

Gut Health

SIBO and Ileocecal Valve

March 2019

This information is for educational purposes only and should not be considered as a substitute for medical advice from a licensed physician.

This information has not been evaluated by the FDA and therefore is not intended for prevention, treatment or cure for any medical disease or condition.

SIBO – Main Issues

The 2 processes most predisposing healthy individuals to SIBO are:

- diminished gastric acid secretion
- small intestinal dysmotility.

One study suggests that SIBO itself may be the cause of delayed bowel motility.

https://journals.lww.com/md-journal/fulltext/2018/05250/Elevated_methane_levels_in_small_intestinal.8.aspx

SIBO – Vagus Nerve

Vagus nerve stimulation (VNS) may prevent SIBO recurrence

- Research indicates that low vagal nerve tone alters the migrating motor complex in the gut, reducing gastrointestinal motility and thus allowing bacteria to flourish in the small intestine.
- VNS has been found to increase gastrointestinal motility and gastric acid production, both of which are important factors for preventing SIBO.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3665597/>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4017164/>

SIBO

- The stomach and small intestine are designed to be relatively free of microorganisms.
- The presence of microorganisms overgrowing in the small intestine would start utilizing various nutrients before they have had a chance to be absorbed.
- The result is fermentation of carbohydrates and putrefaction of proteins.
- This can produce a lot of gas as well as digestive symptoms that resemble the irritable bowel syndrome (IBS).

<http://doctormurray.com/what-is-sibo-and-what-will-help-me/>

SIBO – Other Symptoms

With SIBO, there are often other associated symptoms including:

- Brain “fogginess”
- Fatigue
- Joint pain
- Skin issues: acne, eczema, rashes, or rosacea
- Weight loss

How is SIBO Diagnosed?

- The primary way SIBO is diagnosed clinically is via breath testing.
- The test involves the patient ingesting a dose of either glucose or lactulose then breathing into a collection bag every 20 minutes for measurement of hydrogen and methane.
- Of the two sugars for testing, glucose usually gives more meaningful results, but only represents bacterial overgrowth in the first portion of the small intestine.
- Lactulose is more helpful if the overgrowth occurs in the ileum, the last part of the small intestine.

How is SIBO Diagnosed?

- Hydrogen dominant SIBO is most associated with diarrhea, while methane dominant is most associated with constipation.
- This difference reflects an overgrowth of different types of gut bacteria.

What Causes SIBO?

SIBO often represents a breakdown in protective mechanisms. These built-in factors prevent bacterial overgrowth.

- digestive secretions of bile
- digestive enzymes
- peristaltic contractions that move the food bolus through the small intestines

Ileocecal Valve

1. Another key barrier to bacterial overgrowth in the small intestine is the ileocecal valve that separates the colon from the small intestine.
2. Much like a door, this mechanical barrier is designed to prevent too many of the bacteria residing in the colon to enter the small intestine.
3. These troublesome bacteria thrive on certain carbohydrates.
 - Lactose
 - Fructose
 - and the group called FODMAPS (fermentable oligo-, di-, monosaccharides, and polyols)
4. Initial studies reported the presence of SIBO in up to 80% of IBS patients, on the basis of a rapid rise in breath hydrogen during lactulose breath testing.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3520169/>

Foods to Avoid with SIBO

The National Institutes of Health recommends that you avoid high FODMAP foods:

1. Fruits such as apples, apricots, blackberries, cherries, mango, nectarines, pears, plums, and watermelon, or their juices
2. Large quantities of fruit juice or dried fruit
3. Vegetables such as artichokes, asparagus, beans, cabbage, cauliflower, garlic and garlic salts, lentils, mushrooms, onions, and sugar snap or snow peas
4. Milk, milk products, soft cheeses, yogurt, custard, and ice cream
5. Wheat and rye products
6. Honey and foods with high-fructose corn syrup
7. Sweeteners ending in “-ol,” such as sorbitol, mannitol, xylitol, and maltitol

Treatment of SIBO

Recent studies indicate that use of digestive enzyme supplements, especially those designed to digest the various offending oligosaccharides and sugars, may be as effective in improving digestive symptoms without having to forego so many health promoting foods.

Digestive Enzymes in SIBO

- Digestive enzymes, especially proteases and lipases, are an important protective factor against SIBO.
- Digestive enzymes are also the likely defense mechanism that prevents the formation of biofilm – a collection of bacteria closely packed together that adhere to the lining of the small intestine within a slimy, gluey matrix.
- In general, methane-producing bacteria are more likely to produce biofilm and are often more difficult to clear. Digestive enzymes, wormwood, and EDTA are capable of eating away at the biofilm matrix.

Probiotics

- In regards to probiotic use, in many cases of SIBO, probiotics do not seem to offer much benefit and on occasion may make symptoms worsen.
- It is better to focus on the intestinal environment that lead to bacterial overgrowth than supplement with additional bacteria.

Treatment of SIBO

- Conventional medical treatment of SIBO relies primarily on the administration of antibiotics.
- This approach ultimately creates additional problems due to the disturbance of the microbiome.
- The natural approach focuses on restoring the proper functioning of the protective barriers to SIBO.
- Those are the use of HCl replacement therapy, digestive enzymes, and herbal agents that promote biliary secretions and peristalsis (e.g., berberine, ginger, artichoke, milk thistle, and other cholagogues).
- It is also helpful to reduce the bacterial overgrowth with items such as digestive enzymes, berberine, and enteric-coated peppermint oil.

Berberine for SIBO

- Plants that contain the alkaloid berberine such as goldenseal (*Hydrastis canadensis*), barberry (*Berberis vulgaris*), Oregon grape (*Berberis aquifolium*), and goldthread (*Coptis chinensis*) have a long history of use in infectious diarrhea.
- More recently there have been numerous studies with pure berberine that have shown significant success in the treatment of acute diarrhea.
- Berberine has been found effective against diarrheas caused by a number of different types of organisms including *E. coli* (traveler's diarrhea), *Shigella dysenteriae* (shigellosis), *Salmonella paratyphi* (food poisoning), *B. Klebsiella*, *Giardia lamblia* (giardiasis), *Entamoeba histolytica* (amebiasis), and *Vibrio cholerae* (cholera).

Berberine for SIBO

- Berberine appears to be effective in treating the majority of common gastrointestinal infections with results comparable to standard antibiotics in most cases.
- Berberine targets a wide range of disease causing organisms including *Candida albicans*, yet exerts no action against health promoting bacterial species such as *Lactobacilli* and *Bifidobacter* species.
- Berberine also improves intestinal motility.
- Berberine has been studied in irritable bowel syndrome with very good results.

Enteric-Coated Peppermint Oil (ECPO) in SIBO

- Peppermint oil, and presumably similar volatile oils such as oregano, rosemary, thyme, and caraway seeds, are similar to berberine in that they exert selective antimicrobial effects.
- Enteric coating is believed to be necessary because menthol and other volatile compounds in peppermint oil are rapidly absorbed. That tends to limit its effects to the upper intestine and may lead to esophageal reflux and heartburn.
- ECPO is thought to work by improving the rhythmic contractions of the intestinal tract and relieving intestinal spasm. Peppermint oil is also anti-bacterial.
- The typical dosage of ECPO is 200 mg twice daily between meals.

Symptom Relief - Bloating

Activated Charcoal (absorbs gas)

- up to two every 2-3 hours, away from meals/supplements/medicines
- Activated charcoal absorbs nutrients, can contribute to constipation without sufficient water, and cause darkened stool

Symptom Relief - Pain

1. Anti-spasmodics / muscle relaxants
 - Enteric coated Peppermint Oil
 - Peppermint Tea if pain is high up
 - Lobelia
 - Kava Kava
 - Black Cohosh
2. Activated Charcoal
3. You can also topically apply peppermint oil to the belly.

Notes:

Anti-inflammatories such as NSAID's usually don't work for this type of pain

Symptom Relief - Acid Reflux

1. Baking soda: ½ - 1 tsp in a cup of water for immediate relief
2. Liquid herbal bitters/'Swedish bitters' before meals
3. Apple Cider Vinegar: 1Tb with a little water before meals
4. Betaine HCl capsules: 1 at the start of protein containing meals (may increase to 6)
(Discontinue if heaviness or burning occurs & treat with baking soda if it does)

Symptom Relief

Nausea and/or Food Sits in Stomach

- Ginger (capsules, tincture, tea, chews)

General/ Indigestion

- Digestive enzymes
- Betaine HCl with pepsin, herbal bitters or apple cider vinegar

Symptom Relief - Diarrhea

1. Electrolyte replacement

- Homemade recipe: 8oz water, ¼ tsp salt, ¼ tsp baking soda, 1 Tb honey , ¼ c Carrot or Pineapple or Papaya.
- Emerg-C or Electrolyte formula product or unflavored Pedialyte

2. Increase Insoluble Fiber Intake (less likely to cause gas). Too much fiber may irritate the intestines.

Note: avoid FOS, GOS, MOS, Inulin & Arabinogalactan as a main ingredient with mg listing , but should be ok in the base ingredients due to the tiny amount.

3. Activated Charcoal (absorbs fluid): up to 2 every 2-3 hours, away from meals/supplements/medicines. Short term use as it absorbs nutrients and can cause constipation.

4. Bismuth subsalicylate : 'Pepto-bismol'.

5. Imodium: follow label dosing

6. Avoid/careful with: fruit, fats (i.e. egg yolks, oils)

Symptom Relief - Constipation

1. Magnesium Oxide or Citrate (osmotic laxative- draws water into intestine) (1000mg is a common effective dose)
2. Increase Fat Intake (Large Intestine motility is increased by fat)
Butter, oils, fatty meats, egg yolks
3. Increase Insoluble Fiber Intake (less likely to cause gas). Note: avoid FOS, GOS, MOS, Inulin & Arabinogalactan as a main ingredient with mg listing, but should be ok in the base ingredients due to the tiny amount.
4. Iberogast: 20 drops with meals or as needed, &/or 20-60 drops at bed time
5. Warm Water in morning: drunk slowly (stimulates gastro-colic reflex/ large intestine)
6. Fresh homemade juice of cucumber/tomato/carrot...
7. Avocado, banana, winter & summer squash
8. Meats/Poultry/Fish (& their slow cooked broth)

Ileocecal Valve

- When the ileocecal valve is stuck shut, the waste that's supposed to pass into the large intestine can't move. That begins to be absorbed by small intestine, fermentation begins, bacteria proliferate, and there may be constipation.
- When the ileocecal valve is stuck open, waste from the large intestine backs up into the small intestine, the small intestine begins to absorb the waste, there is an invasion of bacteria, and a stuck-open valve may then result in diarrhea.
- The absorption of toxic by-products (auto-intoxification) caused by these problems may manifest various symptoms:
 - Shoulder pain or chest pain or pain around the heart or unexplained low back pain
 - Dizziness and lightheadedness or faintness
 - Fever and flu symptoms
 - Tinnitus (ringing in the ears)
 - Nausea or headache or sudden thirst
 - A pale appearance or dark circles under the eyes

Ileocecal Valve

The ileocecal valve is controlled/affected by:

1. Pressure (muscular action)
2. Nerves
3. Various digestive secretions
4. Chemicals / toxins
5. Roughage
6. Bacteria (and pathogens)
7. Our emotional state

Ileocecal Valve

Most occurrences of a fixed closed ileocecal valve result from a traumatic emotional experience such as abandonment or fear.

Other causes include:

- Overeating or eating too quickly or frequent snacking or not chewing your food well
- Eating excessively spiced food (chili, salsa, and peppers)
- Eating junk foods (chips, cocoa, chocolate or caffeine)
- Drinking carbonated drinks or alcohol
- Scaring or ulcerating the valve through excessive use of stimulants
- Damage from intestinal parasites (or other pathogens)
- Excessive use of laxatives or spices
- Dehydration

How to Close an Ileocecal Valve That Is Stuck Open

- When the valve is stuck open there are some temporary things that can be done.
- The valve is located about halfway between the belly button and the "hip bone."
- Many times you can get relief in one of two ways. First, you can sometimes hold the valve shut for several minutes. This is done by placing your hand over the valve and while pushing in, pull up toward the left shoulder.
- The second way is to place a cold pack of cold water or ice over the valve for about 15 to 20 minutes. This process can be repeated if necessary.

When the valve is stuck closed (estimated 10% of cases)

1. Elimination problems
2. Constipation (people with spastic valves tend to be constipated also)
3. Inflammation of the appendix
4. Vitamin C deficiencies due to the toxins

Muscle response testing can determine if the valve is stuck open or closed. The testing point is at the location of valve and also inside of right leg above the knee.

Ileocecal Valve Remedies

Low levels of ascorbic acid and zinc are common when the ICV is locked open.

Your ileocecal valve can become weak when your calcium levels are low. Calcium helps to strengthen the valve, and Vitamin D3 effects calcium absorption.

Administering a homeopathic ICV formula orally (along with spraying the formula over the ICV area topically), can make a significant difference in resolving issues with the ICV.

Ileocecal Valve Remedies

Correction Technique - Use the same procedure to correct an open or closed valve.

1. If you drew a line from your umbilicus to the right anterior superior iliac spine (the hip bone point), the valve would be located about 2 to 3 inches below the midpoint of that line. The location is about 2 inches below the appendix. It will probably be sore or painful upon palpating. This is easier to find with client lying down.
2. At the area of the valve, massage with medium pressure, in a rotary motion for five seconds.
3. If stuck open, press straight down through the body during five successive expirations, use 3-4 pounds pressure and let up on inspiration. If your valve was stuck open put a cold plastic bag of water over the valve for twenty minutes before bed daily for one week to help prevent recurrence. This helps to tonify the valve.
4. To correct stuck shut valve: apply pressure down and out over valve.
5. If spastic, press down through and toward the left shoulder for five successive expirations.

Ileocecal Valve Remedies

Temporary Diet Recommendations during Treatment

1. Don't eat in between meals and don't overeat.
2. Drink plenty of water.
3. For two to three weeks avoid:
 - Avoid roughage foods such as: popcorn, nuts, potato chips, pretzels, seeds, and whole grains
 - Avoid raw fruits and raw vegetables such as: celery, bell peppers, cucumbers, cabbage, carrots, lettuce, and tomatoes.
 - Avoid spicy food such as: chili powder, hot peppers, salsas, black and cayenne pepper, paprika, other peppers.
 - Eliminate alcoholic drinks, cocoa, chocolate, and caffeine products.

The Gut Chart (pg 1)

	Candida Gut	SIBO Gut	H. Pylori Stomach/Gut	Leaky Gut	Stuck Ileocecal Valve
Usual Symptoms	<ul style="list-style-type: none"> • Any or all digestive problems • Bad breath • Brain fog • Chronic sinus & allergies • Cravings for sweets • Exhaustion • Hormone imbalance • Joint pain • Loss of sex drive • UTI • Weak immune system • White coat on tongue • Once candida becomes systemic, it can infect any organ including the brain, and thus be behind all symptoms. 	<ul style="list-style-type: none"> • Abdominal pain/discomfort • Bloating • Constipation • Diarrhea • Gas / Belching • Restless legs at night • Vitamin deficiencies • Weight loss <p>➢ 50% have leaky gut. ➢ 25% have candida issues. ➢ 80% of people with IBS also have SIBO. ➢ Most probably have leaky ileocecal vlv issues</p> <ul style="list-style-type: none"> • SIBO can be an overgrowth of bacteria normally found in the large intestine such as E. coli or Bacteroides. • SIBO can also be an overgrowth of normal small intestine bacteria. 	<p>Most people with H. pylori don't have any symptoms.</p> <p>When the infection leads to an ulcer, symptoms may include abdominal pain, especially when your stomach is empty at night or a few hours after meals.</p> <ul style="list-style-type: none"> • Excessive burping • Feeling bloated • Nausea or vomiting • Lack of appetite, or anorexia • Unexplained weight loss <p>Low stomach acid is biggest cause. Why do we have low stomach acid? - Poor diet, old age, stress, adrenal fatigue, low thyroid, chlorinated water, and alcohol consumption</p>	<ul style="list-style-type: none"> • Abdominal pain/cramps • Acne • Anxiety/nervousness • Brain fog • Chronic fatigue • Chronic sinusitis • Constipation • Depression • Diarrhea soon after eating • Food allergies • Food & Chemical sensitivities • Gas and bloating • Headaches • Indigestion • Iron deficiency • Joint pain and stiffness • Malnutrition • Muscle aches and pains • Over or under weight • Poor immunity • Poor memory • Systemic inflammation 	<ul style="list-style-type: none"> • Bursitis-like pain in the shoulders and hip joints • Chest pain • Constipation (stuck closed) • Dark circles under the eyes • Diarrhea (stuck open) • Dizziness • Fever • Headaches • Heart fluttering • Lightheadedness • Low back pain for no reason • Nausea • Recurrent sinus infections • Ringing in the ears • Shoulder pain
Risk Factors	<ul style="list-style-type: none"> ▪ High sugar diet ▪ Diet high in refined carbohydrates ▪ Excessive alcohol ▪ Antibiotics ▪ Birth control pills ▪ Oral Corticosteroids ▪ Chemotherapy and radiation treatments 	<ul style="list-style-type: none"> • Stress • H. Pylori • Low stomach acid • IBS • Celiac disease (long-standing) • Crohn's disease • Prior bowel surgery • Diabetes (type I & II) • Antibiotics • Organ dysfunction (liver, pancreas, renal) 	<p>Children are more likely to develop an H. pylori infection, due to improper hygiene.</p> <ul style="list-style-type: none"> • Low stomach acid • Live with others infected with H. pylori • Un-sanitized conditions • Contaminated well water 	<ul style="list-style-type: none"> • GMO foods (pesticides) • Antibiotics • Gluten (esp. wheat) • Processed carbs & sugar • Dairy (commercial milk) • Gut assault – Parasites, Candida, Bacteria, Viruses • Zinc deficiency – zinc is required for intestinal healing 	<ul style="list-style-type: none"> • Dehydrated • Eat too fast / overeat • Excess caffeine • Appendix was removed • Parasite infection • Misalignment of joints • Not chewing food well • Emotional stress • Spicy foods • Excess alcohol • Low vitamin D3, calcium, and zinc levels

The Gut Chart (pg 2)

	<u>STARVE THE YEAST</u> No sugar, no fruit in the first two weeks (then fruit is limited to two low-glycemic choices/day), no milk, and no yeast-containing foods such as alcohol, peanuts, and melons.	<u>Low FODMAP DIET or SCD DIET or perhaps the GAPS DIET</u> Fermented foods may worsen the condition due to adding more bacteria and it also raises histamine levels.	<u>LOW-CARB PALEO DIET</u> Avoid sugar, gluten, grains, legumes, alcohol, caffeine, chocolate, processed foods, or high intake of complex carbs and fruit.	<u>AUTOIMMUNE DIET or GAPS DIET or SCD DIET</u> Also include bone broth or glutamine, digestive enzymes, and probiotics.	<u>AVOID</u> • Bread • Caffeine • Spicy and sugary foods • Alcohol • Cocoa, chocolate
Diet	At least 15 to 50 billion CFUs with multiple strains along with fermented foods.	SBO (Soil-based organisms) type of probiotics should be used rather than common lactic acid type of probiotics.	At least 15 to 50 billion CFUs with multiple strains along with fermented foods.	At least 15 to 50 billion CFUs with multiple strains along with fermented foods.	Probiotics can support ileocecal valve health.
Probiotic	Raw garlic, Clove Oil, Tea tree oil, Oil of oregano, Olive leaf extract, Grapefruit seed extract, Black walnut Hull, Pau D'Arco, Berberine Essential oils: Lemongrass, Clove, Tea tree, Thyme, Cinnamon, Peppermint, Oregano. (Oregano oil can wipe out good bacteria unlike most other herbal-biotics)	Grapefruit seed extract, Allicin, Oregano, Berberine, Neem, Cinnamon Ceylon, Cat's claw, Olive Leaf Extract, Goldenseal, Barberry, Wormwood Essential oils: Peppermint (enteric coated), Oregano, Thyme, Carrot, Lemongrass, Lavender, and Bitter Orange	Mastic Gum, Allicin, Matula Tea, Grapefruit seed extract, DGL, Thyme extract, Manuka honey Essential oils: Carrot, Cinnamon, Lemongrass, Thyme, Oregano, and Peppermint (enteric coated).	As needed to eliminate the candida/parasites/bacteria, or viruses such as: Allicin, Berberine, Black walnut hull extract, Grapefruit seed extract, Olive leaf extract, Oregano oil, Wormwood (Oregano oil can wipe out good bacteria unlike most other herbal-biotics)	Deal with parasites and/or bacteria if needed * Berberine * Black Walnut Hull Extract * Grapefruit Seed Extract * Olive Leaf Extract * Wormwood Extract Essential oil topically over ileocecal valve: Fennel, Lavender and Peppermint.
Herbal-biotics	Many times the candida biofilm must be disrupted. Potential items are: Proteolytic enzymes, EDTA, clove, D-mannose, Fulvic acid, and Lactoferrin. Probiotics are essential for remaining free of candida issues. Candida is a major risk factor for leaky gut, so review that protocol.	Bio-film busters may be needed to treat SIBO, but it may not be warranted (see Candida Gut). • Follow the recommended diet for 3 to 4 months. • Eliminate the bacterial overgrowth with herbals for a month or two. • Restore gut flora. • Consider the health of your ileocecal valve & emotions.	• Eliminate the H. pylori bacteria with herbals for at least 4 weeks. • Add probiotics • Take DGL (deglycerized licorice) to heal stomach tissue. • Increase stomach acid by: * Apple cider vinegar * HCl with pepsin * Do a cleanse and rest your digestive system * Support with digestive enzymes	<u>Digestive Support</u> • Betaine HCl with pepsin • Digestive enzymes with Ox bile • Add probiotics <u>Heal Tissue</u> • Bone Broth • Glutamine • Zinc (zinc carnosine is best) • Aloe Vera • DGL • Fish Oil • Slippery Elm	<u>Helps</u> • Vitamin D3, and calcium, strengthens the valve. • Vitamin B12 and zinc • Vitamin C for toxins • When stuck open: Hand manipulation technique or • Cold pack over the valve for about 15 to 20 minutes • Homeopathic remedy has been very successful, esp. if it is a re-occurring problem.
Restoration	Candida Gut	SIBO Gut	H. Pylori Stomach/Gut	Leaky Gut	Stuck Ileocecal Valve



Life Training Institute

School of Ministry and Seminary

Biblical-Based
Wholistic
Study Programs

1 (409) 813-1184



Home About Program Details DVD/Online Tuition Resources Tests Renewal Contact Cart (0)

Resource Links

PDFs of the presentations are available at

Agencies

<https://www.lifetraininginstitute.org/resource-links.html>