition, especially through pH).
- Ferment indigestible carbohydrates to produce short-chain fatty acids (e.g., butyrate) which nourishes the lining of the colon.
- Helps maintain integrity of intestinal lining and prevent increases in intestinal permeability (aka leaky gut).
- Educate the immune system about the difference between friend and foe microbes.
- Balance Th1 (innate) and Th2 (adaptive) immune responses.
- Innate response manages intra cellular invaders (e.g., viruses). Adaptive manages extracellular invaders (e.g., Salmonella).

Beneficial Bacteria Safe Haven?

- "While there is no smoking gun, the abundance of circumstantial evidence makes a strong case for the role of the appendix as a place where good bacteria can live safe and undisturbed until needed." - William Parker, Ph.D.
- "It looks like the human appendix serves as a "safe house" for beneficial bacteria to grow and remain in reserve until such time as they may be needed in "re-inoculating" the colon in the event that the contents of the intestinal tract are purged following exposure to a pathogen. For example, the reserve of beneficial bacteria in the appendix can help the body rid out a bout of diarrhea that completely evacuates the intestines, thus flushing most all beneficial bacteria from the gut." - Dr. Jon Barron, M.D.
Immune System Central

- Just beneath single-cell-thick mucosal layer in the gut lies the GALT (Gut-Associated Lymphatic Tissue), the immunity ‘police station’.
- Many effective defenses against foreign invaders (hydrochloric acid, bile, mucous, anti-bacterial peptides, and IgA antibodies).
- Bacterial imbalance or invaders can cause a combination of issues
  1. Reduction in GI motility (e.g. malabsorption, low energy)
  2. Localized discomfort (e.g. bloating, gas, cramps, diarrhea)
  3. Intestinal permeability (often leading to food sensitivities)
  4. Systemic inflammation triggered by our immune system

Clinical Tip: Be on the lookout for ALL of these!

- Acute infections usually cause undeniable symptoms (e.g. watery diarrhea). Low level infections may persist for a long time and show less intense GI symptoms (e.g. bloating, gas).
- Persistent (or prolonged) invaders trigger NF-KappaB, cellular release of cytokines, and an inflammatory cascade in the gut and then potentially throughout the body.
- Fatigue, anxiety, IBS, chronic headaches, chronic fatigue, multiple sclerosis...

Bring on the Bacteria!

- Probiotics: supplemental beneficial bacteria (e.g. yogurt/kefir, cultured vegetables, miso, kombucha, cultured ke miso, miso, loofah, loose powder)
- Can be stable (usually refrigerated) or killed (usually not refrigerated). Both are useful for the gastrointestinal tract and overall immunity, but live is best.
- Some species will actually colonize in some human guts, most will not.
- L. Plantarum and L. Infantis should do quite well.
- Typically contain individual or blend of very specific families of species
  - Lactobacillus, Bifidobacteria, Streptococcus, Saccharomyces
  - Broad spectrum likely best for preventative purposes (i.e. steaming) unless trying to colonize or cure specific illness (e.g. L. Acidophilus, VNOF & B. Infantis for IBS)
- Thrive on carbohydrates (sugars, starches, dietary fiber) especially “prebiotics” such as inulin and PFX (fructooligosaccharides)
- Many excellent food sources of prebiotics include garlic, onions, bananas, asparagus, legumes, cabbage, broccoli root, most fruits
- At times, 80% or more are located in the probiotic formula (do not use for IBS or generalized intestinal overgrowth until well under control)
- May cause some bloating and gas (resist with initial use can reduce dose).
Probiotics to the Rescue

- **Lactobacillus acidophilus** help prevent vaginal yeast infections and urinary tract infections.
- **Prevent/reduce infection from Candida, E. Coli, Clostridia, Salmonella, Bacillus anthracis, and Streptococcus to name a few.**
- **Bifidobacterium** help regulate peristalsis and bowel movements.
- B. infantis shown to be effective in alleviating colic in infants.
- **Saccharomyces boulardii** help particularly well to balance Th1 and Th2 ( innate and adaptive ) immunity, alleviating allergy/asthma symptoms, and also help to boost normal immunity by increasing secretory IgA.
- Help alleviate diarrhea (infections, antibiotic-triggered, etc.)
- L. helveticus (GG), L. plantarum, and S. boulardii in particular.
- **Reduce**/alleviate atopic illness (e.g. allergy, eczema, asthma)**
  - Especially L. rhamnosus in prevention of allergy onset in high-risk kids.
- **Streptococcus thermophilus** (not native to the human GI tract) passes through the GI tract in ~2 weeks and enhances Bifidobacteria growth.

How Probiotics Support Immune Function

Irritable Bowel and Dysbiosis
Irritable Bowel Syndrome (IBS)

- Not a disease but rather evidence of disease
  - Medically diagnosed when one shows most of the following either consistently or intermittently for an extended period of time (>3+ months)
    - Abdominal pain/spasm
    - Gas/flatulence
    - Changes in bowel habits
    - Gas
    - Bloating, distention
  - Usually observed by the client to be exacerbated by stress and/or diet choices
    - Stress stimulates Cortisol (stress hormone, lower stomach motility, lower cleansing waves)
    - Bigger and refined carbohydrates provide ready food for overgrown bacteria. High insoluble fiber (also made) foods also provide food. This is exacerbated by any digestive enzyme deficiency
  - Most common conventional treatment: serotonin modulation (e.g., SSRI antidepressants, Tegaserod)

G.I. Data Detective

- When did this start happening?
- What did you start doing around the same time?
  - Travel?
  - Moved?
  - Took antibiotics?
  - Change in diet?
  - Change in medications?
  - Change in stress?
- When do you not have the symptoms?
- What seems to improve your symptoms?

What's In a Name?

- Common causes of IBS-like symptoms
  - Food poisoning (e.g., Clostridium Difficile) or Parasitic infection (aka traveler’s diarrhea)
  - Lactose intolerance, magnesium deficiency
  - Acute and/or chronic stress
  - Side effect of SSRI (or other) medications
  - Carbohydrate digestive insufficiency (which can turn into IBS)
  - Imbalance of predominant bacteria in the small intestines (too many of some and not enough of others)
  - Low-level pathogenic bacterial/fungal infection in small intestines
- Movement of predominant colonic bacteria back up into the small intestines
Dysbiosis is not so much about the microbe as it is about the effect of that microbe on a susceptible host; in other words, it is about the relationship between host and microbe.

- Dr. Gerry Mullin
Professor of Gastroenterology
Johns Hopkins University

Many Causes of Dysbiosis

- Antibiotic use
- PPIs (proton pump inhibitors, reflux of duodenal contents)
- Acid-suppressing medications
- Chlorinated/chlorinated water
- Sacraline
- Conventional meals (antibiotics, hormones)
- Poor digestion
- Chronic constipation
- Proton pump inhibitors (low stomach acid)
- Ongoing medication use
- Two mechanisms: 1) microflora is altered, 2) lack of any probiotics, or both
- Translocation: some studies show its role in various inflammatory bowel diseases and even in heart disease
- Many studies show the role of the gut and the gut microbiota in brain health

- Toxins (e.g., pesticides, red meat, mercury)
- Corticosteroids (e.g., prednisone)
- Decreased valve dysfunction (chiropractor can help)

Dysbiosis: Example 1

<table>
<thead>
<tr>
<th>Microbiology</th>
<th>Insufficient beneficial bacteria</th>
<th>Pathogenic bacterial and fungal overgrowths</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACTERIOLOGY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Beneficial Bacteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Additional Bacteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. MYCOLOGY</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This is a portion of a Riemann CCEA comprehensive chart test.
**Dysbiosis: Example 2**

- Overgrowth of predominant bacteria
- Ineffective beneficial bacteria
- No specifically "pathogenic" species

This is a portion of a Metametrix GI Effects comprehensive stool test.

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**SIBO (Small Intestinal Bacterial Overgrowth)**

- Normally, there are 100,000X more microbes in the colon (large intestines) than in the small intestines.
- Simple carbohydrate digestion takes place higher up in the small intestines than starchy foods.
- SIBO results when higher density of bacteria in the small intestines back up into the small intestines—and gets access to a much larger food source (more starches and simple sugars).
- Typically diagnosed with a lactulose breath test (measuring the fasting of hydrogen and methane expelled after ingestion). Ideally, confirm any pathogenic species also with a comprehensive stool test.
- Typical symptoms include bloating, flatulence, and diarrhea.
- The heart of the matter? Clinical study shows... 
  - Chronic fatigue: 75% of those with Chronic Fatigue or Fibromyalgia test positive for SIBO.
  - Memory loss: 20% of those with SIBO symptoms test positive for SIBO.
- Remember: the culprits in SIBO are not "bad" bacteria. They are typical bacteria in the wrong place in the gut, wreaking havoc.

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**The JAMA Network**

From: Small Intestinal Bacterial Overgrowth: A Framework for Understanding Irritable Bowel Syndrome

A. In the normal gut, food digestion leads to organ hare digestive tract absorption within the proximal small intestine and no bacteria in the ileocolonic junction. Absorption occurs in a transverse manner, with the ileum and the proximal colon receiving nutrients. The ileum absorbs nutrients and bacteria, which are then eliminated in the stool. The colon bacteria, on the other hand, are responsible for breaking down food that is not absorbed in the small intestine. However, in patients with SIBO, the concentration of bacterial flora increases, allowing fermentation of both easily digestible and poorly digestible carbohydrates.
**Gut Healing 5Rs**

- Order of operations is important
  - Remove first – always! (e.g., harmful microbes, allergens/sensitivity foods, foods that feed undesired microbes)
  - Replace (e.g., digestive enzymes, stomach acid support, bêê acids, herbal remedies to boost immune system sufficiently)
  - Rebalance (probiotics)
  - Repair (will regeneration, nurturing mucosal layer, increasing SCFA (e.g., botrytes) with larch gum or other fiber additions)
  - Clinical tip: giving additional digestive fiber to someone with IBS will more than likely make them feel much worse
  - Rebalance (stress relief, long-term diet changes, attitude)

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**IBS/SIBO Treatment**

**Short-term relief**

-Supplements
  - Magnesium glycinate (4-6mg, 2-4 times, but do not use if there is acid reflux)
  - Chloride (regulates chloride or NaCl intake, see above, right)
  - Stimulating herbs (e.g., Peppermint/Peppermint oil)
  - Magnesium glycinate (start with a bowel tap and drink with large glass of water)
  - Activated charcoal, etc.
  - Stress management (e.g., meditation, acupuncture, meditation, probiotics, journaling, healing touch/touch)
  - “Stress-Free” diet: NO sugar, dairy foods, grains, legumes, artificial sweeteners (alcohol or artificial sweeteners)
  - No junk foods, sugar alcohols (be sure to check labels on foods and ingredients)
  - spicy condiments (e.g., sweet potatoes)
  - Only serve fresh fruits (e.g., Cook vegetables, stay off carbohydrates, serve site meals)
  - Avoid in between meals (eating more distally)
  - Go to full glucose elimination if needed

- Clinical tip: 1 final highly detailed eating plan (e.g., WDDAP) are more frustrating to clients than simpler (though perhaps more restrictive) plans

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**IBS/SIBO Treatment**

**Rebalancing the Microbes**

- Antimicrobial herbs such as berberine, sage, oregano, thyme, garlic, lemon balm (e.g., Monogatens CardHerbs sis and AK is also dosage of 50mg for three meals)
  - Bacterial overgrowth (e.g., Aloe vera) might be necessary depending on your gut
  - Anti-inflammatories (e.g., N-nitrosamines) might cause discomfort (if present
  - The high levels of spore (bacterial) microbes with water supplements, but easy of symptoms may have gastro relief

- Prebiotics (e.g., start with probiotics diet to be played). Choose species/strain based on symptoms (higher fiber for constipation, higher Lactobacilli for diarrhea). Take probiotics 2-3 times per day in a concentrated dose and break down into smaller doses (e.g., 100mg, 1/2 tsp)

- Nutritional Considerations (e.g., Fatty acids, essential fatty acids (EFLaks), and probiotics (FloraMax Bifidobacteria Complex))

- Identify and Eliminate Food Sensitivities

- Healing the Gut

- Clinical tip: Take these steps after antimicrobial herbs have been used at least 4 weeks and/or significant improvement in symptoms (e.g., balance first: then heal the gut). Healing services may cause more IBS symptoms
  - L-Glutamine to help with poor nutrient absorption and bushy gut (5-2 grams taken 3 X per day in an empty stomach)
  - Fatty acids (e.g., fish oil, cod liver oil, lactic acid bacteria, prebiotics, etc.)
  - Fights E. coli overgrowth, mucosal layer regeneration such as slippery elm, stinging nettle (e.g., Designs for Health D3) these are a taste of L-glutamine for fuel
Candida/Fungal Overgrowth

Many yeast species (especially Candida) release significant toxins that cause far-ranging symptoms beyond typical G.I. Complaints. I often see these issues in my clients with yeast overgrowth. Remember: symptoms questionnaires are extremely helpful for putting the puzzle pieces together for each client:

- Frequent  cramps, pain and oripation problems
- Skin problems (eczema, hives, rashes, acne)
- Headaches
- Anxiety or Depression
- Mood swings
- Acne prone
- Obsessive compulsive disorder (OCD)
- Anger outbursts
- Irritability
- Fatigue
- Chronic rhinitis or Chronic colds
- Headaches
- Irritability
- Intense cravings for sugars, sweets, alcohol, and breads
- Baby skin
- Difficulty losing or maintaining a healthy weight

Candida/Fungal OG Treatment

- Stop "Fast Out Diet": 100% elimination of all sugars/carbohydrates, fruit juices, dairy foods, grains, baker, alcohol, dairy products, mushrooms, vegetables, peppers, potatoes, legumes. Only small portions of fruit and more alkalining whole grains (Broccoli, quinoa). After symptoms ~ 50% gone, organic yogurt (kefir possible).*

  - *Clinical tip: eliminating most present in foods (e.g., yeast) tends to show these are inflammatory markers in the immune system due to yeast in general.

- Probiotics (start immediately). Choose MG variety Lactobacillus henslyit (e.g., Ultimate Flora Vaginal, Take AM and PM). Alternating with a Biidoo included formula if needed at night for contagion (magnesium may resolve this however).

- Antifungi (anti-fungals to battle yeast overgrowth. Probiotics plus antifungal in Yeast form (Thorne) $50 or $100 if bacterial dysbiosis also present

  - Antifungal extracts such as caprylic acid, tea tree oil, olive leaf extract, oregano, lavender, dill, bay laurel, bergamot, rupee, etc. Metagenics Candida-Best included at daily dosage 30/day and D&C Terra organic oil in capsules 2x/day for 3 months.

  - Clinical tip: alternative for vaginal yeast infection (or nightly as needed).

- For high-level infection, Nyctatin is a prescription anti-fungal medication derived from yeast that is reabsorbed in the body. Diffuse acne, warts, etc.

- Identify and Eliminate Food Sensitivities

- Healing the Gut steps on prior page for SIBO.

- Note: The information provided is intended for educational purposes only and should not replace professional medical advice.
More Information

- Good client article about the "gut health" and how it affects the rest of our body:
- Each day quick check for health concerns about true root causes of digestive disorders and how to support with supplements and natural choices. Digestive Wellness by Elizabeth Marks, McGraw Hill, 2016.
- Excellent book focusing on slow bowel function, treatment and prevention as well as general tips for maintaining healthy bowel: "The Body Healing Diet" by Steven Gains, Blue River, 2002.
- Helpful if you need help with IBS in children:
  - "Best of clinical studies tying to specific health benefits:
- Detailed yet simple language article for clients explaining what probiotics are and key benefits:
- A very comprehensive biochemical overview of how specific pathogens affect the gut lining, get into the body, and are involved in inflammatory bowel disease:
- A very comprehensive, biochemical overview of how specific pathogens and gut health influence the immune system:
  http://www.livingorganics.com/index.html

Thank You for Joining Us!

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Part 1