# Irritable bowel syndrome

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Surgery has no role in treating IBS. Nevertheless, patients with chronic abdominal pain and a change in their bowels are very common in surgical clinics and all surgeons should at least have a passing familiarity with a disorder that is a source of misery to millions of people worldwide. Definitions IBS is a functional bowel disorder characterised by abdominal pain or discomfort, stool irregularities and bloating. The term replaced nineteenth century descriptions such as ‘irritable’ or ‘spastic’ colon in 1979 to reflect the fact that the colon is not the only site of the problem. Diagnostic criteria have evolved to the now used Rome IV Foundation definition: Recurrent abdominal pain on average at least 1 day/week in the last 3 months, associated with two or more of three criteria: (1). related to defecation; (2). associated with a change in the frequency of stool and (3). associated with a change in the form (appearance) of stool. These criteria should be fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis. The change in frequency and form of the stool dictates subdivisions of IBS into constipation-predominant (IBS-C), diarrhoea-predominant (IBS-D) and mixed (IBS-M) subclasses ( Figur e 73.13 ). Aetiology and risk factors Regardless of exact definition, the cardinal symptoms of chronic abdominal pain and ‘deranged digestion’ favour a ‘biopsychosocial model’ ( Figure 73.14 ) that encompasses the role of stressful life events and brain–gut interactions in symp tom generation. Several common life events are particularly well documented; these include postinfective IBS, where a seemingly discrete attack of gastroenteritis (viral, bacterial or otherwise) is follow ed by chronic ongoing symptoms; physical and/or sexual abuse (and neglect); surgery; and trauma. One Patrick Malone , contemporary , surgeon, Southampton, UK. - implication of the model is that IBS has much overlap with other medical conditions that have similar or nearly identical biopsychosocial determinants ( Summary box 73.9 ). Summary box 73.9 IBS-associated comorbidities /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF - /uni25CF

Abdominal pain Constipation IBS-C IBS-M Diarrhoea IBS-D IBS-U Figure 73.13 Irritable bowel syndrome (IBS) subtypes according to the Rome criteria. All patients have abdominal pain but subtypes vary according to bowel form at presentation such as to meet criteria for IBS with constipation (IBS-C), IBS with diarrhoea (IBS-D), mixed-type IBS (IBS-M) and unsubtyped (IBS-U). General Fibromyalgia syndrome Chronic fatigue syndrome Chronic pelvic pain, chronic prostatitis and bladder pain syndromes Chronic back pain Migraines Depression Anxiety Somatisation Sleep disturbance a Gastrointestinal disorders Eating disorders Dyssynergic defecation Levator ani syndrome and proctalgia fugax Food intolerances a The overlap of IBS with other Rome-de /f_i ned functional gastro- intestinal disorders should also be noted, including functional dyspepsia and functional constipation.

Diagnosis Clinical history Besides symptoms required by the diagnostic criteria, other symptoms may be present. Common associated symptoms include bloating (very common), straining at defecation, excessive flatulence and postprandial indigestion. A history of precipitating events (as

per the model) and of comorbidities ( Summary box 73.7 ) should also be sought to support the diagnosis. The patient may also have a history of multiple operations, which on reflection may have been directed to chronic abdominal pain, e.g. appendicectomy , cholecystectomy or hysterectomy . Clinical examination Physical examination helps to reassure patients and also to exclude another organic cause for symptoms. However, abdominal examination rarely discloses a specific diagnosis (abdominal tenderness is often present but non-specific); the absence of objective findings supports a diagnosis of IBS. A digital rectal examination may identify patients with dyssyner - gic defecation and other causes of constipation. Investigations There are no valid laboratory biomarkers of IBS. Routine blood panels, including inflammatory markers, are generally

Early life • Genetics • Epigenetics Local environmental factors • %iet • Acute infections • Surgery Figure 73.14 Biopsychosocial model of irritable bowel syndrome (IBS). The scheme is a conceptualisation of the pathogenesis and clinical expression of IBS showing interrelationships between various risk factors and changes in physiology. TABLE 73.7 Treatments for irritable bowel syndrome. Nutrition Increased (constipation) or reduced (bloating) /f_i bre Gluten-free diet (especially if equivocal diagnosis of coeliac disease) FODMAP diet Probiotics Consider dietary supplements, prebiotics Drugs Antispasmodics: peppermint oil, hyoscine butylbromide (Buscopan) Laxatives, e.g. stool softeners, osmotic and stimulant (avoid lactulose because of bloating and pain) Antidiarrhoeals: loperamide ( /uni03BC -opioid receptor agonist); 5-HT Motility accelerants, e.g. linaclotide (guanylyl cyclase C agonist), prucalopride (5-HT Low-dose antidepressants: tricyclics and selective serotonin reuptake inhibitors Manipulation of the microbiota by non-absorbable antibiotics, e.g. rifaximin Neuromodulators, e.g. gabapentin and pregabalin Psychotherapy Cognitive–behavioural therapy Gut-directed hypnosis Guided self-help interventions 5-HT, 5-hydroxytryptamine; FODMAP , fermentable oligosaccharides, disaccharides, monosaccharides and polyols. Psychosocial factors • Life stress • Psychological state and trait • Coping • Social support IBS Brain-gut axis • Symptoms • #ehaviour Physiology • Motility • Sensation • Permeability • Inflammation • Altered flora receptor antagonists, such as alosetron, ondansetron 3 receptor agonist) 4

disease, e.g. cancer, inflammatory bowel disease or diverticu lar disease. Specific tests include serological tests for coeliac disease, faecal calpr otectin and stool microbiology in cases of diarrhoea predominance. Invasive procedures are generally not warranted unless alarm features ar e present that mandate endoscopy . That noted, it is quite common practice to perform colonoscopy , not least to reassure the patient that their chronic symptoms do not have an organic basis. In patients with IBS-D, colonoscopy with random biopsies is warranted to exclude microscopic colitis. Other tests that may be relevant include 75 (75Se-homocholic acid taurine [ SeHCAT] test or serum serum 7- α -hydroxy-4-cholesten-3-one (C4) levels) for bile salt malabsorption, breath testing for carbohydrate malabsorption, gastrointestinal physiology for constipation and upper gastro intestinal endoscopy for associated dyspeptic symptoms. Management Only a fraction of patients with IBS-like symptoms seek medi cal care and most will initially consult primary care physicians for their symptoms. The factors that drive this consultation are symptom sev erity , especially pain, and concerns that symptoms might indicate an underlying severe disease, e.g. cancer. There fore, in many cases, the doctor’s role is to exclude diseases that can mimic IBS symptoms by relevant investigations such as endoscopy . When a positive diagnosis of IBS has been made, man agement requir es an integrated approach, including educa tion, reassurance, dietary alterations, pharmacotherapy and behavioural or psychological interventions/support. The initial treatment strategy should be based on predominant symptoms

and includes antispasmodics for abdominal pain, antidiarrhoeals for IBS-D and laxatives for IBS-C, wher nutritional interventions and psychotherapy can be used in all subtypes. Table 73.7 provides a list of potential management strategies for IBS. This list is not all encompassing, nor does it provide weighting to one treatment over another in terms of e ff ectiveness in clinical trials. Some treatments are popular, e.g. low-dose antidepressants but such use is o ff -label; others may - there is no trial evidence. A key point in the management of IBS rests with nota - ble exclusions from Table 73.7 . Thus the table makes no ref - erence to standard analgesics and surgery . Opioid analgesia should be avoided in IBS because the further disturbance to motility worsens the prognosis and in extreme use can lead to narcotic bowel syndrome (an opioid-induced state of hyper - algesia whose main driver is the activa tion of glial cells). Sur - gery has a well-documented association with symptom onset of IBS (cholecystectomy , appendicectomy , hysterectomy and back surgery); further surgery leads not only to greater poten - tial visceral sensitisa tion (via injury) but also serves to confuse subsequent diagnosis, e.g. adhesional versus functional cause - for symptoms. There is also a body of evidence to suggest that surgery perpetua tes a search for an ‘organic’ diagnosis that hinders patient acceptance and adaption to their chronic prob - lem. For the surgeon, the key is to exclude any surgical cause - of pain and then prevent further harm by avoiding surgery .

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Revision #1
Created 2025-12-31 15:27:12 UTC by Omar Ayman
Updated 2025-12-31 15:27:12 UTC by Omar Ayman