

# Irritable Bowel Syndrome (IBS)

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## Nutrition and Lifestyle Strategies



**PERMANENTE MEDICINE®**

The Permanente Medical Group

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# Understanding IBS

## What is irritable bowel syndrome (IBS)?

**Disorder of bowel function-** Caused by changes in nerves and muscles that control sensation and movement of the bowel.

**Abdominal discomfort AND altered bowels-** Diarrhea, constipation, gas, bloating, nausea.

**Extremely common-** Affects 10 to 15 percent of U.S. population. More common in women than in men.

**A real medical condition-** Chronic (ongoing); **NOT** associated with serious physical consequences; TREATABLE and MANAGEABLE.

## What are NOT the signs of IBS?

**Contact your doctor right away if you have:**

- Blood in your stool
- Pencil-thin stools with every bowel movement
- Excessive mucus with bowel movements
- Anemia
- Unintentional weight loss
- Frequent/prolonged vomiting
- Family history of stomach or colon cancer
- New symptoms that start after age 45
- Symptoms that don't respond to many IBS treatments

## What causes IBS?

- Food sensitivity
- Stress/Trauma
- Gut microbes
- Nerve sensitivity
- Motility (muscle contraction problems)

## What can trigger IBS symptoms?

- Diet
- Smoking
- Foodborne illness
- Stress, anxiety, depression
- Trauma/ surgery/ hospitalization
- Hormone fluctuations
- Medications
- Poor sleep
- Sedentary lifestyle



# How the Gut Works- Digestion and Elimination

## How Digestion Works

- **Digestion** is the process of breaking down food into smaller parts so nutrients can be absorbed through the intestine into the bloodstream.
- **Digestion begins in the mouth:** Chew food well and eat slowly to optimize digestion and overall nutrition.
- The gut is lined with nerves and muscles that are sensitive to stress and changes in routine and rhythm.
- **Transit time** is the length of time food takes to move from mouth to toilet:
  - Diarrhea indicates that food is moving through the digestive tract quickly, which reduces the time available for digestion and absorption.
  - Constipation is a sign that stool is moving slowly through the digestive tract, giving the body more time to absorb water – this can cause stool to become hard, dry, and difficult to pass.

## Migrating Motor Complex (MMC)

- Acts like a “**cleansing wave**” that sweeps leftover food, bacteria, and waste through your digestive system.
- It keeps digestion moving **smoothly**.
- This wave **happens between meals** (when not eating):
  - Cycle starts about 90 minutes after eating.
  - Takes about 2 hours to complete.
- Recommendation: **Space meals 3 to 4 hours apart.**
- If you **graze all day** the MMC will not complete the cycle, which can lead to **symptoms**.

## Timing and Circadian Rhythm: The Bowel Likes a Predictable 24-Hour Cycle

### Take Action:

- ✓ Try to eat the same-sized meals at the same time each day.
- ✓ Take steps to improve your sleep – poor quality sleep worsens IBS symptoms.
- ✓ Go to sleep and wake up at the same time each day to help regulate your bowel movements.
- ✓ Try to have a bowel movement (BM) at the same time every day.
- ✓ Your bowel movements will follow your circadian rhythm.
- ✓ Don't ignore the urge.
- ✓ Many people have the urge for BM in the mornings when they're rushing around and trying to get out the door.
- ✓ Allow time for a BM when you feel the urge.

## Improving Your Pooping Position

### Potty posture:

- Use a stool under your feet.
- Your knees should be above your hips while you sit on the toilet.
- This helps to open your pelvic floor muscles by relaxing the puborectalis muscle.

### No straining:

- You should be able to poop in about 5 minutes or less.
- Try getting up to walk around after 5 minutes of sitting. This will help prevent straining on the toilet.
- Try diaphragmatic (belly) breathing – belly out when you breathe in, and belly in when you breathe out.





# What can I do to improve my IBS symptoms?

Lifestyle strategies = “Tools” in your “Toolkit”



**Diet**



**Exercise**



**Sleep**



**Stress Management**



**Medications**



**Supplements**



# Eating

## Eating Environment

- Eat in a calm, relaxed environment.
- Take a couple of slow, deep breaths before eating.
- Chew food thoroughly.
- Listen to hunger and fullness cues.
- Aim to stop eating when comfortably full/satisfied.
- After you eat, wait 2 to 3 hours before you lie down.

## Fiber

- Nondigestible carbohydrates that occur naturally in plants (humans don't make the enzymes to break down fiber).
- Acts as a prebiotic – nourishes the healthy bacteria in your gut.
- Aim for 25 to 38 grams of fiber per day, adding fiber to your diet slowly:
  - If you add fiber too fast, you may feel bloated or have gas pains.
- The type of fiber can affect your gut differently

## Insoluble Fiber

- Adds bulk to the stool and gets things moving.
- Stimulates laxation in the colon (promotes bowel movement).
- Helpful for constipation but may worsen diarrhea.

### Examples:

- ✓ **Skins, peels, hulls, seeds of most fruits/veggies**
- ✓ Wheat bran
- ✓ Whole-wheat foods
- ✓ Broccoli & cauliflower
- ✓ Celery
- ✓ Bell peppers
- ✓ Eggplant
- ✓ Berries



## Soluble Fiber

- Acts like a sponge to absorb water; forms a gel.
- Absorbs excess water (diarrhea) and adds more moisture to hard/dry stools (constipation).
- Therefore, soluble fiber is the best type of fiber for IBS overall, as it can be beneficial for people with constipation and/or diarrhea.

### Examples:

- ✓ Insides/flesh of fruits and veggies
- ✓ Oatmeal/oat bran
- ✓ Barley
- ✓ Beans & lentils
- ✓ Peeled apples/applesauce
- ✓ Bananas
- ✓ Carrots

## Resistant Starch

- **Resistant starch** is a type of carbohydrate that resists digestion in the small intestine.
- It acts a lot like a soluble fiber – it travels to the colon, where **it feeds beneficial gut bacteria (prebiotic effect)**.
- Can **improve regularity** and enhance stool consistency.
- If adding, **introduce gradually** – can cause gas or bloating if too much is added too quickly.

### Found in:

- ✓ Green bananas
- ✓ Cooked and cooled starchy foods (rice, pasta, potatoes)
- ✓ Beans and lentils
- ✓ Resistant starch supplements (potato starch, green banana flour)

## Fiber Supplements

Some people may benefit from fiber supplements.

- **Psyllium** (*Metamucil, Konsyl*)\* – First-line choice, evidence supports symptom improvement.
- **Methylcellulose** (*Citrucel*)\* – Good alternative if psyllium is not tolerated for people with constipation.
- **Partially hydrolyzed guar gum** (*Sunfiber*)\* – Gentle, well-tolerated; helpful for bloating.
- **Calcium polycarbophil** (*Fibercon*)\* – Used mostly for diarrhea.
- **Oat bran** – May improve abdominal pain and bloating.
- **Ground flaxseed** – Up to 2 tbsp/day may relieve constipation and support regularity.

\* Start with half a dose and gradually increase over a week to improve tolerance.

## Hydration and IBS

- **Water helps fiber work properly** – forms a gel and helps prevent stools from becoming too hard or dry.
- Replaces fluids lost during diarrhea.

### How much water do I need?

- General recommendation: about 8 cups (64 oz) of fluid per day.
- All fluids count (water, herbal tea, broths, etc.).
- Increase fluid intake when adding fiber, during hot weather, or during exercise.

### Tips for better hydration:

- Start your day with a glass of water.
- Carry a reusable water bottle.
- Sip throughout the day, not just at meals.
- Add lemon, cucumber, mint, or flavor packets if needed.



## Dietary Triggers

### Common dietary triggers:

- Lactose (milk sugar)
- Sugar alcohols
- High FODMAP foods
- Fatty or greasy foods
- Spicy foods
- Coffee/caffeine
- Alcohol



## Lactose

### What is lactose intolerance?

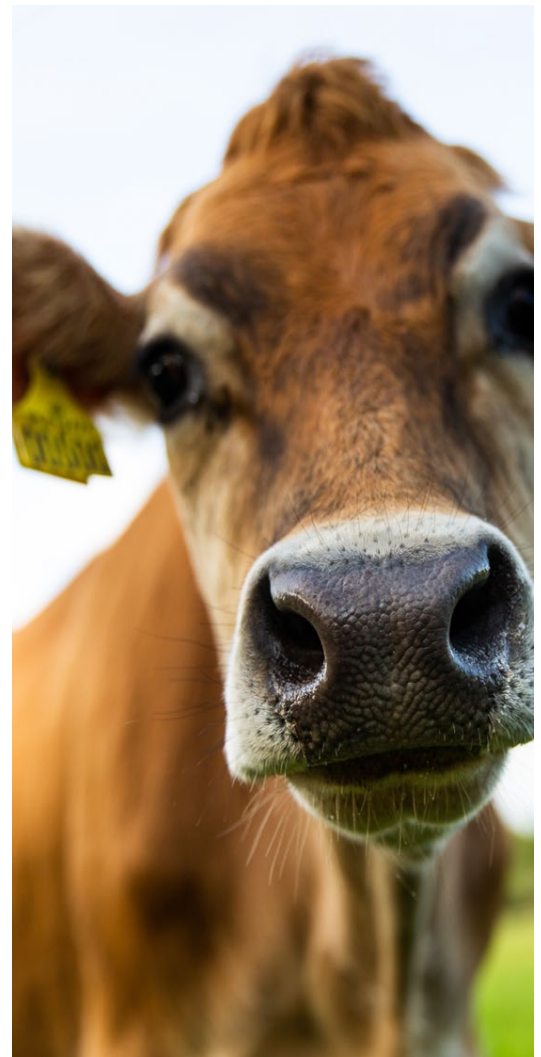
- Lactose is the natural sugar found in milk and dairy products.
- Your body needs an enzyme called lactase to digest it.
- If you don't have enough lactase, lactose travels to the colon undigested, causing gas, bloating, diarrhea, or cramping.

### Most people have a tolerance level

- ✓ Many people can still digest small amounts of lactose.
- ✓ Hard cheeses and yogurt are often easier to tolerate.

### Tips:

- ✓ Try lactose-free milk or Lactaid pills with meals.
- ✓ Keep a food and symptom log to discover your personal threshold.
- ✓ Try plant-based milks, which are lactose-free. Protein content may be lower than cow's milk, and tolerance varies depending on source (almond, soy, oat, etc.).



## Sugar Alcohols

- Sugar alcohols are a **hard-to-digest carbohydrate** often used as sugar substitutes in “sugar-free” or “low-carb” foods.
- Common examples are **sorbitol, mannitol, xylitol, erythritol, maltitol** (end in “-ol”).
- They **taste sweet**, but aren’t fully absorbed in the small intestine, so they pass into the colon where bacteria ferment them.
- They can pull water into the intestines (“osmotic effect”) and are **rapidly fermented by gut microbes**. This can lead to gas, bloating, diarrhea, and cramping, especially in people with IBS.



### Found in:

- **Sugar-free or "No sugar added" products:**
  - ✓ Sugar-free gum, mints, candies
  - ✓ Sugar-free or “diabetic-friendly” chocolates and desserts (Atkins bars, keto chocolates, sugar-free See’s Candy)
  - ✓ "No sugar added" ice cream or frozen desserts
- **“Keto” or low-carb products:**
  - ✓ Protein bars (Quest, Think!, Built Bar)
  - ✓ Low-carb cookies and brownies
  - ✓ Sugar-free syrups (often contain erythritol or sorbitol)
- **Fiber or meal replacement products:**
  - ✓ Fiber gummies (may contain maltitol or isomalt)
  - ✓ Some meal replacement shakes or powders

Still having symptoms? Here is another other option:

## Low-FODMAP diet may reduce symptoms for people with IBS.

### What are FODMAPs?

Fermentable

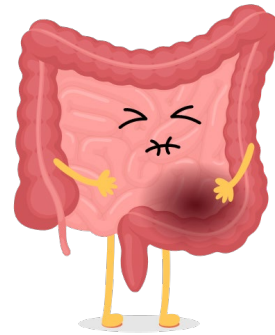
Oligosaccharides

Disaccharides

Monosaccharides

And

Polyols



- These contain sugars that are hard for your small intestine to absorb.
- People with intolerance to FODMAPS may have gas, bloating, abdominal pain, and diarrhea.
- **You most likely aren't sensitive to every FODMAP.**
- Low FODMAP is most helpful for reducing diarrhea and may not be necessary for everyone with IBS.

### FODMAP Foods – Examples

Foods	Fruits	Vegetables	Grains	Proteins
<b>High FODMAP</b>	Apples, cherries, peaches, mangoes	Pinto beans, cauliflower, artichokes, onions, garlic	Wheat, rye, barley	Sausages, salami, cashews, pistachios
<b>Low FODMAP</b>	Oranges, cantaloupe, pineapple, kiwi	Green beans, cucumbers, lettuce, zucchini, carrots	Oats, corn, rice, sourdough	Fresh meat, poultry, fish, eggs, firm tofu, peanuts, *almonds, *walnuts

\*Portion specific



# The FODMAP Diet

The **FODMAP** diet is a short-term elimination diet that can help identify dietary triggers and improve symptoms in people with IBS, especially for those with diarrhea.

## Three Phases:

1. **Elimination:** Cut out all high-FODMAP foods for 2 to 6 weeks.
2. **Reintroduction:** Test one FODMAP subtype at a time = about 6 to 8 weeks.
3. **Personalization:** Continue to experiment to find the least restrictive diet you tolerate.

## Is the low-FODMAP diet right for me?

- **Might be helpful if:**
  - Dietary modifications haven't worked.
  - You're willing and able to modify your diet for 2 to 3 months.
- **Not recommended if:**
  - You have no control over food purchasing or preparation.
  - You already follow a restricted diet.
  - You're at risk for an eating disorder.
- **Tools:**
  - Kaiser Permanente FODMAP diet videos
    - [FODMAP part 1 - Qumu Player](#)
    - [FODMAP part two - Qumu Player](#)
  - Monash FODMAP app (\$8 to \$9 one-time fee)



# Supplements:

## Probiotics, Digestive Enzymes, and More

### Probiotics – in Food

- ✓ Probiotics are live “good” bacteria.
- ✓ Fermented foods have higher levels of probiotics.

Examples:

- **Yogurt and kefir** (look for “live & active cultures”) – lactose-free (low-FODMAP) options are available.
  - Miso
  - Sauerkraut (unpasteurized)
  - Kimchi
- ✓ **Eating a variety of plant-based fibers supports a diverse, robust microbiome.**
    - Fiber is the food for microbes in the gut.



### Probiotics Supplements

The scientific data supporting the use of probiotics isn't strong (studies have shown mixed results).

**Probiotics can take about 3 to 4 weeks to show benefits.** If you decide to take a probiotic, take it consistently for 4 weeks then assess whether you see any improvement in your symptoms.



This probiotic guide ([Probiotic Chart](#)):

## Digestive Enzymes

### Examples:

- 
- The image displays four distinct products related to digestion and gut health. At the top left is a white plastic bottle of Enzymedica's Bean Assist, which is a lactase supplement for bean consumption. To its right is a blue and white box of Kirkland Signature's Fast Acting Lactase, also a lactase supplement. Below these is a glass jar of Colman's Mustard, a common condiment. At the bottom right is a white box of Beano Extra Strength, a product containing alpha-galactosidase for reducing gas from beans. Each product is shown with its original packaging and branding.

- ✓ **Anti-spasmodics:** May be helpful for cramping, bloating:

-

# **Summary of Symptoms and Treatments**

## **Gas and Bloating**

### **Tips to help:**

- ✓ Increase fiber slowly, if adding.
- ✓ Make meals about 20 minutes & chew food thoroughly.
- ✓ Eat at regular meal times & avoid skipping meals.
- ✓ Try Beano or other digestive enzymes.
- ✓ Limit gassy foods (beans, cruciferous vegetables, lactose containing foods, etc.).
- ✓ Avoid chewing gum & drinking through a straw.
- ✓ Avoid foods containing sugar alcohols.

## **Constipation**

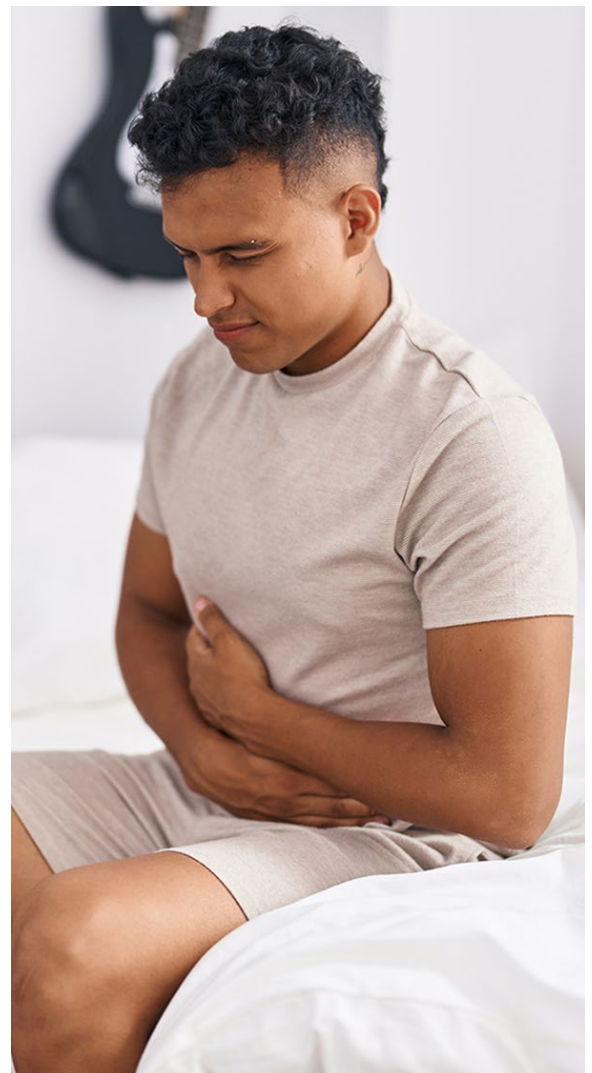
### **Tips to help:**

- ✓ Increase soluble and insoluble fibers.
- ✓ Ensure adequate hydration.
- ✓ Get physical activity.
- ✓ Try prunes or kiwis.
- ✓ Manage stress.
- ✓ Consider pro-motility agent.
- ✓ Reduce “grazing.”

## **Diarrhea**

### **Tips to help:**

- ✓ Increase soluble fiber.
- ✓ Try low lactose or lactose-free diet.
- ✓ Reduce FODMAPs.
- ✓ Reduce caffeine.
- ✓ Reduce alcohol.
- ✓ Manage stress and anxiety.
- ✓ Try probiotics.
- ✓ Take digestive enzymes.
- ✓ Eat small, frequent meals.

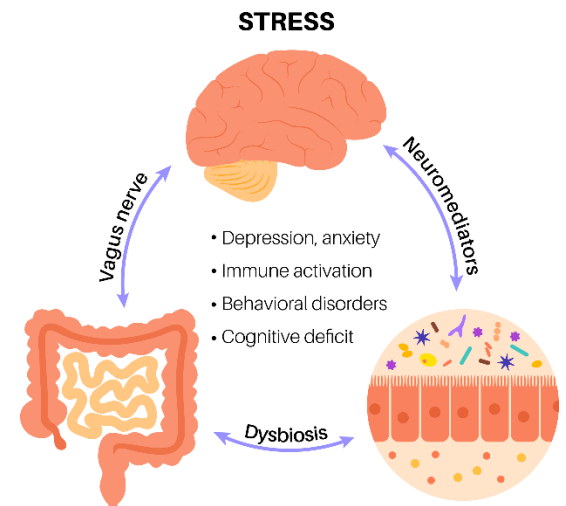




# Stress Management

## The Brain-Gut Connection

- The brain-gut axis plays a central role in IBS.
- There's more nerve tissue in the bowel than in the entire central nervous system.
- Stress, anxiety, and depression are key factors in IBS flares for some people.



## Stress and IBS



### Stress triggers the “fight-or-flight” response:

- Your body prepares to survive a threat (real or perceived).
- Brain signals shift resources toward muscles, heart, and lungs – away from digestion.



### What happens in the gut:

- Less blood flows to the intestines.
- Decreased digestive secretions (enzymes, bile, mucus).
- Gut muscles become tense or uncoordinated.
- Can lead to diarrhea, constipation, cramping, or urgency.



### Why this happens:

- In ancient times, if you were in danger, digestion could pause so you could fight or flee.
- Today, the same response is triggered by daily stress – traffic, work, or even worrying about symptoms.



## Benefits of Regular Exercise

- Supports overall health and digestion.
- Stimulates gut motility – helps food move through the colon.
- Helps manage stress, which is often a symptom trigger.
- **Shown in research to reduce IBS symptoms and improve quality of life.**

### **Take Action:**

- Choose activities you enjoy – walking, swimming, yoga, dancing, etc.
- Set a simple, realistic plan.
- Invite a friend or family member to join you.
- Not active now? Try walking 20 to 30 minutes most days of the week to start.

## Stress Management

- Breathing exercises
- Yoga
- Meditation
- Mind-body health classes at Kaiser Permanente
- Other classes offered by local Health Education Departments
- Psychological interventions: cognitive behavioral therapy
- Gut-directed hypnotherapy with a trained practitioner or via Nerva app

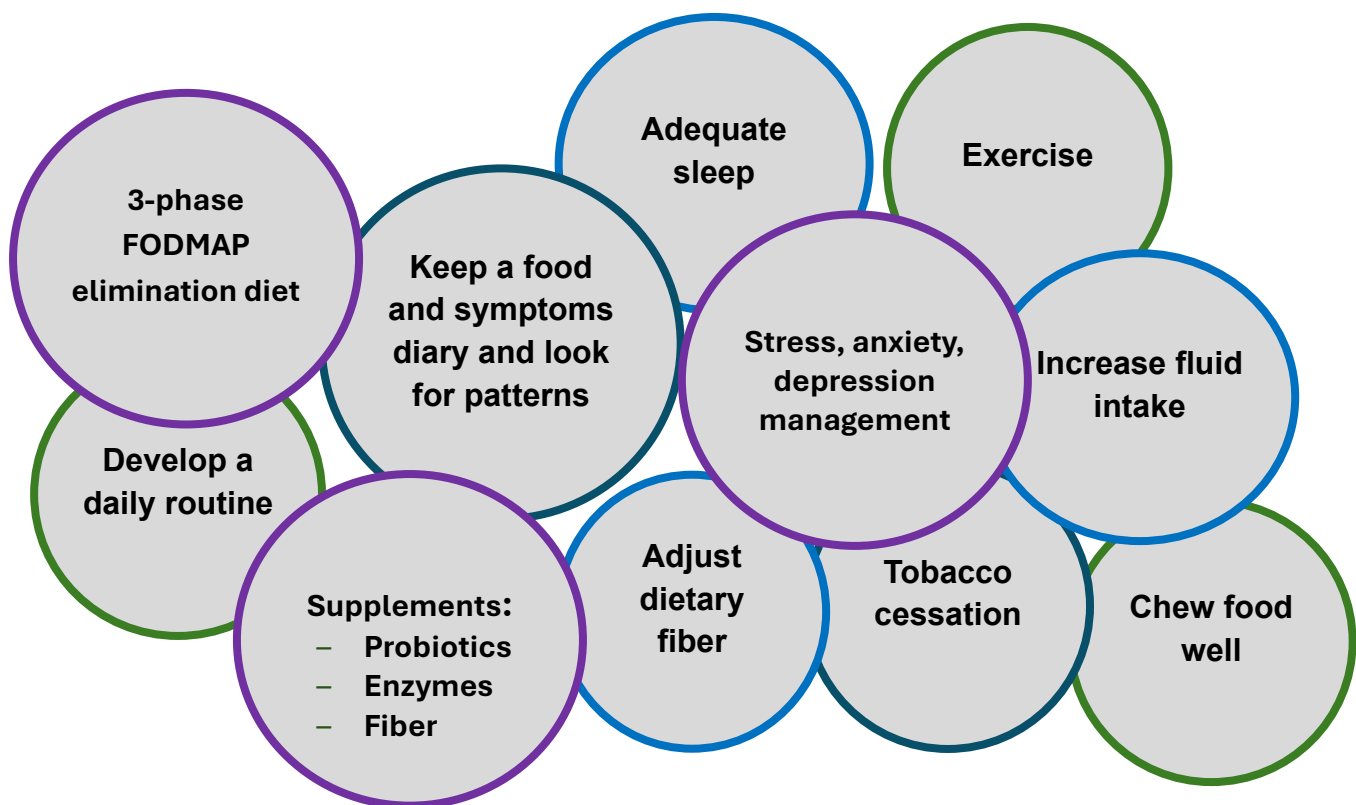


# Taking Action to Reduce IBS Symptoms

## Take Action to Manage Your IBS

### *Where would you like to start?*

1. **Pick** a treatment option to try.
2. Try a **2-week trial** (some options may need longer to see impact).
3. **Set a goal** that is:
  - Specific
  - Measurable
  - Realistic
4. Write down your goal and **track your progress**.
5. Continue to **add a new option every 2 weeks** and track your symptoms.
6. If a treatment option reduces your symptoms incorporate it into your daily routine.



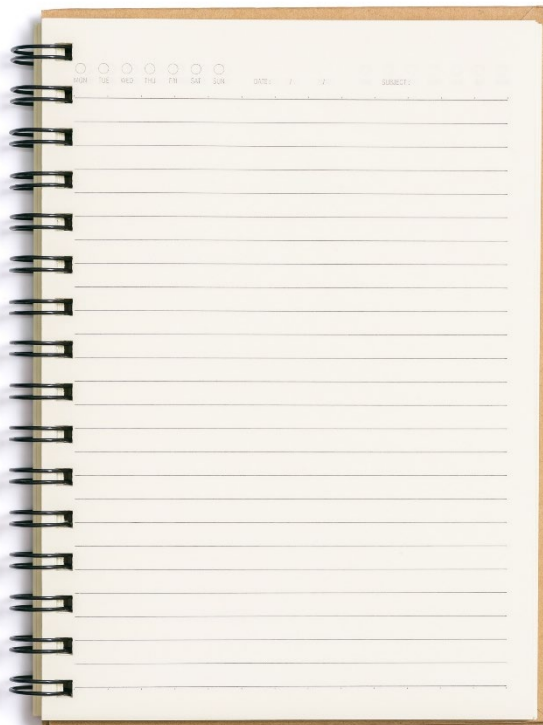
*This timeline doesn't have to be perfect.*

*Listen to your body!*

## Take Action: Keep a Food, Stress, and Symptom Diary

*Find out what your bowel likes and dislikes:*

- **Record**
  - Everything that goes in your mouth (food, drinks, medications, supplements, gum, nicotine products) – food/portions, time
  - Stress
  - Sleep
  - Activities (exercise, work, recreation)
  - IBS symptoms (bowel movements, pain, gas, nausea)
- **Look for patterns**
- **Try an app** such as [BoWelle IBS Tracker](#) or [Cara Care](#) to track symptoms and behaviors



# Additional Resources and Support

## Take Advantage of KP Resources

### My Doctor Online

My Doctor Online app- Download it today!

Search: Irritable Bowel Syndrome

### Self-Care Apps

- **Calm:** For meditation, mental resilience, and sleep.
- **myStrength:** Tailored programs for managing depression, stress, anxiety, coping with COVID, and more.
- **Headspace:** Mental health text-based coaching app.

### Additional Classes

- Managing Your Stress
- Managing Depression
- Understanding Anxiety
- Improving Your Sleep
- Couples Communication

### 1:1 Wellness Coaching

(sessions available: Monday-Friday, 7a.m.-7p.m. & Saturday 8:30a.m.-5p.m.)

- Manage Stress
- Quit Tobacco
- Increase Activity
- Eat Healthier

To schedule coaching appointments:

- Call (866) 251-4514 (available 24/7)
- Book online at [kp.org/mydoctor/wellnesscoaching](https://kp.org/mydoctor/wellnesscoaching)

Coaching is available at no additional cost to Kaiser Permanente members.

