

FODMAP Freedom

GUIDE TO SUSTAINABLE,
SYMPTOM-FREE LIVING WITH IBS



Irritable Bowel Syndrome (IBS) is a Functional GI Disorder

Symptoms are diverse and can include:

- changes in how food moves through the digestive tract
- increased sensitivity to digestion processes (aka visceral hypersensitivity)
- altered immune function and increased inflammation
- altered gut microbiota composition (dysbiosis)



A KEY DIFFERENCE BETWEEN IBS AND OTHER DIGESTIVE DISORDERS IS THE PRESENCE OF PAIN.

Contents

DIETARY STRATEGIES FOR IBS

BEYOND THE LOW FODMAP DIET

FODZYME® DIGESTIVE ENZYMES

JOURNAL & RESOURCES

Digestion 101

Digestion starts in the mouth, where enzymes in saliva first break down food as it is chewed

- Food travels through the esophagus to the stomach where it's mixed with gastric juice, which contains enzymes and hydrochloric acid that further break it down
- Absorption and further breakdown occur in the **small intestine**, a 22-foot-long tube designed to maximize surface area and absorption capacity
- Undigested food, water, and electrolytes enter the **large intestine** (the colon), where they're absorbed or metabolized by gut bacteria
- Last but not least, feces are stored in the **rectum** until they're eliminated during a bowel movement

What is a healthy gut?

- A healthy gut microbiome is rich (many strains are present), diverse (no single strain dominates) and resilient (able to bounce back after a disruption, like food poisoning or antibiotics)
- Dysbiosis is not a formal diagnosis, but refers to the loss of beneficial bacteria, overgrowth of pathogenic bacteria and/or decrease in overall diversity. Dysbiosis is associated with chronic diseases, and is likely both a cause and consequence of disease, though research is ongoing.



Promote a healthy gut microbiome

INCREASE

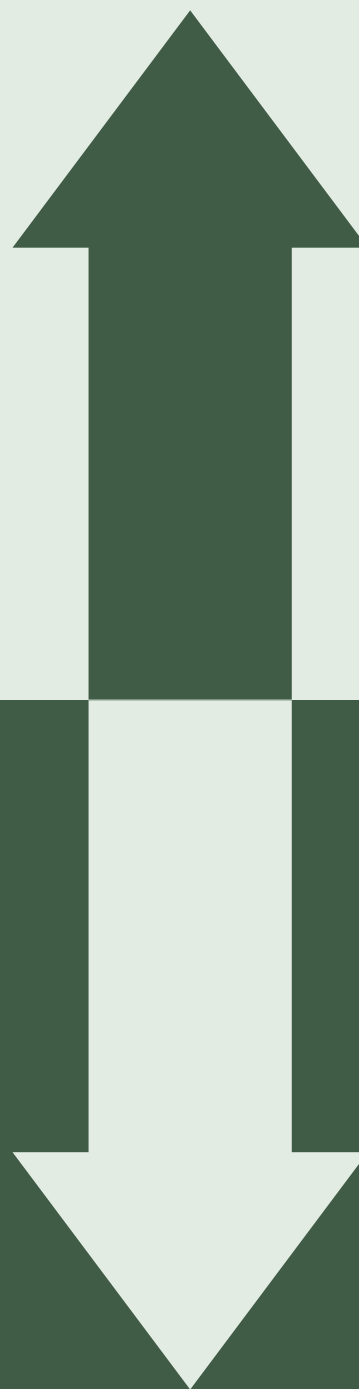
A diet high in a variety of fiber-rich fruits, vegetables, whole grains, nuts and seeds is associated with a more diverse, robust and stable gut microbiome.

Resistant starch, found in cooled potatoes, rice, beans and legumes, also feeds good bacteria.

DECREASE

Highly processed foods can be pro-inflammatory and reduce diversity of gut bacteria.

Limit common gut triggers like alcohol and nonsteroidal anti-inflammatory drug (NSAIDs).



MYTHS

THERE IS ONE "ROOT CAUSE" LEADING TO MY IBS AND FINDING IT WILL GUIDE A TREATMENT

IRRITABLE BOWEL SYNDROME ISN'T AN ILLNESS - IT'S JUST IN YOUR HEAD

YOU NEED TO LEARN HOW TO LIVE WITH SYMPTOMS

FACTS

IBS stems from a multitude of factors. Even if you do know some, that doesn't mean a specific treatment is indicated or will be able to help with all symptoms.

IBS is a functional disorder, meaning there are no obvious signs or lab tests. While stress, anxiety, and depression can increase the risk for IBS, they don't cause it. Attributing IBS onset to them can increase IBS stigma.

There are significant risks of poorly managed IBS. A wide range of treatments exist to help prevent IBS from impacting mental and physical health.

IBS is a result of multiple factors and can take multiple solutions to control symptoms.

While there is no quick fix, there are many tools to manage symptoms.

It is important to develop an individualized approach for relief and long-term comfort to maximize your quality of life.



The low FODMAP diet (LFD)


A low FODMAP diet is a three-phased approach to identify food triggers following a diagnosis of IBS

The long-term goal of the low FODMAP diet is to develop a targeted and personalized approach to control symptoms based on your personal food triggers

Excessive food restriction has health risks and the low FODMAP diet is not recommended for some.

The low FODMAP diet is not right for >

- Children & the elderly
- Those at risk for disordered eating
- Anyone at risk for malnutrition
- Those lacking an IBS diagnosis



The low FODMAP diet should only be implemented under the guidance of a Registered Dietitian



F Fermentable
O Oligosaccharides
D Disaccharides
M Monosaccharides
A And
P Polyols

- Short-chain carbohydrates that are indigestible or poorly absorbed by the gut
- They function as healthy prebiotic fibers and promote good gut bacteria.
- Can trigger gut symptoms like abdominal pain, constipation, excessive gas, bloating, and diarrhea.

FODMAP Gentle

Those who suspect FODMAPs may be causing gut distress can benefit from targeted elimination of the most common FODMAP triggers without having to go through the full three-phases of the low FODMAP diet.

Common FODMAP foods that contribute to symptoms:

DAIRY	<ul style="list-style-type: none"> ▶ Milk ▶ Yogurt
GRAINS	<ul style="list-style-type: none"> ▶ Wheat ▶ Rye
VEGETABLES	<ul style="list-style-type: none"> ▶ Garlic ▶ Onion, leek bulbs ▶ Cauliflower ▶ Mushrooms
FRUIT	<ul style="list-style-type: none"> ▶ Apples, pears ▶ Watermelon ▶ Stone fruits ▶ Dried fruits
MEAT & ALTERNATIVES	<ul style="list-style-type: none"> ▶ Legumes

Halmos & Gibson, 2019

The FODMAP Gentle diet should only be implemented under the guidance of a Registered Dietitian.



Low FODMAP Swapping

Selective replacement of high-FODMAP foods with low-FODMAP alternatives can also provide insight into potential food triggers and guide food challenges during reintroduction

- 1 **Review common foods in your diet**
- 2 **Identify those high in each FODMAP (see p. 10)**
- 3 **Swap each for low-FODMAP alternatives**

FRUCTANS (FOS)		
LACTOSE		
GOS		
POLYOLS		

FILL ME IN

- 4 **Challenge each high FODMAP food or reintroduce with digestive enzymes to assess tolerance**

My triggers

If you've used the low FODMAP diet, low FODMAP gentle, or low FODMAP swapping to identify triggers, select the triggers you identified.

FILL ME IN

Fructan & GOS/Galactan

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> Garlic | <input type="checkbox"/> Artichoke |
| <input type="checkbox"/> Onion | <input type="checkbox"/> Banana |
| <input type="checkbox"/> Wheat | <input type="checkbox"/> Beans |
| <input type="checkbox"/> Brussels sprouts | <input type="checkbox"/> Beetroot |
| <input type="checkbox"/> Zucchini | <input type="checkbox"/> Cashews |
| <input type="checkbox"/> Leek | <input type="checkbox"/> Chickpeas |
| <input type="checkbox"/> Cabbage | <input type="checkbox"/> Cranberries |
| <input type="checkbox"/> Almonds | <input type="checkbox"/> Dates |

- | |
|--------------------------------------|
| <input type="checkbox"/> Kale |
| <input type="checkbox"/> Lentils |
| <input type="checkbox"/> Peas |
| <input type="checkbox"/> Pistachios |
| <input type="checkbox"/> Pomegranate |
| <input type="checkbox"/> Scallion |
| <input type="checkbox"/> Shallots |
| <input type="checkbox"/> Silken tofu |

Lactose

- | |
|--|
| <input type="checkbox"/> Ice cream |
| <input type="checkbox"/> Cottage cheese |
| <input type="checkbox"/> Cream cheese |
| <input type="checkbox"/> Ricotta |
| <input type="checkbox"/> Milk & buttermilk |
| <input type="checkbox"/> Kefir |
| <input type="checkbox"/> Yogurt |
| <input type="checkbox"/> Custard |

Polyols

- | | |
|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> Apple | <input type="checkbox"/> Eggplant |
| <input type="checkbox"/> Apricot | <input type="checkbox"/> Green beans |
| <input type="checkbox"/> Avocado | <input type="checkbox"/> Lychee |
| <input type="checkbox"/> Cabbage | <input type="checkbox"/> Mushrooms |
| <input type="checkbox"/> Cauliflower | <input type="checkbox"/> Nectarine |
| <input type="checkbox"/> Celery | <input type="checkbox"/> Peach |
| <input type="checkbox"/> Cherries | <input type="checkbox"/> Pear |

- | |
|---------------------------------------|
| <input type="checkbox"/> Plum |
| <input type="checkbox"/> Prune |
| <input type="checkbox"/> Sauerkraut |
| <input type="checkbox"/> Sweetcorn |
| <input type="checkbox"/> Sweet potato |
| <input type="checkbox"/> Watermelon |

Fructose:

- | |
|---------------------------------------|
| <input type="checkbox"/> Apple |
| <input type="checkbox"/> Asparagus |
| <input type="checkbox"/> Blackberries |
| <input type="checkbox"/> Grapefruit |
| <input type="checkbox"/> Honey |
| <input type="checkbox"/> Mango |
| <input type="checkbox"/> Raisins |

Beyond the low-FODMAP Diet

Long-term, avoidance of FODMAPs can be overwhelming, frustrating, and frankly, no fun.

Goals of IBS management beyond symptom control include:

- promotion of a healthy microbiome
- strengthened immune system
- support of the gut-brain connection.

A holistic, individualized plan supports

resiliency in more situations, meaning you're free to enjoy more of what matters to you.

Once you've identified likely FODMAP triggers, non-diet options offer a sustainable, effective way to control symptoms without the cons of dietary restriction.



Psychological therapies



Strategic supplementation



Bowel movement management



Digestive enzymes

Gut Directed Hypnotherapy*

Used to reduce the impact of stress and anxiety on the digestive system. Sessions may include visualization of normal gut functioning and relaxation techniques to help reduce symptoms.

Psychological Therapies

Cognitive Behavioral Therapy*

Targets cognitive factors that influence symptom experience, such as pain catastrophizing, food fear, attention bias, visceral sensitivity and somatization. Can also help work through IBS risk factors like trauma and stress.

Self- Guided Practices

IBS-specific apps, books, and podcasts can help manage stress and anxiety. Meditation, muscle relaxation, yoga, diaphragmatic breathing, fresh air, and engagement in leisure activities promote good sleep, overall wellbeing, and optimal digestion.

Psychological interventions strengthen the gut-brain connection, help modulate visceral hypersensitivity and nurture trust in the body. Increased self-awareness and understanding of the body's natural cues is a vital step in putting together an effective routine.

*see resources on back cover for database of providers

Strategic Supplementation

Work with your medical provider to understand if you may benefit from a personalized and targeted trial of over-the-counter supplements.

Consider asking your provider about:

Prebiotic Fiber

TIP: Increase hydration when adding fiber

- Prebiotics are found in many fruits and vegetables and feed beneficial gut bacteria, though some are high in FODMAPs.
- Seek low FODMAP prebiotic fibers like partially hydrolyzed guar gum and psyllium.

Constipation Aids

TIP: Avoid fruit based laxatives, which can trigger symptoms

- Magnesium can promote gastric emptying and motility by drawing water into the colon.
- Magnesium oxide, gluconate, and hydroxide, are gentler than citrate.
- Psyllium husk, kiwi fruit and polyethylene glycol (PEG) are also effective options to address constipation.

Diarrhea Aids

TIP: Take enteric coated peppermint oil before a meal

- Anti-diarrheals, like bismuth subsalicylate or loperamide, can help control symptoms
- Anti-spasmodics, such as enteric coated peppermint oil, relax the digestive tract, normalize motility and reduce pain, urgency, cramping and bloating.

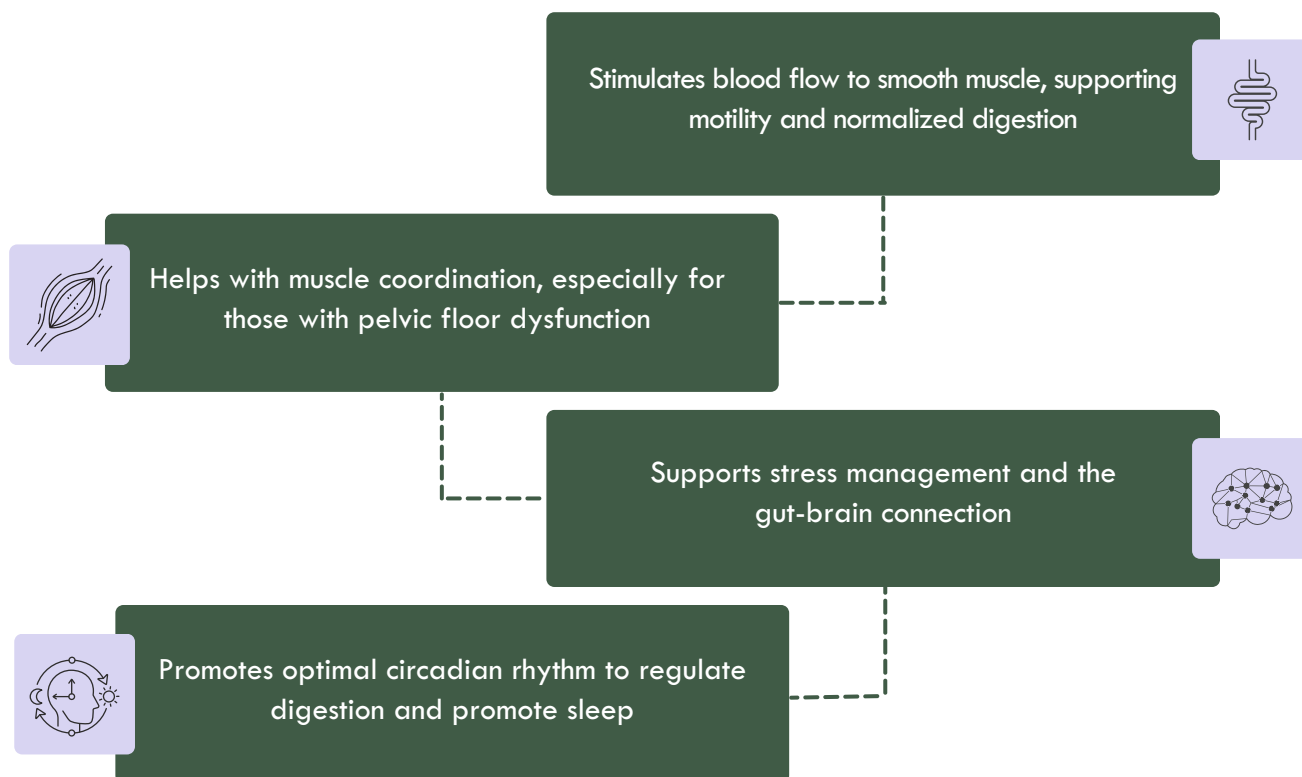
Building a routine

Supporting the body's natural circadian rhythm helps normalize digestive processes.

Developing and sticking to a sleep and toileting schedule are important for optimal digestion.

Stress management techniques also help calm the nervous system and help put the body in "rest & digest mode." These can include walks, breathing exercises and spending time with a loved one or pet.

The benefits of movement or exercise



Constipation & causes

Constipation is defined as difficulty with defecation characterized by frequency or painful, hard, lumpy, or incomplete bowel movements.

FUNCTIONAL	SLOW TRANSIT	ANORECTAL DYSFUNCTION
The most common type	< 1 bowel movement per week	Results from impaired pelvic floor muscle function
Typically occurs alongside bloating and abdominal pain	Urge to defecate rarely present	Biofeedback physical therapy can help retrain anorectal muscles
Dietary fiber and osmotic agents usually help	Results in decreased water content in stool and reduced propulsion	Diet therapy and laxatives are less effective



Diet therapy and laxatives may help

Toileting regimen

Options to try for constipation

WARM LIQUIDS IN THE MORNING	TIP: This helps trigger the gastrocolic effect, which promotes bowel movements
TOILETING POSITIONING WITH KNEES ABOVE HIPS	TIP: To relax the pelvic floor, use a toilet stool, stacks of books or two yoga blocks below feet
LISTENING FOR INTERNAL CUES	TIP: Schedule time for bathroom breaks, as denying urges will exacerbate symptoms








What is regular?

The frequency of bowel movements is less important than stool appearance.

A "normal" bowel pattern can range anywhere from three times per week to three times per day. A healthy stool will look like a smooth snake or sausage with a cracked surface.

The bristol stool chart is used by gastroenterologists, Registered Dietitians, and patients to classify bowel movements.

Those with constipation experience type I and II stools while those with diarrhea often experience type V, VI, and VII.

	I	Separate hard lumps, like nuts (hard to pass)
	II	Sausage-shaped but lumpy
	III	Like a sausage but with cracks on its surface
	IV	Like a sausage or snake, smooth and soft
	V	Soft blobs with clear-cut edges (passed easily)
	VI	Fluffy pieces with ragged edges, a mushy stool
	VII	Watery, no solid pieces

Toileting journal

DAY	TIME	TYPE	NOTES (hydration status, medication, food)
/ /			
/ /			
/ /			
/ /			
/ /			
/ /			
/ /			

FILL ME IN

What are digestive enzymes?

Enzymes are highly specialized proteins (chains of amino acids) folded in particular ways. This enables them to change other molecules. Digestive enzymes can act on troublesome foods, including FODMAPs.



Our bodies do not produce enzymes that target FODMAPs, with the exception of lactase

ENZYMES TARGETING FODMAPS

- Lactase
- Alpha-galactosidase
- Fructan hydrolase

FODMAPs cause trouble because they are poorly digested and linger in the colon, where they are fermented by gut bacteria and draw water into the digestive tract.

Acting as specialized molecular scissors, specific enzymes break down FODMAP molecules, making them easier to digest.

Targeted use of digestive enzymes with FODMAP-containing foods helps break down their FODMAP content before they can trigger symptoms.



How can enzymes help?

1

REDUCE OVERALL
FODMAP INTAKE AND
ALLOW STACKING

3

INCREASE FLEXIBILITY TO
HAVE A MORE VARIED,
NUTRIENT-RICH DIET

2

SUPPORT A BETTER
DIGESTION OF
TRIGGER FOODS

4

ADDRESS THE
NUTRITIONAL GAP AND
OPEN UP SOCIAL EATING

Options when adding enzymes

WITH DIETARY CHANGES

Following identification of FODMAP triggers in the LFD elimination and reintroduction phases

Use digestive enzymes with known FODMAP triggers to liberalize the diet during the personalization phase

WITHOUT DIETARY CHANGES

Use enzymes when knowingly eating food that contains lactose, GOS, and fructans

Use enzymes regardless of meal makeup when FODMAP content is unknown

Making food painless by breaking down FODMAPs

As you digest your meal, FODZYME[®] breaks down FODMAPs into simple sugars, that are quickly absorbed in the small intestine, effectively reducing the amount of FODMAPs in your gut.

FODZYME[®] BREAKS DOWN

- Galacto-oligosaccharides (GOS)
- Lactose
- Fructan (inulin, FOS, levan)

TOP TIP

Cross-check your trigger foods from page 8 against these FODMAP groups



Soy-free



Vegan



Non-GMO



Egg-free



Gluten-free



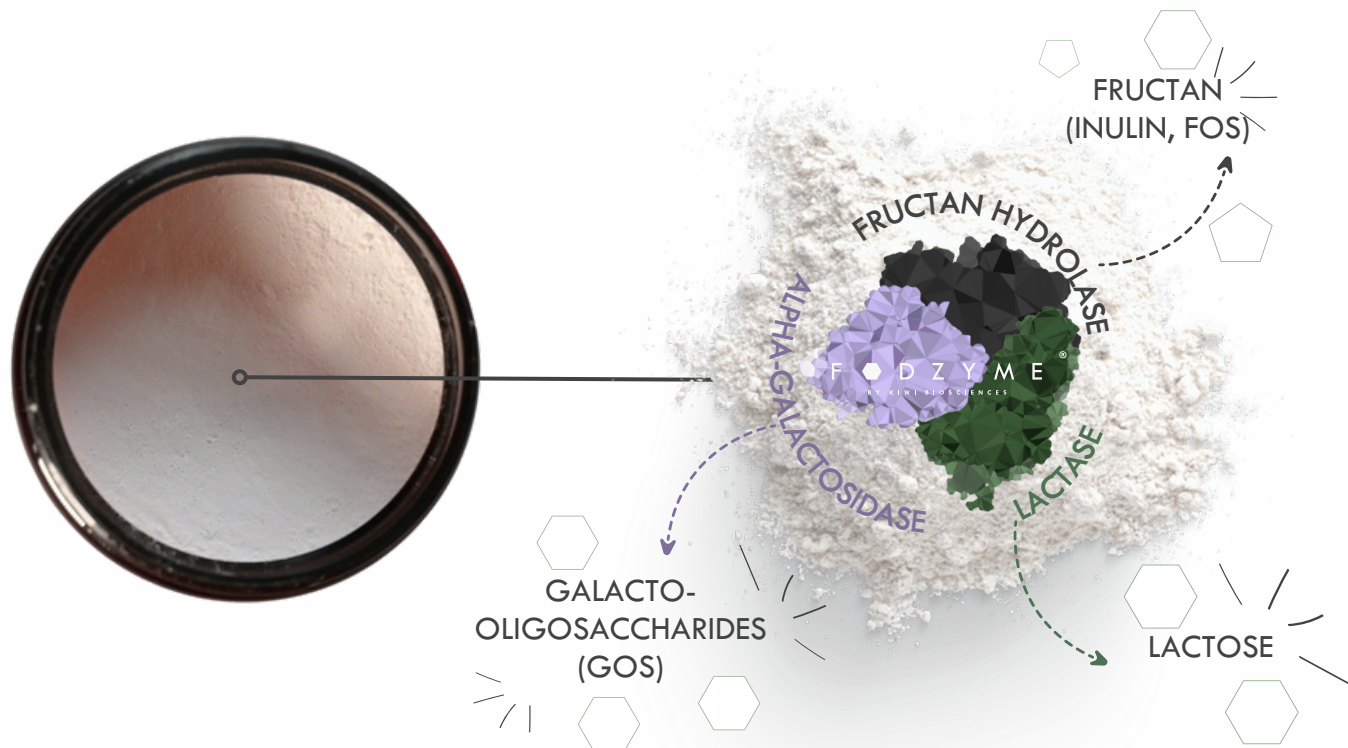
Casein-free



Dairy-free



No artificial colors or flavors



Enzymes are not one-size-fits-all

FODMAP SUBSTRATE	ACTIVE ENZYME	F O D Z Y M E [®] BY KIWIBIOSCIENCES
Fructan (inulin, FOS, levan)	Fructan hydrolase	●
Galactooligo-saccharides (GOS)	Alpha-galactosidase	●
Lactose	Lactase	●
Polyols (mannitol, sorbitol)	N/A	Under development

Other ingredients: dextrin to stabilize the enzymes

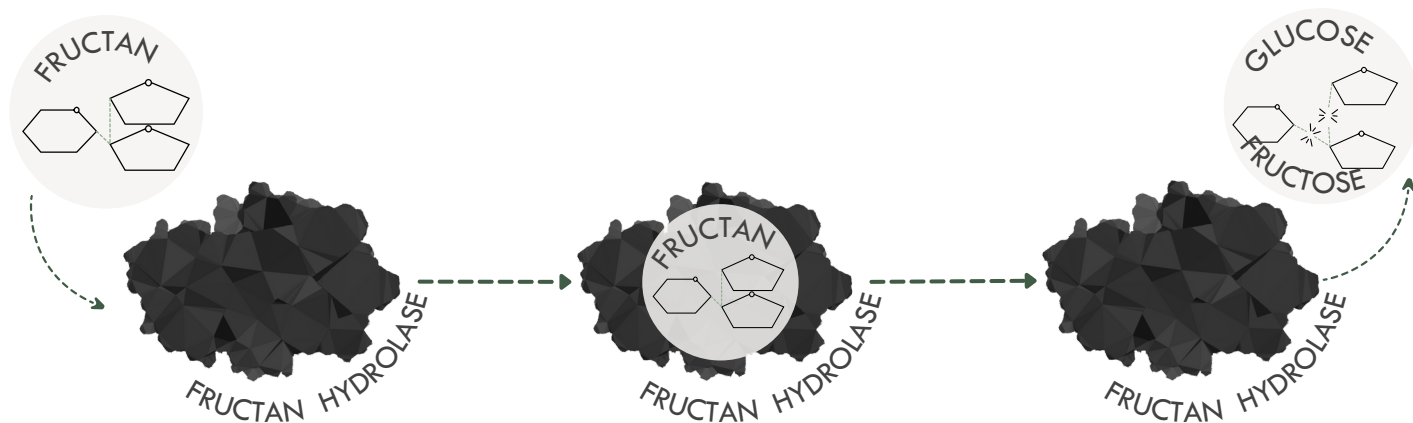
Fructose, unlike other FODMAPs, causes issues when consumed in excess of glucose because glucose aids in the absorption of fructose. Most fructan-containing foods contain enough glucose to balance out the fructose in the digestive tract.

While fructose tolerance thresholds tend to be much higher than for fructans, specific fructose-targeting enzymes do exist (not in FODZYME[®]) for those who are particularly sensitive to fructose or have rare hereditary fructose intolerance.

Elegant, optimized formula to tackle most FODMAP triggers*

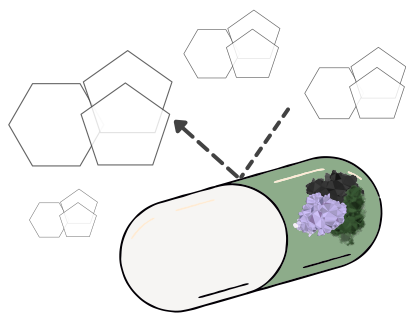
FODZYME[®]'s fructan hydrolase is a wide-spectrum enzyme that breaks down fructans, including inulin and fructo-oligosaccharides (FOS).

* This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.



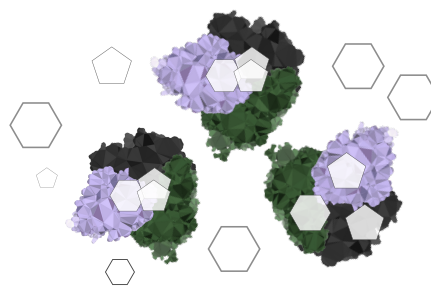
Zero impact on taste. Maximum impact on life.

While most enzyme products are sold as capsules/pills, FODZYME[®] comes in powder form. It's exceptionally more efficacious.



ENZYMES IN CAPSULES:

- isolated from FODMAP substances
- deactivate in the stomach
- are digested themselves.

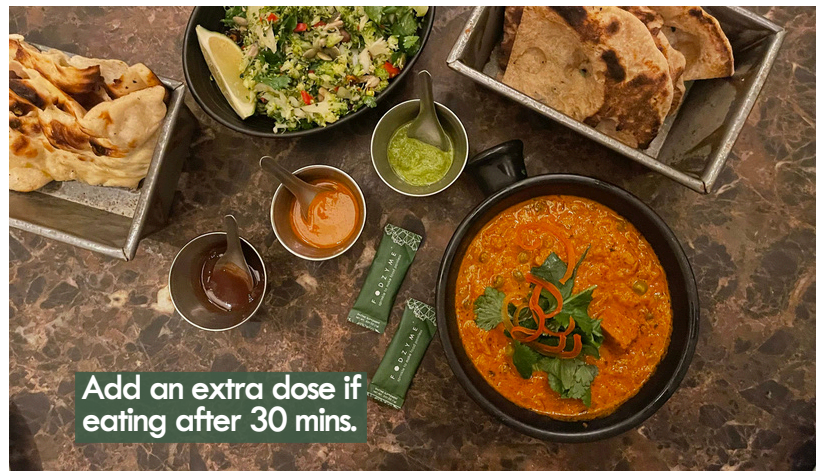


ENZYMES IN POWDER FORM:

- get to FODMAPs faster & break them down.
- integrate easily with FODMAPs
- distribute freely in food in the gut^{[7] [18]}

For best results, add FODZYME[®] directly to trigger foods and drinks.

With greater power, comes greater responsibility



*FODZYME[®] does not yet break down polyols, but will be effective on fructans, lactose, and GOS-rich foods.

The right way to try FODZYME[®]

Try FODZYME[®] with the lactose, GOS, and fructan foods you identified on page 10

Fructan & GOS/Galactan

	Garlic		Artichoke		Kale
	Onion		Banana		Lentils
	Wheat		Beans		Peas
	Brussels sprouts		Beetroot		Pistachios
	Zucchini		Cashews		Pomegranate
	Leek		Chickpeas		Scallion
	Cabbage		Cranberries		Shallots
	Almonds		Dates		Silken tofu

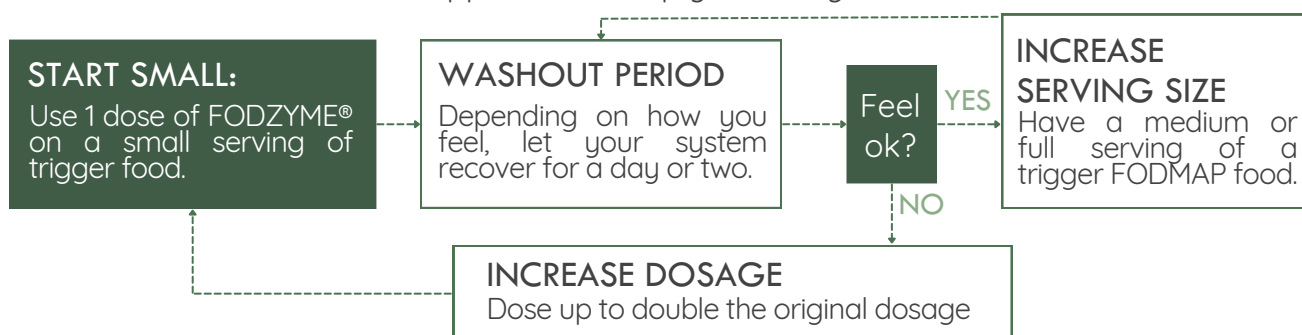
Lactose

	Ice cream
	Cottage cheese
	Cream cheese
	Ricotta
	Milk & buttermilk
	Kefir
	Yogurt
	Custard



The ramp-up protocol

Reintroducing trigger foods that cause symptoms can leave you anxious. Here's a structured approach to help you face your fears.



Getting to the right FODZYME[®] dose

Unlike with food allergies, FODMAPs may or may not trigger symptoms based on amount eaten, so understanding your personal tolerance is important. Use this guide to figure out how much FODZYME[®] to use with trigger foods:

MEAL OF THE DAY	TIME OF DAY	EATING PACE	FOODS, DRINKS & PORTIONS	FODZYME [®] DOSE AND METHOD	SYMPTOMS EXPERIENCED
Lunch	12PM	fast medium slow	Spaghetti with olive oil Meatballs in tomato sauce Parmesan cheese	1/4 tsp mixed in	None
		fast medium slow			
		fast medium slow			
		fast medium slow			
		fast medium slow			
		fast medium slow			
		fast medium slow			
		fast medium slow			
		fast medium slow			
		fast medium slow			
		fast medium slow			

FILL ME IN

Resources

Digestive health providers & support

GI OnDEMAND

Digestive health expertise, support and resources

[ACCESS HERE](#)

ROME GI PSYCH

Resources and directory to the Rome Foundation Psychogastroenterology Group

[FIND A SPECIALIST](#)

INTERNATIONAL FOUNDATION FOR GASTROINTESTINAL DISORDERS (IFFGD)

Educational and research organization

[RECOMMENDED READING](#)

PELVIC REHAB

A worldwide directory of pelvic rehabilitation practitioners

[FIND A PRACTITIONER](#)

Make your food painless with digestive enzymes

[TRY FODZYME[®]](#)

Connect with us

✉ hello@fodzyme.com

🌐 fodzyme.com

📷 [@fodzyme](https://www.instagram.com/fodzyme)



About the authors

Kiwi Biosciences is a human-centered biotechnology company based in Cambridge, MA devoted to developing elegant scientific solutions for extraordinary gut relief.

Kiwi Bio is led by Harvard-trained founders Anjie Liu and David Hachuel who understand firsthand how much the IBS community needs FODZYME[®].

Anjie is a patient herself, who developed FODZYME[®] to be able to comfortably eat high-fructan foods; David previously founded auggi.ai, a stool recognition AI technology and digital gut health coach for IBS patients.



DAVID HACHUEL & ANJIE LIU
Co-founders of Kiwi Biosciences



FODZYME[®] is Kiwi Bio's first product; in development still are novel enzymes to tackle additional FODMAP groups like mannitol and sorbitol.

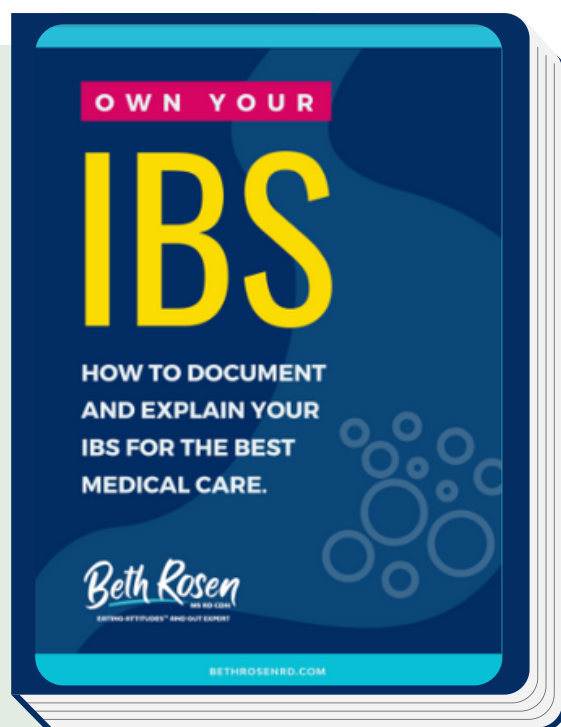
**Make your food
painless with FODZYME[®]**

TRY FODZYME[®]



Beth Rosen, MS, RD, CDN is a weight-inclusive Registered Dietitian specializing in GI nutrition and disordered eating. She has been working in the field of nutrition for over 27 years and has a virtual private practice. Beth helps clients find relief from digestive disorders such as Irritable Bowel Disease (IBS), Small Intestinal Bacterial Overgrowth (SIBO), Gastroparesis, Celiac disease, and reflux.

Beth is currently the vice-chairperson of the Dietitians in Gluten and Gastrointestinal Diseases (DIGID) subgroup of Dietitians in Medical Nutrition Therapy dietetics practice group of the Academy of Nutrition and Dietetics.



She is also the Director of Nutrition and Dietary Services for GI OnDEMAND providing integrative GI virtual care and support to patients. Beth has designed techniques and programs to empower chronic dieters, disordered eaters, and those in eating disorder recovery to mend their relationship with food and their bodies.

Download a free copy of "Own Your IBS organizer"

DOWNLOAD FOR FREE