

INTRO TO ROOT CAUSES OF GI ISSUES WITH EATING DISORDERS

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COMMON SYMPTOMS WE SEE

- Constipation

- Diarrhea

- Acid reflux

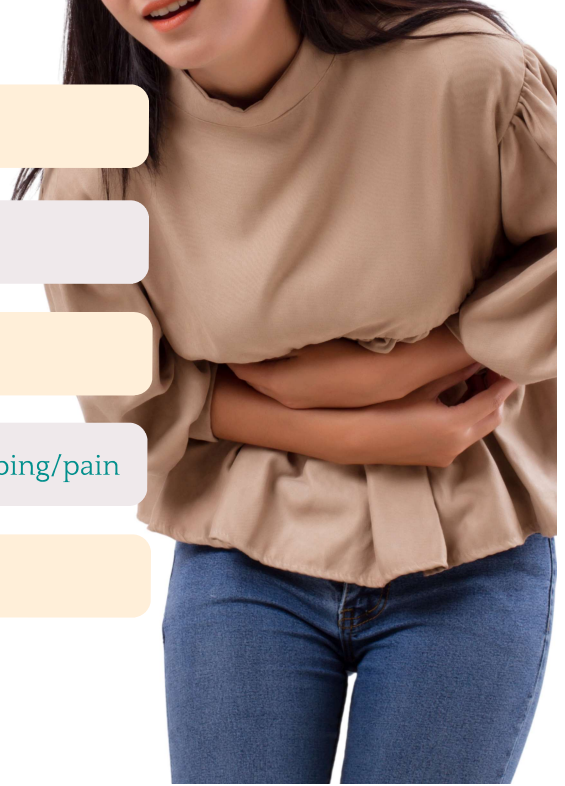
- Burping

- Regurgitation

- Bloating

- Stomach cramping/pain

- Nausea



STATISTICS

- Up to 69.2% of individuals with ED's report GI complaints (American Journal of Gastroenterology)
- Symptoms can affect overall nutritional status and mental health
- Journal of Gastroenterology notes that patients with eating disorders often present with various gastrointestinal disturbances, including postprandial fullness, abdominal distention, and abdominal pain.

Murray, Helen B, PhD; Thomas, Jennifer J, PhD; Kuo, Steven MD; Eddy, Kathryn T, PhD; Sallier, Kyle D, MD. The Frequency of Gastrointestinal Symptom Complexes and Functional Gastrointestinal Disorders in Patients Presenting for Eating Disorder Treatment. *417 American Journal of Gastroenterology*. 10(1p 5200-5201, October 2018).

Sato, Y., Fukuda, S. Gastrointestinal symptoms and disorders in patients with eating disorders. *Clin J Gastroenterol* 8, 285-293 (2015). <https://doi.org/10.1007/s12328-015-0811-x>





WHAT COULD HAPPEN

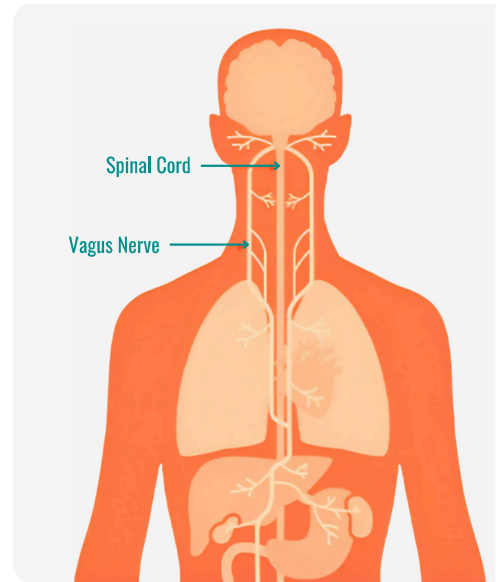
- Improve GI symptoms to improve outcomes and recovery timeline
- Increase body confidence as symptoms decrease
- Prevention of further GI issues down the road

LEARNING OBJECTIVES

- Identify common GI symptoms among clients with eating disorders (ED).
- Describe how disordered eating behaviors contribute to root-cause GI imbalances.
- Outline practical interventions and assessment strategies to improve GI function.

MECHANISTIC INSIGHT

- **Bi-Directional Gut-Brain Connection**
 - The gut and brain communicate through the vagus nerve, neurotransmitters, and the microbiome.
- Chronic GI distress (e.g., bloating, constipation, reflux) increases anxiety around eating, reinforcing food avoidance behaviors.
- GI symptom relief reduces somatic distress, making food-related experiences feel safer.



PHYSIOLOGICAL IMPACT

GI Dysfunction	Physiological Impact	Psychological/Behavioral Consequences
Low stomach acid & enzyme production	Poor nutrient absorption	Fatigue & increased stress response
Dysbiosis & inflammation	Altered neurotransmitter production (serotonin, dopamine)	Increased anxiety & depression
Delayed gastric emptying	Increased fullness	Higher distress around meals & slower weight restoration
Constipation & bloating	Heightened body image concerns	Resistance to refeeding & fear of weight gain

GI RELIEF IS CRITICAL FOR SUSTAINABLE RECOVERY

- Normalized digestion supports proper nutrient absorption, improving mood, energy, and overall physiological function.
- Reduced bloating, reflux, and constipation decreases body image distress, allowing clients to reintroduce foods with less anxiety.
- When GI discomfort subsides, clients are more likely to stay engaged in treatment without feeling the need to restrict or purge.

GI SYMPTOM RESOLUTION SUPPORTS FASTER RECOVERY RESEARCH SNIPPETS

- A study in Psychoneuroendocrinology (Murray & Dalton, 2021) found that **gut microbiome imbalances in ED clients correlated with increased anxiety and food avoidance, prolonging recovery.**
- Research published in the Journal of Pediatric Psychology (Reed-Knight et al., 2021) reported that adolescents with **persistent GI symptoms had higher rates of treatment dropout and relapse.**
- A clinical review in Nature Reviews Gastroenterology & Hepatology (Galmiche et al., 2019) noted that **treating functional GI symptoms in ED clients led to improved refeeding success and fewer relapses.**

COMMON ROOT CAUSES WITH GI + ED PATIENTS:

✓ Low stomach acid

✓ Poor digestion
(pancreatic + liver/gallbladder)

✓ Gut motility disturbances

✓ Gut-brain disturbances
(high stress)

✓ Mineral/nutrient depletion

✓ Dysbiosis

✓ Poor meal hygiene

✓ Lack of rest

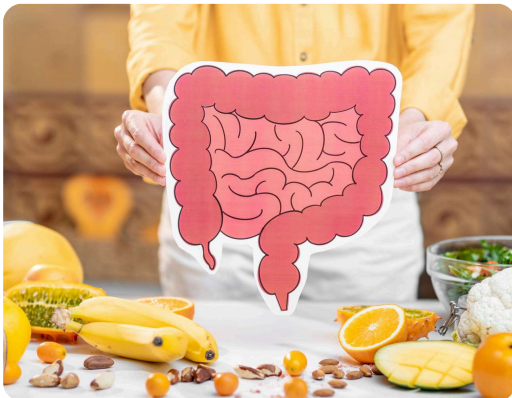
ROOT CAUSES ASSOCIATED LAB ASSESSMENTS

Root Cause	Potential Symptoms	Relevant Labs/Assessments
Low Stomach Acid	Reflux, bloating, undigested food in stool	Stool Test (H. pylori, pancreatic elastase), Heidelberg pH test
Gut-Brain Axis Dysfunction	High stress, anxiety, digestive sensitivity	Heart rate variability (HRV), salivary cortisol test
Gut Motility Issues	Constipation, slow gastric emptying, bloating	SIBO breath test, SmartPill motility test
Dysbiosis	Gas, bloating, diarrhea, food intolerances	Comprehensive stool test
Mineral/Nutrient Depletion	Fatigue, poor digestion, anxiety, poor sleep	HTMA (Hair Tissue Mineral Analysis), comprehensive blood panel
Poor Meal Hygiene	Rapid eating, bloating, difficulty digesting food	Clinical interview, food journal, digestive enzyme function test

Root cause approach takes
time and proper assessment



DIGESTION 101 REFRESHER



Digestion is a “top to
bottom” process

When the top doesn't
work, it impacts the
bottom

We need to assess
these things in order

STRESS AND THE GUT-BRAIN AXIS

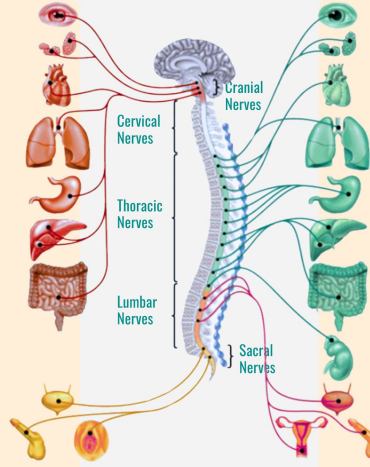
Cephalic phase of digestion is critical

Meal hygiene to shift from sympathetic to parasympathetic

Anxiety can dampen the first crucial phase

PARASYMPATHETIC NERVES "Rest and Digest"

Constrict pupils
Stimulate saliva
Slow heartbeat
Constrict airways
Stimulate activity of stomach
Inhibit release of glucose; stimulate gallbladder
Stimulate activity of intestines
Contract bladder
Promote erection of genitals



SYMPATHETIC NERVES "Fight or Flight"

Dilate pupils
Inhibit salivation
Increase heartbeat
Relax airways
Inhibit activity of stomach
Stimulate release of glucose; inhibit gallbladder
Inhibit activity of intestines
Secrete epinephrine and norepinephrine
Relax bladder
Promote ejaculation and vaginal contraction

Source: https://activateanddominate.com/wp-content/uploads/2015/09/para_sympathetic.jpg

1. Mouth

When food is chewed, saliva starts digesting carbohydrates.

2. Esophagus

Muscles, in a process called peristalsis, push the food down into your stomach

3. Stomach

Everything is blended with digestive juices. Hydrochloric acid kills bacteria. Enzymes break down proteins.

4. Liver

A green liquid called bile, which is stored in your liver is secreted to break down fats.

5. Pancreas

Many kinds of digestive enzymes are made here.

6. Small Intestine

Food is mixed with bile from your liver and juices from your pancreas to be sent back to your liver for more processing.

7. Large Intestine

Indigestible food and water are processed, stored and dispersed.

8. Anus

Solid waste passes from the rectum in order to leave your body.

THE NORTH TO SOUTH PATHWAY

Smell, Taste, Chew, Swallow

- Salivary Amylase

Stomach acid breakdown

- Mineral absorption

Liver, Gallbladder, Pancreas

Small intestine

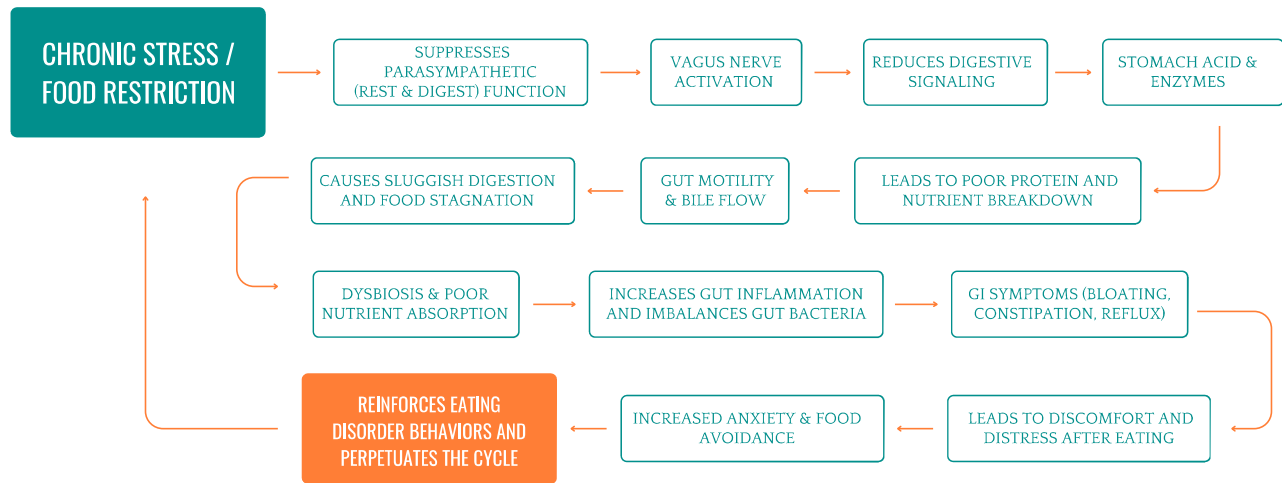
- Brush border enzymes

Large intestine

- Fiber breakdown via bacteria

Removal

HOW STRESS & RESTRICTION DISRUPT DIGESTION



How these **common root causes** impact client symptoms

ROOT CAUSE	ED SPECIFIC TRIGGERS	MINERAL/NUTRIENT IMPLICATIONS:	SYMPTOM RESULT
Poor meal hygiene	Fast eating in secret, fear-based rushing, avoidance of meals leading to inconsistent digestive signaling	Zinc and B vitamins needed for saliva and enzyme production, magnesium for nervous system relaxation	• Undigested food in stool • Fermentation of undigested food in small/large intestine • Food sitting in stomach like a brick/slower gastric emptying • Slower gut motility • Bloating • Burping • Acid Reflux
Low stomach acid	Vomiting or chronic under-eating signals the body to reduce acid production	Zinc, chloride, and sodium are essential for stomach acid production	• Undigested food in stool • Poor mineral absorption • Burping • Bloating • Burning • Slow gastric emptying • Slower gut motility

How these **common root causes** impact client symptoms

ROOT CAUSE	ED SPECIFIC TRIGGERS	MINERAL/NUTRIENT IMPLICATIONS:	SYMPTOM RESULT
Poor pancreatic output	Lack of protein intake limits enzyme production; prolonged stress and restriction reduce pancreatic function	Sodium, chloride, and zinc help produce pancreatic enzymes; B vitamins support enzyme function	• Carbohydrate intolerance • Undigested food in stool
Poor liver function	Low overall calorie intake reduces energy availability for liver detoxification and bile production	Copper, zinc, and B vitamins support liver detoxification; choline aids bile production	• Poor detoxification
Poor gallbladder function	Fat restriction limits gallbladder stimulation, purging depletes bile acids, chronic stress affects bile flow	Choline, taurine, and fat-soluble vitamins (A, D, E, K) are crucial for bile flow and gallbladder function	• Poor fat soluble vitamin absorption • Poor fat breakdown and tolerance • Poor gut motility • Dysbiosis in large and small intestine → bloating, gas, diarrhea, constipation

How these **common root causes** impact client symptoms

ROOT CAUSE	ED SPECIFIC TRIGGERS	MINERAL/NUTRIENT IMPLICATIONS:	SYMPTOM RESULT
Poor brush border enzyme production	Severe carb restriction reduces enzyme stimulation, gut inflammation impairs enzyme release	Zinc and magnesium support enzyme activity; amino acids are critical for brush border health	• Poor fiber and food tolerance
Dysbiosis	Chronic restriction alters microbiota diversity, purging disrupts gut pH, binge cycles promote dysbiosis	Prebiotics and fiber promote healthy microbiota, while zinc and iron support gut lining integrity	• Bloating • Gas • Constipation • Poor fiber and food tolerance

How these **common root causes** impact client symptoms

ROOT CAUSE	ED SPECIFIC TRIGGERS	MINERAL/NUTRIENT IMPLICATIONS:	SYMPTOM RESULT
Slow gut motility	High stress and low intake of fiber/carbs slow peristalsis; chronic dehydration worsens motility	Magnesium and potassium are essential for gut motility, sodium aids water balance for peristalsis	• Dysbiosis in small/large intestine • Bloating • Gas • Constipation
Mineral depletion	Low intake of magnesium, potassium, sodium, and zinc impacts digestion, stress resilience, and enzyme function	Zinc supports stomach acid, magnesium aids motility, sodium maintains hydration, potassium supports nerve signaling	• Anxiety • Poor sleep • Poor neurotransmitter production • Impact on stomach acid production (zinc, sodium, chloride, potassium, etc) • Impact on gut motility (potassium, magnesium, sodium) • Decreased stress tolerance

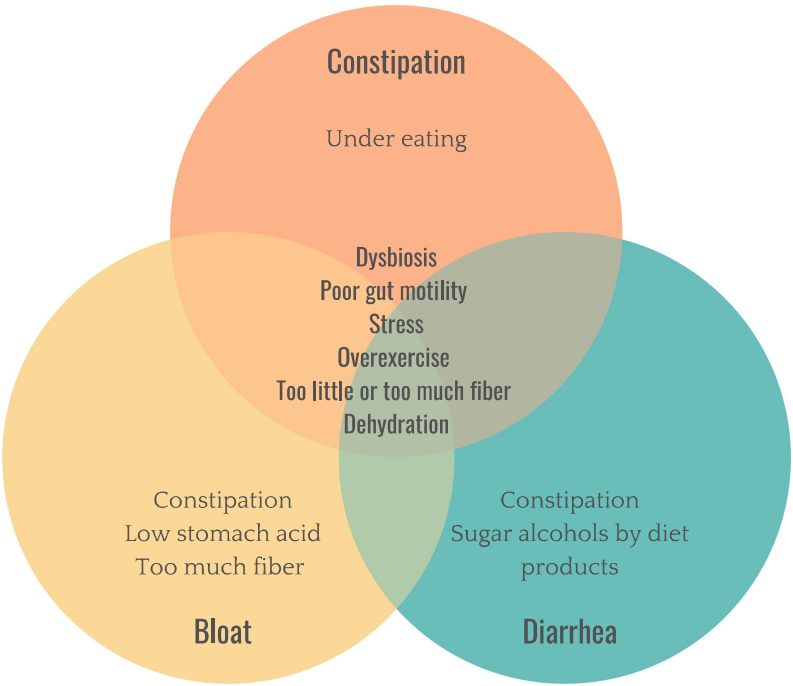


Same with:

- Miralax
- Motility medications
- Fiber supplements
- Bloat pills
- Etc

UNDEREATING WILL WORSEN YOUR GUT SYMPTOMS

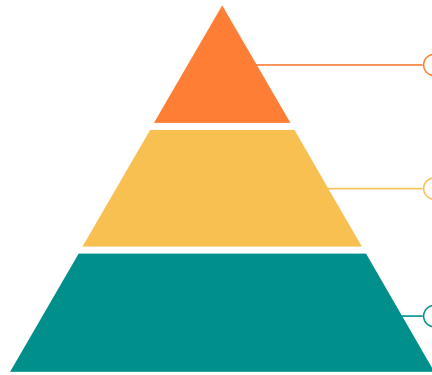
Undereating Results	Gut Consequences
Cortisol	Intestinal Permeability
Nutrient Deficiencies	Dysbiosis
Blood Sugar Instability	GI Inflammation
Sex Hormones	Stomach Acid
Vagus Nerve Activation	Immune Function
Active Thyroid Hormone	Pancreatic Enzymes



TIERED INTERVENTION APPROACH

Lifestyle & Behavioral Tools:

Adequate sleep, stress management, and hydration are often more foundational than “just a probiotic.”



01 Physiological Stabilization

Ensuring adequate caloric intake, addressing any electrolyte imbalances, stopping purging behaviors.

02 Support Digestive Function

Focus on meal hygiene, stress management, gentle motility support, digestive enzymes if indicated.

03 Advanced Testing & Targeted Therapies (if necessary)

Using stool testing, targeted antimicrobials or pre/probiotics, etc.

- She is taking Miralax, Fiber gummies and a align probiotic
- She is exercising 2 hours per day
- She is eating approx 1500 calories but severely limits carbohydrates
- She is getting 5-6 hours of sleep per night

EXAMPLE OF HOW THIS PLAYS OUT

Client A is struggling
with bloat + constipation



EXAMPLE

OF HOW THIS PLAYS OUT

- Reduced gut motility due to inadequate calorie intake
- Dehydration from fluid restriction or excessive caffeine use
- Electrolyte imbalances affecting muscle contractions (low potassium, magnesium, sodium)
- Lack of dietary fiber due to fear of “bloating” or avoiding carbs

Client A is struggling with bloat + constipation



GUT-BRAIN

CONNECTION

- The gut slows down in response to prolonged stress and under-eating (survival mechanism)
- Chronic laxative use leads to dependency and worsens motility over time
- Fear of food intolerance can lead to avoidance of fiber-containing foods, exacerbating symptoms

Client A is struggling with bloat + constipation



ROOT CAUSES THAT HAVE NOT BEEN ADDRESSED FOR HER:

- Low stomach acid
- Poor gut motility
- Severe mineral depletion
- Stress

- Low stomach acid due to chronic restriction, purging, or stress
- Weakening of the lower esophageal sphincter from vomiting or prolonged stress
- Delayed gastric emptying, increasing pressure in the stomach
- Imbalance of gut microbiota affecting digestive function

EXAMPLE OF HOW THIS PLAYS OUT

Client S is struggling with restrictive eating, occasional purging, acid reflux and regurgitation



GUT-BRAIN CONNECTION

- Chronic stress and anxiety trigger increased gastric sensitivity and reflux
- Purging behaviors can damage the esophageal lining, making symptoms more persistent
- Meal avoidance or delayed eating can worsen acid production dysregulation

Client S is struggling with restrictive eating, occasional purging, acid reflux and regurgitation



EXAMPLE OF HOW THIS PLAYS OUT

- Gut microbiota imbalances from restrictive eating, purging, or frequent antibiotic use
- Malabsorption of nutrients due to damaged intestinal lining
- Increased stress and anxiety leading to rapid gut transit time
- Rebound effect from laxative withdrawal or excessive sugar alcohol consumption

Client L with hx of bulimia, experiences sudden + urgent diarrhea



GUT-BRAIN CONNECTION

- Chronic anxiety activates the sympathetic nervous system, increasing gut motility
- Fear of food reactions can cause heightened digestive sensitivity, increasing diarrhea episodes
- Clients who have reintroduced food after prolonged restriction may experience temporary malabsorption-related diarrhea

Client L with hx of bulimia, experiences sudden + urgent diarrhea



EXAMPLE OF HOW THIS PLAYS OUT

- Dysbiosis due to gut microbiota depletion from restriction or bingeing/purging cycles
- Reduced stomach acid and digestive enzyme production leading to fermentation of undigested food
- Impaired gut motility causing food to sit longer in the stomach and intestines
- Reintroduction of carbohydrates after restriction, causing temporary water retention and fermentation

Client J with hx of restrictive eating experiences severe bloating after meals



GUT-BRAIN CONNECTION

- Clients with eating disorders often experience hyperawareness of body sensations, making bloating feel more distressing
- Food avoidance due to bloating worsens gut motility, creating a vicious cycle
- Vagal nerve dysfunction from chronic stress contributes to sluggish digestion

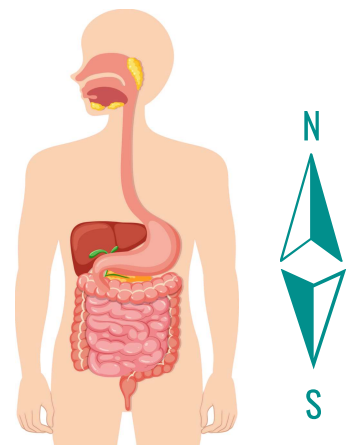
Client J with hx of restrictive eating experiences severe bloating after meals



The body has to feel safety to heal
(adequate nourishment, hydration, sleep, rest, etc)

- Slows motility
- Decreases salivation
- Decreases stomach acid production
- Decreases pancreatic enzyme output
- Lack of amino acids and nutrients for liver detoxification

NORTH TO SOUTH PROCESS



EXAMPLE INTERVENTION

STEPS

01

Normalize Intake:

Slowly increase calories—especially carbohydrates—for improved motility and hormone regulation.

02

Meal Timing & Composition:

Provide “anchor meals” or gentle guidelines for balanced nutrition that support stable blood sugar.

03

Stress Reduction Strategies:

Mindful breathing or progressive muscle relaxation daily can calm the sympathetic nervous system

04

Supplements or Lab Tests:

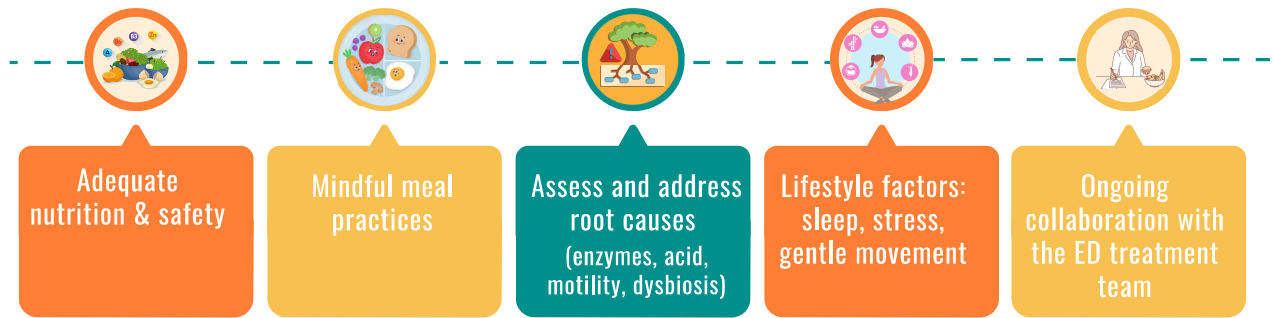
Provide “anchor meals” or gentle guidelines for balanced nutrition that support stable blood sugar.

WHY EVERY TX PLAN SHOULD INCLUDE GI SUPPORT

CONCLUSION

- GI symptom relief directly improves psychological comfort and food tolerance, increasing treatment success rates.
- A root-cause approach (motility support, microbiome balance, digestion optimization) leads to better long-term recovery outcomes.
- Practitioners across disciplines (therapists, dietitians, medical providers) should collaborate to ensure GI distress is not a barrier to full ED recovery..

STEP-BY-STEP ROADMAP



Quick fixes” (Miralax, just a probiotic, etc.) often fail if the bigger picture of nutrition, nervous system regulation, and root-cause assessment is ignored