Beyond Low Fiber:
Tailoring Fiber Recommendations Across GI Conditions

FODZYME
July 16th, 2026

Colleen Webb MS, RDN

GI dietitian, specializing in IBD

IBD Nutrition School

© Colleen Webb Nutrition PLLC. All rights reserved.

Disclosures

- No disclosures

© Colleen Webb Nutrition PLLC. All rights reserved.

Learning Objectives

- Describe the key properties of dietary fiber, including how solubility, viscosity, fermentability and particle size influence GI function, symptom tolerance, and the gut microbiome.
- Use an understanding of fiber properties to develop appropriate, individualized fiber modification strategies for patients with a variety of GI conditions knowing when restriction is warranted and when it's time to liberalize.
- Counsel patients on practical, preparation-based strategies for modifying fiber to improve tolerance, including cooking, blending, and texture modification, while preserving nutritional value and supporting the gut microbiome.

© Colleen Webb Nutrition PLLC. All rights reserved.

Today’s Roadmap

01

Fiber properties

Beyond soluble vs. insoluble

02

Rethinking Roughage

Why particle size matters

03

Clinical Application

Matching fiber properties to GI conditions

04

Questions & Discussion

© Colleen Webb Nutrition PLLC. All rights reserved.

01

Understanding Fiber Properties:
Moving Beyond Water Solubility

© Colleen Webb Nutrition PLLC. All rights reserved.

What is Dietary Fiber?

- A **diverse** family of CHO that resist digestion in the small intestine and are partially or fully fermented in the large intestine

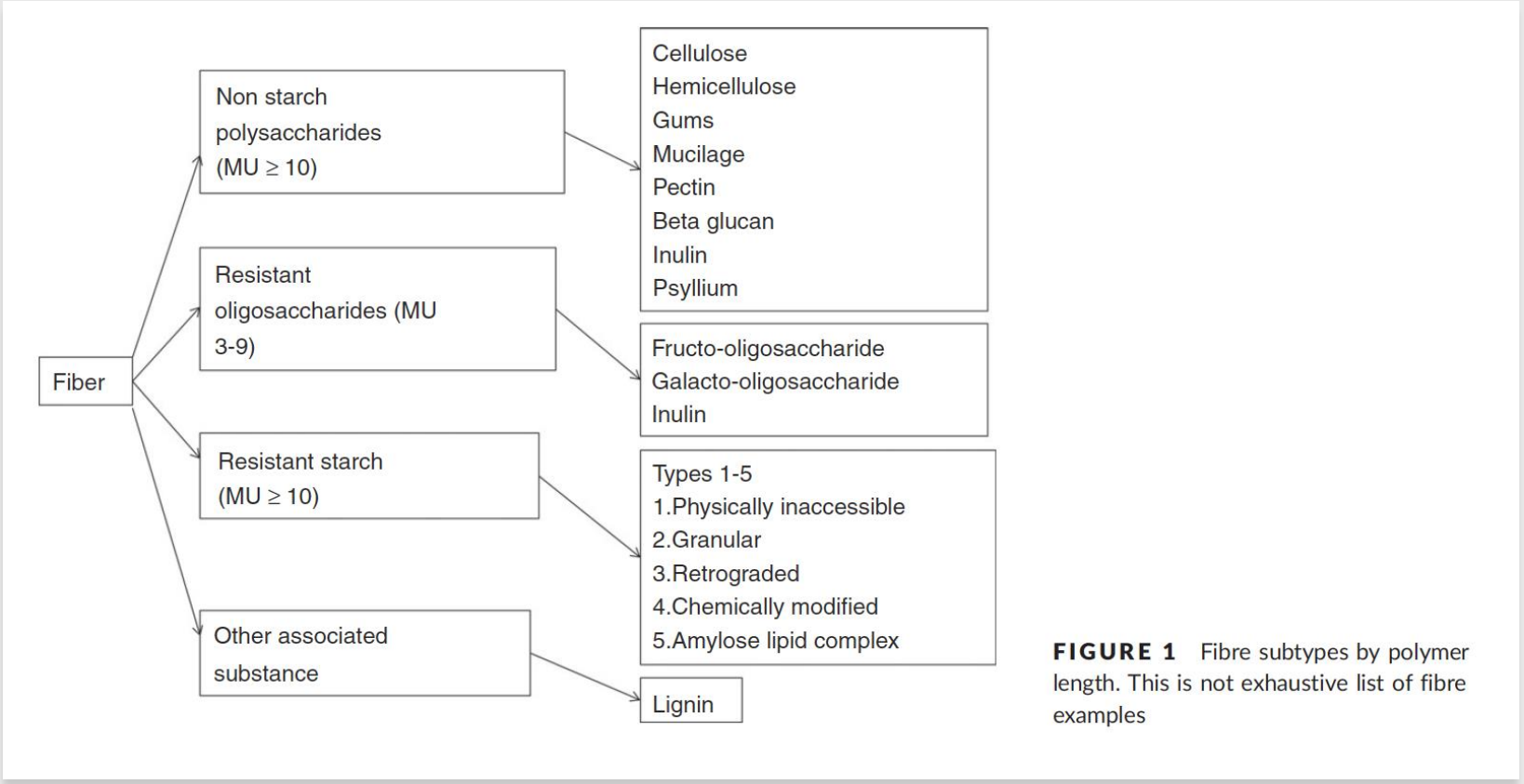


FIGURE 1 Fibre subtypes by polymer length. This is not exhaustive list of fibre examples

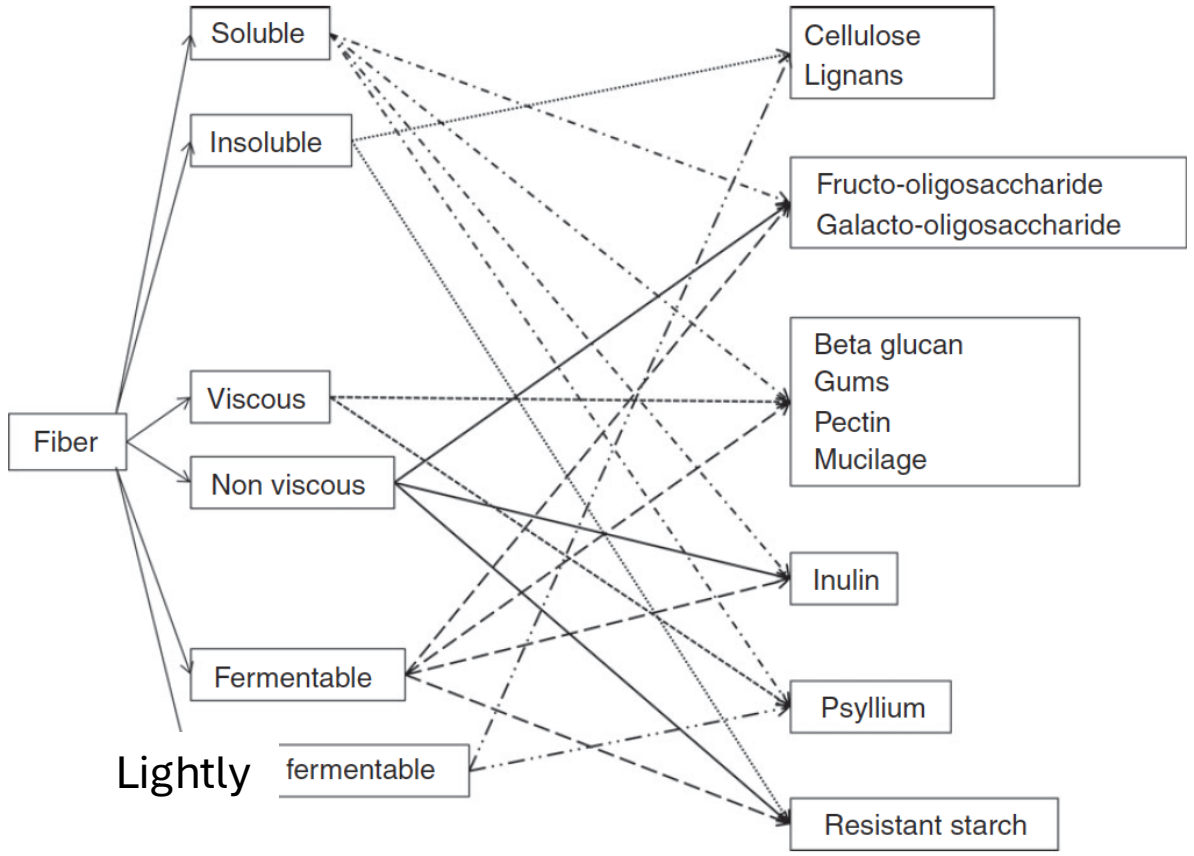
O'Grady et al. J *Aliment Pharmacol Ther*. 2019.

© Colleen Webb Nutrition PLLC. All rights reserved.

Key Properties of Fiber

- Solubility
- Viscosity
- Fermentability
- *Particle Size*

These properties determine how a fiber functions throughout the GI tract and, ultimately, its effects on health.

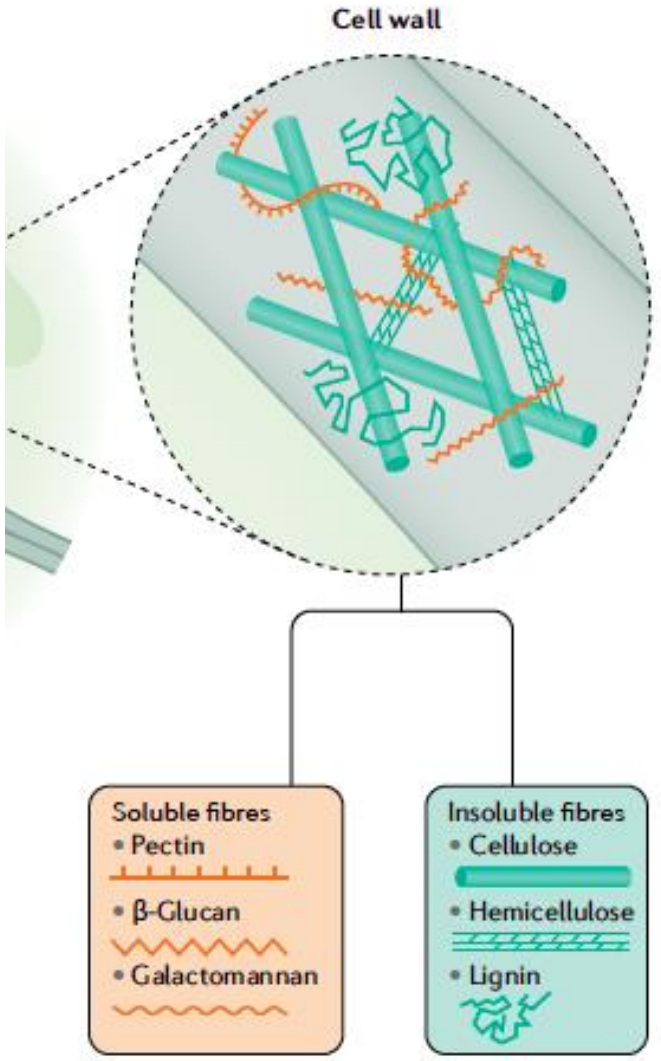


O'Grady et al. J *Aliment Pharmacol Ther*. 2019.

© Colleen Webb Nutrition PLLC. All rights reserved.

Key Property: Solubility

- Soluble fiber dissolves; insoluble fiber does not
- Determined by the fiber's molecular structure
- **Solubility <u>alone</u> does NOT predict physiological effects**



Gill et al. *Nat Rev Gastroenterol Hepatol*. 2021.

© Colleen Webb Nutrition PLLC. All rights reserved.

Key Property: Viscosity

- A fiber's ability to thicken and form a gel when mixed with water
- Associated with gums, pectins, beta-glucans and psyllium





Images used with permission by Pixabay 2026

© Colleen Webb Nutrition PLLC. All rights reserved.

Clinical Health Effects of Viscous Fiber

- Upper GI Tract
  - Slows gastric emptying and GI transit
  - Improves serum cholesterol
  - Improves glycemic control
  - Promotes satiety
  - Encourages nutrient absorption
- Lower GI Tract
  - Retains water in stool → soft, formed, easy-to-pass BMs
  - Can reduce symptoms of constipation, diarrhea and bowel urgency



Most viscous fibers from food lose viscosity in the large intestine and become more fermentable

© Colleen Webb Nutrition PLLC. All rights reserved.

Food sources of viscous fiber

- Oats and barley
- Legumes (lentils, chickpeas, beans)
- Apples and pears
- Citrus pith and peel
- Carrots
- Brussels sprouts
- Okra
- Chia seeds
- Ground flaxseed

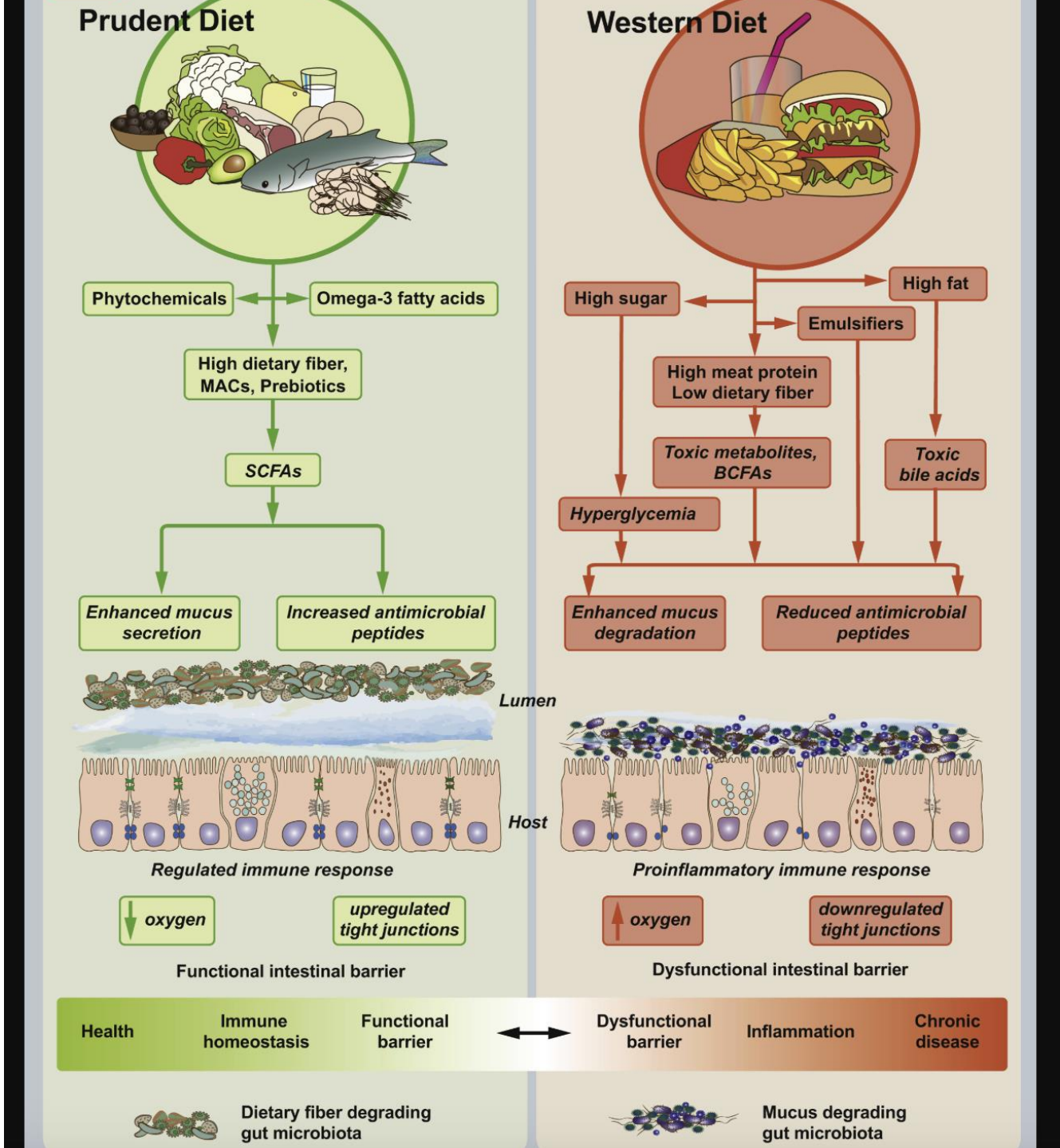


© Colleen Webb Nutrition PLLC. All rights reserved.

Image used with permission by Pixabay 2026

Key Property: Fermentability

- The degree to which gut microbes ferment dietary fiber in the large intestine → SCFAs
- Rate of fermentation depends on…
  - The fiber's chemical structure, solubility, viscosity and accessibility
  - The individual's gut microbiota & pH of the colon



© Colleen Webb Nutrition PLLC. All rights reserved.

Makki K, et al. *Cell Host Microbe*. 2018.

Fermentable… With the Right Microbes

- Some people with IBD lack microbes to ferment beta-fructans
- The unfermented fibers may interact with immune cells to fuel inflammation

© Colleen Webb Nutrition PLLC. All rights reserved.

Gastroenterology 2023;164:228–240

INFLAMMATORY BOWEL DISEASE

Unfermented β-fructan Fibers Fuel Inflammation in Select Inflammatory Bowel Disease Patients

Heather K. Armstrong,[1,2,3] Michael Bording-Jorgensen,[1,2] Deanna M. Santer,[4] Zhengxiao Zhang,[1,5,6] Rosica Valcheva,[1,5] Aja M. Rieger,[7] Justin Sung-Ho Kim,[8,9] Stephanie I. Dijk,[1,10] Ramsha Mahmood,[3] Olamide Ogungbola,[4] Juan Jovel,[1] France Moreau,[11] Hayley Gorman,[11] Robyn Dickner,[1,2] Jeremy Jerasi,[1,2] Inderdeep K. Mander,[1,2] Dawson Lafleur,[1,2] Christopher Cheng,[1,2] Alexandra Petrova,[2] Terri-Lyn Jeanson,[3] Andrew Mason,[1,5] Consolato M. Sergi,[12] Arie Levine,[13] Kris Chadee,[11] David Armstrong,[8] Sarah Rauscher,[8,9,14] Charles N. Bernstein,[3] Matthew W. Carroll,[2] Hien Q. Huynh,[2] Jens Walter,[1,15] Karen L. Madsen,[1,5] Levinus A. Dieleman,[1,5] and Eytan Wine[1,2,10]

[1]Centre of Excellence for Gastrointestinal Inflammation and Immunity Research, University of Alberta, Edmonton, Alberta, Canada; [2]Department of Pediatrics, University of Alberta, Edmonton, Alberta, Canada; [3]Department of Internal Medicine, University of Manitoba, Winnipeg, Manitoba, Canada; [4]Department of Immunology, University of Manitoba, Winnipeg, Manitoba, Canada; [5]Department of Medicine, Division of Gastroenterology, University of Alberta, Edmonton, Alberta, Canada; [6]College of Food and Biological Engineering, Jimei University, Xiamen, Fujian, China; [7]Department of Medical Microbiology and Immunology, University of Alberta, Edmonton, Alberta, Canada; [8]Department of Chemical and Physical Sciences, University of Toronto Mississauga, Mississauga, Ontario, Canada; [9]Department of Physics, University of Toronto, Toronto, Ontario, Canada; [10]Department of Physiology, University of Alberta, Edmonton, Alberta, Canada; [11]Department of Microbiology, Immunology and Infectious Disease, University of Calgary, Calgary, Alberta, Canada; [12]Anatomic Pathology Division, Children's Hospital of Eastern Ontario, Ottawa, Ontario, Canada; [13]Pediatric Gastroenterology Unit, Wolfson Medical Center, Tel-Aviv University, Holon, Israel; [14]Department of Chemistry, University of Toronto, Toronto, Ontario, Canada; and [15]APC Microbiome Ireland, School of Microbiology, and Department of Medicine, University College Cork, Cork, Ireland

See editorial on page 182.

BACKGROUND & AIMS: Inflammatory bowel diseases (IBD) are affected by dietary factors, including nondigestible carbohydrates (fibers), which are fermented by colonic microbes. Fibers are overall beneficial, but not all fibers are alike, and some patients with IBD report intolerance to fiber consumption. Given reproducible evidence of reduced fiber-fermenting microbes in patients with IBD, we hypothesized that fibers remain intact in select patients with reduced fiber-fermenting microbes and can then bind host cell receptors, subsequently promoting gut inflammation. **METHODS:** Colonic biopsies cultured ex vivo and cell lines in vitro were incubated with oligofructose (5 g/L), or fermentation supernatants (24-hour anaerobic fermentation) and immune responses (cytokine secretion [enzyme-linked immunosorbent assay/meso scale discovery] and expression [quantitative polymerase chain reaction]) were assessed. Influence of microbiota in mediating host response was examined and taxonomic classification of microbiota was conducted with Kraken2 and metabolic profiling by HUMAnN2, using R software. **RESULTS:** Unfermented dietary β-fructan fibers induced proinflammatory cytokines in a subset of IBD intestinal biopsies cultured ex vivo, and immune cells (including peripheral blood mononuclear cells). Results were validated in an adult IBD randomized controlled trial examining β-fructan supplementation. The proinflammatory response to intact β-fructan required activation of the NLRP3 and TLR2 pathways. Fermentation of β-fructans by human gut whole microbiota cultures reduced the proinflammatory response, but only when microbes were collected from patients without IBD or patients with inactive IBD. Fiber-induced immune responses correlated with microbe functions, luminal metabolites, and dietary fiber avoidance. **CONCLUSION:** Although fibers are typically beneficial in individuals with normal microbial fermentative potential, some dietary fibers have detrimental effects in select patients with active IBD who lack fermentative microbe activities. The study is publicly accessible at the U.S. National Institutes of Health database (clinicaltrials.gov identification number NCT02865707).

Keywords: Dietary Fibers; Microbiome; IBD; Fermentation.

Digestible carbohydrates are degraded in the small intestine; nondigestible carbohydrates (fiber and resistant starch) are fermented by colonic microbes.[1] Fermentation of dietary fibers produces gases, lactate, and short chain fatty acids (SCFAs),[2,3] with multiple beneficial physiological effects,[3] but fibers have also been shown to be harmful in select situations.[4,5] The beneficial potential for fermentable fibers in inflammatory bowel diseases (IBD) is demonstrated by low SCFA production, especially in

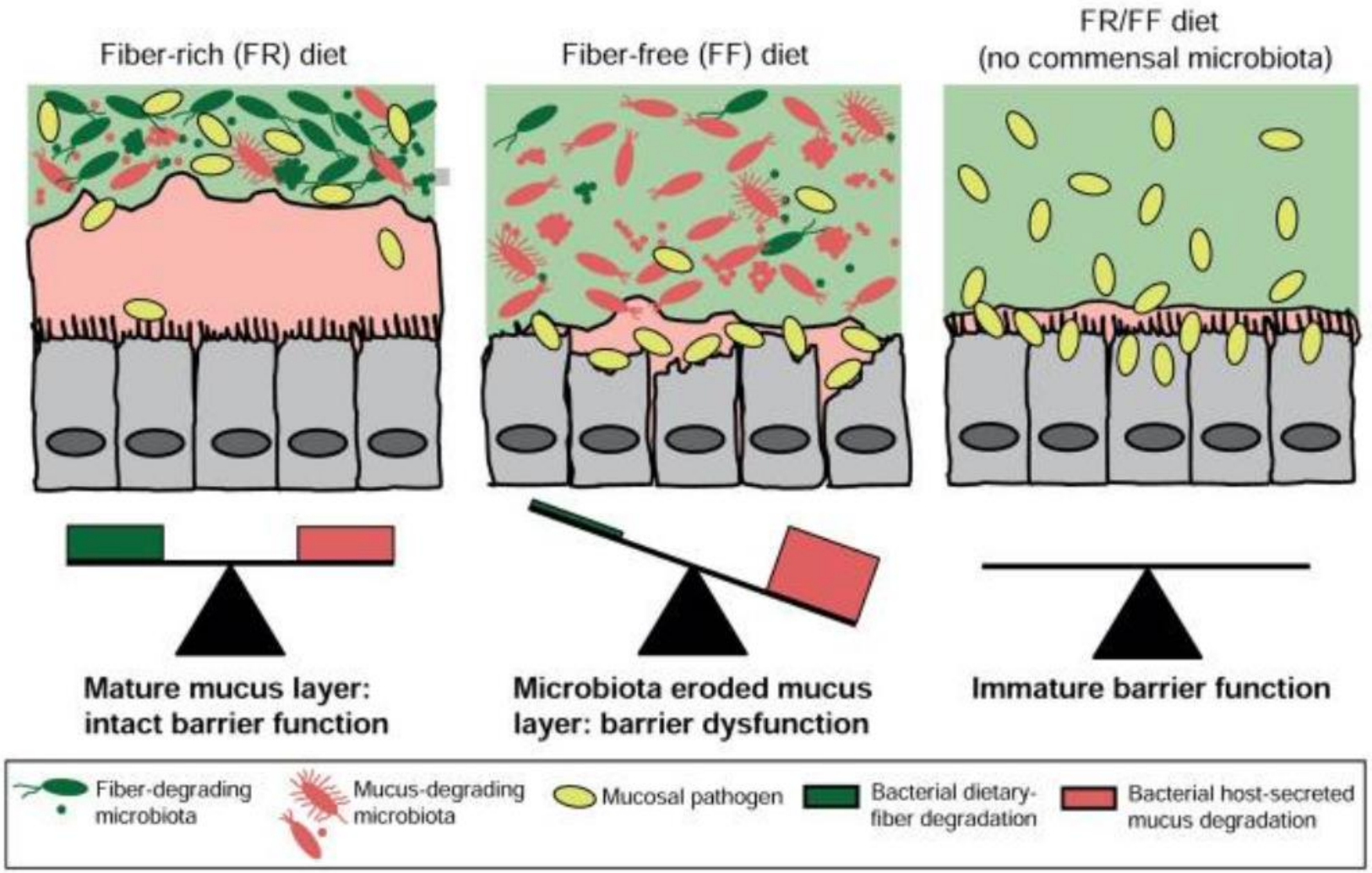
Abbreviations and Acronyms: **AUC, area under the curve; CD, Crohn disease; DP, degree of polymerization; ELISA, enzyme-linked immunosorbent assay; FFQ, food frequency questionnaire; FOS, oligofructose; FSC, forward scatter; IBD, inflammatory bowel diseases; IL, interleukin; NF, no fiber; NR, nonresponder; PBMC, peripheral blood mononuclear cell; R, responder; RCT, randomized controlled trial; ROC, receiver operating characteristic; RT-qPCR, reverse-transcriptase quantitative polymerase chain reaction; SCFA, short chain fatty acid; UC, ulcerative colitis.**

Most current article

© 2023 The Author(s). Published by Elsevier Inc. on behalf of the AGA Institute. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

0016-5085
https://doi.org/10.1053/j.gastro.2022.09.034

What happens when mice are starved of fiber?

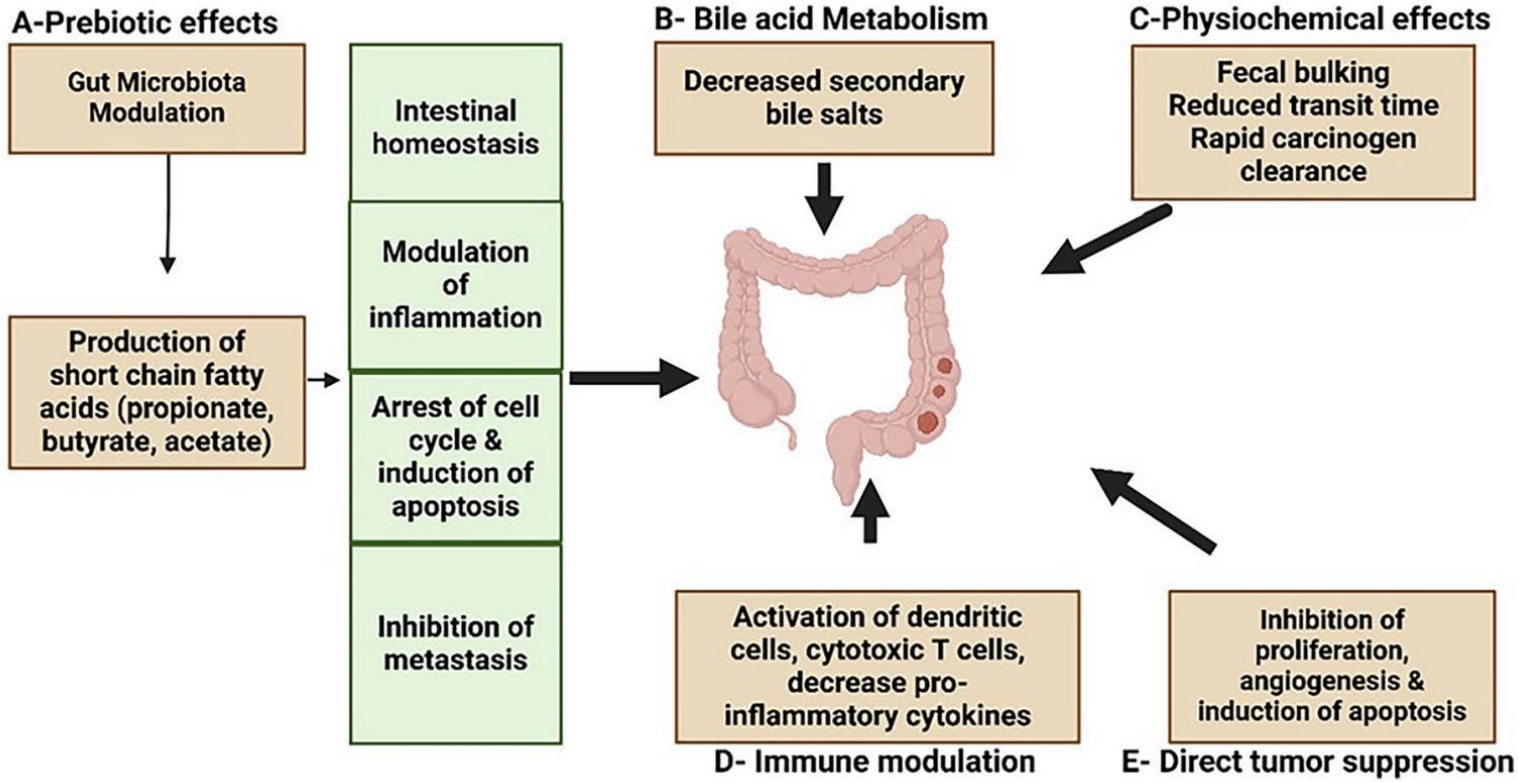


© Colleen Webb Nutrition PLLC. All rights reserved.

Desai MS, et al. *Cell*. 2016.

Colorectal Cancer: Why Fiber Variety Matters

- Consuming an extra 10 grams of dietary fiber per day reduces the risk of CRC by 10% (Hussain MB, et al. 2025)
- Cereal fiber has the strongest evidence for CRC prevention, particularly **distal and rectal cancers**
- Fruits & vegetables are protective against adenoma formation
- Legumes may reduce advanced adenoma recurrence



© Colleen Webb Nutrition PLLC. All rights reserved.

Hussain MB, et al. *Ann Med*. 2025.

Diverticular Disease: Why Fiber Variety Matters



diverticulosis Image courtesy S Bhimji MD

- A variety of fiber-rich foods may reduce the risk of diverticulitis
  - ↓ Risk of hard, dry stool obstructing diverticula
  - ↓ Intraluminal pressure
  - ↑ Beneficial gut microbes and SCFAs
  - ↑ Colonic exposure to polyphenols

© Colleen Webb Nutrition PLLC. All rights reserved.

Marinaccio C, et al. *Neurogastroenterol Motil*. 2025.

Before We Move On: What to Remember

- Solubility alone does not predict physiological effects
- Viscous in the small intestine ≠ viscous in the large intestine *(psyllium is an exception)*
- The more fermentable a fiber, the less direct impact on stool weight and transit
- Fiber's behavior in the body depends on a variety of factors, even within the same fiber subtype
- Fiber research is incredibly complex and in vitro studies ≠ what happens in the human body

© Colleen Webb Nutrition PLLC. All rights reserved.

02

Rethinking Insoluble Fiber:
Why Particle Size Matters

© Colleen Webb Nutrition PLLC. All rights reserved.

Why Particle Size Matters:
The Mechanical Effect of Roughage

Large particle size (insoluble fiber)

→ Mechanically stimulates colon

→ ↓ Gut transit time

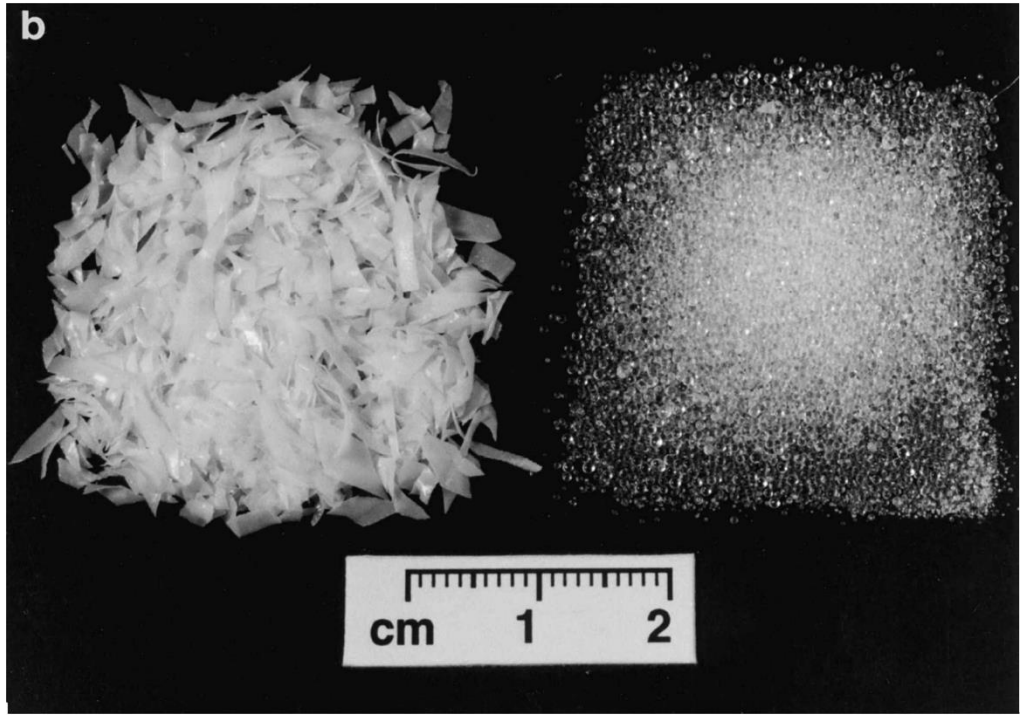
→ ↑ Bulkier BMs

→ ↑ Mucus secretion

→ ↑ Water secretion

→ ↑ Stool weight

→ ↑ Peristalsis



Lewis SJ, et al. *Dig Dis Sci*. 1999.

© Colleen Webb Nutrition PLLC. All rights reserved.

When reducing particle size can be helpful

When might reducing roughage improve tolerance to fiber-rich foods?	Examples
Active intestinal inflammation	Crohn's disease, UC, diverticulitis, other forms of colitis
Obstruction Risk	Crohn's strictures, postoperative adhesions/scar tissue, anastomotic narrowing
Delayed gastric emptying	Gastroparesis
Painful bowel movements	Perianal Crohn's disease, anal fissures
Early post-operative recovery	GI surgery
Rapid GI transit	IBS-D (select patients), functional diarrhea, accelerated gastrocolic reflex

Not an exhaustive list

© Colleen Webb Nutrition PLLC. All rights reserved.

STOP thinking about fiber.



© Colleen Webb Nutrition PLLC. All rights reserved.

High → Low Roughage Swaps

- Fruit salad → Smoothie
- Apple → apple sauce
- Raw vegetable salad → Well-cooked/soft veggies, vegetable soup
- Whole nuts → Creamy nut butters
- Sesame seeds → tahini
- Wheat berries → Finely milled whole wheat bread
- Whole corn kernels → Corn tortillas





Used with permission by Pixabay 2026

© Colleen Webb Nutrition PLLC. All rights reserved.

Low Roughage, Not Low Fiber

Gentle High Fiber Foods	Est. Fiber (g)
Avocado, 1 fruit	10
Banana, medium	4
Creamy nut butter, 2 tbsp	3
Sweet potato, no peel, cooked, medium	4
Rolled oats, ½ cup dry	4
Hummus, 2.5 oz	3
Cooked carrots, 1 cup	5
Pureed butternut squash soup, 1 cup	4



© Colleen Webb Nutrition PLLC. All rights reserved.

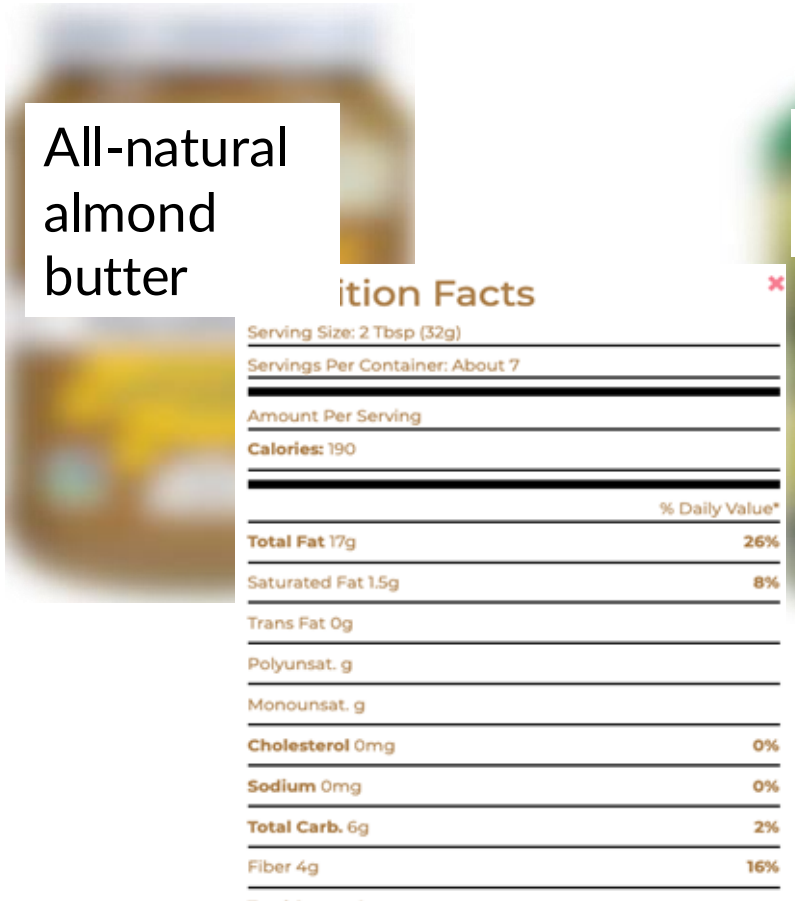
Image used with permission by Pixabay 2026

Focus on texture, NOT grams of fiber.

© Colleen Webb Nutrition PLLC. All rights reserved.

Low-Roughage Foods with Gentle Fiber

All-natural almond butter



Baby food pouch



Pureed soup



© Colleen Webb Nutrition PLLC. All rights reserved.

Reducing particle size changes more than texture

1 ↓

Mechanical laxative effect

Coarse intact particles physically stimulate the mucosa. Small, milled particle sizes do not.

Coarse wheat bran → fine wheat bran

2 ↑

Fermentation capacity

Smaller particles expose more surface area to bacterial enzymes.

Blended smoothie → more potential for fermentation.

3 ↑

Expressed viscosity

Reducing particle size can disrupt cell walls, releasing soluble fiber into solution where it can hydrate and form a gel.

Whole flaxseed → ground flaxseed

© Colleen Webb Nutrition PLLC. All rights reserved.

03

Putting Fiber Properties into Practice

© Colleen Webb Nutrition PLLC. All rights reserved.

How Fiber Properties Influence GI Function

Fiber Property	Primary Effects	Potential Concerns
Particle size (roughage)	Mechanical stimulation, ↑ stool weight, faster transit	↑ obstruction risk, may worsen abdominal pain, diarrhea
Viscosity	Softens hard stools, ↑ stool bulk, improves stool consistency	May slow gastric emptying
Fermentability	↑ bacterial biomass, SCFAs, indirect laxative effect	May ↑ gas, bloating, abdominal distension, abdominal pain

© Colleen Webb Nutrition PLLC. All rights reserved.

Constipation: Not all Fiber Works the Same

Underlying Cause	Fiber property	Practical Recommendations
Slow transit	↑ Roughage, ↑ viscosity	Coarse bran, psyllium, prunes*, figs* (*high FODMAP)
IBS-C	↑ Viscosity, ↓ fermentability (if gas and bloating is present)	Kiwi (more than fiber), psyllium
Pelvic floor dysfunction	↓ roughage as needed	Refer to pelvic floor therapist for assessment; biofeedback
Low fiber intake	↑ Total fiber + diversity	Mediterranean-style diet, 1-2-3 Rule, hydration

© Colleen Webb Nutrition PLLC. All rights reserved.

When Reducing Particle Size Helps:
Risk of Obstruction

Common scenarios:

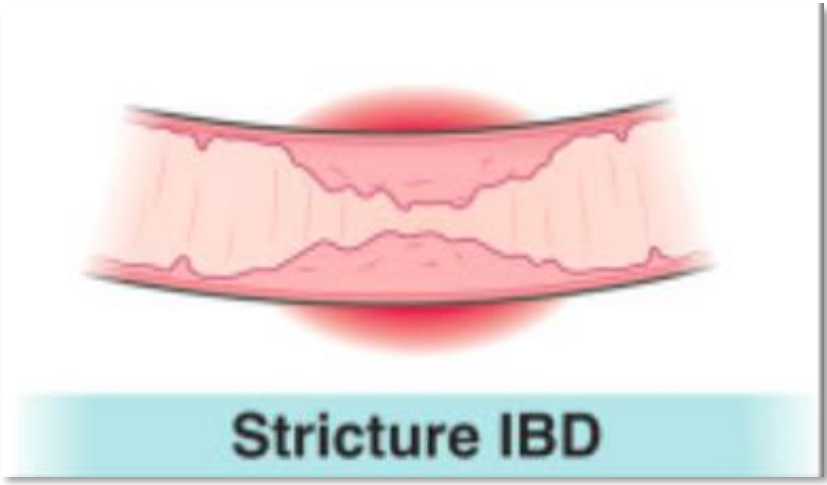
- Stricturing Crohn's disease
- Scar tissue/adhesions 2/2 abdominal surgery
- Anastomotic narrowing (J-Pouch, ileostomy)
- Radiation enteritis

Fiber focus:

- ↓ particle size *to reduce risk of obstruction*

Additional strategies:

- Eat smaller, more frequent meals
- Chew thoroughly
- Maintain adequate hydration
- Beware of roughage from animal sources (e.g., sausage casings, tough cuts of meat)



Hashash JG, Elkins J, Lewis JD, Binion DG. AGA Clinical Practice Update on Diet and Nutritional Therapies in Patients With Inflammatory Bowel Disease: Expert Review. *Gastroenterology*. 2024;166(3):521-532. doi:10.1053/j.gastro.2023.11.303

© Colleen Webb Nutrition PLLC. All rights reserved.

When Reducing Particle Size Helps:
Active Inflammation

Common scenarios:

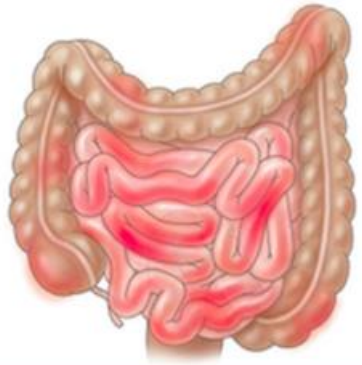
- Crohn's disease flare
- Ulcerative colitis (UC) flare
- Acute diverticulitis
- Post-Operative GI Recovery

Fiber focus:

- ↓ particle size (low roughage) *to manage symptoms*

Additional Strategies:

- Choose soft fruits and vegetables without thick skins, seeds and stalks (e.g., avocado)
- Eat smaller, more frequent meals
- Chew thoroughly
- **Gradually liberalize roughage as symptoms improve**



Inflamed CD

Hashash JG, Elkins J, Lewis JD, Binion DG. AGA Clinical Practice Update on Diet and Nutritional Therapies in Patients With Inflammatory Bowel Disease: Expert Review. *Gastroenterology*. 2024;166(3):521-532. doi:10.1053/j.gastro.2023.11.303

© Colleen Webb Nutrition PLLC. All rights reserved.

When Reducing Particle Size Helps:
Rapid GI Transit

Common scenarios:

- IBS-D (*always evaluate for other causes of diarrhea, such as BAD, CHO malabsorption, SIBO, active inflammation, infection)*
- Functional diarrhea
- Post-surgical patients

Fiber focus:

- ↓ particle size (low roughage) *to slow down transit time*
- ↑ viscosity *(see next slide)*

Additional Strategies:

- Eat smaller, more frequent meals
- Chew thoroughly
- Be cautious of common IBS-D food triggers (greasy foods, spicy foods)

© Colleen Webb Nutrition PLLC. All rights reserved.

When Stool Thickening is the Goal

Common scenarios:

- Bowel urgency
- Bowel frequency
- Loose stools / output (J-pouch, ileostomy)
- IBS-D (*select patients)*

Fiber focus:

- ↑ Viscosity

Practical takeaway:

- Soft-cooked oats before bed can reduce overnight BMs/output
- Supplementing with psyllium can thicken stools and reduce stool frequency



Image used with permission by Pixabay 2026

© Colleen Webb Nutrition PLLC. All rights reserved.

When Reducing Gas and Bloating is the Goal

Common symptoms:

- Excessive flatulence
- Abdominal bloating / distension from gas

**Correct constipation first if that's primary cause for above symptoms*

Fiber focus:

- ↓ Reduce intake of rapidly fermentable fibers
- ↑ Favor slowly fermentable fibers (as tolerated)

Additional Strategies:

- Short-term low FODMAP when appropriate
- Consider sucrase-isomaltase deficiency
- Trial of digestive enzymes when appropriate
- Consider co-administering psyllium with highly fermentable foods (emerging evidence) Gunn, et al. *Gut*. 2022.



Image used with permission by Pixabay 2026

© Colleen Webb Nutrition PLLC. All rights reserved.

Gastroparesis: Old vs. New Recommendations

TRADITIONAL ADVICE

- Small, frequent meals
- Low fat
- Low fiber

→

CURRENT EVIDENCE

- Small, frequent meals
- Low fat
- **Small particle size: *Applies to all foods, not just fiber***

Recommendation

6. Dietary management of gastroparesis should include a small particle diet to increase likelihood of symptom relief and enhance GE. (conditional recommendation, low quality of evidence)

© Colleen Webb Nutrition PLLC. All rights reserved.

Rubin et al., Practical Gastroenterology 2024 | Camilleri et al., ACG Guidelines 2022

Gastroparesis: Why particle size matters

Normal stomach

Grinds food to <2mm particles before the pylorus allows passage into the duodenum.

Gastroparetic stomach

Grinding mechanism is impaired, so larger particles accumulate and delay emptying

The solution

Pre-process food outside the stomach, so it arrives in a form the pylorus can easily pass.

This applies to all foods, not just fibrous ones. Pasta, rice, and whole meat can be just as problematic as raw vegetables.

© Colleen Webb Nutrition PLLC. All rights reserved.

Gastroparesis: Putting it into practice

Small particle ✓

- Pureed / mashed vegetables
- Blended fruit, ripe banana
- Minced / ground meat
- Mashed potato, pasty rice
- Scrambled eggs, Greek yogurt

Medium particle ?

- Soft cooked vegetables
- Canned soft fruit
- Flaked baked fish
- Boiled soft potato
- Soft scrambled eggs

Large particle ✗

- Raw vegetables
- Fresh fruit with skin / seeds
- Whole cuts of meat
- Pasta, rice, fried foods
- Hard boiled eggs, nuts

© Colleen Webb Nutrition PLLC. All rights reserved.

Adapted from Olausson et al. 2014 | Rubin et al., Practical Gastroenterology 2024

Gastroparesis: Where Viscosity May not work

Viscous, gel-forming fibers delay gastric emptying

Psyllium, oat beta-glucan, and guar gum all fall into this category.

Low-viscosity soluble fibers like PHGG (Sunfiber) regulated blood glucose comparably to psyllium — with far fewer GI symptoms.

May allow some fiber intake without worsening emptying.

For fiber supplementation in gastroparesis:

Avoid or use cautiously: psyllium, oat beta-glucan

Consider: PHGG slowly fermentable, low viscosity, well-tolerated in pilot study

© Colleen Webb Nutrition PLLC. All rights reserved.

Suresh et al., Nutrients 2021

Tailoring Fiber Recommendations:
Key Takeaways

- **Educate patients in terms of foods, not "fiber"**
- Maximize fiber-rich foods whenever possible, modifying texture before eliminating foods
- To diversify fiber intake, consider:
  - The 1-2-3 Rule: Eat 1 plant at breakfast, 2 at lunch, and 3 at dinner (read more here)
  - 30+ unique plants per week
- Provide patients with specific meal ideas that address their unique challenges (cost, time, lack kitchen skills)

© Colleen Webb Nutrition PLLC. All rights reserved.

References

- Camilleri M, Kuo B, Nguyen L, et al. ACG clinical guideline: gastroparesis. Am J Gastroenterol. 2022;117(8):1197-1220.
- Desai MS, Seekatz AM, Koropatkin NM, et al. A Dietary Fiber-Deprived Gut Microbiota Degrades the Colonic Mucus Barrier and Enhances Pathogen Susceptibility. Cell. 2016;167(5):1339-1353.e21. doi:10.1016/j.cell.2016.10.043
- Gill SK, Rossi M, Bajka B, Whelan K. Dietary fibre in gastrointestinal health and disease. Nat Rev Gastroenterol Hepatol. 2021;18(2):101-116. doi:10.1038/s41575-020-00375-4
- Gunn D, Abbas Z, Harris HC, et al. Psyllium reduces inulin-induced colonic gas production in IBS: MRI and in vitro fermentation studies. Gut. 2022;71(5):919-927. doi:10.1136/gutjnl-2021-324784
- Hashash JG, Elkins J, Lewis JD, Binion DG. AGA Clinical Practice Update on Diet and Nutritional Therapies in Patients With Inflammatory Bowel Disease: Expert Review. Gastroenterology. 2024;166(3):521-532. doi:10.1053/j.gastro.2023.11.303
- Hussain MB, Albukhari AF, Rafeeq M, Imran M, Albagholi AH, Assedoodi MA. Anticancer potential of dietary fiber for colorectal carcinoma: a narrative review. Ann Med. 2025;57(1):2583756. doi:10.1080/07853890.2025.2583756
- Islami F, Goding Sauer A, Miller KD, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. CA Cancer J Clin. 2018;68(1):31-54. doi:10.3322/caac.21440
- Lewis SJ, Heaton KW. Roughage revisited: the effect on intestinal function of inert plastic particles of different sizes and shape. Dig Dis Sci. 1999;44(4):744-748. doi:10.1023/A:1026613909403
- Makki K, Deehan EC, Walter J, Bäckhed F. The Impact of Dietary Fiber on Gut Microbiota in Host Health and Disease. Cell Host Microbe. 2018;23(6):705-715. doi:10.1016/j.chom.2018.05.012
- Marinaccio C, Altomare A, Neri B, et al. Fibers and Polyphenols in Diverticular Disease: From Pathophysiology to Management. Neurogastroenterol Motil. 2025;37(12):e70171. doi:10.1111/nmo.70171
- McRorie JW Jr, McKeown NM. Understanding the Physics of Functional Fibers in the Gastrointestinal Tract: An Evidence-Based Approach to Resolving Enduring Misconceptions about Insoluble and Soluble Fiber. J Acad Nutr Diet. 2017;117(2):251-264. doi:10.1016/j.jand.2016.09.021
- O'Grady J, O'Connor EM, Shanahan F. Review article: dietary fibre in the era of microbiome science. Aliment Pharmacol Ther. 2019;49(5):506-515. doi:10.1111/apt.15129
- Rubin E, Noverati N, Moleski S. Diet-based treatments of gastroparesis with a special focus on small particle size. Pract Gastroenterol. 2024;48(9).
- Siegel RL, Wagle NS, Star J, Kratzer TB, Smith RA, Jemal A. Colorectal cancer statistics, 2026. CA Cancer J Clin. 2026;76(2):e70067. doi:10.3322/caac.70067
- Suresh H, Zhou J, Ho V. The Short-Term Effects and Tolerability of Low-Viscosity Soluble Fibre on Gastroparesis Patients: A Pilot Clinical Intervention Study. *Nutrients*. 2021;13(12):4298. Published 2021 Nov 28. doi:10.3390/nu13124298
- Tan JK, Macia L, Mackay CR. Dietary fiber and SCFAs in the regulation of mucosal immunity. J Allergy Clin Immunol. 2023;151(2):361-370. doi:10.1016/j.jaci.2022.11.007
- von Muhlenbrock C, Aronsohn F, Quera R, Madrid AM. The role of dietary fiber in the gastrointestinal tract: when, how and why? Best Pract Res Clin Gastroenterol. 2025;79:102080. doi:10.1016/j.bpg.2025.102080

Thank you!

Download your free GI Fiber Clinical Reference

A two-page summary of today's framework, including:

- ✓ Matching fiber properties to common GI conditions
- ✓ Practical food recommendations
- ✓ Clinical pearls from today's webinar

Scan to download

Stay connected!

colleenwebbnutrition.com

IBDNutritionSchool.com

✉️ Join my newsletter for evidence-based GI nutrition updates