

WHAT IS IRRITABLE BOWEL SYNDROME (IBS)?

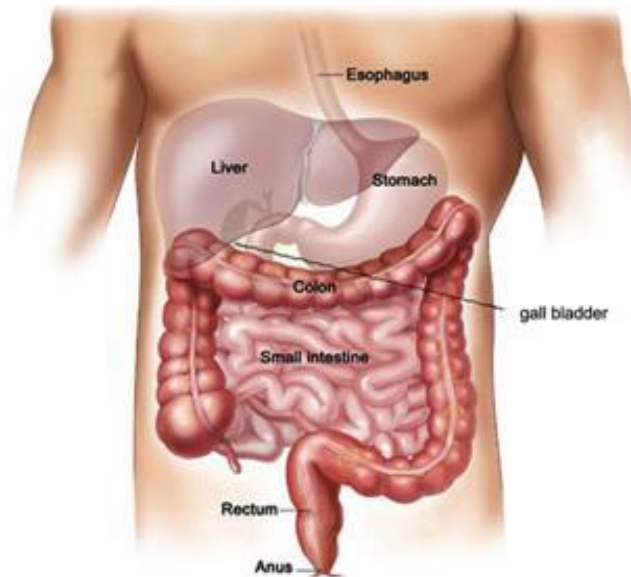
IBS is a **very common** disease and is characterised by **a combination of persistent and recurrent abdominal pain that is associated with abnormal bowel habit (diarrhea, constipation or both)**. The pain often begins after eating and typically is relieved (sometimes worsened) after a bowel movement. Other possible symptoms include bloating, passage of mucus in stools, and a feeling of incomplete emptying after a bowel movement.

WHAT CAUSES IBS SYMPTOMS?

IBS belongs to a group called functional gastrointestinal disorders (FGID). Depending on where the gastrointestinal (GI) tract is affected, your symptoms may be different. For example, if your esophagus is affected, you may have a sensation of heartburn. If your stomach is affected, you may have symptoms of pain after meals, nausea or burping. IBS symptoms are usually from the intestines. All these disorders happen when the GI tract is not functioning normally often due to (may be more than one cause):

- A) **increased or irregular movements of the muscles of the gut (dysmotility)**. Dysmotility causes diarrhea, constipation, or a combination of both at different times. Therefore, an individual may have diarrhea-predominant IBS (IBS-D), constipation-predominant IBS (IBS-C), or a mixed stool pattern IBS (IBS-M).
- B) **increased sensitivity to intestinal sensations (visceral hypersensitivity)**. What is different for IBS is that the nerves are so sensitive that normal contractions, even when resulting from a normal meal or opening the bowels, bring on pain or discomfort. This discomfort does not mean the bowel is damaged; only that it is more sensitive to these stimuli for persons with IBS.
- C) **problem with the brain regulating gut function (brain gut axis dysregulation)**. The brain communicates with the gut a lot, and even normal people going for examinations sometimes get abdominal pain or diarrhoea. In IBS patients, this communication may be affected such that the brain is not able to "turn down" the pain or that the brain sends excessive signals causing diarrhoea in the gut.
- D) **alteration of bacteria in the bowel (dysbiosis)**. Dysbiosis can occur in IBS when "good" bacteria are replaced by "bad" bacteria. This can lead to intestinal nerves to be more sensitive or increased fermentation of food causing symptoms such as bloating and diarrhoea.

The symptoms of IBS are not due to structural problems (such as ulcers or cancers), therefore patients with IBS often have normal investigations such as blood test results, endoscopy or scans.



DID YOU KNOW? The small intestine and colon (large intestine) occupy most of the abdomen, therefore the location of pain may be different for various patients

WHAT ARE COMMON TRIGGERS TO IBS?

- Most patients identify **food** as a trigger to their symptoms. There is no single diet that will cure every case of IBS, but food definitely plays a role in producing symptoms in many people – particularly where the main symptoms are bloating, discomfort and diarrhoea.
- **Medications** can trigger symptoms of IBS, such as antibiotics, diabetic medications and cough medications. This is especially true if your symptoms worsened after starting one of these medications.
- **Stress** can make IBS symptoms worse due to changes in the brain's ability to reduce the body's reaction to stress.
- An **infection** that causes symptoms such as diarrhoea and vomiting (e.g. stomach flu or food poisoning) may also worsen IBS symptoms.

HOW IS IBS DIAGNOSED?

- Gathering a careful **medical history is the most important way for making a diagnosis of IBS.**
- Symptoms should be present at least weekly for about 6 months to be confident of an IBS diagnosis.
- **A common misunderstanding is that the absence of findings on scans or endoscopy means that further tests are needed to find the cause of the problem.**
- Depending on age and alarm symptoms, some patients will require diagnostic testing via blood tests, endoscopies or scans to exclude the possibility of other medical conditions. These **alarm symptoms include: Loss of appetite, Loss of weight, Bloody or Black stools, Progressively worsening symptoms, Abnormal physical examination, Difficulty swallowing, Family History of cancer or bowel diseases**

WHAT CAN I DO?

- Because IBS is a **lifelong condition with no cure**, it is important that IBS patients learn how to monitor their symptoms and rely on self-help measures in the event of symptom flares, because there will be “good days” and “bad days”. Active self-management can break the vicious cycle of repeatedly seeking treatment and the resulting disappointment.
- **The most important thing to monitor is the association of your IBS symptoms with specific triggers, be it food, irregular meals, medications, stress or any other factors you notice.**
- The best way to do this is via a symptom diary, which can be found at the back of this brochure. Using a diary to track symptoms and food intake can also help you decide what types of dietary adjustments will be most helpful.
- If you notice any patterns, try and avoid or modify these factors as the symptoms may be difficult to control once they occur, therefore prevention of triggers is the best strategy
- In general, it is useful to look closely at your IBS symptoms in association with your eating patterns, your lifestyle and emotional state, and any other situation that might affect your symptoms. The best way to keep track is to maintain a diary for a few weeks. If you notice any patterns, try to avoid or modify any factors that may make the symptoms worse.

Not all patients with IBS require a specialist to manage mild symptoms of IBS. Some of these medications can be obtained in GP clinics or polyclinics. Once you have experience using these medications, you may even be comfortable using the medications yourself to control your symptoms.

Some of the useful drugs which you may be given by your GP/Polyclinic doctor for IBS include:



Loperamide

- Useful for diarrhoea
- Can be taken 30 minutes before meals for patients who always need to rush to the toilet after meals

Antispasmodics

- Examples: Mebeverine Buscopan, Librax, Meteospasmyl, Debridat
- Useful for crampy pain, especially if it happens post meals
- Can be taken 30 minutes before meals for patients who get cramping pain post meals



Laxatives

- Useful for constipation
- Can be taken once or twice per day to achieve regular bowel movements
- May cause worsening of bloating

Some general advice for diet include

- Exactly which food or group of foods trigger symptoms varies from person to person, but there are a number of simple rules to try out
- Large, irregular meals challenge the gut much more. Therefore, it is recommended that you take regular, small frequent meals and chew thoroughly
- Try to drink at least 6-8 glasses of water per day
- Avoid or reduce gassy drinks (e.g. soft drinks), alcohol, strong tea or coffee. If you have been consuming a lot of caffeine (tea, coffee, coke), try gradually reducing your intake.
- Avoid or reduce artificial sweeteners and high fructose corn syrup (check ingredients of your groceries as many products such as ketchup, soft drinks, salad dressing, frozen food, canned fruits contain this)
- Avoid food rich in oils/fat such as pastry, butter, cream, fried foods, nuts
- If you are prone to constipation, try to increase your fibre intake with food such as fruits, vegetables, wholemeal bread, whole grain cereal products.
- If you are prone to diarrhoea or bloating, you can consider a low FODMAP diet (Fermentable Oligo, Di, Monosaccharides And Polyols). Examples of High FODMAP (bad) and low FODMAP (good) can be found in the list below. For more comprehensive information on the low FODMAP diet, you can visit the website:

<https://www.monashfodmap.com/i-have-ibs/starting-the-low-fodmap-diet/>

Food Category	High FODMAP foods	Low FODMAP food alternatives
Vegetables	Artichoke, asparagus, cauliflower, garlic, green peas, leek, mushrooms, onion, sugar snap peas	Aubergine / eggplant, beans (green), bok choy, capsicum (bell pepper), carrot, cucumber, lettuce, potato, tomato, zucchini
Fruits	Apples, apple juice, cherries, dried fruit, mango, nectarines, peaches, pears, plums, watermelon	Cantaloupe, grapes, kiwi fruit (green), mandarin, orange, pineapple, strawberries
Dairy and alternatives	Cow's milk, custard, evaporated milk, ice cream, soy milk (made from whole soybeans) sweetened condensed milk, yoghurt	Almond milk, brie / camembert cheese, feta cheese, hard cheeses, lactose-free milk, soy milk (made from soy protein)
Protein sources	Most legumes / pulses, some marinated meats / poultry / seafood, some processed meats	Eggs, firm tofu, plain cooked meats / poultry / seafood, tempeh
Breads and cereal products	Wheat / rye / barley based breads, breakfast cereals, biscuits and snack products	Corn flakes, oats, quinoa flakes, quinoa / rice / corn pasta, rice cakes (plain), sourdough spelt bread, wheat / rye / barley free breads
Sugars / sweeteners and confectionary	High fructose corn syrup, honey, sugar free confectionery	Dark chocolate, maple syrup, rice malt syrup, table sugar
Nuts and seeds	Cashews, pistachios	Macadamias, peanuts, pumpkin seeds, walnuts

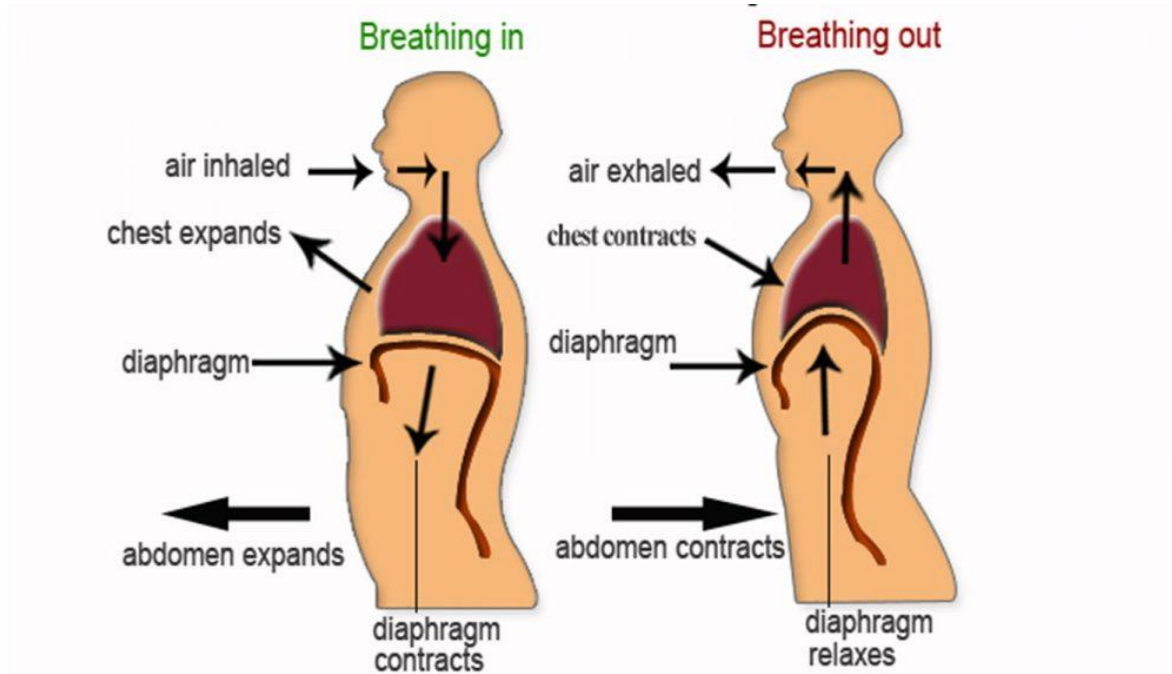
- If you suspect that one food or food group mentioned above is causing symptoms try avoiding this for approximately two weeks per food/food group.
- If symptoms are no better add the excluded food back and try avoiding another food/food group.
- If symptoms are improved by cutting out a particular food group, continue with the restriction but every few months try cautiously reintroducing the individual constituents to see which if any still trigger symptoms.

Other tips to improve control of symptoms

- Regular exercises have been shown to improve symptoms of IBS. Losing weight if you are obese will also help reduce some of the symptoms
- Adequate sleep have been shown to improve symptoms of IBS

- If you are prone to constipation, you should follow your body's natural pattern of increased bowel movements in the morning and after meals. Therefore, try to have breakfast at home and leave time for a visit to the toilet. Subsequently, retrain your bowel by following the same routine every day to try and visit the toilet the same time each day
- For patients with persistent bloating and belly that swells more and more as the day progresses, it is sometimes due to poor coordination of the muscles in your belly in keeping the gas in. In such situations, it may be helpful to consider these exercises which has been shown to relieve symptoms of bloating

MODIFIED DIAPHRAGMATIC BREATHING EXERCISES



1. Place one hand on your chest and the other hand on your belly above your abdomen
2. Take a deep breath through your nose, moving only the abdomen and not the chest (the hand on your chest should remain still). Try and visualise that you have a balloon in your belly. As the picture above shows, as you breath in, your belly/abdomen should expand, just like a balloon inflating
3. At the end of your breath, breathe out slowly, again moving only the abdomen and not the chest. As you are doing this, tighten your abdominal muscles as much as you can, just like a balloon deflating
4. Once you have breathed out, relax your abdominal muscles and repeat the steps from 1-3
5. The goal is to feel the abdomen rise and fall with each breath, while the chest and shoulders remained still.
6. Make sure there is complete inflation and deflation of the abdomen throughout the exercise, and ensure breathing to be slow and steady
7. It is recommended to perform 30 breaths or for 5 minutes 3 times daily, and for 5 minutes when bloating symptoms occur

WIND RELIEVING YOGA POSE “PAVANAMUKTASANA”



1. Lie on your back with your feet together and with your arms down by your side.
2. Breathe in and then as you slowly exhale, bring your right knee towards your chest and press your thigh into your abdomen.
3. Breathe in again and as you exhale, lift your head and chest off the floor and touch your chin to your right knee.
4. Hold the pose, taking slow deep breaths in and out.
5. As you exhale, try to bring your knee closer to your chest and increase the pressure on your chest.
6. Loosen the grip as your inhale.
7. When you are ready to exit the pose, place your legs back on the ground and repeat with the left leg, and then with both legs together.

4-7-8 BREATHING EXERCISES

The 4-7-8 breathing exercise is utterly simple, takes almost no time, requires no equipment and can be done anywhere. Although you can do the exercise in any position, sit with your back straight while learning the exercise. Place the tip of your tongue against the ridge of tissue just behind your upper front teeth, and keep it there through the entire exercise. You will be exhaling through your mouth around your tongue; try pursing your lips slightly if this seems awkward.

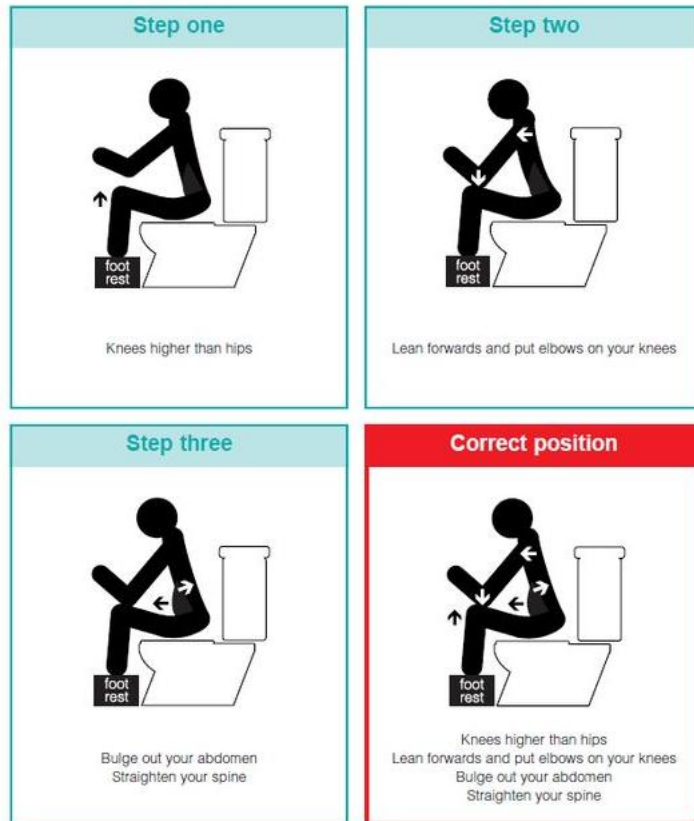
1. Exhale completely through your mouth, making a whoosh sound.
2. Close your mouth and inhale quietly through your nose to a mental count of four.
3. Hold your breath for a count of seven.
4. Exhale completely through your mouth, making a whoosh sound to a count of eight.
5. This is one breath. Now inhale again and repeat the cycle three more times for a total of four breaths.

Once you develop this technique by practicing it every day, it will be a very useful tool that you will always have with you. Use it whenever anything upsetting happens – before you react. Use it whenever you are aware of internal tension or stress. Use it to help you fall asleep. This exercise cannot be recommended too highly. Everyone can benefit from it. Such breathing exercises can help reduce anxiety levels, relieve pain and reduce sensitivity of nerves by stimulating big nerves in the body such as the vagus nerve.

PROPER POSITIONING FOR OPENING BOWELS

There are certain positions that are optimal for opening your bowels and changing the position of opening one's bowels may help greatly with your symptoms of constipation.

Correct position for opening your bowels



Source: <http://bladderandbowelfoundation.org/uploads/files/toileting%20positions.pdf>. Ray Addison et al. (2005).

WHAT CAN THE DOCTOR DO FOR ME?

Once the diagnosis of IBS has been confirmed by your doctor, he may prescribe you with medications to target your specific symptoms. Some of the commonly used medications, apart from those mentioned above, include:

1. Probiotics – useful for diarrhoea and bloating
2. Antibiotics (e.g. Rifaximin) – useful for diarrhoea and bloating
3. Newer laxatives (e.g. Prucalopride) – useful for constipation and bloating

When your predominant symptom is pain and severe, the doctor may prescribe you with low doses of antidepressants. These medications are not used to treat depression for IBS patients but used to reduce the sensitivity of their intestines, which are rich in nerves. (E.g. amitriptyline, nortriptyline, duloxetine, escitalopram, mirtazepine). These medications often

have side effects such as giddiness and drowsiness which occur in the first 1-2 weeks of starting the medications or increasing of the dose. The good effects of the medications often only come at around 4-6 weeks of starting the medication or increasing the dose, therefore many patients give up prematurely. We advise you to discuss these issues with your doctor to ensure that you have truly attempted to take the medications appropriately before deciding whether it works or not.


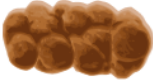


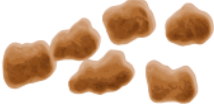
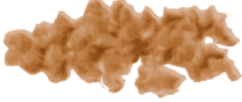

When pain does not respond to these medications despite reaching a high dose or if patients cannot tolerate the side effects of these medications, the doctor may decide to send you to a psychologist for psychological therapies. A psychologist is different from a psychiatrist. A psychiatrist diagnoses and treats mental health illnesses such as anxiety and depression but a psychologist studies and helps to change human behavior. IBS patients may have poor inflexible coping mechanisms towards their pain that they may not be aware of, and may also have heightened sensitivity due to repeated exposure to the pain. The role of the psychologist is to help the IBS patient understand how they are coping with the pain, and therefore suggest changes in behavior to achieve a good quality of life despite the pain, or they may offer other coping strategies such as mindfulness relaxation therapy.

THE IRRITABLE BOWEL SYNDROME CLINIC IN SINGAPORE GENERAL HOSPITAL

The Irritable Bowel Syndrome/Functional GI clinic in Singapore General Hospital has a multi-disciplinary team (doctors, nurses, dietitians, psychologists) that is prepared to deal with patients with these conditions. We pride ourselves with providing a holistic approach in the care of these patients using a variety of medications, psychological therapies and dietary interventions. We also frequently conduct treatment trials with new medications and approaches to help more patients control their symptoms and improve their quality of life.

To make an appointment at our clinic, please contact (65) 6321 4377

Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on the surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. Entirely Liquid

Symptom and Food Diary - Singapore General Hospital, Department of Gastroenterology & Hepatology

Day Date:	Morning	Afternoon	Evening	Night
Food				
Symptoms				
Bowel movements				
What I did to improve my symptoms				
How I was feeling that day (E.g. happy, stressed etc)				

Day 1 Date: 28/05/2019	Morning	Afternoon	Evening	Night
Food	Toast with butter, coffee	Rice with pork and cabbage Some fruits after lunch	Noodles with chicken soup Bar of chocolate post dinner	Nil
Symptoms	Bloating, severe 9/10	No symptom	Bloating, mild 3/10	Nil
Bowel movements	Stool form 5 (1st) Stool form 6 (2nd)	Nil	Stool form 6 (3rd)	Nil
What I did to improve my symptoms	Rest on my bed	Nothing. I just tolerated it	Rubbed some medicated oil	
How I was feeling that day (E.g. happy, stressed etc)	Rushed	Stressed	Relaxed	

