

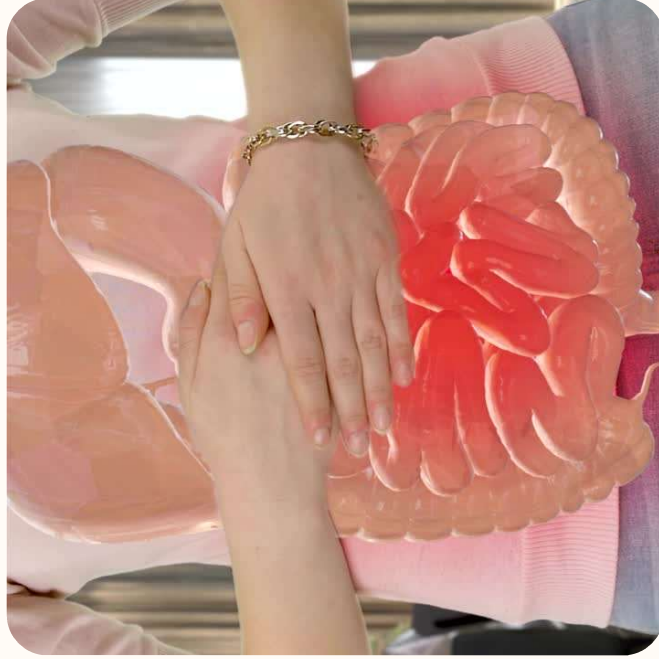
Digestive Dilemmas

A Holistic Approach to GI Care in ED

Clients



No clinician
should feel like they
don't have the tools
they need to help a client
succeed in treatment
due to co-occurring
GI issues



**Co-occurring
GI issues**
can negatively impact the
treatment process



Food fear



More medications



Food refusal



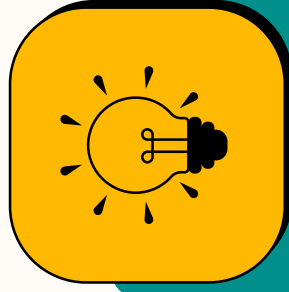
Non-compliance



Worsening stomach pain



GI symptoms of all kinds



One study found that in a survey of women diagnosed with an eating disorder, 50% met the criteria for IBS, and 98% met the criteria for at least one functional gut disorder.

Potential impacts:



- Food tolerance
- Painful and disheartening meals
- Motivation and mindset
- A harder recovery

Mental health among university students with eating disorders and irritable bowel syndrome in France

A Spillebout ¹, P Dechelotte ², J Ladner ³, M P Tavolacci ⁴

Affiliations ⁺ expand

PMID: 31288955 DOI: 10.1016/j.respe.2019.04.056

Abstract

Background: University students are subject to stress due to academic pressure, empowerment and transition from adolescence to adulthood. This young population may have a higher risk of functional disorders as eating disorders (ED) and irritable bowel syndrome (IBS). Our objective was to determine the prevalence of ED, IBS and both and the associated behaviours.

Methods: A cross sectional study was conducted in Rouen University (France). Participating students filled an anonymous self-questionnaire with items on socio-demographics, depression (Duke score), stress (Cohen score), emotional exhaustion (Maslach Inventory), insomnia (Insomnia Severity Index), cyberaddiction (Internet Addiction Test), ED (SCOFF-F test) and IBS (Rome III).

Results: This study included 731 students (male/female ratio=0.43). The prevalences of ED, IBS

Spillebout A, Dechelotte P, Ladner J, Tavolacci MP. Mental health among university students with eating disorders and irritable bowel syndrome in France. *Rev Epidemiol Sante Publique*. 2019. Sep;67(5):295-301. doi: 10.1016/j.respe.2019.04.056. Epub 2019 Jul 7. PMID: 31288955.

Exploring eating disorder quality of life and functional gastrointestinal disorders among eating disorder patients

Suzanne Abraham ¹, John Kellow

Affiliations ⁺ expand

PMID: 21414458 DOI: 10.1016/j.psychores.2010.11.009

Abstract

Background: Functional gastrointestinal-like disorders (FGIDs) are prevalent among eating disorder (ED) patients. The aims are to explore the relationship between quality of life related to eating disorders (QOL ED) and FGIDs.

Methods: Consecutive ED patients, 18-45 years old, completed the Rome II, QOL ED, Irritable Bowel Syndrome QOL (IBS-QOL) and Bowel Symptom Severity Index (BSSI) questionnaires on admission to hospital for treatment of their ED.

Results: Despite the high prevalence of FGIDs (93%), only IBS is clearly correlated with QOL ED scores. The QOL ED subscores significantly related are ED feelings, psychological feelings and effect on daily living. These subscores contain items such as fearing loss of control over your body and feelings, being preoccupied with thoughts of body weight and shape, feeling confused and that eating and exercise have a negative effect on work/study. There were no relationships between QOL ED behavior and individual FGIDs or categories of FGIDs. The QOL ED and IBS-QOL are highly correlated, and there is a positive linear relationship between the QOL ED global and IBS-QOL total

Abraham S, Kellow J. Exploring eating disorder quality of life and functional gastrointestinal disorders among eating disorder patients. *J Psychosom Res*. 2011 Apr;70(4):372-7. doi: 10.1016/j.psychores.2010.11.009. Epub 2011 Feb 12. PMID: 21414458.



You cannot ignore GI complaints when
treating EDO at any level of care

How can we as health
professionals working with this
population of clients, hone our
skills and develop a tool box of
information that can better
support these clients when GI
issues are complicating the
feeding process?





This takes a team of professionals,
not just Registered Dietitians

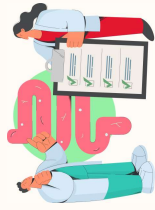
PLAN FOR TODAY

PLAN FOR TODAY

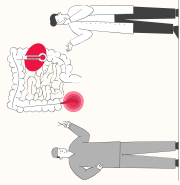


Main GI
Complaints

PLAN FOR TODAY



Main GI
Complaints

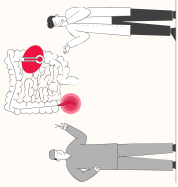


Current Research
on GI/ED

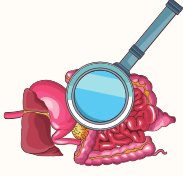
PLAN FOR TODAY



Main GI
Complaints



Current Research
on GI/ED



How to address
complaints



Digestive Dilemmas don't have to impact
treatment outcomes once the entire
system is working together again

The Goal?



Clear, easy to implement solutions to some very common GI issues that occur in our population.

The entire GI tract is a muscle that easily “gets out of shape” in the throws of an eating disorder



A woman with long dark hair and glasses is shown in profile, holding her right hand to her forehead in a gesture of pain or distress. The background is a solid orange color.

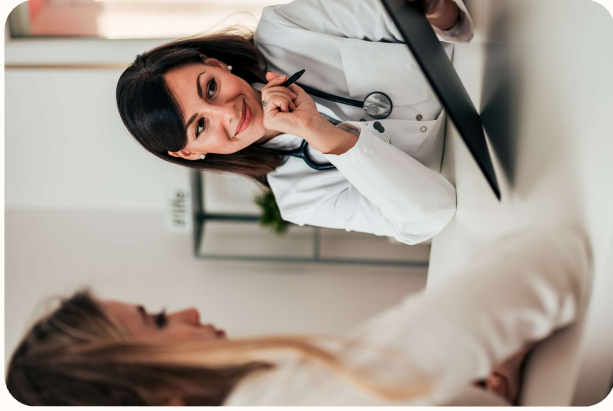
But with time and simple interventions you can improve the entire system from head to toe.





Main GI Complaints

- ✓ Severe constipation or diarrhea
- ✓ Stomach pain/Nausea
- ✓ Reflux
- ✓ Bloating



How do ED behaviors impact?

- ✓ Ongoing long term GI issues can occur (bloat, constipation, etc)
- ✓ Reflux
- ✓ Inconsistent bowel patterns
- ✓ “Food intolerances”
- ✓ Poor Motility



Why does this happen?



What contributes to this?

- Poor diversity of food
- Lack of SCFA production
- Lack of function to the “system”
- Stress about food decreasing motility
- Migrating Motor Complex disruption

The Role of the Gut Microbiome, Immunity, and Neuroinflammation in the Pathophysiology of Eating Disorders

Michael J Butler¹, Alexis A Perrini², Lisa A Eckel²

Affiliations + expand

PMID: 33546416 PMID: PMC7919528 DOI: 10.3390/nu13020500

Free PMC article

Abstract

There is a growing recognition that both the gut microbiome and the immune system are involved in a number of psychiatric illnesses, including eating disorders. This should come as no surprise, given the important roles of diet composition, eating patterns, and daily caloric intake in modulating both biological systems. Here, we review the evidence that alterations in the gut microbiome and immune system may serve not only to maintain and exacerbate dysregulated eating behavior characterized by caloric restriction in anorexia nervosa and binge eating in bulimia nervosa and binge eating disorder, but may also serve as biomarkers of increased risk for developing an eating disorder. We focus on studies examining gut dysbiosis, peripheral inflammation, and neuroinflammation in each of these eating disorders, and explore the available data from preclinical rodent models of anorexia and binge-like eating that may be useful in providing a better understanding of the biological mechanisms underlying eating disorders. Such knowledge is critical to developing novel, highly effective treatments for these often intractable and unremitting eating disorders.

Butler MJ, Perrini AA, Eckel LA. The Role of the Gut Microbiome, Immunity, and Neuroinflammation in the Pathophysiology of Eating Disorders. *Nutrients*. 2021 Feb 31;13(2):500. doi: 10.3390/nu13020500. PMID: 33546416; PMCID: PMC7919528.

Effects of Microbiota Imbalance in Anxiety and Eating Disorders: Probiotics as Novel Therapeutic Approaches

Elisabet Navarro-Tapia¹, Laura Almeida-Toledano^{2,3}, Giorgia Sebastiani⁴, Mariona Serra-Delgado^{2,3}, Oscar García-Algar^{1,4}, Vicente Andreu-Fernández^{1,3,5}

Affiliations + expand

PMID: 33652982 PMCID: PMC7956573 DOI: 10.3390/jms22052351

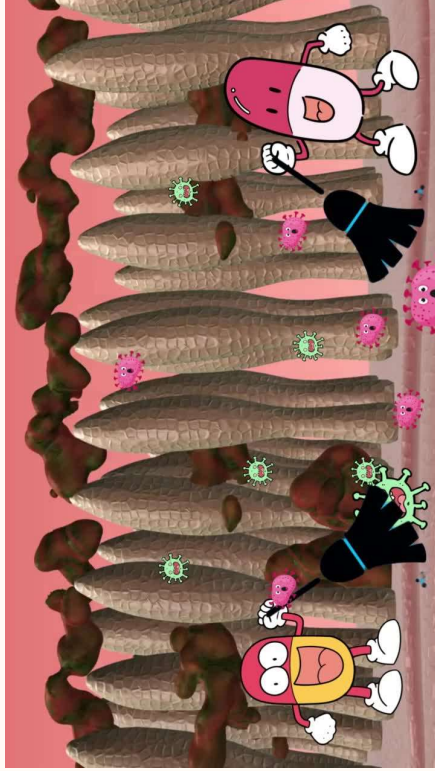
Free PMC article

Abstract

Anxiety and eating disorders produce a physiological imbalance that triggers alterations in the abundance and composition of gut microbiota. Moreover, the gut-brain axis can be altered by several factors such as diet, lifestyle, infections, and antibiotic treatment. Diet alterations generate gut dysbiosis, which affects immune system responses, inflammation mechanisms, the intestinal permeability, as well as the production of short chain fatty acids and neurotransmitters by gut microbiota, which are essential to the correct function of neurological processes. Recent studies indicated that patients with generalized anxiety or eating disorders (anorexia nervosa, bulimia nervosa, and binge-eating disorders) show a specific profile of gut microbiota, and this imbalance can be partially restored after a single or multi-strain probiotic supplementation. Following the PRISMA methodology, the current review addresses the main microbial signatures observed in patients with generalized anxiety and/or eating disorders as well as the importance of probiotics as a preventive or a therapeutic tool in these pathologies.

Navarro-Tapia E, Almeida-Toledano L, Sebastiani G, Serra-Delgado M, García-Algar O, Andreu-Fernández V. Effects of Microbiota Imbalance in Anxiety and Eating Disorders: Probiotics as Novel Therapeutic Approaches. *Int J Mol Sci*. 2021 Feb 26;22(5):2351. doi: 10.3390/jms22052351. PMID: 33652982; PMCID: PMC7956573.

Migrating Motor Complex: Intestinal Cleanup crew



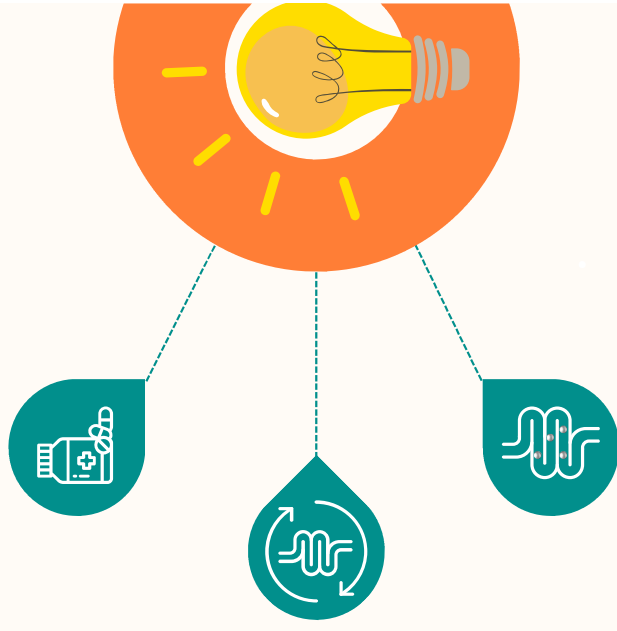
	Inpatient	Residential	Day Treatment	Outpatient
Lab Work off	×			
MMC disruption	×	×	×	×
Food Refusal	×	×	×	×
Constipation		×		
Acid Reflux	×	×	×	×
Diarrhea	×			



Where do we start?

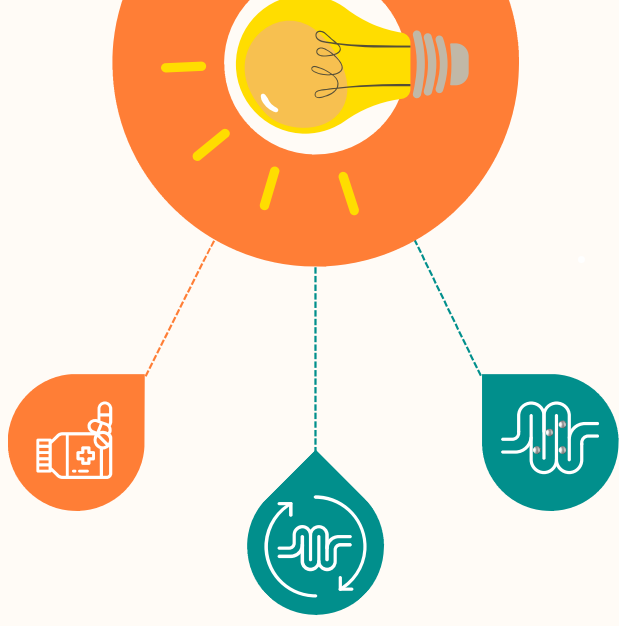
3

TIPS TO IMPLEMENT FOR GI CLIENTS



Solution #1

Improve Prebiotic Intake



Restricted diets slowly diminish the bacterial population in the gut



Solution:

Sunfiber or acacia fiber to start

“Low and slow is the motto”



This directly impacts the
gut-brain axis



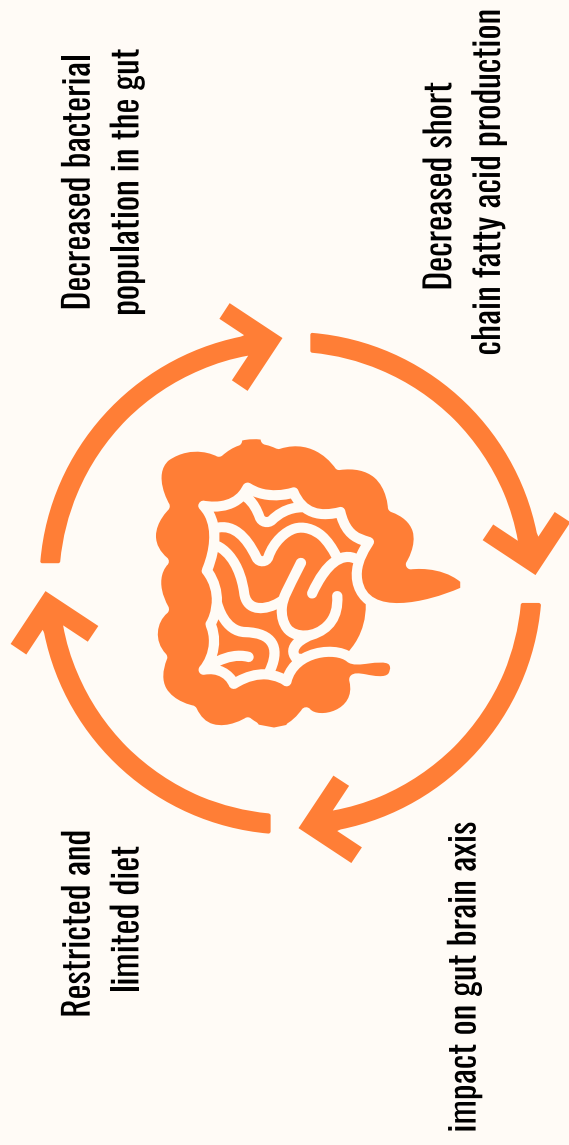


Recommendations for dosing

- Week 1: ¼ dose
- Week 2: ½ dose
- Week 3: full dose

Then you can introduce more fermentable prebiotics like:





We can also improve microbiome diversity through:

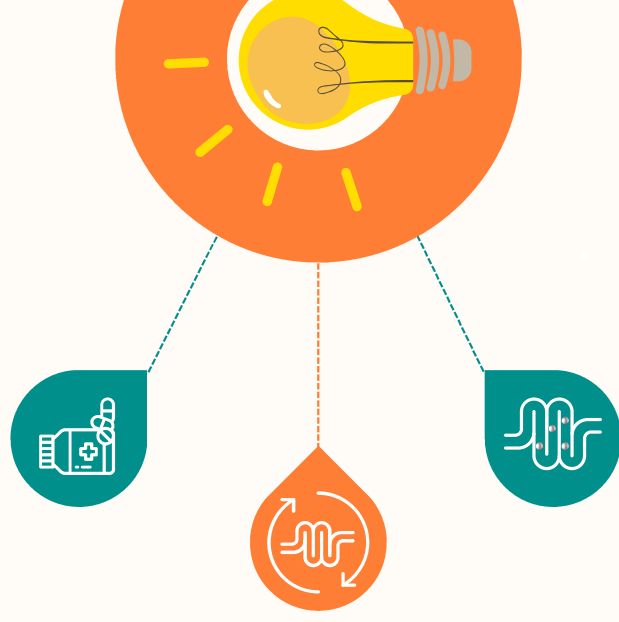
- ✓ Polyphenols
- ✓ Resistant Starch
- ✓ Goal: 30 plants per week

For feeding probiotic bacteria we need: prebiotics, polyphenols and resistant starch

We want to prioritize the production of short-chain fatty acids for:

- ✓ Reducing inflammation in the gut
- ✓ Reducing inflammation in the brain
- ✓ Improving gut motility
- ✓ Improving gut-brain communication
- ✓ Improving overall symptoms

Solution #2 **Improve Digestion**





Tips for Improving Digestion:

- Meal Hygiene: Not what but HOW you eat
- Bitters: For stimulating digestion
- Improve gut motility & get bowels moving
- Reduce stress before meals

Tips for Symptom Relief:



Acid Reflux:

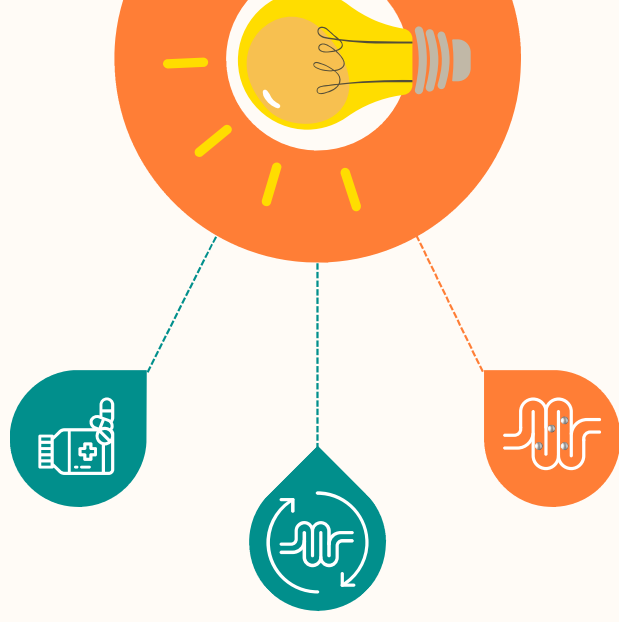
- *Saccharomyces cerevisiae*
- Slippery elm chews or tea
- DGL Plus 1-2 caps before meals for acid
- Aloe vera 1 tsp fresh gel (inner leaf) before meals

Bloating:

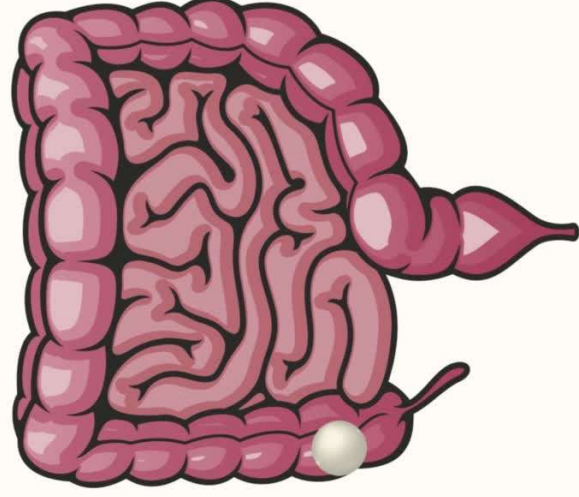
- Bitters for improving bloating and “gurgling stomach”
- Fennel for gas relief



Solution #3 Improve Gut Motility



Slow
Motility



~~Regian~~

Irritable Bowel Syndrome, Particularly the Constipation-Predominant Form, Involves an Increase in *Methanobrevibacter smithii*, Which Is Associated with Higher Methane Production

Ujjala Ghoshal,¹ Ratnakar Shukla,¹ Deepakshi Srivastava,² and Uday C. Ghoshal²

► Author information ► Article notes ► Copyright and License information ► [PMC Disclaimer](#)

Abstract

Go to: ►

Background/Aims

Because *Methanobrevibacter smithii* produces methane, delaying gut transit, we evaluated *M. smithii* loads in irritable bowel syndrome (IBS) patients and healthy controls (HC).

Methods

Quantitative real-time polymerase chain reaction for *M. smithii* was performed on the feces of 47 IBS patients (Rome III) and 30 HC. On the lactulose hydrogen breath test (LHBT, done for 25 IBS patients), a fasting methane result ≥ 10 ppm using 10 g of lactulose defined methane-producers.

Results

Of 47, 20 had constipation (IBS-C), 20 had diarrhea (IBS-D) and seven were not

Ghoshal U, Shukla R, Srivastava D, Ghoshal UC. Irritable Bowel Syndrome, Particularly the Constipation-Predominant Form, Involves an Increase in *Methanobrevibacter smithii*, Which Is Associated with Higher Methane Production. *Gut Liver*. 2016 Nov 15;16(6):932-938. doi: 10.5009/gnl15588. PMID: 27488176; PMCID: PMC5087933.

The gut microbiome in anorexia nervosa: relevance for nutritional rehabilitation

Anu Ruusunen,^{3†} Tetyana Rocks,¹ Felice Jacka,^{1,4,5} and Amy Loughman¹

► Author information ► Article notes ► Copyright and License information ► [PMC Disclaimer](#)

Abstract

Go to: ►

Rapidly accumulating evidence supports the important role of gut microbiome in the regulation of mood, behaviour, appetite, gastrointestinal symptomology, and nutrient metabolism. These are all core features frequently altered in individuals with anorexia nervosa (AN). Current treatment recommendations for AN support the use of high-calorie diets as an essential part of nutritional rehabilitation, commonly achieved by elevating the fat content of the diet. However, in contrast to this approach, there is accumulating evidence suggesting the importance of balanced, high-fibre diets on the gut microbiome. Studies have demonstrated profound differences in the microbial composition of underweight people with AN and those of normal- or overweight individuals. Specific alterations vary widely between studies. It is thus far unclear to what extent the observed differences are brought on by iatrogenic effects of nutritional rehabilitation or the disorder itself. To date, only two studies have

Ruusunen A, Rocks T, Jacka F, Loughman A. The gut microbiome in anorexia nervosa: relevance for nutritional rehabilitation. *Psychopharmacology (Berl)*. 2019 May;236(5):1545-1558. doi: 10.1007/s00213-018-5159-2. Epub 2019 Jan 5. PMID: 30612189; PMCID: PMC6598963.

Step 1: Get bowels moving

- Ginger (1-2 grams per day)
- Ginger tea in between meals
- Triphala



Step 2: Improve bacterial balance

- Spore based probiotics
- Polyphenols
- Prebiotics
- ResistantStarch

Treatment with a spore-based probiotic containing five strains of *Bacillus* induced changes in the metabolic activity and community composition of the gut microbiota in a SHIME® model of the human gastrointestinal system

Massimo Marzorati ¹, Pieter Van den Abbeele ², Sarah Bubeck ³, Thomas Bayne ⁴, Kiran Krishnan ⁴, Alcatia Young ⁴

Affiliations + expand

PMID: 34600678 DOI: 10.1016/j.foodres.2021.110676

[Free article](#)

Abstract

MegaSporeBiotic™ is an oral, spore-based probiotic comprised of five *Bacillus* spp. (*Bacillus indicus* HU36, *Bacillus subtilis* HU58, *Bacillus coagulans* SC208, *Bacillus licheniformis* SL307, and *Bacillus clausii* SC109). The effects of MegaSporeBiotic™ on gut microbiota activity and community composition were evaluated for the first time using an in vitro model of the human gastrointestinal tract, the simulator of the human intestinal microbial ecosystem (SHIME®), under healthy

Source: Marzorati M, Van den Abbeele P, Bubeck S, Bayne T, Krishnan K, Young A. Treatment with a spore-based probiotic containing five strains of *Bacillus* induces changes in the metabolic activity and community composition of the gut microbiota in a SHIME® model of the human gastrointestinal system. *Food Res Int.* 2021 Nov;149:110676. doi: 10.1016/j.foodres.2021.110676. Epub 2021 Aug 30. PMID: 34600678.

Case Study for Residential

- 26 yo client identifying as she/her with a history of AN-R x 10 + years.
- Very limited diet due to food fears, fear of weight gain
- Diagnosed reflux and gastroparesis.
- Following the meal plan is difficult due to stomach pain, constipation and reflux
- Weight is not yet restored so the meal plan will need to be significant to meet caloric needs.



Potential solutions:

- Meal hygiene recommendations for group meals
- Spore based probiotics +polyphenol support
- For reflux: DGL before meals or 1tsp fresh aloe (inner leaf fillet)
- Bitters after meals for digestive discomfort and stomach pain
- (if needed) Magnesium citrate before bed (200-400mg)



Other things to consider:

- Ginger for motility (start with ginger tea in between meals)



- Sunfiber added to supplement shake (slowly implement)



Case Study for Step Down Care

- 36 yo identifying as he/him admitted with a history of edo since late teens.
- EDO began as restriction but has morphed over time to Bulimia
- GI issues include slow gastric emptying and significant reflux.
- Weight is restored at this time



Potential solutions:



- Assess dietary diversity: is he eating prebiotic fiber?

If not, use sunfiber or other prebiotic fiber to start improving gut bacterial balance



- Stress management



- Meal spacing to improve MMC



- Assess for gastritis due to bulimia history



- For reflux: DGL before meals



- Trial bitters before or after meals

Quiz Answers

- | | |
|--------------------------------|--------------------------------|
| • 30 | • Fennel |
| • Get their bowels moving | • Insoluble Fiber |
| • Stimulating digestive juices | • Practice proper meal hygiene |
| • Saccharomyces cerevisiae | • Methanobrevibacter Smithii |
| • Bloating | • Green Bananas |

Give Heather a Feedback to receive
a FREE Digestive Checklist

Scan Me



or go to:

www.drheatherfinley.co/digestivechecklist

