Welcome!

THE SCHOOL OF
Applied Functional Medicine™
SAFM Deep Dive Clinical Courses

- **Online Q&A bulletin board** within this course is available to you for follow-up at any time on questions specific to this course content. Make use of this tool to expand your (and others’) learning. *Please understand we cannot accommodate detailed client case reviews on the Q&A boards.*

- **Take lots of notes!** The more often you see these connections, the more readily you will be able to recall them.

- Plan to **review this course material again**, at least once more – preferably twice more. Remember: Repetition breeds Retention. 😊

- If you ever have any **technical trouble** with site access, please don't hesitate to contact our awesome team at Admin@SchoolAFM.com
Conquering Constipation
An SAFM mini Clinical Course
Today’s Agenda

- A Few Key Principles
- Defining Constipation
- Top 15 Root Causes of Constipation
- Conventional Remedies and Alternatives
- Lifestyle Root Cause Remedies
First, A Few Key Principles...
Mayhem in the Media

Over 14,000 unique diseases, syndromes, and illnesses in the ICD-10 Guidebook

No wonder our patients and clients often feel overwhelmed, scared, ambivalent, and/or dis-empowered.
1. All Things are Interconnected

Oxygen Intake and Spiritual Mindset
Stress and Stress Management
Toxins and Detoxification Ability
Sensitivities and Allergies and Immune Health
Energy Generation and Circulation
Nourishment and Absorption Ability
Genetic Predispositions and Infections
Expectation, Association, History, Belief
ENVIRONMENT: What we Maximize, Minimize, and Prioritize

Choices

GENES

WELL-NESS

ILL-NESS

Choices
Functional Medicine: The Big Picture

- Choices
- Interactive Biochemistry
  - Endocrine (Hormones)
  - Immune (Inflammation)
  - Nervous (Neurotransmitters)
  - Digestion (Nutrients)
  - Metabolism (Energy)
  - Detoxification (Clearance)

ENVIRONMENT: What we Maximize, Minimize, and Prioritize

WELL-NESS

ILL-NESS
2. Optimal Health is Not Complicated

- **Maximize**
  - Put in what’s needed for this unique person
  - Raw materials 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, Allergens, 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 Dis-ease in the body.

This is Why Your Clients and Patients Need You!
The ONLY thing that can “go wrong” and prevent our clients from living their optimal life is the failure to Maximize, Minimize, & Prioritize for their unique body.

Our patients and clients can become Empowered, Organized, and Confident.
Our “Wildly Successful” Model

Rapid Relief Focus + Strong Confidence + Clinical Know-How to Get to the Root Causes = Wildly Satisfied Clients

- Copious Qualified Referrals
- Soaring Confidence
- Clients Renewing Again and Again
- Higher Rates

Wildly Successful Business


Abundance for Everyone!
3. The Difference That Matters Most

**Wildly Satisfied Patients**
The practitioner offers...
- Confidence
- Leadership
- Functional *Dynamics* Knowledge
  - Inspiration
  - Rapid Relief
  - Root Cause Resolution
- Belief (placebo)
- Educating and Empowering

**Mildly (or Un-) Satisfied Patients**
The practitioner offers...
- Hesitation/Uncertainty
- Control –or– Aimless openness
- *Diagnosis* Management
  - Overwhelm
  - Delayed benefit
  - Unsustainable benefit
- Fear (nocebo)
- Dictating and Paternalistic

Wildly satisfied patients can fill your practice with their enthusiastic referrals, freeing you to (1) Do what you love the most and (2) Be wildly successful doing it!
Putting the Puzzle Pieces Together

We are not designed to be Stressed, Toxic, Inflamed, Infected, Malnourished, & Unrested and yet still easily Thrive, Grow, Reproduce, be Thin, feel Well, Eat Anything we want, enjoy perfect BMs, and have Great Sex.

This combination would be Not Natural.

Why are we struggling? Nutrient-poor Food, Toxins, Stress

Even when aware, we lack Education, Inspiration, and Empowerment support!
Defining Constipation
An Introduction to Gut Anatomy & Physiology

- “Gastrointestinal Tract” or Digestive System
- ~25-30 ft in length
- Many glands, cavities, hormones
- Wavelike muscle action called peristalsis moves it
- Responsible for digestion and absorption of macro and micro-nutrition from food
- Primary waste disposal route in the body

If you need more education on the fundamental functions of the gut, consider “Gut” by Giuila Enders
https://www.amazon.com/Gut-Inside-Story-Underrated-Revised/dp/1771643765/
But Here’s an Introduction to Gut Impact!

- A weird, weird world.
- Essentially a tunnel – or the inside of a doughnut - a well-guarded and regulated exchange corridor that is outside of the systemic body.
- The entryway for essential nutrition to fuel every cell in the body.
- The exit path for most toxins and waste – of exogenous and endogenous origin.
- Guarded by a planetary level population and diversity of microbes. Regulated by their behavior and DNA (which can transfer genes to humans)*
- Home to more than two-thirds of the immune system, surveilling our intake, outflow, and microbial balance.
- Exchange controlled by a very complex, semi-permeable interface that is only one-cell thick.
- Housing its own nervous system which generates neurotransmitters used throughout the body.
- The gut and brain connect via a highly interactive vagus nerve with 90% of the nerve fibers going from the gut to the brain (afferent).

* https://bmcgenomics.biomedcentral.com/articles/10.1186/s12864-017-3649-y
Colon: The Body's Trash Compactor

- Also called the Large intestines, Bowel, or Large Bowel (or more affectionately known as “the poop percolator” by my 12 y/o IBS client)

- Location of final water absorption, waste deposit, and minor nutrient absorption (mostly electrolytes, Vitamin K).

- 3'-5' in length

- Home to trillions of microbes (typically several hundred different species)

- Moves along and compacts fecal material in the rectum in preparation for stool expulsion through the anus

- Stool contains water, fiber, mucus, cells from the intestinal lining, microbes, and trace amounts of many wastes (e.g. bilirubin, estrogen, cholesterol, BPA metabolites, mercury).

- **Optimal transit time in GI tract balances maximizing water and nutrient absorption with minimizing toxic exposure to colon tissue**
What controls Motility & Bowel Movements?

- Behavior (e.g. withholding)
- Electrolytes (potassium, magnesium calcium)
- Hydration and Fiber (bulking up a stool)
- Digestive secretions
- Microbial population/balance and byproducts **
- Hormones
  - Gastrointestinal (e.g. cholecystokinin, secretin, motilin)***
  - Metabolic (e.g. thyroid, cortisol)
  - Sex hormones (e.g. progesterone)*
- Neurotransmitter levels (especially serotonin)
- Autonomic nervous system function (e.g. vagal tone)****

* [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4932211/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4932211/)
** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4951383/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4951383/)
**** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3680624/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3680624/)

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Constipation is Not-Fun

- One of the top client complaints
- Often chronic
- Can create conditions from annoying to life-threatening
  - Fatigue, Malaise
  - Headache
  - Bloating, Distention, Flatulence
  - Cramping, Pain
  - Diverticulosis/Diverticulitis
  - Toxin Reabsorption (contributing to almost any chronic inflammatory disease)
  - Microbial Dysbiosis
  - Colon Cancer
- Ongoing relief is a sure-fire way to wildly-satisfy your clients and patients!
Not Fun, Not Healthy

A minor complaint becomes a major dis-ease in the body?
Defining Constipation

- Evidence of dis-ease in the GI tract (and perhaps elsewhere!)
- **Bowel Movements: What's Ideal?**
  - From 1-3 easily-passed stools daily
  - Little sustained aroma (H₂S)
  - Medium brown in color
  - Long, log-like piece or few pieces
  - No discomfort, no straining, no delay
- **Constipation is defined as one or more of**
  - Infrequent bowel movements
  - Having to strain to pass a stool
  - Hard, pellet-like or incomplete stools
- **Affects an estimated 40+ million Americans or ~15% of the population***
  - In my practice, about 40% of my clients!

* [http://digestive.niddk.nih.gov/ddiseases/pubs/constipation/#common](http://digestive.niddk.nih.gov/ddiseases/pubs/constipation/#common)
15 Root Causes of Constipation

1. Insufficient Magnesium
2. Excessive Vitamin D intake – too much, too fast
3. Excessive Calcium intake
4. Insulin Resistance and Hyperglycemia (Autonomic neuropathy)
5. Hypothyroid state (low Free T3; poor T4 to T3 conversion)
6. Adrenal dysfunction (high cortisol; high Reverse T3 – OR – low cortisol)
7. Insufficient Serotonin synthesis/action (innate or medication-driven)
8. SIBO (typically Methane-mediated)
9. Dysbiosis (especially low Bifidobacteria)
10. Food sensitivity (especially dairy)*
11. Sympathetic dominance
12. Excessive progesterone
13. Insufficient water or fiber (soluble or insoluble)
14. Insufficient dietary Fat
15. Medications

Root Causes from a Functional Perspective

- **Poor motility in the colon** (e.g. from insufficient dietary insoluble fiber, microbial imbalance or insufficiency, nerve damage, withholding BMs once urge occurs, small intestinal bacterial overgrowth (SIBO, most common cause of IBS))
- **Sluggish peristalsis in overall GI tract** (e.g. from low stomach acid, grazing, low intestinal serotonin production (e.g. Vitamin B6 insufficiency, ongoing use of SSRIs), magnesium deficiency, food sensitivity or intolerance e.g. dairy, iron supplements, calcium channel blocker (CCB) hypertension drugs, anticholinergic drugs, hypothyroid function, hypo-adrenal cellular metabolism, autonomic neuropathy)
- **Hard stools** (e.g. from insufficient water intake, slow transit time)
- **Incomplete stools** (e.g. from insufficient dietary soluble fiber)
- **Poor stool lubrication** (e.g. from insufficient healthy fats, low mucus production in colon lining)
- **Nervous system imbalance** (e.g. from opiate or antihistamine drugs, chronic stress, rushing, poor eating hygiene, hypo/hyper-cortisol, sympathetic dominance)
- **Poor energy generation within intestinal cells** (e.g. from statin drugs, hypothyroidism, toxicity, adrenal fatigue)
Hypothyroidism

- **Things are running too slowly**
- Often feel cold
- Brain fog
- Gain weight (or difficult to lose)
- Increased LDL cholesterol
- Fatigue, Malaise
- Thinning eyebrows (esp. the outer third)
- Low energy
- Ongoing constipation, poor GI motility
- Dry skin
- Rough PMS or menopause symptoms
- Infertility
- Low blood pressure and/or pulse
- Hair loss on head
- Depression/Anxiety

Hyperthyroidism

- **Things are running too intensely**
- Often feel warm or hot
- Increased weight loss
- Heart palpitations (or racing pulse)
- Anxiety, nervous frequently
- Restlessness (can advance to be tremor)
- Irritability
- Fatigue
- Bulging eyes
- Low or no menstrual period
- Excessive sweating
- Trouble concentrating, focusing
- Frequent (and perhaps loose) bowel movements
- High blood pressure and/or pulse
The Devil in the Detail: Thyroid Function

- Liver and kidney convert T4 to T3 (and rT3) for blood circulation (labs!).
- Brain, heart, and skeletal muscles do local, intracellular T3 conversion (not in labs).

** From Visser et al., "Cellular Uptake of Thyroid Hormones, 2016" and http://www.thyroidmanager.org/chapter/cellular-uptake-of-thyroid-hormones
Typical Symptoms of Extremes: Adrenal

**Elevated Cortisol**
(Hyper-stimulated Stress Axis)
- Hypervigilant
- Overly alert, doom'n'gloom preoccupation
- Insomnia (racing mind)
- Poor digestion, “irritable” gut
- Hypertension, Racing heart
- Lower bone density
- Depressed immune system (may get sick easily)
- Anxiety (often along with Depression)
- “Wired and Tired”
- Here you will find many patients with chronic Anxiety, T2 Diabetes, Metabolic Syndrome
- Consider: **Sympathetic Dominance**
- Perhaps higher sodium/chloride, lower potassium

**Depressed Cortisol**
(Under-stimulated Stress Axis)
- Exhaustion, perhaps debilitating fatigue (not recoverable with short-term increase in sleep)
- Lethargy, Malaise
- Weakness, myalgia, pain, inflammation
- Depression
- Hypotension, dizziness upon standing
- Hypoglycemia
- Low pulse rate
- Low motivation
- Here you will find many patients with PTSD**, allergy/asthma, chronic autoimmune disorders, pain disease (CFS, Fibro), postpartum depression
- Consider: **Parasympathetic Dominance**
- Perhaps higher potassium, low sodium.

* Fatigue, Mood swings, Poor sleep, Hypothyroid function

* As purposeful, regulatory, self-preserving action IN THE BRAIN, not intrinsic adrenal dysfunction!

SIBO (Small Intestinal Bacterial Overgrowth)

- Normally there are 100,000 times more microbes in the colon (large intestines) than in the small intestines.
- Location, location! Simple carbohydrate digestion takes place higher up in the small intestines than starches.
- SIBO results when that higher density of bacteria in the colon creeps back up into the small intestines – and gets access to a much larger food source (more starches and some sugars). An overabundance of exposure to these bacteria’s metabolic processes is what wreaks havoc on the gastrointestinal system in SIBO.
- Up to 75% of those with IBS symptoms test positive for SIBO. IBS typically includes bloating, flatulence, GI cramping, and irregular bowel movements. **
- Typically diagnosed with a lactulose breath test (measuring the timing of hydrogen and methane expelled after ingestion of the sugar).
  - Typically bacteria expelling more methane cause constipation; the presence of more hydrogen counteracts the methane and may lead more often to looser stools.*
  - Comprehensive stool testing may not show major abnormalities (may show highly elevated SCFAs but not necessarily). BUT can be helpful for identifying contributing issues (e.g. poor digestion, low SCFAs, secondary pathogens). Organic acids testing may show elevated levels of Indican.
- Remember: the culprits in SIBO are not “bad” bacteria. *** Client/patient education is key. They are typical, commensal bacteria in the wrong place in the gut, wreaking havoc!
- SIBO is defined as a high density of microbes in the small intestines. The offenders vary and typically might include Escherichia coli, Streptococcus, Bacteroides, Enterococcus, Klebsiella, and Clostridium species. Archaea e.g. methanobrevibacter smithii.

A, In the normal gut, easily digestible starch undergoes complete digestion and absorption within the proximal small intestine and is not available for fermentation in the distal ileum and colon where bacterial colonization is the greatest. In contrast, gas production results from bacterial fermentation of poorly digestible starch that is not assimilated by the proximal gut. B, In small intestinal bacterial overgrowth, the concentration of bacterial flora increases proximally allowing fermentation of both easily digestible and poorly digestible starches.
Conventional Constipation Triage Remedies and Alternatives
Constipation: Common Root Causes

- **Lubiprostone** (e.g. Amitiza). Softens hard stools by releasing more sodium into the stool (and thus promoting more water flow into it as well). Often recommended in IBS and opioid-induced constipation. Causes nausea in 1/3 of users.

- **Linaclotide** (e.g. Constella). Promotes more water secretion into colon directly and also reduces pain by desensitizing nerves. Often recommended in IBS. Very strong; can promote diarrhea.

- **Oral stool softeners** (e.g. Miralax, Colace). Softens hard stool by promoting water flow into colon. Safety in use with children still questioned.

- **Rectal stimulants** (e.g. Dulcolax). Triggers peristalsis artificially to move stool out of rectum.

- **Oral stimulants** (e.g. Senekot). Irritates the intestinal lining causing a laxative effect.

- **Electrolyte imbalance** is a concern with long-term use of any laxative that artificially affects water movement into the colon.

- **Short-term triage options which don't fix the root cause!** Many of these drugs are used long-term despite US FDA approval for only short-term use.
Fiber Supplements (e.g. Benefiber, Citrucel, Metamucil). Typically feature high levels of soluble fiber which helps to bulk up a stool which triggers peristalsis and helps to enable complete bowel movements.

Benefiber Ingredients (Orange flavor):
Wheat dextrin, citric acid, natural orange flavor, potassium citrate, aspartame, gum acacia, acesulfame potassium, maltodextrin, lactose (milk), triglycerides, sucrose acetate isobutyrate (adds a trivial amount of sugar), modified cornstarch, yellow 6, red 40.

Metamucil Ingredients (Sugar-Free, Lemonade flavor):
Psyllium husks, Acesulfame Potassium, Aspartame, Citric Acid, FD&C Red No. 40, Maltodextrin, Natural Flavor
Safer Triage Solutions? For One-Time Issues

- **Natural Chewing Gum with Xylitol.** Another sugar alcohol (and the only one that will not aggravate IBS) that also loosens stools gently.* Chewing action stimulates digestion and motility.** Xylitol is a natural antimicrobial and helps to clean teeth in between meals. Use frequently. Gentle and progressive.

- **Prunes.** High in stool-loosening sugar alcohol (e.g. sorbitol) and polyphenols. No long-term side effects (but be careful with diabetics) and significant benefits including fiber, vitamins, minerals, and phytonutrients. 5 at night before bed and 5 the next morning. Drink with plenty of water for maximum effect. Moderate, effective for most. Not for known IBS (SIBO).

- **Extra virgin olive oil.** Consume 3-4 Tbsp in a small fruit smoothie at night prior to bed. If necessary, repeat midmorning the following day. Intense and effective. Not for those with known gallstones or bile duct congestion.

- **Stimulant Herb formulas** usually feature senna and/or cape aloe (with no artificial/chemical additives): Dr. Schulze “Formula #1” or Renew Life’s “Cleanse More” are ones I recommend. Intense and effective.

Lifestyle
Root Cause
Remedies for
Constipation
Stress Inhibits All Digestion and Absorption

- **Sympathetic**
  - Fight-or-Flight
  - Increased focus and alertness
  - Increased metabolic activities
  - **Stops all digestive secretions** (e.g. stomach mucus, stomach acid, digestive enzymes)
  - Can cause expelling of food (e.g. vomiting, diarrhea)
  - Designed to be short-term exceptions for survival

- **Parasympathetic**
  - Rest-and-Digest
  - Relaxed external muscles.
  - **Increased digestive activities to store energy for future use**
  - Designed to be our primary state

Diagram source: [Wikimedia commons](https://commons.wikimedia.org/)
Prioritize the Parasympathetic: Relax

- Clearly explain the connection between the digestive and nervous systems
- **Help your client to understand Eating Hygiene.** Identify alternatives to what they see as barriers to honoring time-while-eating as sacred
  - Chewing food thoroughly before swallowing (ideally until its liquid)
  - Eating without multitasking, especially stressful tasks
  - Slow down and Breathe
  - Prioritize relaxed activities for the hour after each meal
- Educate them on mindful breathing, especially during stressful circumstances
- **Identify a mindfulness practice** or two that inspires each unique client (e.g. gratitude journal, meditation, yoga, tai chi, pet time)
- Perimenopausal and postmenopausal women can benefit from **ground flaxseed** (~2 round Tbsp daily) to calm adrenaline surges which result in hot flashes.
Magnesium Insufficiency

- Over 2/3 of Americans are estimated to be truly deficient in magnesium; many more have insufficient levels*
- Controls over 300 biochemical reactions in the body, most of which promote relaxation, whether it's in the head, heart, or gut
- Where possible, encourage clients to get magnesium labwork
  - Especially if other symptoms e.g. headache, tight muscles
  - Specify RBC Magnesium, not serum. Want to be at least in upper half of TRR
- Those using PPI acid-suppressing for longer than a couple of months likely have insufficient magnesium.**  H2 histamine blockers and diuretics may also be culprits.
- Form matters! Citrate or Sulfate (as in epsom salts) or Oxide will be most stimulatory to bowels. Too much will cause short-term diarrhea (and deplete nutrients, including magnesium)

- Look for capsules vs. tablets for swallowing ease. Start with 400mg once daily with food; if needed add 2nd dose with a different meal
- Avoid magnesium carbonate-only tablets (e.g. mainstream drugstores)
- Magnesium contraindicated for those with kidney disease/dysfunction or taking potassium-sparing diuretic hypertension medication

** http://www.fda.gov/drugs/drugsafety/ucm245011.htm
Stools and Fiber

- Assess each client's unique diet!
- Soluble fiber bulks up a stool and allows it to retain more water
  - Prioritize for those with small, incomplete, or hard BMs
- Insoluble fiber moves a stool along the GI tract
  - Prioritize for those with healthy, complete but infrequent BMs
- Most plant foods include some of both.
  Common convenient sources of
  - Soluble: oats, fruit, especially bananas, psyllium husks, chia seeds
  - Insoluble: seeds, esp. ground flaxseed, non-starchy vegetables
- Increase psyllium husks slowly (1 tsp every few days). Make sure they are hydrating well first (if you’re not sure, then perhaps starting with consuming 6+ glasses of water daily).
Many of our clients are chronically dehydrated, especially if
- Prioritize for those with small, incomplete, or, especially, hard BMs
- Consumption of fresh vegetables and fruits is low
- Its dry and cold in their home climate.
- They work indoors.
- They consume significant caffeine, especially if amount is erratic.
- They drink alcoholic beverages regularly.
- They use diuretic hypertension medications.
- They have sustained adrenal fatigue

For constipation, I recommend 6+ glasses of plain, clean water daily, especially one large one immediately upon rising in the morning at least 20 minutes before breakfast.
The Real Host of the GI Tract: “Bugs”

- We have **many trillions** of microbes within us! Together they are usually the largest “organ” in the GI tract (~ 3 lbs).
- Several hundreds different species – bacteria, yeast, fungus, parasites - all competing for space and food and nutrients.
- Beneficial microbes eat residue from our diet (e.g. fiber, mal-digested protein or starches, sugars), **secrete vitamins & beneficial fats** (SCFAs), and nurture the colon lining.
- Balanced bacteria in our gut **helps to keep our immune system calm**, balanced, and not over-reactive (e.g. allergy, asthma, arthritis, or auto-immune illness).
- **Toxic microbial byproducts** (e.g. candida) can break down our mucosal layer, while beneficial bacteria (e.g. lactobacillus) byproducts can build it up. Demulcent herbs can help to restore protective lining (e.g. slippery elm, marshmallow, aloe vera).
- **Unpasteurized fermented foods** contain probiotics (e.g. kombucha, natural sauerkraut, kefir, yogurt (esp homemade), tempeh) or they can be purchased in supplement formulas (probiotics).
- **Dietary fiber** is good **prebiotic food for beneficial species**, especially garlic, onions, legumes, bananas, asparagus. On supplements prebiotics will usually be labeled FOS (fructooligosaccharides) or Inulin. They are often combined with probiotic formulas.
Major bacteria present:

- Lactobacilli
- Helicobacter Pylori
- Enterococci
- Lactobacilli
- Enterobacteria
- Enterococcus faecalis
- Bacteroides
- Bifidobacterium
- Eubacterium
- Peptococcus
- Peptostreptococcus
- Ruminococcus
- Clostridia
- Lactobacilli

Distribution:

- Billions
- Millions*
- Billions
- Trillions and
- Trillions and
- Trillions...

Or a more technical review of the same: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1334644/
Boosting Beneficial Bacteria

- Look for full-spectrum formulas wherever possible with at least 5 strains and a mix of Lactobacillus and Bifidobacteria species

- For individuals new to probiotics, I recommend
  - Giving the body time to adjust. Start with 10-20B CFUs/day for first ~10 days to assess start-up symptoms (e.g. bloating, flatulence).
  - Using a formula without prebiotics, at least in the beginning. Work with them to increase prebiotics via food instead. Individual tolerance varies dramatically.

- Probiotic Tips
  - Those who have taken antibiotics recently (or multiple times historically) are particularly likely to have dysbiosis and get constipation relief from probiotics for a few months and also short-term (~1 mos) to build up protective mucosal lining of the intestines. In this particular type of case, I recommend a probiotic with Lacto/Bifido/Boulardi (e.g. Metagenics “UltraFlora Acute Care”) for the former and Designs for Health’s “GI Revive” for the latter.
  - Clients who are 60 y/o or older or who have chronic constipation usually benefit the most from probiotics with higher levels of Bifidobacteria species e.g. Ultimate Flora Adult 50+.

- Probiotic brands I most often recommend include Renew Life, Innate, Udo's, Metagenics, Klaire Labs. There are many others!
The Medicine of Smaller, Slower Meals

- The stomach is the body's blender.
- If we overeat at any one time, there is not enough room to blend our food well and break it down into smaller particles. This can cause
  - Post-meal fatigue
  - Belching, over-full feeling
  - Constipation
  - Malabsorption
- It takes 15-20 minutes for a hormone cascade to be released that regulates hunger: Cholecystokinin (CCK)
- CCK is particularly upregulated by fat in our meal.*
- Stress impairs all digestive secretions.
- **Teach. Chew. Breathe. Relax.**
  Engage the parasympathetic nervous system. Consider the act of eating as not only self-care but perhaps a meditation in itself.

But Eat Real Meals; Don't Graze

- It is **distention in the stomach from a significant meal** that stimulates ongoing waves of Peristaltic muscle action down the entire GI tract.
- Post-meal, a more substantial wave called Mass Peristalsis occurs which moves chyme in bulk into the large intestines and eventually into the rectum. Ongoing Migrating Motor Complex (MMC) cleansing of the intestines is key for microbial balance, but **MMC doesn’t happen while we are actively digestive food!**

- Is your client grazing because they “**just can't slow down for a meal**”?
  - Digesting food well requires a dominant parasympathetic nervous system.
  - Sympathetic nervous system activation (e.g. rushing, exercise, exertion, manual labor) can lead to impaired digestion, bloating, nausea, and nutrient malabsorption.
  - What “Primary Food” emotional needs are in the way of each unique client valuing eating as self-care? And believing that they deserve that care?

- Or perhaps they have **digestive deficiency** that makes them want to eat less at once?
Healthy Fats Help Lubricate Stool

- Believe it or not, many people are still afraid of dietary fat!
- Assess your client's diet for appropriate amounts of healthy, dietary fat (cautious in those with missing (or disease of the) gallbladder). No heavy olive oil intake for those with gallstones
- Olive oil, coconut oil, cold-pressed seed oils, avocado, nuts, grass-fed organic butter or ghee, salmon/halibut/sardines, organic eggs, nut butters,... Prioritize whole food sources.
Consider Food Sensitivities

- Mediated typically by IgG antibodies (vs. allergies are via IgE).
- Inflammation (secretion of inflammatory cytokines by our immune system) can easily impair serotonin receptor sensitivity in the intestines and affect motility.*
- Inflammation surges also increase cortisol, an adrenal stress hormone. Long-term high cortisol can cause HPATG axis dysregulation, deplete adrenal gland reserves, and promotes adrenaline surge in response to inflammation.
- Undiagnosed food sensitivities are one of the most common causes of HPATG axis dysfunction.

Consider gluten- and dairy-containing food trial eliminations (the two most common culprits). Must be 100% cold-turkey to assess sensitivity; I recommend a minimum of 3 weeks trial.
- Dairy sensitivities are a particularly common cause of constipation specifically.

Constipation: A Serious Symptom with a Serious Opportunity to Wildly Satisfy those you Serve!
15 Root Causes of Constipation

1. Insufficient Magnesium
2. Excessive Vitamin D intake – too much, too fast
3. Excessive Calcium intake
4. Insulin Resistance and Hyperglycemia (Autonomic neuropathy)
5. Hypothyroid state (low Free T3; poor T4 to T3 conversion)
6. Adrenal dysfunction (high cortisol; high Reverse T3 – OR – low cortisol)
7. Insufficient Serotonin synthesis/action (innate or medication-driven)
8. SIBO (typically Methane-mediated)
9. Dysbiosis (especially low Bifidobacteria)
10. Food sensitivity (especially dairy)*
11. Sympathetic dominance
12. Excessive progesterone
13. Insufficient water or fiber (soluble or insoluble)
14. Insufficient dietary Fat
15. Medications

Thank You for Joining Us!

Conquering Constipation