**Symptoms & Signs**
Bloating, abdominal discomfort, diarrhoea, abdominal pain, belching, flatulence, anaemia, B12 deficiency, mal-nutrition, reduced bile acids, steatorrhoea, weight loss, food allergies, brain fog, systemic inflammation, autonomic dysfunction, chronic fatigue, restless leg syndrome, features associated with micronutrient deficiencies (vitamins B12, A, D and E, iron, thiamine, nicotinamide)

**SIBO**
Small Intestine Bowel Overgrowth
Small intestinal bacterial overgrowth (SIBO) refers to a condition in which abnormally large numbers of bacteria (at least 100,000 bacteria per ml of fluid) are present in the small intestine and the types of bacteria in the small intestine resemble more the bacteria of the colon than the small intestine.

**Aetiology**
- Achlorhydria
- Hypochlohydria
- PPIs
- Stasis: dysmotility
- Malnutrition
- Collagen vascular disease
- Immune deficiency
- Surgery (loops, vagotomy, bariatric)
- Advancing Age
- Chronic Pancreatitis
- Chronic ABX use
- IgA Deficiency
- Coeliac Disease
- Crohn’s Disease
- Short Bowel Syndrome
- NASH
- Cirrhosis
- Fibromyalgia
- Rosacea

**Differential Diagnosis**
- IBS
- Non-responding coeliac
- Fructose/Lactose mal-absorption

**Testing**
- Breath Test for Hydrogen (H2) and Methane (CH4) (an indirect test)
- 20 ppm is the threshold level which indicates SIBO
- If transit is too fast then false positive is given.

**Dietary Measures**
Low FODMAPs Diet
Fermentable Oligo, Di, Monosaccharides and Polyols. Family of poorly absorbed, short-chain carbohydrates
- lactose,
- fructose,
- fructo-and galacto-oligosaccharides (fructans and galactans)
- Polyols (sorbitol, mannitol, xylitol and maltitol)

Highly fermentable in the presence of gut bacteria (SIBO)
1. Eliminate all FODMAPs foods from the diet for a trial period of 2 weeks. FODMAPs food classes: Lactose, Fructose, Fructans, Polyols, Galactooligosaccharides
2. The challenge - add foods from one FODMAP class using a small and then larger load and observe for symptoms.

**Therapeutic Nutritional Intervention (Generic)**
- 5 R's
- Remove
- Replace
- Reinoculate
- Repair
- Re-Balance

**Medical Treatment**
- Antibiotic therapy (Ciprofloxacin/norfloxacin, Co-trimoxazole oral, Rifaximin 400-500 mg twice daily for 7-10 days)
- Prokinetic agents

**Route to Resolution**
1. Remove
2. Replace
3. Reinoculate
4. Repair
5. Rebalance
The following supplements are suggested for you to consider in light of your relevant expertise and intimate understanding of the needs of your client or patient. They may be used in isolation or as part of a multi supplement strategy, but at all times the consideration of their use should be tied into the specific needs of the individual you are responsible for.

If breath test positive

If breath test negative

If positive for signs and symptoms

For 1 month (Remove)

- Recommend a FODMAP, SCD or low carbohydrate diet
- Avoid pre and pro biotics
- ADP (Oregano Extract) 2-3 with food TID
- Garlic Plus (Garlic Concentrate)(BRC) 1 per meal
- Tannalbit (INP) 2 per meal

For 1 month (Replace)

- Multi-nutrient support
  - Pro-Multi Plus as required
- Biliary support
  - Beta Plus (BRC) 1 per meal
- Pancreatic support
  - Pancreas (ARG) (pork) 1 with breakfast, 2 with lunch and supper
  - Gluten-Gest (V) (ARG) 1 with breakfast, 2 with lunch and supper

RETEST

If positive continue with intervention for another 30 days or refer for ABX intervention

If negative engage in a mucosal repair and symbiotic resolution intervention.

Mucosal tissue (Repair)
- Perm a vite powder (ARG) – 1 tbspn in water 20 mins before each meal Or
- Arthred Powder (ARG) – 2 scoops before 2-3 meals a day
- Zinc Citrate (ARG) – 1 with dinner
- Immuno-gG (BRC) – 2 with breakfast, 2 with lunch & 2 at bedtime
- Bio-D-Mulsion Forte (BRC) – 1 drop with breakfast & 2 drops with dinner

Probiotic support (Reinoculate)
- Lactobacillus Plantarum, Rhamnosus, Salivarius (ARG) – 2 with breakfast & dinner & take with
- BioBifidoBacT powder (BRC) – ¼ tspn with breakfast & dinner
- Saccharomyces Boulardii (ARG) – 1- 4 per day with food
- Multi nutrient formula with healthy doses of vit D, B12 & folate

Multi nutrient formula
- ProMulti Plus (BRC)

Pancreatic support
- Pancreas (pork) (ARG) - 1 with breakfast, 2 with lunch & dinner
- Gluten-Gest (V) (ARG) – 1 with breakfast, 2 with lunch & dinner

Biliary support
- Beta Plus (BRC) - 1 with meals.

If no signs or symptoms no further action required.