

IBS INNOVATIONS

IRRITABLE BOWEL SYNDROME



Syndrome: “A characteristic symptom complex”

A “syndrome” is, by definition, described by symptoms

IBS is the MOST COMMONLY DIAGNOSED GI Condition

(UpToDate)

A top 10 reason for primary care visits (AGA)

All disease begins in the gut

-Hippocrates

Photo from University of Minnesota Medical School

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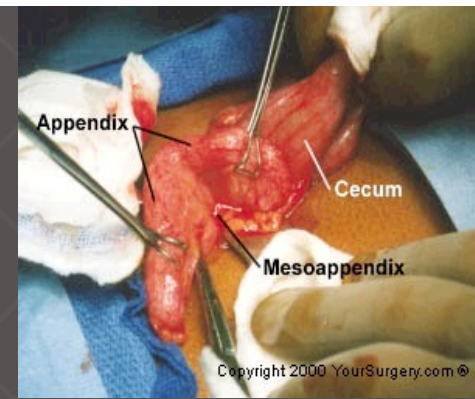
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No disclosures.

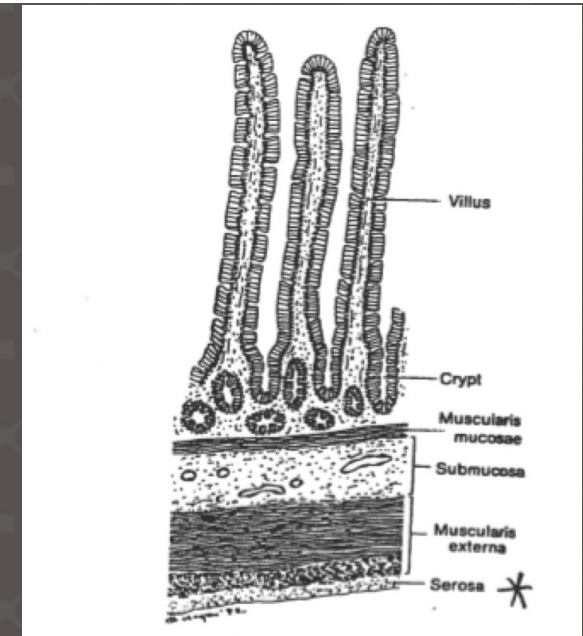
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@JerrythePA

MY INTEREST



I have a 25 year interest in the GI tract.

It began simply as a technical interest- how to resect the bowel, staple, suture and scope it. As time went on, I became more interested in its physiology, neurologic innervation, absorption etc.

I've come to realize that the gut

- is a key part of our immune system & overall ecosystem
- oral medication can alter its function
- nutrition can affect and is affected by its role.
- Probiotics are an important prescription for many
- FMT will be seen more often

OBJECTIVES

- Describe the incidence, prevalence, and pathophysiology of irritable bowel syndrome (IBS) and conditions that are commonly comorbid with IBS
- Summarize the clinical features of IBS, including extraintestinal symptoms and psychological features
 - Compare and contrast IBS-D, IBS-C, and IBS-M
 - Describe the role of the gut-brain connection in IBS, including the vagus nerve and gastocolic reflex
 - Discuss the role of diagnostic studies, including laboratory studies, and identify conditions that should be included in the differential diagnosis of IBS
 - Describe the initial evaluation and assessment of patients with suspected IBS, including presenting signs and symptoms, testing, and clinical diagnostic criteria
 - Based on subtypes, review the approach to the management of a patient with IBS, including nutrition, lifestyle, and pharmacotherapies

“I have a gut feeling”

“I have butterflies in my stomach!”

IBS- JOIN THE REVOLUTION!

More and more data supports the fact that for many with IBS, there is an etiology which can be managed.

- Should be more than a diagnosis of exclusion

-It's never "just IBS"

-Avoid the "functional" term

- IBS can impact patients as much as irritable bowel syndrome.



IBS OVERVIEW

A disorder of gut–brain interaction affecting approximately 4% of adults

- Sanna *The Lancet Gastroenterology & Hepatology*, 2024, [https://doi.org/10.1016/S2468-1253\(24\)00045-1](https://doi.org/10.1016/S2468-1253(24)00045-1).

Abdominal pain- always a feature of IBS

Irregular defecation- always a feature of IBS
(constipation, diarrhea, or alternating)

50% of patients present under age 35

Rare to develop over 50

F > M

50% will grow out of it after 5-6 years

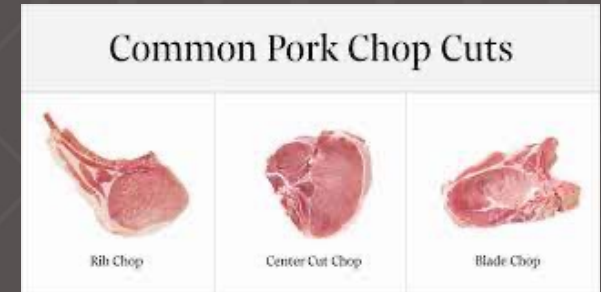
Visceral hypersensitivity

Strong association with fibromyalgia & chronic fatigue

WHY DO PEOPLE GET IBS? LOOK FOR A CAUSE!

1. Post infectious

- 20% occur after gastroenteritis, parasite
- Viral gastroenteritis can alter microbiome
- Evidence for post-infectious SIBO
 - Pork parasites *Taenia*, *Trichinella* and *Toxoplasma gondii* have been responsible for the majority of suffering from pork-borne illness
 - H Pylori, C.diff
 - Major bacterial foodborne pathogens in swine:
 - Salmonella, Campylobacter, Listeria, Yersinia
 - *Rifaximin- treat early for IBS-D*
- Post-COVID syndrome



Submit a Manuscript <https://www.f0publishing.com>

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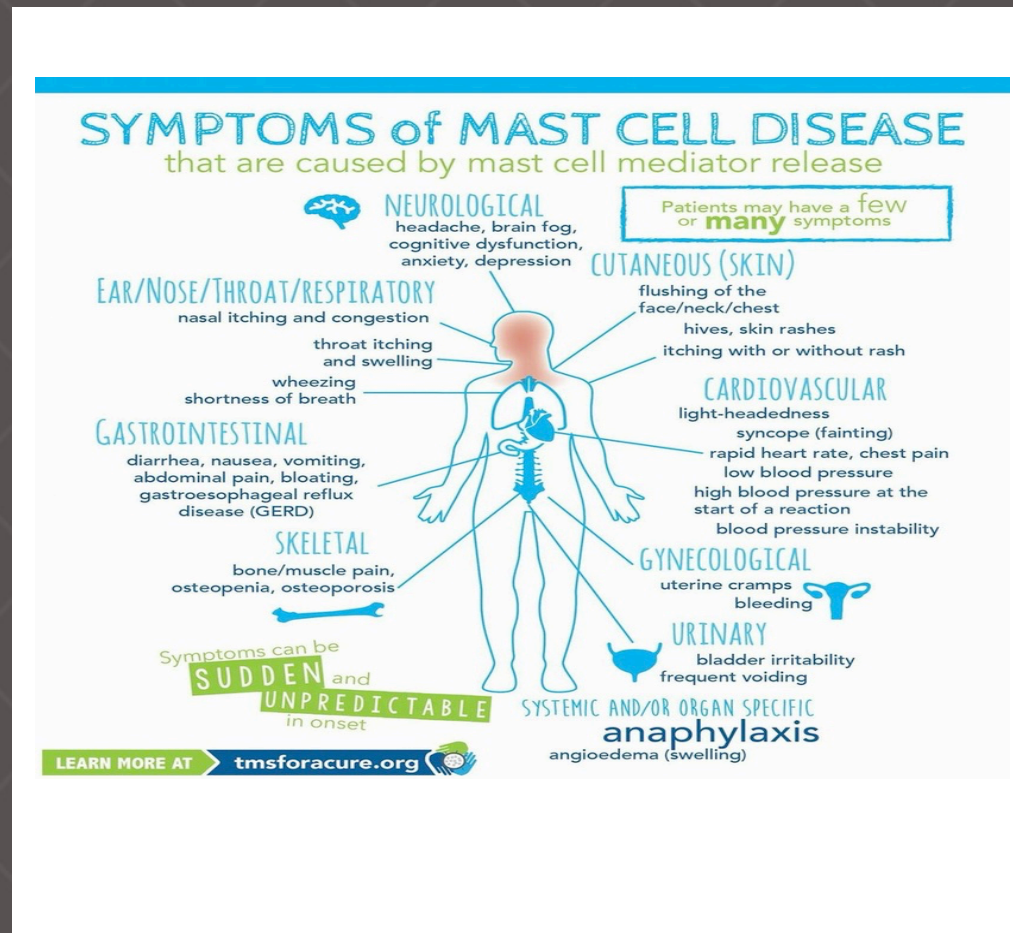
OPINION REVIEW

COVID-19 as a trigger of irritable bowel syndrome: A review of potential mechanisms

WHY DO PEOPLE GET IBS?

2. Inflammation

- Serum markers may be normal
- Endoscopic bx show more lymphocytes and MAST cells in many
 - MAST cell syndrome – many abdominal complaints – consider antihistamines



WHY DO PEOPLE GET IBS?

3. Food sensitivity

- Usual suspects: Gluten (the protein in wheat, barley, rye) lactose, fermenting foods PA: “Do me a favor, try no wheat/lactose”

4. Alteration in fecal microflora

- Yes, this is actually on UpToDate! **Order a stool test!**
- Multiple in antibiotics in childhood
 - N=50k (2021)



BASIC STOOL TESTS COVERED BY INSURANCE USE THE RIGHT CODES!

-INFECTION

Bacteriology; Aerobic; stool CPT: 87045

Bacteriology, stool CPT: 87045

H.pylori, stool, eia CPT: 87338

Stool Culture CPT: 87045 001 87427 001 87046 001

White Blood Cells (WBC), Stool CPT: 89055 001

Yeast culture, stool CPT: 87102

-INFLAMMATION

Fecal Zonulin CPT: 83520

Lactoferrin, stool CPT: 83631

CALPROTECTIN, FECAL CPT: 83993

-ABSORPTION

Assay of fecal fat CPT: 82715

ph, stool CPT: 83986

R10.0: Acute abdomen (ICD10), R14.1: Gas pain (ICD10), R19.5: Other fecal abnormalities (ICD10), R19.8: Oth symptoms and signs involving the dgstv sys and abdomen (ICD10), D72.9: Disorder of white blood cells, unspecified (ICD10)

WHY DO PEOPLE GET IBS?

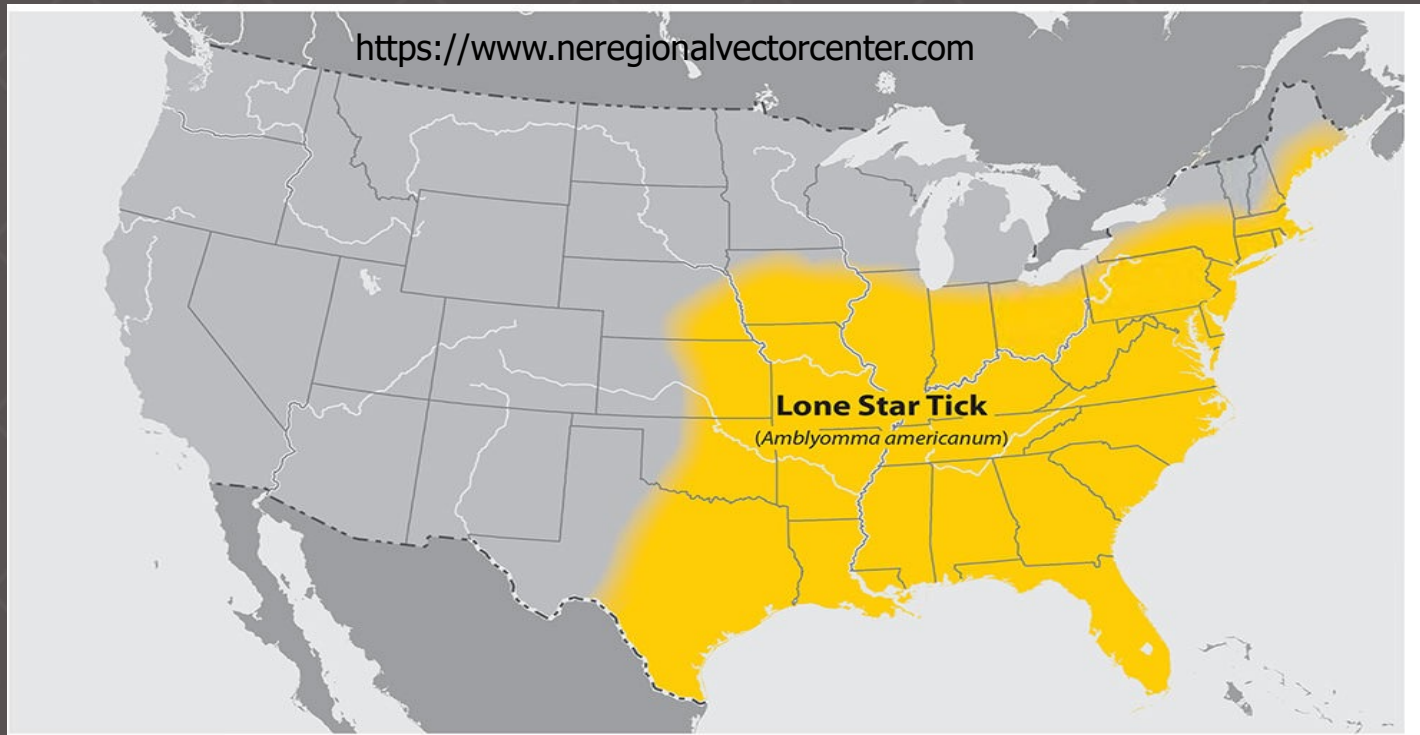
5. Visceral hypersensitivity

Patients have a stronger reaction to effects of gas/bloat

- Theory: Gut-brain connection— many w IBS have anxiety/depression (*UpToDate*)
- Gastrocolic reflex:
 - An intrinsic reflex of the Enteric Nervous System
 - Myoelectric activity can be detected within minutes of food consumption!
 - Gastro (afferent: sensing incoming food) → colic (efferent: emptying)-especially sigmoid
 - Neuropeptide mediators involved: CCK, serotonin, neurotensin, gastrin
 - Theory: IBS has a heightened gasto-colic reflex, exacerbated by `gut-brain`

6. Lone star tick bite

- Alpha gal meat allergy
- Especially if new onset IBS over the age of 50
 - Abdominal pain, cramping, loose stools
 - Delayed reaction
- The bite transfers a sugar molecule called alpha-gal. In This triggers a mild to severe allergic reactions to red meat, such as beef, pork or lamb, and products containing these products (gelatin, marshmallows, etc.)



8. Genetics

9. Stress (usually an exacerbating factor)

- Higher levels of anxiety in IBS patients
- Gut brain connection

Reminder:

Look for abnormal GI motility

- Colonic > SB
- Too fast, too slow, or both



Know this!

PRESENTATION OF IBS

1. Abdominal pain. "Stomach ache"

- Cramping, twisting
- Cyclical
- Pain can be **RELEIVED** w BM or **EXACERBATED** by BM
- No pain? Then it's not IBS

2. Gas/bloat/distension

- Cyclical
- Sensation of increased gas Look for mild thrush!

3. Change in stool frequency

4. Change in stool form

5. Sensation of incomplete emptying

Gas and pain
can range
from mild to
severe and
can be
cyclical

"IBS is very common, how do you diagnosis it?"

"I use the ROME criteria, of course!"

ROME IV CRITERIA

Recurrent abdominal pain

1. At least *one day per week* in the last 3 months

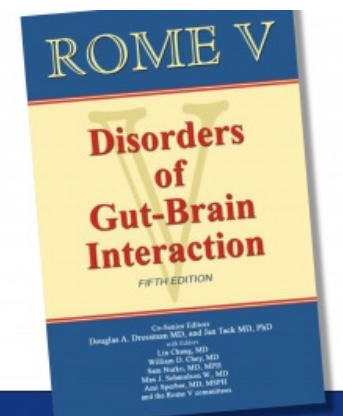
2. Associated with two or more:

- Related to defecation
- Change in stool frequency
- Change in stool form/appearance

FYI — ROME V UNDER DEVELOPMENT (2026)

Challenges for Rome V

- Updates on Key Knowledge (microbiome, food/diet, CNS mechanisms and treatments, sex differences)
- Address Diagnostic Overlap (FD and gastroparesis, bloating/distension with other diagnoses, GI and Non-GI)
- Harmonize Cross-Cultural Differences in Diagnosis (e.g., IBS pain/discomfort, bloating)
- Role of Biomarkers in Diagnosis and Treatment
- Development of Clinical Criteria
- Incorporate Brain-Gut Treatment and Integrated Care
- Improve Communication Skills to Optimize Patient- Provider Relationship in the Modern Era



Know this!

BRISTOL CHART

Actual patient quote:

“Thank you! I’ve been a type 3 for a month, I was stuck home for weeks as a 7!”



2-3



4



6

“I’m a PA Student, and I use the Bristol stool chart to describe ice cream!”

BRISTOL STOOL CHART



TYPE 1 - SEVERE CONSTIPATION
Separate, hard lumps



TYPE 2 - MILD CONSTIPATION
Lumpy and sausage like



TYPE 3 - NORMAL
A sausage-shape with cracks in the surface



TYPE 4 - NORMAL
Like a smooth, soft sausage or snake



TYPE 5 - LACKING FIBER
Soft blobs with clear-cut edges



TYPE 6 - MILD DIARRHEA
Mushy consistency with ragged edges



TYPE 7 - SEVERE DIARRHEA
Liquid consistency with no solid pieces



TYPES OF IBS

IBS with constipation (IBS-C)

- Abnormal bowel movements usually constipation
- Described as “pellets” “hard and lumpy”
- BM less than 3 times a week.
- Straining during a bowel movement.

PA Alert-
Don't confuse
constipation with
IBS-C

IBS with diarrhea (IBS-D)

- Loose and frequent stools, normal volume Only when awake
- Often report urgency of stool after eating or with stress
- **More than 3 bowel movements per day.**
- **Loose [mushy] or watery stools.**
- **Urgency.**

Mixed IBS (IBS-M)

- Abn. bowel movements usually both constipation and diarrhea ($>1/4$ abnormal bowel movements constipation and $>1/4$ diarrhea)

Unclassified IBS (IBS-U)

IBS Symptoms but they do not fit in any other category

IBS: OTHER SYMPTOMS

Heartburn

Early satiety

Nausea

Vomiting

Chronic pelvic pain, urinary frequency

Erectile dysfunction

Rheumatologic symptoms

Chronic fatigue

Loss of concentration

Insomnia

Food allergy symptoms

Mood changes (Anxiety, depression)

Thought...Looks
like Long Haul
COVID
Syndrome?

“ALARM FEATURES”

- Age of onset after age 50 years
- Rectal bleeding or melena
- Nocturnal diarrhea
- Progressive abdominal pain
- Unexplained weight loss
- Unexplained iron deficiency anemia

Nocturnal symptoms

Family history of selected diseases incl. colorectal cancer, inflammatory bowel disease, or celiac sprue

Perform
additional
work-up in
these patients

DIAGNOSIS OF IBS

There is no specific diagnostic test available; this is a **clinical** syndrome

1. Need thorough history

1. PHQs, ACE scores

2. PE

1. Usually, normal

2. May see

- Dry mucous membranes, mild abdominal tenderness, hyper-tympany to percussion, mild thrush
- Tender ileocecal valve

3. POCUS may show gas filled SB

1. PE should help to exclude structural, metabolic or infectious diseases.



LAB EVALUATION

1. Basic labs:

CBC, CMP, C-reactive protein, TFTs, Vit D2/3, IgA

- Most IBS patients have low Vit D, Vit D supplementation under research

2. Celiac serologies

4. Stool

? ova and parasites

- **IMPORTANT**– do stool testing on your IBS patients!

MORE ADVANCED STOOL TESTING

MICROBIAL IMBALANCE

STOOL TESTING FOR PROBIOTICS/MICROBIOME

Gut Microbiome and Metabolic Health	Genus/Species	Abundance	Previous	Rating	Potential Associated Risk*
	Lactobacillus reuteri	LOW↓		★★★★	Obesity
	Lactobacillus casei	OPTIMAL↔		★★★	
	Lactobacillus paracasei	OPTIMAL↔		★★★★★	
	Methanobacteriales	OPTIMAL↔		★	
	Bifidobacterium Animalis	OPTIMAL↔		★★★★	
	Methanobrevibacter smithii	OPTIMAL↔		★★★★	
	Staphylococcus	OPTIMAL↔		★★★	
	Blautia	OPTIMAL↔		★★	Type II Diabetes
	Oscillospira	OPTIMAL↔		★★★★★	
	Alistipes	OPTIMAL↔		★★★	
	Roseburia	LOW↓		★★★★★	
	Eubacterium	LOW↓		★★★★★	
Eggerthella	OPTIMAL↔		★★★★★		

Potential Risk Mitigation Choices

Probiotics

Consider taking probiotics containing **Lactobacillus reuteri**, **Lactobacillus paracasei**, **Lactobacillus rhamnosus**, and **Bifidobacterium animalis**.

MORE ADVANCED STOOL TESTING

Gut Microbiome and Nutrition I	Genus/Species	Abundance	Previous	Rating	Potential Associated Risk*
	Bifidobacterium bifidum	OPTIMAL↔		★★★★	K Vitamins and B Vitamins Production affected
	Bifidobacterium longum	OPTIMAL↔		★★★★	
	Lactobacillus plantarum	OPTIMAL↔		★★★	
	Bifidobacterium breve	OPTIMAL↔		★★★★	
	Bifidobacterium adolescentis	OPTIMAL↔		★★★★	
	Bacillus subtilis	OPTIMAL↔		★★	Vitamin K2 production affected
	Lactobacillus reuteri	LOW↓		★★	Vitamin B12 production affected
	Propionibacterium freudenreichii subsp. shermanii	OPTIMAL↔		★★	
Lactobacillus fermentum	OPTIMAL↔		★★		

Microbiology

Bacteriology

12. Beneficial Bacteria

Lactobacillus species
Escherichia coli
Bifidobacterium

*NG	
	(4+)
	(4+)

13. Additional Bacteria

alpha haemolytic Streptococcus
Proteus mirabilis

NP	(2+)
NP	(3+)

14. Mycology

Yeast, not Candida albicans

NP	(1+)
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Human microflora is influenced by environmental factors and the competitive ecosystem of the organisms in the GI tract. Pathological significance should be based upon clinical symptoms and reproducibility of bacterial recovery.

*NG	NP	PP	P
			
No Growth	Non-Pathogen	Potential Pathogen	Pathogen

LAB EVALUATION

5. Colorectal CA screening if > 50 y/o

6. For diarrhea: “Visceral hypersensitivity”

- Fecal calprotectin, lactoferrin, pH

- Stool testing for SIBO/SIFO/microbiome

7. Additional testing

- SIBO breath testing
- Food allergy testing
- H pylori

Consider flexible sigmoidoscopy or colonoscopy if under 50

Need to use your clinical judgment regarding need for more extensive evaluation!

TREATMENT STEPS FOR IBS

1. Validate the patient's symptoms

- Keep a symptom/food diary to look for cycles, triggers

2. Fiber 25-30gm a day (everyone gets fiber!)

Start SLOWLY and work up

If constipation prominent, can ↓ transit time, ↓ intracolonic pressures and ↓ pain

↓ bile salt concentration in colon → ↓ colonic contractions → ↓ pain

Alert: IBS-D with bloating too much fiber may ↑ pain!

3. Eliminate gas producing foods/ Exclude foods that increase flatulence

- FODMAP
- Fermentable oligosaccharides, disaccharides, monosaccharides & polyols.
 - Short-chain carbohydrates (sugars) that the small intestine absorbs poorly. Some people experience digestive distress after eating them Alcohol
- Caffeine

Treatment
steps
overlap

“FODMAPS”

Breads, beans, onions, celery, carrots, raisins, bananas, apricots, prunes, Brussels sprouts, wheat germ, pretzels, and bagels

2 month trial, then switch to an **avoidance** of fermenting foods (not full restriction)

Characteristics and sources of common FODMAPs

	Word that corresponds to letter in acronym	Compounds in this category	Foods that contain these compounds
F	Fermentable		
O	Oligosaccharides	Fructans, galacto-oligosaccharides	Wheat, barley, rye, onion, leek, white part of spring onion, garlic, shallots, artichokes, beetroot, fennel, peas, chicory, pistachio, cashews, legumes, lentils, and chickpeas
D	Disaccharides	Lactose	Milk, custard, ice cream, and yogurt
M	Monosaccharides	"Free fructose" (fructose in excess of glucose)	Apples, pears, mangoes, cherries, watermelon, asparagus, sugar snap peas, honey, high-fructose corn syrup
A	And		
P	Polyols	Sorbitol, mannitol, maltitol, and xylitol	Apples, pears, apricots, cherries, nectarines, peaches, plums, watermelon, mushrooms, cauliflower, artificially sweetened chewing gum and confectionery

FODMAPs: fermentable oligosaccharides, disaccharides, monosaccharides, and polyols.

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“Two 4-week dietary interventions and optimised medical treatment reduced the severity of IBS symptoms”

Sanna Nybacka, et.al A low FODMAP diet plus traditional dietary advice versus a low-carbohydrate diet versus pharmacological treatment in irritable bowel syndrome (CARBIS): a single-centre, single-blind, randomised controlled trial,

The Lancet Gastroenterology & Hepatology,
2024



The Lancet Gastroenterology & Hepatology



Available online 18 April 2024

In Press, Corrected Proof  [What's this?](#)



Articles

A low FODMAP diet plus traditional dietary advice versus a low-carbohydrate diet versus pharmacological treatment in irritable bowel syndrome (CARBIS): a single-centre, single-blind, randomised controlled trial

[Sanna Nybacka PhD](#)  , [Hans Törnblom MD](#) [□], [Axel Josefsson MD](#) [□],
[Johann P Hreinsson MD](#) [□], [Lena Böhn PhD](#) [□], [Åsa Frändemark MD](#) [□], [Cecilia Weznaver MSc](#) [□],
[Stine Störsrud PhD](#) [□] [†], [Prof Magnus Simrén MD](#) [□] ^b [†]

TREATMENT STEPS FOR IBS

Treatment
steps
overlap

4. Eliminate gluten (after FOD-MAP trial)

5. Eliminate lactose

- If known lactose intolerance, put on lactose-restricted diet.
- Empiric trial of lactose-free diet in patients with persistent abdominal bloating despite exclusion of gas-producing foods
- Confirm lactose intolerance with breath testing in patients who want proof

6. Lifestyle: Exercise, stress reduction (meditation), acupuncture

Reminder: treatment steps overlap!

7. PROBIOTICS

best for IBS-D
UpToDate

Multistrain better
Than monostrain

Need doses in the
Billions
Come to my talk
Later today about
probiotics!

DOI: 10.7759/cureus.58306

Effectiveness of Probiotic Use in Alleviating Symptoms of Irritable Bowel Syndrome: A Systematic Review

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Abstract

Irritable bowel syndrome (IBS) is a common functional gastrointestinal (GI) condition, and changes in the gut microbiota's composition contribute to the development of symptoms. Although the precise mechanisms of probiotic use in the human body are not fully understood, probiotic supplements are believed to reduce symptoms, such as abdominal pain, by regulating neurotransmitters and receptors associated with pain modulation in IBS patients compared to placebo by altering the gut flora. This systematic review aimed to assess the most current randomized controlled trials (RCTs) on how probiotic supplementation affects the symptoms in people with IBS. The effects of probiotic supplements on IBS symptoms were studied in RCTs published between January 2018 and June 2023. After a search through PubMed and Google Scholar using the keywords probiotics, gut microbiota, irritable bowel syndrome, and IBS; eight articles matched the inclusion criteria and were reviewed. Four trials used a multistrain probiotic, whereas the remaining four trials examined the effects of a monostrain supplement. All eight trials came to the same conclusion: Probiotic treatment may significantly reduce symptoms.

Umeano L, Iftikhar S, Alhaddad S F, et al. (April 15, 2024) Effectiveness of Probiotic Use in Alleviating Symptoms of Irritable Bowel Syndrome: A Systematic Review. *Cureus* 16(4): e58306. DOI 10.7759/cureus.58

8. PEPPERMINT OIL

Peppermint Oil Treatment for Irritable Bowel Syndrome: A Randomized Placebo-Controlled Trial

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INTRODUCTION: Peppermint oil is often used to treat irritable bowel syndrome (IBS); however, the overall quality of previous studies is low, and findings have been heterogeneous. This study aimed to compare the effects of peppermint oil vs placebo in relieving IBS symptoms.

METHODS: In a 6-week, randomized, double-blind, placebo-controlled trial at a single academic center in the United States, individuals diagnosed with IBS (Rome IV criteria), with moderate to severe symptoms based on the IBS Severity Scoring System (IBS-SSS score ≥ 175), were randomized to enteric-coated peppermint oil 180 mg 3 times daily vs placebo in a 1:2 ratio. The primary outcome was mean change in IBS-SSS scores from baseline to 6-week endpoint.

RESULTS: A modified intent-to-treat analysis revealed that there were substantial mean improvements from baseline to 6-week endpoint in the main outcome measure (IBS-SSS) for both peppermint oil (90.8, SD = 75.3) and placebo (100.3, SD = 99.6). Although the peppermint oil group reported numerically lower improvement than the placebo group, the effect size was small ($d = -0.11$), and the difference between the groups was not statistically significant ($P = 0.97$). Similarly, both groups reported substantial improvements on the secondary endpoints; but again, there were no statistically significant differences between the groups on any of the secondary measures. Sensitivity analyses using multiple imputation to replace missing data produced similar results and revealed no significant differences between peppermint oil and placebo on any outcome measure.

DISCUSSION: Peppermint oil and placebo both showed clinically meaningful improvement in IBS symptoms. However, there were no significant differences between the groups. Further large, rigorous trials are needed to evaluate the role of peppermint oil for the treatment of IBS.

SUPPLEMENTARY MATERIAL accompanies this paper at <http://links.lww.com/AJG/C124>, <http://links.lww.com/AJG/C125>, <http://links.lww.com/AJG/C126>, and <http://links.lww.com/AJG/C127>.

Am J Gastroenterol 2021;116:2279–2285. <https://doi.org/10.14309/ajg.000000000001395>

Matsueda et al. *BioPsychoSocial Medicine* (2024) 18:3
<https://doi.org/10.1186/s13030-024-00302-y>

BioPsychoSocial Medicine

2024 data

RESEARCH

Open Access



Efficacy and safety of peppermint oil for the treatment in Japanese patients with irritable bowel syndrome: a prospective, open-label, and single-arm study

Kei Matsueda¹, Shin Fukudo², Masayuki Ogishima³, Yuki Naito^{3*} and Soichiro Nakamura³

Abstract

Background In Europe, an herbal medicine containing peppermint oil is widely used in patients with irritable bowel syndrome (IBS). In Japan, however, no clinical evidence for peppermint oil in IBS has been established, and it has not been approved as a drug for IBS. Accordingly, we conducted a clinical study to confirm the efficacy and safety of peppermint oil (ZO-Y60) in Japanese patients with IBS.

Methods The study was a multi-center, open-label, single-arm, phase 3 trial in Japanese outpatients with IBS aged 17–60 years and diagnosed according to the Rome III criteria. The subjects were treated with an oral capsule of ZO-Y60 three times a day before meals, for four weeks. The efficacy of ZO-Y60 was evaluated using the patient's global assessment (PtGA), IBS symptom severity score, stool frequency score, stool form score, and physician's global assessment (PGA). The safety of ZO-Y60 was also assessed.

Results Sixty-nine subjects were treated with ZO-Y60. During the four-week administration of ZO-Y60, the improvement rate of the PtGA was 71.6% (48/67) in week 2 and 85.1% (57/67) in week 4. It was also suggested that ZO-Y60 is effective against any type of IBS (IBS with constipation, IBS with diarrhea, and mixed/unsubtyped IBS). The improvement rate of the PGA was 73.1% (49/67) in week 2 and 85.1% (57/67) in week 4, also confirming the efficacy of ZO-Y60. Adverse events were observed in 14 subjects (20.3%), however, none of these adverse events were categorized as serious.

Conclusion The efficacy of treatment was confirmed, subjective symptoms were improved, as was observed in previous clinical studies of ZO-Y60 conducted outside of Japan. All adverse reactions were previously known and were non-serious. These findings suggest that peppermint oil may be effective in the Japanese population and that it has an acceptable safety profile.

Trial registration JAPIC Clinical Trials Information number: JapicCTI-121727 <https://jrct.niph.go.jp/en/latest-detail/JRCT1080221685>. Registration date: 2012-01-10.

Keywords Clinical trial, Herbal medicine, Irritable bowel syndrome, Japanese patients, Peppermint oil, Rome III criteria, ZO-Y60

9. PHARMACOLOGIC MANAGEMENT SHOULD BE AIMED AT PREDOMINANT SYMPTOMS

IBS-D

1. RIFAMIXIN/Xifaxin –first line treatment for IBS-D

A two-week treatment often yields 6 months of relief

A second treatment at the 6-month mark

Treating early with FODMAP+ Rifaximin is even better

2. Cholestyramine (IBD-D) and or serum derived bovine immunoglobulin (Enteragam)

3. Anti-diarrheal agents → fecal dehydration → ↓ stool frequency and urgency

Loperamide (Imodium) does not cross the blood-brain barrier, so it is first choice (as long as there is no residual infection)

- Best just before a meal!

Narcotics: diphenoxylate (Lomotil)

Use if **no response/intol** to enteragam or cholestyramine Can be used **PRN**

Know this!

ALOSETRON (LOTRONEX)

- Serotonin (5-HT₃ receptor) antagonist

5-HT₃ receptors in the brain and the vagus nerve
Most receptor antagonists are anti-emetics

- ONLY FOR WOMEN WITH SEVERE DIARRHEA-PREDOMINANT IBS with urgency
- NOT RESPONSIVE TO USUAL TREATMENTS
- Can cause ischemic colitis or severe constipation

COMMON IBS-D OVERLAP THERAPY

Most patients will mix and match diets and therapy.

FIBER PLUS:

1. FODMAP + Xifaxin + Imodium PRN (first date, exam day, etc.)
2. No gluten/lactose, cholestyramine and bovine immunoglobulin
3. FODMAP + probiotics

Mix and match according to the intensity of symptoms, what patients are willing to take & what insurance will cover!

OTHER IBS-D THERAPIES TO CONSIDER

Bismuth

- Antispam
- Antidiarrhea
- Antiacid
- Antimicrobial

Nystatin

- Gas/bloating
- Suspicion of candida/yeast (my opinion)

Lomotil (Diphenoxylate; Atropine Tablets)

- Diarrhea
- Inhibits GI motility like morphine
- Controlled drug
- Atropine is subtherapeutic dose

Bentyl (dicyclomine)

- Anticholinergic
- Great for cramping muscle spasms



MANAGEMENT OF IBS-CONSTIPATION

1. Fiber is always first

Consider probiotics early (data shows probiotics best for IBS-D)

2. Lots of fluids

3. Be sure the patient is on the correct diet

4. Osmotic laxative (polyethylene glycol) –add to fiber!

Superior to other osmotic laxatives (lactulose, Milk of Mag)

5. Tenapanor (IBSrela)

Locally acting with low absorption (retains water like lactose)

Decreases absorption of sodium and phosphate and increases water secretion into the intestinal lumen and has been found to have antinociceptive effects

Antinociceptive

Few side effects



MANAGEMENT OF IBS-CONSTIPATION

6. Other drugs for constipation (listen to my AAPA Podcast!)

Linaclootide (Linzess) Linaclootide

#1 Rx for IBS-C long term (PEG #1 short term)

minimally absorbed peptide that stimulates intestinal chloride secretion (also approved for regular chronic constipation)

Lubiprostone (Amitiza)

Activates Small bowel chloride channels to increase fluid secretion in intestine

This increases chloride-rich fluid secretion into the intestine, which stimulates intestinal motility and shortens intestinal transit time

Slows gastric emptying = Nausea (Common!)

MANAGEMENT OF IBS-CONSTIPATION

7. Other drugs for constipation (listen to my AAPA Podcast!)

Plecanatide (Trulance)

Non-absorbed peptide, like linaclotide, causes fluid and electrolyte secretion, and reducing visceral hypersensitivity

Most pH sensitive-works in acid pH (did you check a stool pH)

PA tip: Most of these advanced constipation drugs work the same— which is covered by insurance

Tegaserod (Zelnorm)— rare

Partial agonist of the 5HT-4 receptor= more GI motility and increases fluid in the GI tract

- Approved it for women with IBS-C, <65 years of age, without a history of myocardial infarction, stroke, transient ischemic attack (TIA), or angina.
- I have not seen an Rx for this in years

MANAGEMENT OF IBS-CONSTIPATION

Vibrant capsule

FDA approved drug free treatment for chronic idiopathic constipation

Charge the pill

Take 5x a week with water

Monitor progress on the app

Many insurances approve

My experience: many positive gut-brain changes!

Do not use in IBD, diverticular disease, any stricture/obstruction, gastroparesis or celiac.



MANAGEMENT OF IBS-CONSTIPATION

Controversial:

-Enemas

- Fleets
- Tap Water or saline

-Suppository

- Glycerin
- Dulcolax

*Avoid stimulant laxatives due to water and electrolyte imbalance

CONSTIPATION: DIFFERENTIAL

Affects 16% of the constipation

Treatment: Follow IBS-C protocol EXCEPT FODMAPS may help!



Neurogenic disorders	Non-neurogenic disorders
Peripheral	Hypothyroidism
Diabetes mellitus	Hypokalemia
Autonomic neuropathy	Anorexia nervosa
Hirschsprung disease	Pregnancy
Chagas disease	Panhypopituitarism
Intestinal pseudoobstruction	Systemic sclerosis
Central	Myotonic dystrophy
Multiple sclerosis	Idiopathic constipation
Spinal cord injury	Normal colonic transit
Parkinson disease	Slow transit constipation
Irritable bowel syndrome	Dyssynergic defecation
Drugs	

FMT INCREASING ROLE IN IBS

More Diarrhea than constipation

Rebyota

- Current FDA approval for prevention of C.Diff recurrence after a documented infection

Thenabiotic

- “Post-biotic”



IF ALL ELSE FAILS ANTIDEPRESSANT MEDICATIONS

If severe or refractory symptom, pain, impaired daily function, associated depression or panic attacks

TCA's (delay transit time)

SSRI's (analgesia?)

Data on SSRIs helping is poor!

& Consider reconfirming the diagnosis, don't miss colon CA, SIBO, or UC!

SPECIAL CASE: NEGATIVE LACTOSE BREATH TEST BUT IMPROVEMENT WITH NO MILK INTAKE?

Hydrogen breath test negative for lactose intolerance

Individuals who have no evidence of lactose intolerance on breath test but who have symptoms with ingestion of milk may have intolerance to **other milk components** (e.g., cow milk protein)!

1. Avoid all milk
2. Avoid beef products (gelatin, beef, etc.)
3. Consider milk from other mammals, oat milk, or soy milk or coconut milk
 - Avoid almond milk in IBS



SPECIAL CASE: NONCELIAC GLUTEN SENSITIVITY

Gluten may have effect on symptoms in patients with IBS-D

Possible that symptom improvement is due to reduction of fructans, rather than reduction of gluten

Fructans = polymers of fructose which occur in wheat

Is this a type of food sensitivity?

SPECIAL CASE IBS AND IBD

- It is possible for IBS to progress to IBD
- IBD in remission can exhibit IBS symptoms
- Many IBD patients have IBS type symptoms for 2-3 years before IBD diagnosis.

Know this!

IBD vs IBS

COMPARING THE TWO CONDITIONS

IBD stands for inflammatory bowel disease.

IBS stands for irritable bowel syndrome.

IBD is a chronic, incurable digestive disease.

IBS is a functional bowel disorder.

IBD can cause abdominal cramps, bloating, gas, urgency, mucus in stool, diarrhea and/or constipation, fatigue, weight loss, and malnutrition

IBS can cause abdominal cramps, bloating, gas, mucus in stool, and diarrhea and/or constipation

IBD can cause permanent, irreversible damage to the gastrointestinal tract.

IBS can cause inflammation but does not cause permanent damage.

Many patients require surgery to treat IBD.

Surgery is not used to treat IBS patients.

IBD can cause complications in the joints, kidneys, eyes, skin, and bones.

The main complication of IBS is impaired quality of life.

IBS: IN SUMMARY

Most common GI diagnosis

Look for triggers (infection, diet)

Usually normal PE

Aggressive work-up of alarm symptoms

Start with simple treatment, but treatments and diets almost always overlap

Xifaxin +cholestyramine and PRN Lomotil -big winner for IBS-D

Fiber, MiraLAX –big winner for IBS-C

THANK YOU! JOIN THE REVOLUTION AND COMMIT NOW TO:

1. IBS: hunt for a diagnosis
 - SIBO, SIFO, visceral sensitivity is huge!
2. Have a low threshold for stool testing
3. Battle the epidemic of fiber deficiency in America
4. Be alert for alarm symptoms

See you this afternoon: Beyond Yogurt!

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