

## Irritable bowel syndrome

Irritable bowel syndrome (IBS) is a chronic relapsing disorder, affecting around one in nine Australians. It is associated with substantial morbidity and reduced quality of life. IBS can be diarrhoea- or constipation-dominant, or mixed type. Management of symptoms is influenced by the predominant IBS characteristic. Up to 80% of patients with IBS have food-related symptoms.

### Symptoms

Irritable bowel syndrome symptoms include abdominal pain and altered bowel habits. Subtypes are based on number of days of abnormal bowel motions. Symptoms include faecal urgency (particularly after meals), a need to strain when passing a stool, a feeling of incomplete evacuation, abdominal bloating or passage of mucus. Symptoms range from mild and intermittent to severe and daily.

Alarm symptoms include rectal bleeding, unintentional weight loss, nocturnal diarrhoea and family history of colon cancer, inflammatory bowel disease or coeliac disease.

IBS is frequently associated with other chronic conditions such as fibromyalgia, chronic pelvic pain, chronic fatigue syndrome and temporomandibular joint disorder. Up to half of people with IBS have depression, anxiety or self-identity as a hypochondriac.

### Pharmacological treatment

IBS treatment needs to be individualised, considering the patient's presenting symptoms and likely precipitants. Pharmacological treatment of IBS includes:

- Tricyclic antidepressants
- Antispasmodics
- 5-HT<sub>3</sub> antagonists
- Loperamide
- Rifaximin
- Lactulose

Off-label use of low dose tricyclic antidepressants (e.g. nortriptyline or amitriptyline 5-10mg at night) has been shown to reduce abdominal pain. The dose can be increased to 50mg at night if a positive response is shown.

Antispasmodics such as hyoscine and mebeverine are smooth muscle relaxants for symptomatic treatment of IBS.

Hyoscine butylbromide (*Buscopan, Gastro-Soothe, Stomach Ease*) reduces spasm of the gastrointestinal tract associated with IBS. Hyoscine butylbromide should not be taken on a continuous daily basis or for extended periods.

Mebeverine (*Colofac, Colese*) is used to treat abdominal pain and cramps, persistent non-specific diarrhoea (with or without alternating constipation) and flatulence. Mebeverine may be poorly tolerated, especially in older people, with adverse effects of indigestion, heartburn, dizziness, insomnia, anorexia, headache, decrease in pulse rate, constipation, and general malaise.

5-HT<sub>3</sub> antagonists (e.g. ondansetron) work by slowing colonic transit. Ondansetron (*Zofran*) should be started at the lowest dose of 4mg once daily, and titrated up according to response.

Loperamide (*Diareze, Gastrex, Gastro-Stop, Imodium*) reduces diarrhoea associated with IBS but has little effect on abdominal pain. For chronic diarrhoea associated with IBS, 2mg should be given after each unformed stool until diarrhoea is controlled.

Rifaximin (*Xifaxan*) is used off-label to restore the altered gut microbiome in patients with IBS.

Low-dose lactulose (*Actilax*) is used for IBS with constipation. It can cause bloating and flatulence.

### Non-pharmacological treatment

Numerous non-pharmacological therapies have been trialled for IBS, including diets, high fibre diets and supplements, herbal supplements, prebiotics and probiotics, and psychological therapies.

### Diet

As food-related symptoms are common, reducing certain foods that exacerbate IBS symptoms is often the most beneficial treatment. Avoiding spicy food, fatty food, milk and dairy products, alcohol, carbonated drinks and caffeine can reduce symptoms. Dietary changes can also include specific food restrictions such as lactose free or gluten free diets.

Recommended diets include Mediterranean diet and a low fermentable oligosaccharides, disaccharides, monosaccharides, and polyols (FODMAP) diet. FODMAPs increase fermentation and gas production, causing IBS symptoms of bloating and pain. Low FODMAP diets need to be trialled for a 4 to 6 week period and can be difficult to maintain.

Fiber, in dietary and supplement form, is a mainstay of treatment for IBS. The most often recommended soluble fibre for IBS is psyllium (ispaghula husk) (e.g. *Metamucil Powder*). Other soluble fibres include corn fibre, calcium polycarbophil, methylcellulose, oat bran, and the flesh of fruits and vegetables.

Insoluble fibres are found in peelings of fruits and vegetables, seed, whole grains, and wheat bran; they increase stool bulk while stimulating colonic motility and mucus production. This can contribute to common IBS symptoms such as bloating and abdominal discomfort, and therefore are not recommended for treatment of IBS.

### Dietary and herbal supplements

The amino acid L-glutamine as a supplement has been shown to reduce IBS symptoms. Supplementary vitamin D can be considered in people who are deficient.

Curcumin, fennel, turmeric, caraway oil, melatonin, aloe, ginger, berberine hydrochloride have all been studied, but with limited evidence to support use for IBS symptoms.

Iberogast contains a number of medicinal herbs – iberis amara, caraway, camomile, lemon balm, peppermint and liquorice. It may provide relief of all symptoms associated with IBS. Drops may be added juice if preferred.

### Complementary medicines

Peppermint oil has antispasmodic properties that have been well studied for the treatment of IBS. Peppermint oil capsules (*Mintec*) can relieve abdominal pain, cramps, bloating and wind. They should be swallowed whole 30 minutes before meals, but not immediately after meals or with a hot drink. Peppermint oil can cause mild symptoms of reflux, dyspepsia and flatulence.

Cannabis sativa has very limited evidence for benefit in the treatment of IBS symptoms.

### Prebiotics and probiotics

Alterations in the gut microbiome are linked to IBS. Probiotics may have beneficial effects on global IBS symptoms and abdominal pain.

As with all alternate therapies, a time limited trial of 12 weeks should be conducted to determine any benefit and discontinue if no improvement in symptoms are seen.

### Brain-gut behaviour therapies

There is strong evidence to suggest that the gut-brain axis influences the psychological comorbidities experienced by many patients with IBS. Cognitive behavioural therapy (CBT) and gut directed hypnotherapy (GDH) are the most evidence based brain-gut behaviour therapies for IBS. They can address coping deficits, reduce arousal, and improve self-regulation.

Cognitive behavioural therapy is a skills based approach that aims to target cognitive, affective, and behavioural processes, which trigger and/or exacerbate IBS symptoms.

Gut directed hypnosis involves a deep state of relaxation and focused attention that increases receptivity to suggestion.

Other interventions include self-management training, mindfulness based stress reduction, psychodynamic-interpersonal therapy, and emotional awareness and processing approaches.

### Mind-body interventions

Mind-body interventions utilized for IBS therapy include general exercise, yoga and tai-chi or qi-gong.

Exercise in general has been shown to improve IBS symptoms. Low to moderate intensity aerobic exercise is associated with improvements in IBS symptoms.

Meditative movement practices, which combine postures/movements with meditation practice, can be used for stress sensitive disorders such as IBS. Yoga is linked to decreases in bowel symptoms, IBS symptom severity, and anxiety with improvements in quality of life, global symptoms, and physical functioning.

#### References

*BMJ* 2024; 387: e075777.

*MedicineToday* 2021; 22(8): 21-25.

*Gastroenterology* 2022;163(1): 137-151.

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