



THE ELEMENTAL DIET: CLINICAL APPLICATIONS AND PROTOCOLS

eBOOK |

An elemental diet is a diet consisting of pre-digested or elemental nutrients designed to be used as the sole source of nutrition for limited periods. They are often used by patients who have a limited capacity to digest, absorb, or metabolize ordinary foods or certain nutrients. This eBook will review the clinical application of an elemental diet for the dietary management of patients with moderate to severe GI dysfunction, including SIBO and Crohn's disease.

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WHAT IS AN ELEMENTAL DIET?

An elemental diet is a diet consisting of pre-digested nutrients designed to be a sole source of nutrition for limited periods (generally for 14-21 days). They are considered medical foods, and are available through a few delivery methods, including orally, gastric tube feeding, or intravenously. They can be in a ready-to-drink package, or as a powder reconstituted with water. The nutrients of an elemental diet are in their simplest form, allowing them to be easily assimilated by the body, while allowing the gut to rest.

HISTORY OF CLINICAL USE

The elemental diet has been used in hospital settings since the 1940's; however, research has resurfaced the benefits of using it as a dietary intervention for patients with moderate to severely compromised digestive systems in outpatient settings. Clinical evidence supports the use of elemental formulas for the dietary management of gastrointestinal/digestive dysfunctions including SIBO and Crohn's disease.¹⁻¹² Nutrients from an elemental diet are believed to be primarily absorbed in the proximal small intestine, limiting the digestive function needed to absorb the necessary nutrients.⁷

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MACRO AND MICRONUTRIENT COMPOSITION

I4 to I8%

of calories from protein in the form of amino acids

42 to 76%

of calories from carbohydrates in the form of monosaccharaides

6 to 43%

of calories from fat in the form of fatty acids

ELEMENTAL DIET PRODUCTS

TARGETED PROTEIN PRODUCTS

> MEAL REPLACEMENTS

The micronutrient composition of an elemental formula is complex because, as the sole source of nutrition, it must be sufficient for up to four weeks, but not exceed safe levels of ingestion even for individuals with GI impairment.

It's important to understand what an elemental diet is, and what it is not. Meal replacement products, using intact protein sources, are often used to support body composition whereas elemental diets are medical foods used under medical supervision for a spectrum of health concerns. Targeted protein products also contain whole proteins and are not designed to be a sole source of nutrition and are not indicated for severely impaired GI function.



CLINICAL APPLICATIONS OF THE ELEMENTAL DIET

The clinical applications of an elemental diet vary, but the most common and most researched are within the areas of moderate to severe GI dysfunction. The two methods include:

- **Parenteral nutrition** (the feeding of a person intravenously, bypassing the usual process of eating and digestion)
- Enteral nutrition (nutrition given through intestines including all oral, NG, NJ tube, and PEG feedings)

SMALL INTESTINAL BACTERIAL OVERGROWTH (SIBO)

Background of SIBO

SIBO was first described in 1939, in association with intestinal strictures.¹³ SIBO is more likely to occur as a complication of gut motility disorders, including strictures, scleroderma, or diabetic enteropathy.¹ Recently, however, the association between SIBO and irritable bowel has piqued the interest of clinicians. In 2000, Mark Pimental, MD, and his colleagues at Cedars-Sinai Medical Center reported a 78% prevalence of SIBO in patients with irritable bowel.¹⁴ Since that time, SIBO has been identified more frequently in patients with irritable bowel than in healthy controls.¹⁵

Assessing SIBO

The upper portions of the small intestine normally contain minimal numbers of bacteria. Gastric acid, intestinal motility, biliary secretions, and immunoglobulins keep bacterial growth in check. With the loss of any of these protective mechanisms, bacteria can thrive.¹ One standard for SIBO assessment is a culture analysis of duodenal aspirates, but a less costly and less invasive test that has gained favor is the lactulose breath test.

Lactulose is a sugar not digested by the body, meaning that it is able to travel all the way through the small intestine without modification in normal physiology. The lactulose breath test thus allows detection

of abnormally increased numbers of bacteria located in the distal small intestine. Patients consume lactulose syrup and samples of their breath are collected over a 2-3 hour period. The lactulose is taken up by bacteria in the small intestine which digest and ferment it, producing different types of gases such as hydrogen and methane. Similarly, when dietary intake includes fermentable carbohydrates, such as lactulose and poorly digested oligosaccharides, it feeds bacteria present in the small intestine producing gases that can be measured in the breath. Elemental diets do not contain such fermentable carbohydrates and provide safe nutrition for the patient.

Another type of breath test uses glucose as a challenge substrate and, on the other hand, is completely absorbed by the body, typically within the first few feet of the GI tract. A glucose challenge test is highly specific meaning that if it is positive, SIBO is very likely present.

Application of an Elemental Diet in Patients with SIBO

An elemental diet for the dietary management of SIBO provides highly bioavailable and essentially monomeric versions of macronutrients, thus there is a greater chance for absorption to occur before arriving in the distal small intestine where bacterial overgrowth is common. The focus of this strategy is to feed the host rather than feed the translocated commensal bacteria. Many of the human clinical trials used durations of two-four weeks for the elemental diet, so that is commonly recommended.

CROHN'S DISEASE

Background of Crohn's Disease

Crohn's disease is a chronic disease characterized by patchy inflammation of the intestines and relapsing and remitting symptoms. Crohn's disease and other inflammatory bowel disease more generally is increasing worldwide.¹⁶ Unlike other chronic diseases, the incidence of inflammatory bowel disease does not increase with age.

The intestinal inflammation of Crohn's disease is driven by an altered immune response that activates nuclear factor (NF)-KB, tumor necrosis factor (TNF)-alpha, and pro-inflammatory cytokines.¹⁷ Numerous genes and polymorphisms have been associated with Crohn's disease, but environmental signals are thought to play a key role in triggering disease onset.¹⁸

Application of an Elemental Diet in Patients with Crohn's Disease

An elemental diet is most often utilized after first-line therapies as a sole source of nutrition. The value of enteral nutrition in the dietary management of patients with Crohn's disease was reported over 30 years ago.⁶ The colonic microflora is abnormal in Crohn's disease, which may lead to production of toxic chemicals such as alcohols, aldehydes, and the ethyl esters of fatty acids.²⁰ It is believed that this is the reason for the loss of normal immune tolerance to the gut flora in Crohn's disease, which results in the coating of fecal bacteria by immunoglobulin.²¹ Overall, the results of enteral nutrition, using an elemental diet, are excellent within two-three weeks.

A study provided an elemental diet as a sole source of nutrition for to 28 consecutive patients with active Crohn's disease. Investigators reported the patients who received the elemental diet had improved nutritional status as compared to the control group. They suggested that rapid restoration of normal intestinal permeability may contribute to this status.¹¹ A half elemental diet, as a dietary management approach, was found to be promising for patients with Crohn's disease. In one clinical trial patients were recommended a half elemental diet for, on average, 11.9 months. The half elemental diet was well-tolerated throughout the duration of the trial.¹⁹

ELEMENTAL DIET PROTOCOLS

Protocols:

- Full Elemental Diet
- Half Elemental Diet
- PRN (pro re nata) Elemental Diet

Regardless of which protocol is applied, medical supervision throughout the duration is critical. Supervision should include:

- Evaluating if the proper caloric need is being met (as assessed by monitoring a patient's weight)
- Evaluating that symptoms do not exacerbate or new symptoms are reasonable given the patient's clinical context
- Evaluating that the patient is adhering to the prescribed protocol

COMPLETE YOUR PROTOCOL WITH THESE TOOLS:

Determining Caloric Needs GI Restoration Program Action Plan Worksheet for Patients

FULL ELEMENTAL DIET

Using an elemental diet product as the sole source of nutrition.

Timing:Two week duration (longer or shorter periods can be used as determined)Caloric Need:Elemental formula fulfills 100% of daily caloric needPatient Cases:Patients diagnosed with SIBO or Crohn's Disease

Use of an elemental diet product for a period of two weeks is considered the most evidence-based protocol as it has commonly been used in clinical trials. It can also be extended out an additional week or two based on clinical need. Clinical need can be determined by symptom monitoring or in the case of SIBO, via a breath test for microbial overgrowth.

Protocol:

- 1: Determine patient's daily caloric need
- 2: Define consumption schedule based on caloric need and consumption rate
- 3: Monitor patient throughout the duration of the program

HALF-ELEMENTAL DIET

Using an elemental diet product as a partial-source of nutrition.

- Timing: Two-four week duration (longer or shorter periods can be used as determined)
- Caloric Need: Typically 50% of daily caloric intake from an elemental formula, and 50% from well-tolerated foods.
- Patient Cases: Patients with moderate to severe GI dysfunction who are unable to complete or tolerate a full elemental diet, during food re-introduction, or for use following other protocols.

Half-elemental diets are used when patients cannot, or will not, adhere to a full elemental diet protocol, when practitioners are not as comfortable with full elemental diet, OR are desirous of utilizing additional nutritional therapies – such as nutritional supplements. Reasons for adherence vary, though most often is attributed to cost and palatability. In a published use of the elemental diet, patients were started on a partial element diet before commencing a full elemental diet as well as transitioning to food re-introduction.⁶

Protocol:

- 1: Determine patient's daily caloric need
- 2: Define daily dietary schedule based on consumption of well-tolerated foods, and of the elemental formula based on caloric need and consumption rate
- 3: Monitor patient throughout the duration of the program

PRN ELEMENTAL DIET

Using an elemental diet product as a full or partial-source of nutrition, as needed.

Timing: One-three days, but varies

Caloric Need: Varies

Patient Cases: Most often during food re-introduction, during exacerbations, following a prior full or half elemental diet protocol.

Protocol:

- 1: Determine patient's daily caloric need
- 2: Define daily dietary schedule based on consumption of well-tolerated foods, and of the elemental formula based on caloric need and consumption rate
- 3: Monitor patient throughout the duration of the program

TIP: If a patient has been on a complicated protocol of supplements and/or medications in which a washout period may be useful, transitioning from one protocol to a new one may be supported using a short duration elemental diet. In this way, interactions between the previous and new protocol are minimized.

COMPARING THE PROTOCOLS

Type of Diet	Timing of Diet	When to Use	Approximate Cost to Patient per Day
Full Elemental Diet	2-4 Weeks* *based on clinic trials, though longer periods may be appropriate in some patients.	Patients diagnosed with ¹⁻¹² : • SIBO • Crohn's Disease	\$43/day*
Half Elemental Diet	2-4+ Weeks	When patients are unable to complete or tolerate a full elemental diet or if continued use of GI Support Supplements are desired.	\$21/day**
PRN (pro re nata) Elemental Diet	1-3 Days	To begin, or follow up, on a full or half elemental diet protocol. This approach can also be used to provide the gut with rest during exacerbations.	\$26/day***

* Based on 1,800 Calories for 14 days replacing all other foods consumed

** Based on 900 Calories for 14 days

*** Based on 900 Calories for 2 days



THE PATIENT EXPERIENCE

An elemental diet is a significant change for most patients, as such, impact to well-being, both physically and emotionally, should be considered for additional evaluation.

• **Physical Effects:** As with any change in diet, the introduction of an elemental diet may bring on new symptoms, some of which are challenging for patients to distinguish between the exacerbation of an existing symptom, a reaction to their elemental diet product, or in the case of SIBO, a Herxheimer reaction. Hence, monitoring is required. Most commonly, this includes:

Occasional Cramping

Elemental diet products are typically concentrated, resulting in a high osmolality, which can result in occasional intestinal cramping. Two approaches can be taken: reduce the rate of consumption and, if applicable/depending on the product being used, and it's delivery method, increase dilution (note: follow the manufacturers' instructions as not every elemental formula allows for dilution.) If the effects are still noticed, also consider reducing the meal load while still keeping overall caloric need in mind.

Occasional Constipation

Individuals consuming a full elemental diet may report occasional constipation. Constipation is best defined as when bowel movements occur less often than usual or consist of hard, dry stools that are painful or difficult to pass. While the first part of this definition is often applicable to those consuming an elemental diet, the latter part of the definition is not. Some people are accustomed to several bowel movements per day and a reduction in this frequency may be reported as constipation. It is helpful to note that decreased motility is not necessarily constipation. The macronutrients of an elemental diet are easily absorbable and contain no fiber. Fiber typically stimulates goblet cell production of mucus resulting in bowel movements.

An elemental diet does not feed microflora the way a typical diet may, so a reduction in colony counts may occur. The mass of stool contains a fair amount of bacterial materials. Elemental diet products, however, reduce the feeding of the commensal bacterial overgrowth. In this hypometabolic state, there is less division and reproduction leading to subsequently less microbes and less fecal mass. For these reasons, slow bowel motility is common and not typically a cause for concern.

It is common practice to use prokinetic agents in conjunction with an elemental diet to maintain the stimulation of migrating motor complexes. Some common prokintetic agents include:

- Ginger (100-300 mg TID)
- 5-HTP (50-150 mg TID)
- Artichoke extract (320 mg TID)
- NAC to tolerance

Social & Emotional Effects

It's not surprising that patients with chronic conditions, such as severe GI impairment, may report a reduced quality of life, or that their emotional well-being, social functioning, and/or their self-concept is diminished. Introducing an elemental diet protocol, though with the intent of an improved outcome, is a significant change, and some patients may have a social or emotional reaction. While an elemental diet is not considered a fast because it is calorically and nutrient replete, some patients may report social and emotional effects consistent with fasting. Continued evaluation of a patient's well-being with these aspects in mind is imperative.

TIP: An elemental diet is a significant change in routine for patients. It is recommended that patients start their journey in the evening prior to their first full day on the elemental diet. During this time patients tend to be more relaxed, and the change in schedule allows them time to better understand the experience. They learn behavioral cues regarding the time it takes to prepare the elemental diet product and the rate of consumption that is recommended and required. These are small details that all impact adherence, and are best learned while in a relaxed state vs. rushing through it in the morning where they may have a busy schedule.

AFTER THE ELEMENTAL DIET: FOOD REINTRODUCTION

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One concern that has been raised by using an elemental diet is what does the patient do once they have completed the selected protocol? The answer is best described in the form of **what not** to do.

One research group found that symptoms can return if the foods that were causing challenges for the individual are returned immediately to the diet, therefore other options should be attempted. Beginning with broths and soups is a recommended option as they are nutrient dense foods, but have low allergenic potential. The volume added by these high water content foods can support stimulating migrating motor complexes. In some instances, soups and broths can be high in histamine and patients will not tolerate that approach. Alternative recommendations for these patients are a <u>low FODMAP diet</u>, <u>Specific Carbohydrate</u> <u>Diet</u> (SCD), <u>Fast Tract Diet</u>, <u>LOFFLEX</u> (Low Fat, Fibre Limited Exclusion), or <u>SIBO Guide</u>. The type of food reintroduction plan used should be consistent with the amount of support able to be provided as well as patient preference.

The Half-Elemental Diet as Food Reintroduction

The half elemental diet can also be used as a reintroduction of normal food. While this use is still based entirely on clinician experiences and empirical reporting, the value of detecting specific food intolerances and building up a personalized exclusion diet for long-term care is well established. A diet low in fat and fiber (LOFFLEX) or diets with low fermentation potential (low FODMAP, Fast Tract, SIBO Guide) may be considered. Foods involved vary from patient to patient. The process of food testing involves trial and error and requires patience. It is therefore essential that nutrition professionals are available to ensure diets remain nutritionally adequate. If well tolerated foods are to be reintroduced, this suggests that a patient has created a "well-tolerated foods" list or has provided one.

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ELEMENTAL DIET PRODUCTS

There are several elemental diet products on the market, ranging from prescription-only to homemade, in several delivery methods – including exclusive tube feeding and oral. Patient preference is a key consideration in determining which product to select, including convenience, ingredient sensitivities, flavor, and cost. Regardless of the selected product, your medical supervision is required.

The next section of this ebook focuses on one of the newest medical food products on the market: Physicians' Elemental Diet[™] by Integrative Therapeutics[™]. Physicians' Elemental Diet is an elemental diet formula, used for non-tube feeding delivery (ie - consumed orally), in adult patients. Any references to the elemental diet product are used in reference to the dietary management of moderate to severe GI dysfunction, such as SIBO and Crohn's disease, which are chronic conditions in which ongoing management is required.

An elemental diet is not a "treatment" for these conditions, but rather, one protocol used to aid in the dietary management of the condition.

PHYSICIANS' ELEMENTAL DIET™

Formulation Development

In 2012, Integrative Therapeutics started a five year journey to develop an elemental diet formula that was effective, better tasting, and more affordable. With the collaboration of practitioners from the integrative medicine community, along with formulation experts, the result was Physicians' Elemental Diet: a hypoallergenic elemental diet formulation.

Product Features

- Better tasting
- Hypoallergenic: free from intact proteins, polypeptides, corn, gluten, wheat, soy, and dairy
- Developed in collaboration with physicians
- More affordable than leading competitors







 EXEMPTION STATE

 ELEMENTAL DIET*

 BERENTAL POWDER

 BOD SFUNCTION

MEDICAL FOOD INTENDED FOR USE UNDER MEDICAL SUPERVISION. Not intended for use in children.

Ingredients: dextrose, tapioca maltodextrin, medium chain triglycerides, natural flavor, l-glutamine, I-proline, I-aspartic acid, I-serine, potassium citrate, I-arginine hydrochloride, I-alanine, disodium phosphate, I-leucine, I-lysine hydrochloride, I-valine, I-glycine, calcium glycerophosphate, tricalcium phosphate, I-isoleucine, choline bitartrate, I-threonine, I-tyrosine, magnesium citrate, I-phenylalanine, I-methionine, I-histidine, magnesium glycerophosphate, I-cysteine hydrochloride, potassium chloride, I-tryptophan, sodium ascorbate, I-carnitine I-tartrate, sodium chloride, d-alpha tocopheryl acetate, ferrous gluconate, I-taurine, zinc sulfate, calcium d-pantothenate, beta carotene, niacinamide, sodium selenite, manganese citrate, phytonadione, pyridoxal-5-phosphate, cholecalciferol, riboflavin-5phosphate, thiamine hydrochloride, copper sulfate, Quatrefolic® (6S)-5-methyltetrahydrofolate glucosamine salt), d-biotin, sodium molybdate, potassium iodide, methylcobalamin

Contains No: Corn, yeast, wheat, gluten, soy, dairy products, fructose, sucrose, lactose, disaccharides, sorbitol, mannitol, xylitol, artificial colors, flavors or preservatives.

NUTRITION INFORMATION

Calories	150	
Calories from Fat	27	
Total Fat1.5	3	g
Saturated Fat	1.5	g
Total Carbohydrate	25	g
Sugars	11	g
Sodium	95	mg
Potassium	150	mg
Protein		**
Vitamin A (Beta Carotene)	833	IU
Vitamin C	20	mg
Calcium	83	mg
Iron	1.5	mg
Vitamin D3	66	IU
Vitamin E	10	IU
Vitamin K	10	mcg
Thiamin	0.5	mg
Riboflavin (Riboflavin-5-phosphate)	0.56	mg
Niacin	3.3	mg
Vitamin B6 (Pyridoxal-5-phosphate)	667	mcg
Folate (as Quatrefolic® brand (6S)-5-	33	mcg
methyltetrahydrofolate glucosamine salt)		
Vitamin B12 (Methylcobalamin)	0.5	mcg
Biotin	50	mcg
Pantothenic Acid	3.3	mg
Phosphorus	116	mg
lodine	16	mcg
Magnesium	33	mg
Zinc	2	mg
Selenium	18	mcg
Copper	167	mcg
Manganese	332	mcg
Molybdenum	8	mcg
Chloride	142	mg
Choline	33	mg

PHYSICIANS' ELEMENTAL DIET USAGE GUIDELINES

Consume Slowly

Slow consumption allows the digestive system to assimilate the nutrients rather than acting on a large bolus of nutrients which can interact with several different physiologic systems. Slow consumption allows the body the time it needs to effectively use the elemental diet product. Fast consumption, on the other hand, can stimulate an insulin response and/or allow the carbohydrate components of the medical food to traverse too far into the digestive system without proper absorption. This is especially important for patients who respond to the higher glycemic load.

TIP: One technique used to help a patient understand how slowly to drink Physicians' Elemental Diet is to have them consume their first meal (which may be between 150 and 600 calories) during a sixty minute television or radio program with commercials. The patient is instructed to take a sip or single gulp at the beginning of the show and to drink a sip or gulp during each commercial break.

Medical Evaluation & Supervision

An all liquid diet, even with a hypoallergenic medical food, is not a "set it and forget it" procedure. It is a diet that requires medical supervision. Variation to original instructions may be required. Therefore, recommendation to remain on the diet without checking in or evaluating the patient is inappropriate. It is reasonable to make recommendations to change the rate of consumption or change the number of scoops required per day based on weight or activity level.

Monitor for Occasional Constipation or Cramping

If occasional intestinal cramping occurs, two things can be done immediately: further reduce the rate of consumption and/or further dilute the formula. The first task, reducing the rate of consumption, can be done by instructing the patient to consume a single meal in as long as one, 45-60 minute sitting. During consumption, increasing the dilution by adding 6-8 ounces of water per 150 kilocalorie scoop can also be instructed.

For occasional constipation, consider a prokinetic agent to maintain the stimulation of migrating motor complexes.



PHYSICIANS' ELEMENTAL DIET: PATIENT QUESTIONS

Q: I'm bored with the protocol, how can I change up the experience?

First, remind patients that speaking with YOU, the practitioner, is key before altering their plan of action. Things such as flavor fatigue are common, a few suggestions include:

- Encourage patients to maintain an active and healthy social life while exploring activities that don't involve food (think mini-golf, pottery, and more.) Leaning on friends and family for support and staying positive are important elements of adherence.
- 2. Related to flavor or formula fatigue, encourage patients to:
 - Add ice in a blender along with Physicians' Elemental Diet or add ice after reconstituting the product in water to reach the coldest temperature possible, or pre-mix a pitcher and refrigerate in advance.
 - Mix up the powder in a Mason jar or favorite beverage carrier to ensure the product is portable.

Q: Can I add more water to the Physicians' Elemental Diet?

Yes. An elemental diet is not a fluid-restricted diet. If a patient prefers less sweetness, more water can be added to Physicians' Elemental Diet. This increases dilution, decreases sweetness, and also decreases the osmolality. Some practitioners use 6-8 ounces of water as the standard, per 150 kilocalorie scoop.

Additional water can be consumed beyond what is used to reconstitute the Physicians Elemental Diet powder as well.

Q: When can I eat whole foods again?

Food reintroduction requires patience. Foods should be reintroduced one at a time, and in a very deliberate order. It is not advised to revert to the diet that was consumed before their elemental diet protocol. Reintroducing tolerated foods over the course of two-four weeks should take precedence over introducing questionable or new foods. Using a period of time of tolerated foods is thought to provide three important functions:

- 1. Keep inflammation low as foods not well tolerated can stimulate various immune cascades and inhibit healing.
- 2. Provides gut rest to allow normal turnover to occur.
- 2. Prevent major shifts in microbiota which may have deleterious effects on various systems.

Reintroduce uncomplicated foods one at a time for two-four months, just like an <u>elimination diet</u> (every one-three days). Some elimination diets recommend a 24-hour observation period which may be acceptable. However, since an elemental diet is a more aggressive approach than an elimination diet, a more conservative approach may be required in the reintroduction phase. Prudent reintroduction greatly expands diet choices for the individual well beyond their initial list of tolerated foods. Nourishing and healing foods that are well tolerated also reduces dependence on supplementation.

UNIQUE PATIENT CASES

Prescription-Induced Glycemic Responses

From time to time, patients may have or be prescribed a medication which causes glycemic sensitives. This can occur if a patient is taking corticosteroids as they can raise blood sugar and a high glycemic formula may add to the glycemic load.

Recommendation: MCT (medium chain triglyceride) oil is a component of elemental diet formulas and can be added to Physicians' Elemental Diet. This lowers the glycemic index, increases the macronutrient ratio between fat and carbohydrates, and may stimulate bowel activity. The individual's caloric needs would have to be reconfigured if this technique is employed.

For example, if an 1800 kilocalorie daily need is required, instead of using 12-150 kilocalorie scoops of Physicians' Elemental Diet, you may consider recommending 10-150 kilocalorie scoops and three tablespoons of MCT oil. MCT oil is approximately 100 kilocalories per tablespoon so this combination would also equal 1800 kilocalories. Continue to monitor to ensure the patient tolerates this type of change to the base product.

Patients with Proximal SIBO

For patients with proximal SIBO, bacterial growth is located in the GI tract proximal to the distal small intestine.

Recommendation: You may want to first consider using antimicrobials or luminal agent antibiotics. Delay introduction of an elemental diet until the first line therapy is complete.

Patients with Fungal Propensity

Patients who have a personal history of fungal overgrowth are most likely to have a fungal overgrowth while following an elemental diet. Either objective or subjective reports may be useful. A significant history of antibiotic use may also be an indication of fungal propensity.

Recommendation: Delay introduction of an elemental diet until the first line therapy is initiated. Consider anti-fungal interventions for 1-2 weeks prior to introducing an elemental diet, and for the first week of the elemental diet.

PATIENT ADHERENCE

As mentioned earlier, adherence is a common concern with the elemental diet. A few core areas of this are:

- Taste. Always important, but even more-so in the case of a full elemental diet. Most manufacturers, including
 Integrative Therapeutics in the case of Physicians' Elemental Diet[™], provide samples which will allow your
 patients to experience the taste before committing to the diet. Some practitioners encourage their staff to
 sample a variety of products as well, in order to better relate to the patient experience.
- **Cost**. Share the costs upfront to prevent sticker-shock. Elemental diet formulas are not inexpensive, but they do replace daily intake of food which offsets other costs they may have.
- **Communication**. Ensure the patient is well-informed about their condition, and the pros and cons of the recommended action plan.

TIP: Additional resources regarding adherence, including this <u>everyday action</u> <u>plan worksheet</u>, can be found via this more comprehensive <u>patient adherence eBook</u>.

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