

WHAT IS IBS ALL ABOUT?

- Chronic and unpredictable condition; functional GI disorder
- Symptoms that change over time and are hard to talk about
 - Bloating, pain, flatulence, diarrhea, constipation
- There are many associated conditions
- No cure
- Often told it's "all in your head"
- Those who suffer from it often report lack of support and understanding from medical community

DEFINITION OF IBS:

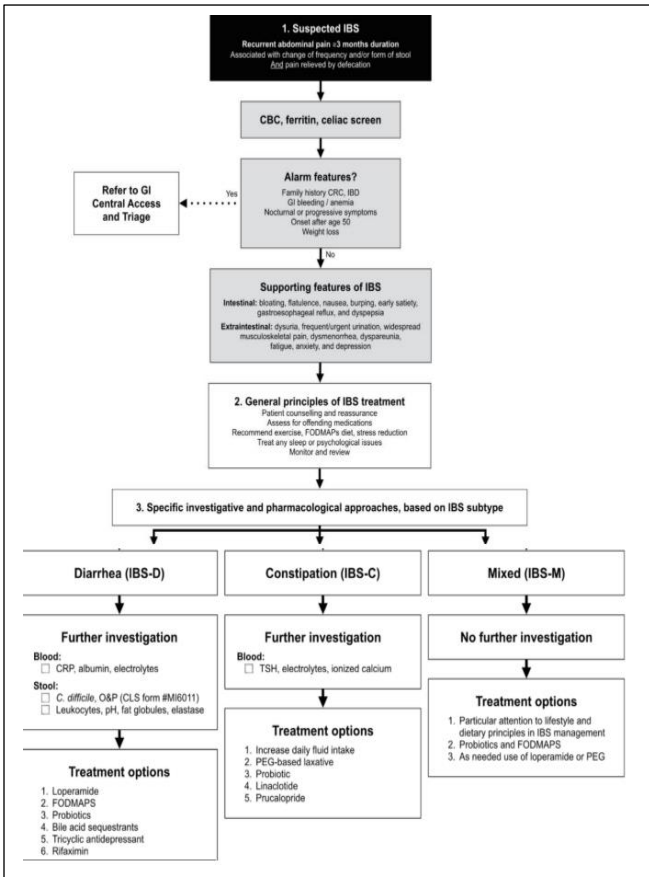
- Irritable bowel syndrome is functional bowel condition characterized by:
 - Abdominal pain
 - Bloating
 - Change in bowel function (constipation, diarrhea, or both)
- Subtypes include:
 - IBS-C:** predominantly constipation
 - IBS-D:** predominantly diarrhea
 - IBS-M:** mixed stool pattern
 - IBD-U:** unclassified
- Psychological component in 40-60% of pts (depression, anxiety)

INCIDENCE:

- Globally: 11%
- N. America, Europe, Australia & New Zealand prevalence: 8.1%
- Not associated with decrease in mortality, but represents significant burden on pts and society (medical costs, loss of productivity, reduced QOL, impact on caregivers)

GOALS OF THERAPY:

- Symptom reduction:
 - Pharmacological management focuses on predominant bowel sx (constipation or diarrhea) and abdominal pain
 - Non-pharmacological
- Patient education
- Improve QOL
- Lifestyle modifications
- Provide reassurance



DIAGNOSIS: Rome IV Criteria

Diagnostic time -frame	<ul style="list-style-type: none"> Sx onset at least 6 months prior Sx activity during last 3 months Sx frequency at least one day per week
Symptom description: abdominal pain	Associated with (at least 2 or more): <ul style="list-style-type: none"> Related to defecation Associated with change in the form of stool Associated with change in frequency of stool
Prominent stool patterns of IBS subtype	<ul style="list-style-type: none"> Stool type based on days with abnormal bowel movements
Tool to categorize bowel habit	<ul style="list-style-type: none"> Bristol Stool Form Scale (normal = type 3/4)

POSSIBLE INVESTIGATIONS:

Screening	<ul style="list-style-type: none"> For sigmoidoscopy For colonoscopy
Upper GI barium study	<ul style="list-style-type: none"> With small bowel follow through to screen for masses, inflammation, ulcers
Double-contrast barium enema	<ul style="list-style-type: none"> Screen for neoplasm & inflammation
Gallbladder ultrasonography	<ul style="list-style-type: none"> Consider if pt has recurrent dyspepsia or characteristic postprandial pain
Abdominal CT Scan	<ul style="list-style-type: none"> Screen for tumors obstruction and pancreatic disease
CBC	<ul style="list-style-type: none"> Normal
Stool cultures	<ul style="list-style-type: none"> Negative for pancreatitis, bacteria, viruses

RED FLAGS:

- Rectal bleeding or GI bleeding
- Unexplained unintentional wt loss
- Family hx of bowel or ovarian cancer
- Late onset of sx (age > 60)
- Anemia
- Presence of any masses (abdominal, pelvic, rectal)

PATHOGENESIS:

- Abnormal motility in the colon, small intestine
- Lower visceral pain threshold, hypersensitivity
- Impaired gas transit, rectal expulsion
- Carbohydrate malabsorption
- Bacterial infection/overgrowth/altered microbiota
- Inflammation
- Psychosocial abnormalities/stress exposure/early-life events
- Genetic predisposition

THERAPIES FOR ALL SUBTYPES OF IBS:

Exercise	<ul style="list-style-type: none"> Mod to vigorous exercise for 20-60 mins 3-5 x per week
Soluble Fibre	<ul style="list-style-type: none"> Use in IBS remains controversial May be beneficial in some but detrimental in other Reasonable to try psyllium husk 0.5-1 tsp daily Insoluble fibers (like bran) is not beneficial
Probiotics	<ul style="list-style-type: none"> Bifidobacterium infantis (Align) 1 cap/day Lactobacillus plantarum 229v (TuZen) 1-2 caps/day
Antispasmodics	<ul style="list-style-type: none"> Peppermint oil (0.2-0.275 mL) 2 EC caps BID Hyoscine butylbromide (Buscopan) 10 mg TID-QID Dicyclomine hydrochloride (Bentylol) 20 mg TID-QID Pinaverium Bromide (Dicetel) 50-100 mg TID Trimebutine (Modulon) 100-200 mg TID
Antidepressants	<ul style="list-style-type: none"> Nortriptyline or amitriptyline 10-25 mg qhs, dose escalate by 10-25 mg/week (may require 25-150 mg/d) <ul style="list-style-type: none"> Usually takes 2-3 months for peak effect Particularly useful in pts with diarrhea & pain predominance or sleep issues/anxiety/depression Use with caution in pts at risk of prolonged QT Note: somnolence and anticholinergic side effects Latest IBS technical review <u>does not endorse</u> use of SSRIs
Complementary Therapies	<ul style="list-style-type: none"> Psychological treatments Mindfulness-based stress reduction Hypnotherapy Acupuncture Yoga

THERAPEUTIC ALTERNATIVES FOR CONSTIPATION:		
Agent	Dose	Adverse effects
PEG based laxatives	17 – 34 g/day	Stomach cramps, bloating, diarrhea
Magnesium citrate (osmotic)	15 – 30 mL BID prn	Diarrhea
Lactulose (osmotic)	15 – 30 mL PO up to TID	Diarrhea
Fiber + hydration – Psyllium (or other soluble fibre)	Go slow, limit to 12 g/day; adjust to symptoms	Excess fiber may exacerbate sx (bloating, rumbling, constipation)
Linacotide (Constella) NOTE: CDEC does not recommend its use	290 mcg/day 30 mins before breakfast	Diarrhea, abd. pain and headache

- ABDOMINAL PAIN:**
- Antispasmodics & antidepressant agents
 - Start slow, at lowest doses
 - Counsel re: side effects, drug interactions
 - Data from high quality trials are lacking
 - Antispasmodic: dicyclomine 10 mg before meals
 - Max 20 mg up to QID
 - TCA for severe pain: take at bedtime, increase dose slowly
 - Amitriptyline 10 mg daily
 - Nortriptyline 10 mg daily
 - Take at bedtime, increase dose slowly

- IF DIARRHEA IS MAIN SYMPTOM:**
- FIRST, TRY:**
- Direct a lactose-free diet for 1 week in conjunction with lactase supplements
 - Improvement incriminates lactose intolerance, although the pt's clinical history and response to a trial may be unreliable
 - Some gastroenterologists recommend a formal hydrogen breath test
 - Fructose intolerance must also be considered
 - Direct a 48-hour fast
 - Persistent diarrhea suggests a secretory etiology
 - Anal manometry
 - May reveal spastic response to rectal distension or other problems?

- PSYCHOLOGICAL TREATMENTS TESTED IN IBS CLINICAL TRIALS:**
- **Cognitive therapy:**
 - Help correct biased and negative thought patterns
 - Undermine effective life functioning & psychological well-being
 - **Gut directed hypnosis**
 - **Psychodynamic therapy**
 - Psychoanalysis
 - **Relaxation training**
 - Reduce physical tension, emotional distress
 - Music therapy, mediation therapy, biofeedback

RULE OUT OTHER CAUSES OF DIARRHEA:

Type	Examples	Characteristics
Secretory	<ul style="list-style-type: none"> • Cholera • Bile salt enteropathy 	Watery, large volume, no gas, pus
Osmotic	<ul style="list-style-type: none"> • Lactose intolerance • Gen malabsorption 	Watery, improves with fasting
Inflammatory	<ul style="list-style-type: none"> • Ulcerative Colitis • Shingellosis 	Small frequent stools with blood and pus
Motility Disorder	<ul style="list-style-type: none"> • Hyperthyroidism • Irritable Bowel Syndrome • Scleroderma 	Variable, malabsorption

IBS-D THERAPEUTIC OPTIONS:

Antidiarrheals	<ul style="list-style-type: none"> • Loperamide (Imodium) 2-4 mg BID • Cholestyramine powder (Olestyr 0.4/g), colestipol (Colestid 0.25/g) tablets or powder or colesvelam (Lodalis 1.80 /g) tablets or powder, 1-4 g po OD-TID • Especially useful post-cholecystectomy • Consider timing with other meds to avoid interaction • If long-term use, risk of fat-soluble vit deficiencies
FODMAPs	<ul style="list-style-type: none"> • Canadian Digestive Health Foundation • Replace high FODMAPs with low FODMAPx
Gluten avoidance	<ul style="list-style-type: none"> • Nonceliac gluten sensitivity
Antibiotics	<ul style="list-style-type: none"> • Rifaximin (Zaxine) 550 mg 3x/daily for 2 wks

- RIFAXIMIN:**
- Oral, non-systemic (non-absorbable) rifamycin derivative
 - Broad-spectrum antibiotic that targets the gut and is associated with a low risk of bacterial resistance
 - Used for traveller's diarrhea caused by E. coli and IBS-D
 - Do not use if fever or bloody diarrhea
 - Improves pain, bloating, stool consistency
 - Side effects: headache, nausea, stomach pain, dizziness, excessive tiredness, muscle tightening, joint pain