Constipation, Faecal Incontinence

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Anorectal Disorders

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CME

ACG Clinical Guidelines: Management of Benign Anorectal Disorders

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Benign anorectal disorders of structure and function are common in clinical practice. These guidelines summarize the preferred approach to the evaluation and management of defecation disorders, proctalgia syndromes, hemorrhoids, anal fissures, and fecal incontinence in adults and represent the official practice recommendations of the American College of Gastroenterology. The scientific evidence for these guidelines was assessed using the Grading of Recommendations Assessment, Development and Evaluation process. When the evidence was not appropriate for Grading of Recommendations Assessment, Development and Evaluation, we used expert consensus to develop key concept statements. These guidelines should be considered as preferred but are not the only approaches to these conditions.

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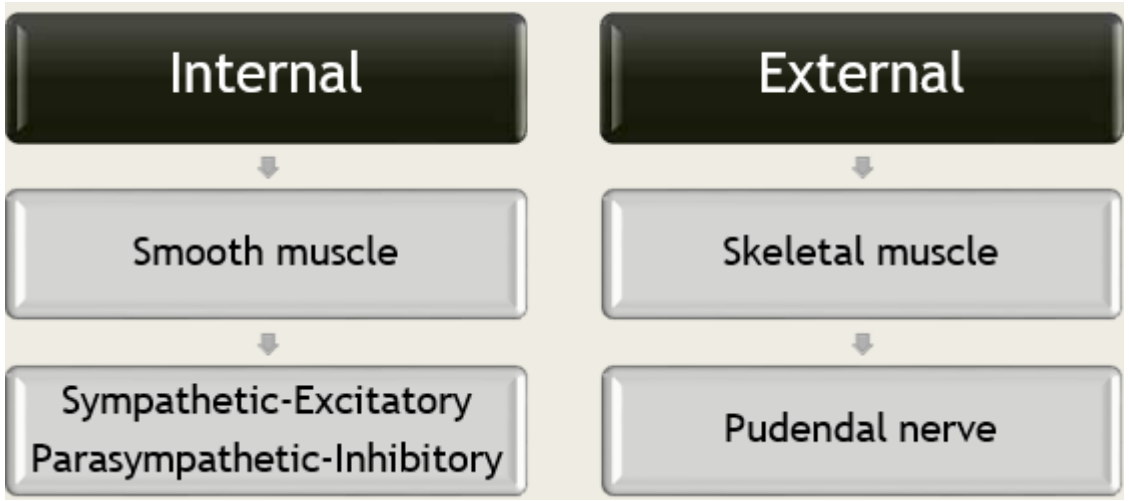
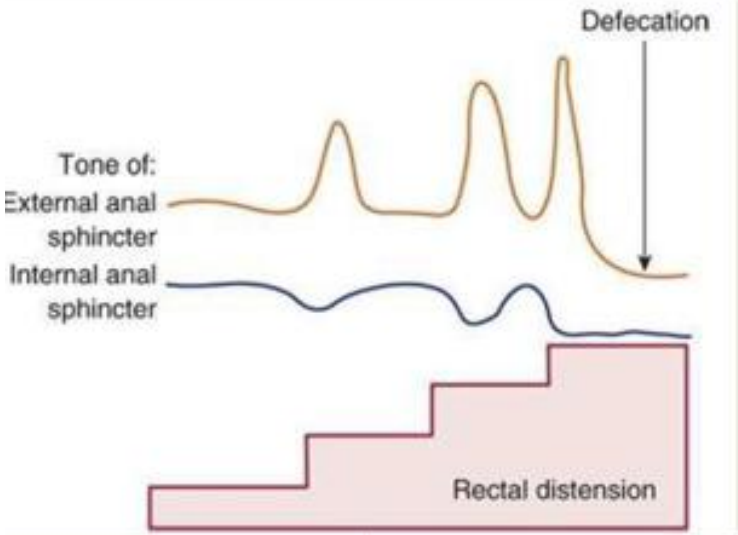
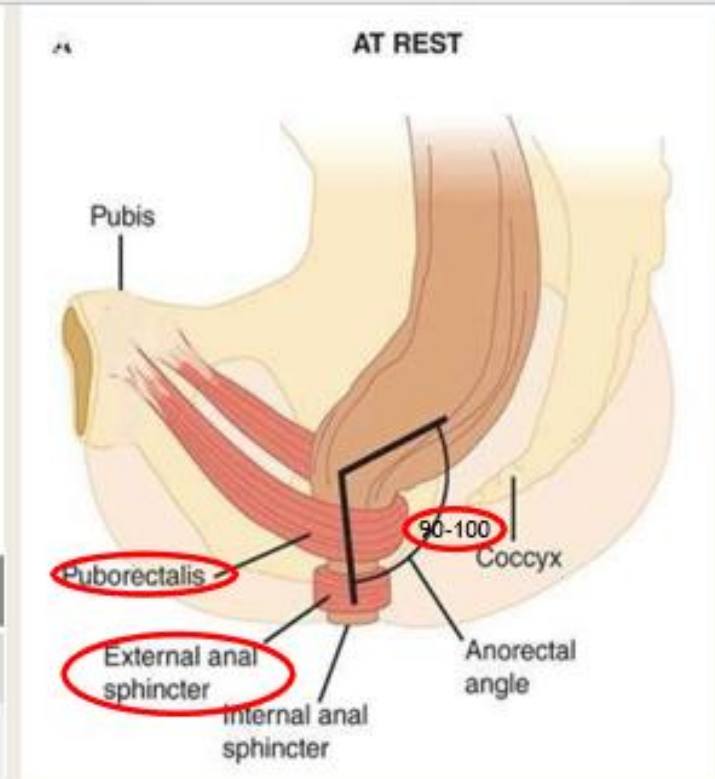
Physiology of Defecation

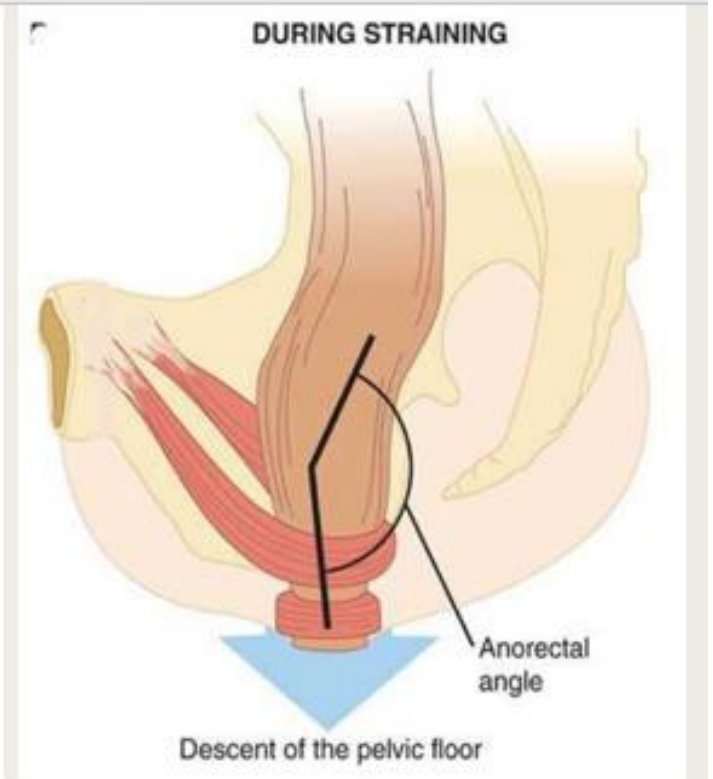
- Defecation is a spinal reflex.
- Distension of the rectum → reflex contractions of its musculature →desire to defecate





Rectal pressure	Response
≥ 18 mm Hg	Urge to defecate
≥ 55 mm Hg	defecation





Straining	abdominal muscles	puborectalis muscle relaxes	pelvic floor descent
Defecation	relaxation of the external anal sphincter		anorectal angle straight

Normal defecation

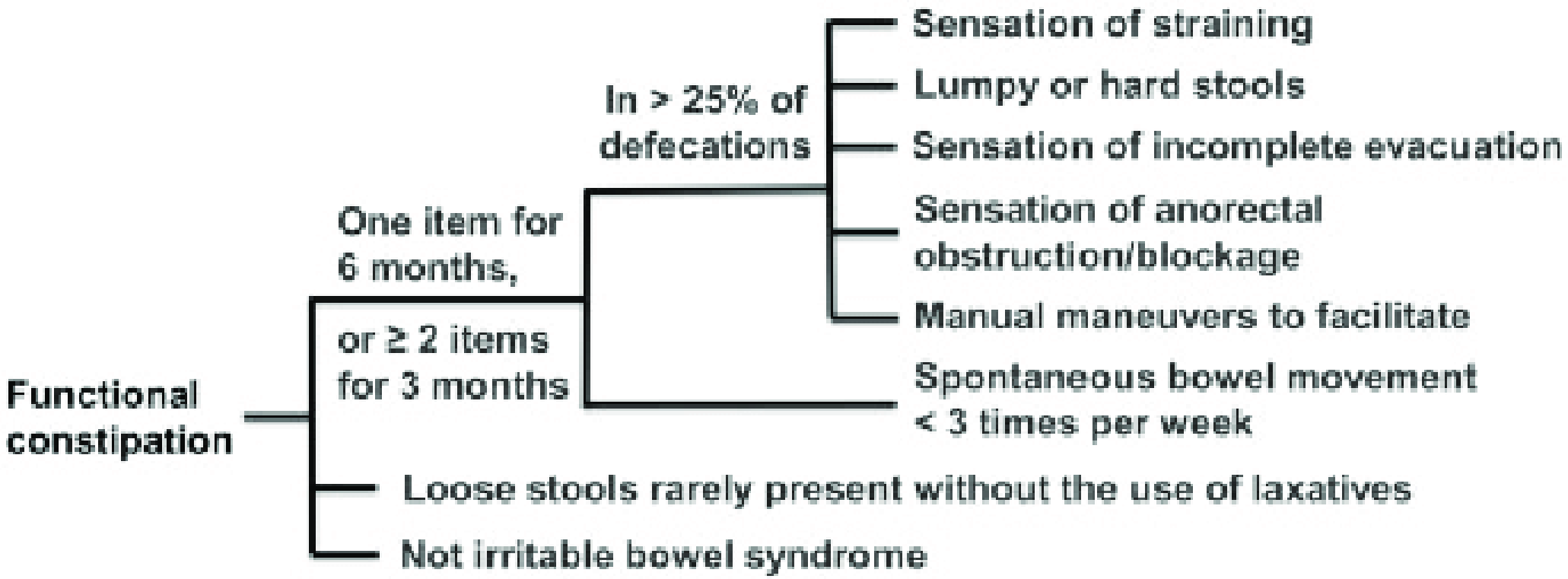
- Sensory perception of stool
- Rectal distension
- Contract diaphragm, abdomen, and rectal muscles
- Relax EAS (decreased sphincter pressure)
- Relax puborectalis muscle

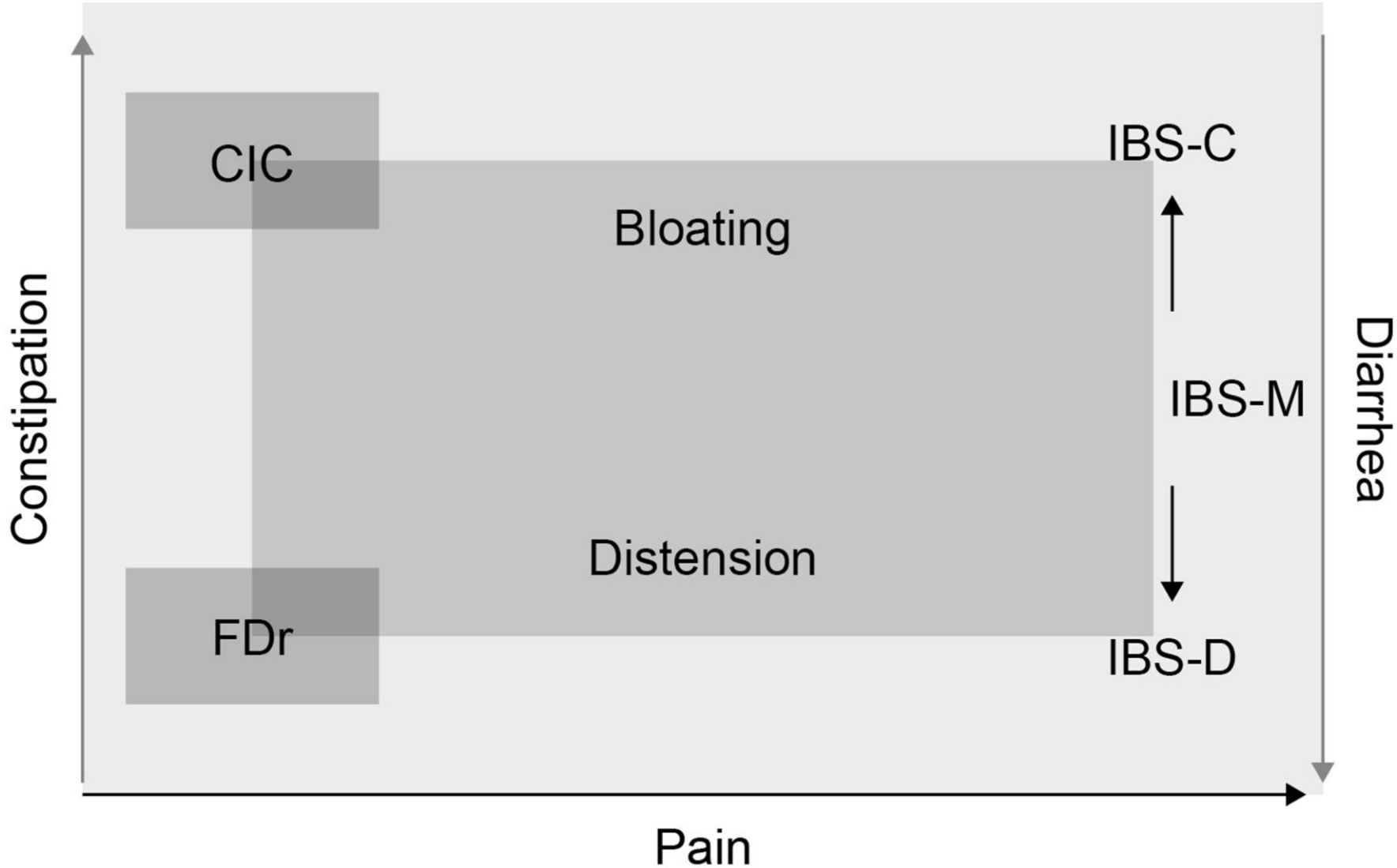
CONSTIPATION

- Very common clinical problem all over the world.
- Serious impact on quality of life of the patients, financial burden.
- It is said that *2.5 million individuals* with constipation undergo evaluation annually.

  ≥ **$500 million** is spent on laxatives each year.
- The traditional definition of constipation has been **≤ 3 bowel movements per week**
- Objectively defined by recent **ROME IV criteria**

ROME IV criteria




CIC
FDr
Bloating
Distension
IBS-C
IBS-M
IBS-D
Constipation
Diarrhea
Pain

Condition	Rome IV Criteria for Diagnosis	Other Considerations
IBS-C	• Recurrent abdominal pain (≥1 per week • Change in stool frequency • Change in form of stool • ≥ 25% of bowels movements are BSFS type 1 or 2 • < 25% of bowel movements are BSFS type 6 or 7 [4,10,22]	• Patients must present with abdominal pain for a diagnosis of IBS [2] • Abdominal bloating is often present, though not required for diagnosis [2] • Abdominal pain or discomfort may be relieved with defecation [23,24]
CIC	• Patients should meet ≥2 of the following in the last 3 months [4,10] • < 3 bowel movements/week • Straining for > 25% of bowel movements • Lumpy or hard stools (BSFS type 1 or 2) for > 25% of bowel movements • Sensation of incomplete defecation in > 25% of bowel movements • Sensation of anorectal obstruction/blockage in > 25% of bowel movements • Manual maneuvers to facilitate > 25% of bowel movements • Patients do not meet the Rome IV criteria for IBS-C	• Patients who have some similar symptoms to IBS-C but who do not meet IBS-C criteria are diagnosed with CIC [4,10] • CIC is commonly determined by the frequency of bowel movements [3] • Patients may experience bloating, abdominal pain, or discomfort, but these are not considered as main symptoms for CIC [4,9,10]

BSFS, Bristol Stool Form Scale; CIC, chronic idiopathic constipation; IBS-C, irritable bowel syndrome with constipation.

Secondary Causes of Constipation

Borum ML. *Prim Care*. 2001;28:577.

Schuffler MD. In: *Sleisenger and Fordtran's Gastrointestinal and Liver Disease*. 7th ed. 2002:2140.

Causes of secondary constipation

Cause	Example
Organic	Colorectal cancer, extraintestinal mass, postinflammatory, ischemic, or surgical stenosis
Endocrine or metabolic	Diabetes mellitus, hypothyroidism, hypercalcemia, porphyria, chronic renal insufficiency, panhypopituitarism, pregnancy
Neurologic	Spinal cord injury, Parkinson disease, paraplegia, multiple sclerosis, autonomic neuropathy, Hirschsprung disease, chronic intestinal pseudo-obstruction
Myogenic	Myotonic dystrophy, dermatomyositis, scleroderma, amyloidosis, chronic intestinal pseudo-obstruction
Anorectal	Anal fissure, anal strictures, inflammatory bowel disease, proctitis
Drugs	Opiates, antihypertensive agents, tricyclic antidepressants, iron preparations, antiseizure medications, anti-Parkinsonian agents (anticholinergic or dopaminergic), barium
Diet or lifestyle	Low-fiber diet, dehydration, inactive lifestyle

Primary Constipation

- Normal Transit Constipation
- Slow transit constipation
- Dyssynergic defecation

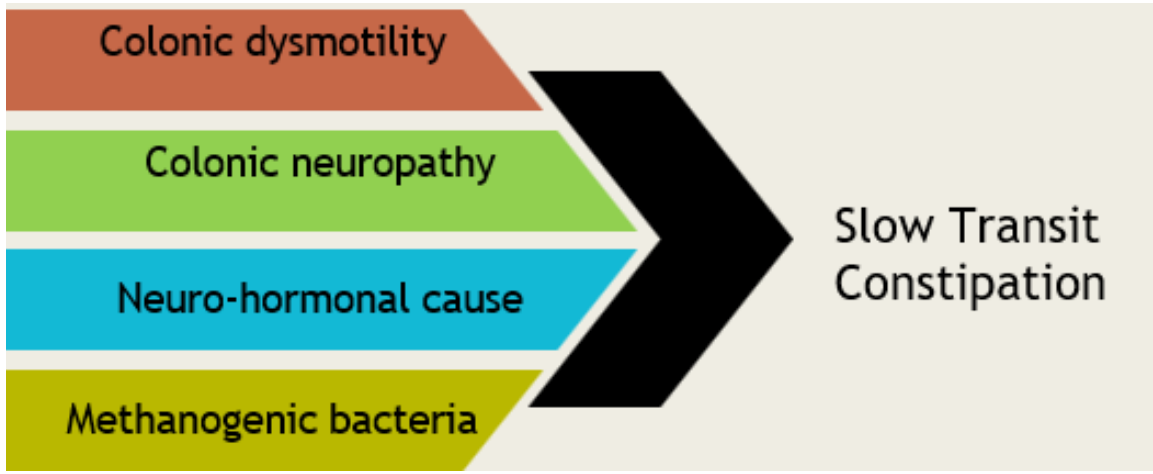
NORMAL TRANSIT CONSTIPATION

- Patients report that they have constipation, despite normal frequency
- Presence of **hard stools** or a **perceived difficulty with evacuation**
  - ➢Stool transit, stool frequency - within the normal range
  - ➢Bloating and abdominal pain
- May exhibit increased psychosocial distress
- Respond to therapy with:
  - dietary fibre
  - ± osmotic laxative or enterokinetic.
- Typically will not require a formal transit test.

Slow transit constipation

- Slow transport of stool across colon
- Infrequent bowel movements

  (<1 /week)
- Young Women
- **Colonic inertia -** most severe end of the spectrum



Dyssynergic Defaecation

- Incoordination of abdominal, rectal, anal and pelvic floor muscles during defecation
- Perineum has ‘forgotten’ how to defecate normally

How?

- Failure of External Anal Sphincter to relax
- Paradoxical contraction of External Anal Sphincter
- Failure of Puborectalis to relax
- Inadequate Rectal propulsion force

Dyssynergic Defaecation

- **Suggested by**
  - Excessive straining
  - Digitation
  - Splinting of perineum or vaginal vault
  - Difficulty passing soft stools
  - May not respond to even high dose laxatives

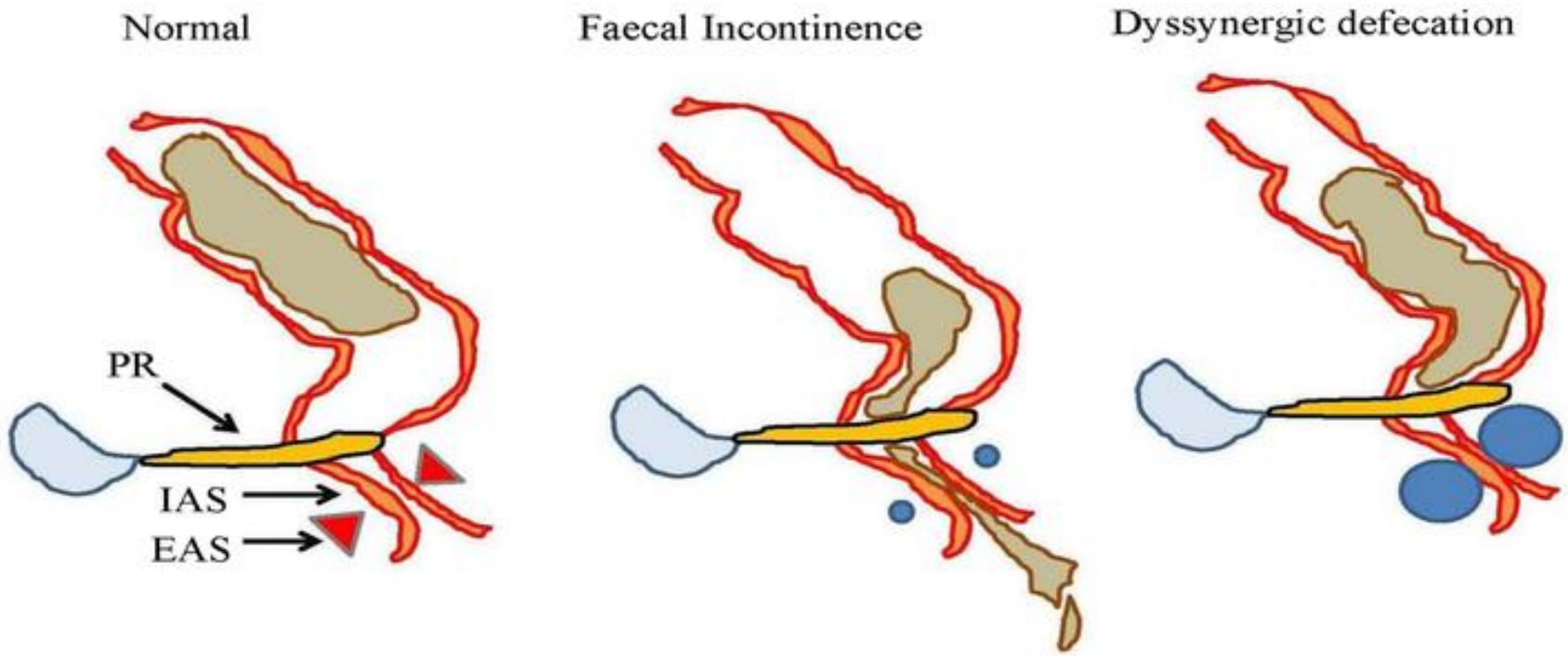
- Mostly **acquired, behavioural disorder**
  - Ignoring the urge
  - Straining
  - Psychological issues and stress

Dyssynergic Defaecation

- spasm or inability to relax the external anal sphincter is NOT the sole mechanism.
- Incoordination or dyssynergia of the muscles & impaired rectal sensation are the primary causes

Three phenotypes have been described

- High anal sphincter pressure
- Inadequate propulsive force
- Mixed Phenotype



Normal defecation	Faecal incontinence	Dyssynergic defecation
Normal stool perception Normal rectal compliance Relaxation of EAS and PR	Altered stool perception Reduced rectal compliance Low EAS and IAS pressure Weak PR Neuropathy	Rectal hyposensitivity Abnormal rectal compliance Paradoxical anal sphincter contraction Poor abdominal-rectal propulsive force

Approach to a patient with constipation

History

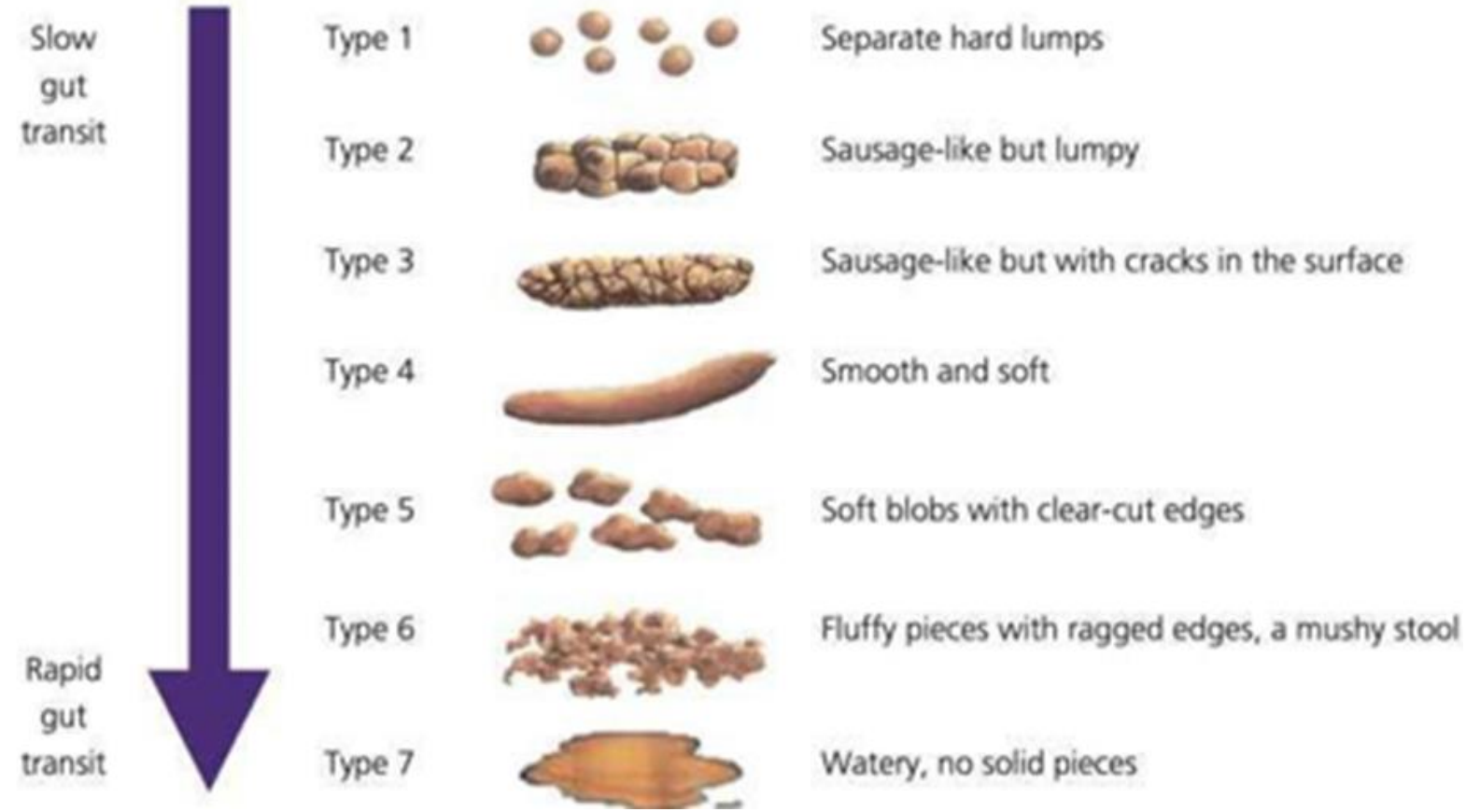
- Onset – whether it began in childhood
- Urge
- Frequency
- need for straining
- stool consistency and size
- history of ignoring a call to stool precipitating events
- use of any maneuver to assist defaecation

Functional
Long standing symptoms
No constitutional symptoms
No bleeding/mass
No symptoms of obstruction

Functional	Organic
Long standing symptoms	Recent onset
No constitutional symptoms	Loss of appetite
No bleeding/mass	Loss of weight
No symptoms of obstruction	Bleeding/mass
	Family h/o colonic

Functional	Organic	Dyssynergic defecation
Long standing symptoms	Recent onset	Heaviness in perineum
No constitutional symptoms	Loss of appetite	Excess straining
No bleeding/mass	Loss of weight	Feeling of obstruction
No symptoms of obstruction	Bleeding/mass	Digital evacuation/support of perineum
	Family h/o colonic	

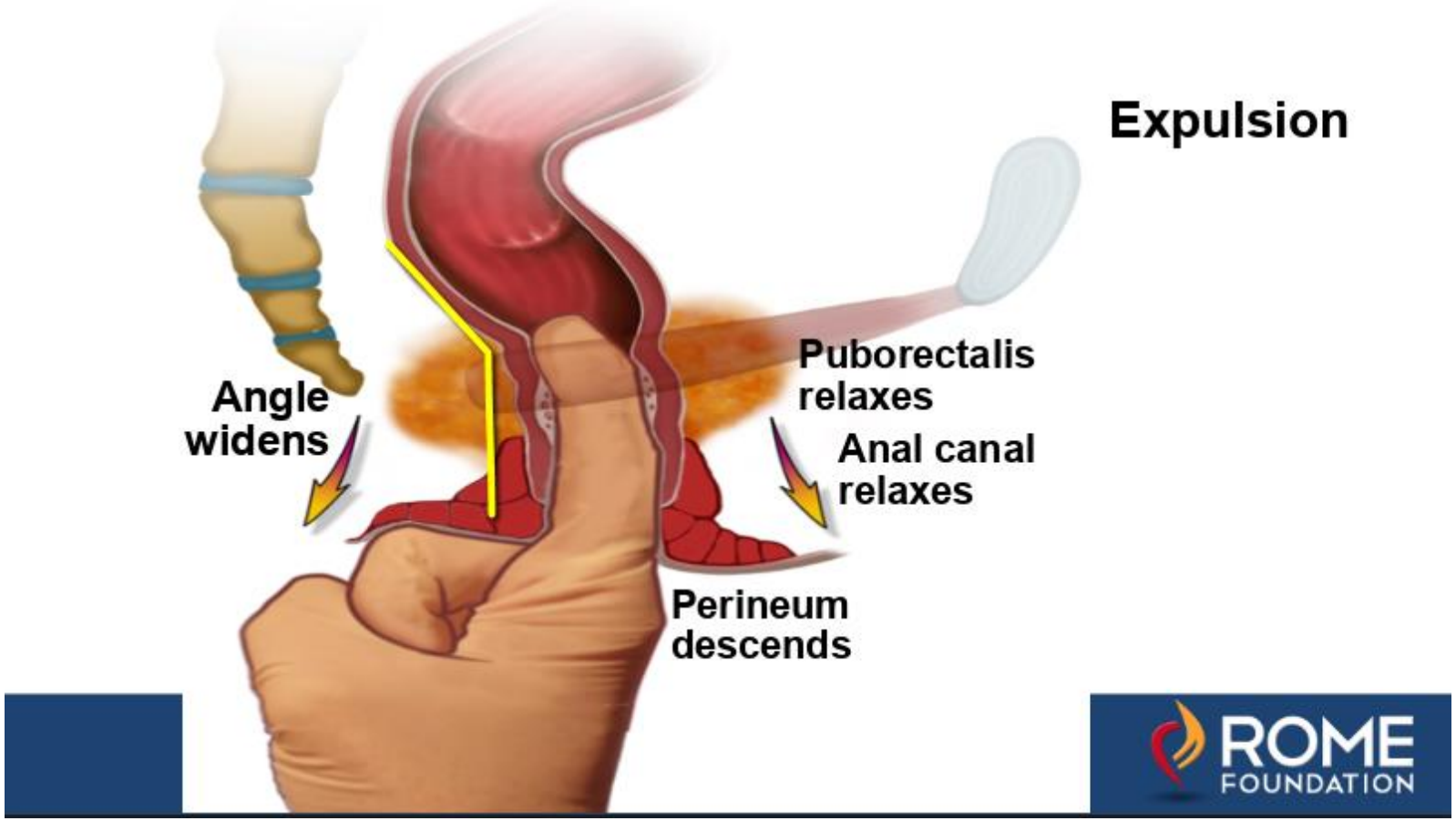
Bristol stool chart



Alarm signs

- Weight loss (>5% body weight over over 6-12 months)
- Rectal bleeding/ IDA
- Positive FIT or Fecal occult blood test
- Recent change in bowel habit (esp diarrhoea)
- New onset unexplained constipation
- Obstructive symptoms
- Family history of CRC or IBD

Digital Rectal Exam (continued)



ROME FOUNDATION

Components of the technique and expected findings with a detailed digital rectal examination

Exam component	Technique	Findings and grading of response(s)
I. Inspection of the anus and surrounding tissue		
	Place patient in the left lateral position with hips flexed to 90°. Inspect perineum under good light.	Skin excoriation, skin tags, anal fissure, scars or hemorrhoids

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II. Testing of perineal sensation and the anocutaneous reflex		
	Stroke the skin around the anus in a centripetal fashion, in all four quadrants, by using a stick with a cotton bud	Normal: Brisk contraction of the perianal skin, the anoderm and the external anal sphincter Impaired: No response with the soft cotton bud, but anal contractile response seen with the opposite (wooden) end Absent: No response with either end

III. Digital palpation and maneuvers to assess anorectal function		
Digital palpation	Slowly advance a lubricated and gloved index finger into the rectum and feel the mucosa and surrounding muscle, bone, uterus, prostate and pelvic structures	Tenderness, mass, stricture, or stool and the consistency of the stool
Resting tone	Assess strength of resting sphincter tone	Normal, weak (decreased), or increased
Squeeze maneuver	Ask the patient to squeeze and hold as long as possible (up to 30 seconds)	Normal, weak (decreased), or increased
Pushing and bearing down maneuver	In addition to the finger in the rectum, place a hand over the patient's abdomen to assess the push effort. Ask the patient to push and bear down as if to defecate.	1. Push effort: Normal, weak (decreased), excessive 2. Anal relaxation: Normal, impaired, paradoxical contraction 3. Perineal descent: Normal, excessive, absent

Reproduced from: Tantiphlachiva K, Rao P, Attaluri A, Rao SSC. Digital rectal examination is a useful tool for identifying patients with dyssynergia. Clin Gastroenterol Hepatol 2010; 8:955. Table used with the permission of Elsevier Inc. All rights reserved.

Investigations

Used primarily in patients with red flag symptoms and those who failed to respond to conservative therapy

Role of endoscopy

- Used in patients with **red flag symptoms**

  - Weight loss (>5% body weight over over 6-12 months)
  - Rectal bleeding/ IDA
  - Positive FIT or Fecal occult blood test
  - Recent change in bowel habit (esp diarrhoea)
  - New onset unexplained constipation
  - Obstructive symptoms
  - Family history of CRC or IBD

Tests for functional constipation

Colonic Transit studies-

- The American and European Neurogastroenterology and Motility Societies recommend 3 methods for assessing colonic transit time

➢Radio Opaque markers

➢Wireless motility capsule

➢Scintigraphy

Radiopaque marker study

Radiopaque marker transit study showing >5 radiopaque markers on x-ray taken on day 6, indicating slow transit.

Courtesy of Satish S Rao, MD, PhD, FRCP, and Narasimha M Palagummi, MD.

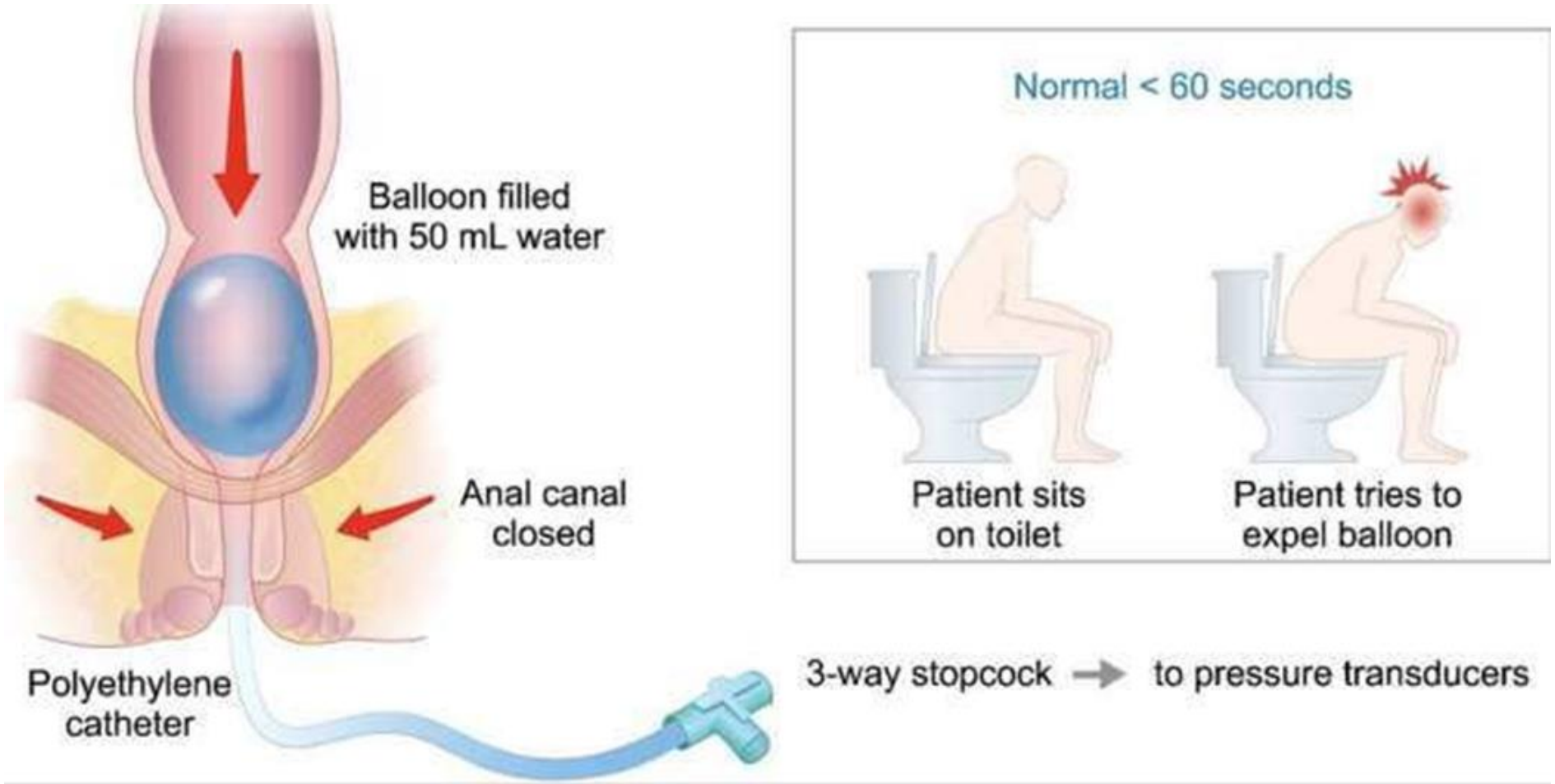
UpToDate®

Tests for dyssynergia

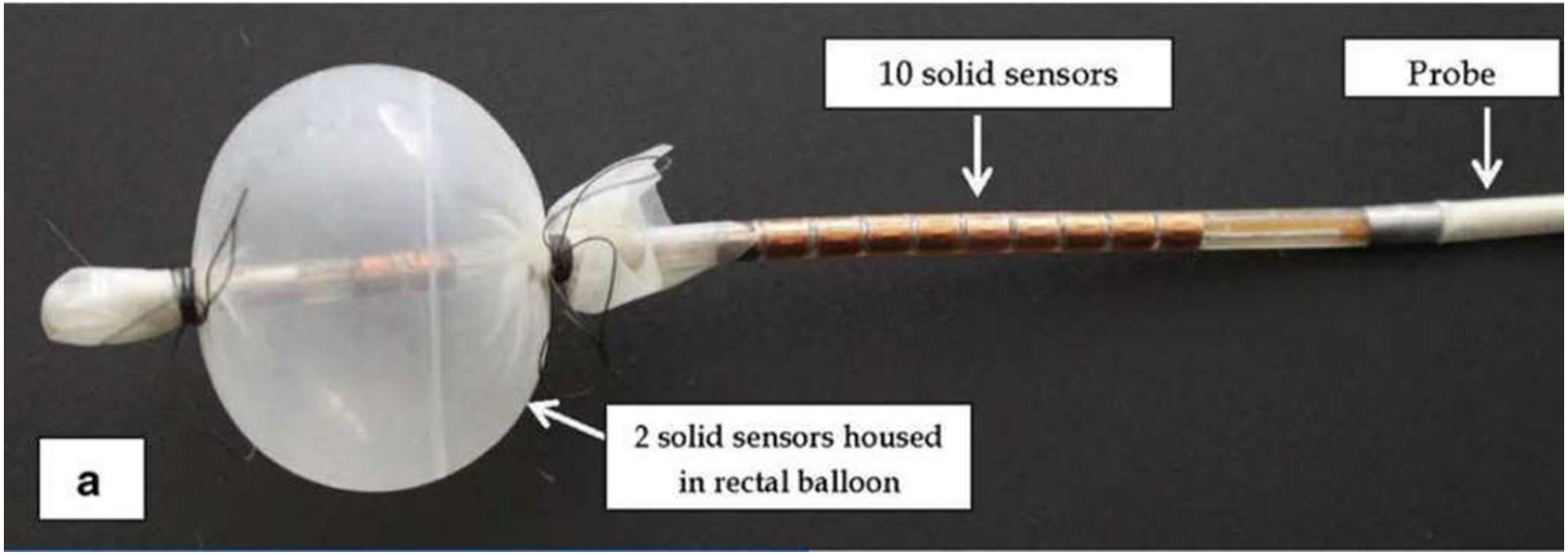
- Balloon expulsion test- useful screening test
- Anorectal manometry
- Defaecography

Balloon expulsion test

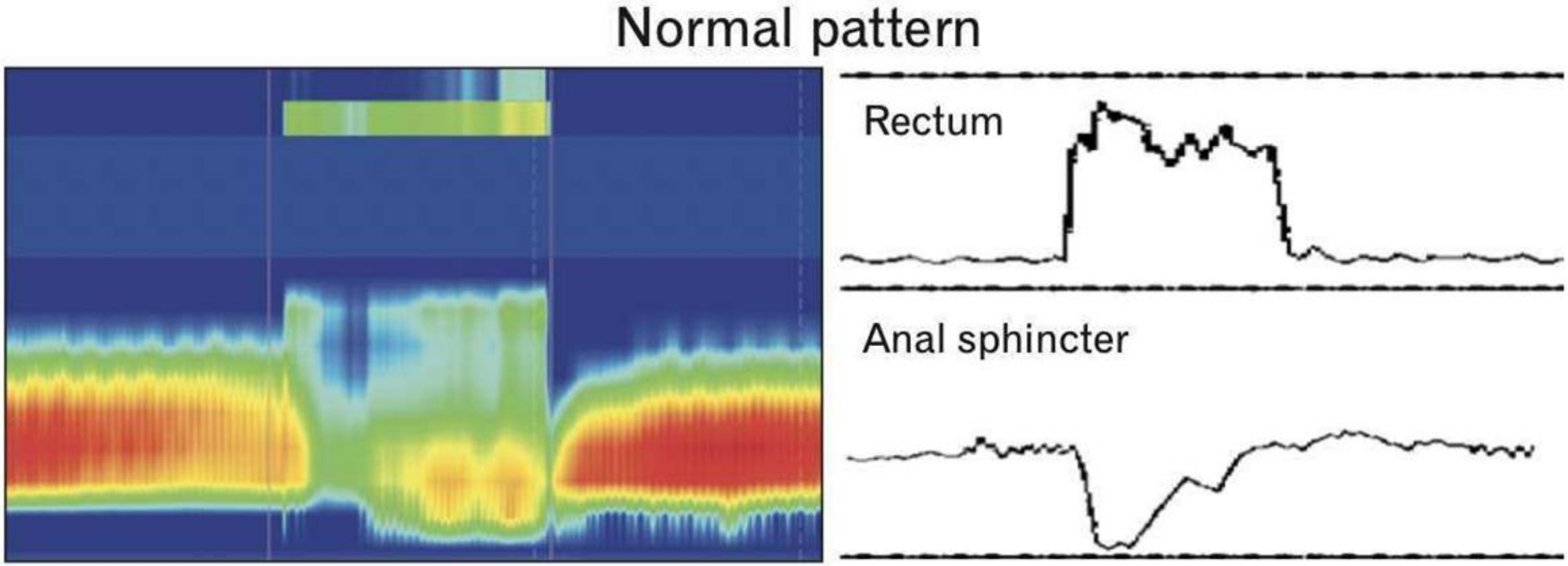
- 4 cm long balloon is filled with 50 mL of warm water and is then placed in the rectum
- After placement, the patient is given privacy and asked to expel the balloon
- A **stop watch** is provided to assess the time required for expulsion
- Useful as Screening test for **Dyssynergic defaecation**
  - Sensitivity- 50%
  - Specificity- 80-90%


Balloon filled
with 50 mL water
Anal canal
closed
Polyethylene
catheter
Normal < 60 seconds
Patient sits
on toilet
Patient tries to
expel balloon
3-way stopcock
to pressure transducers

Anorectal Manometry

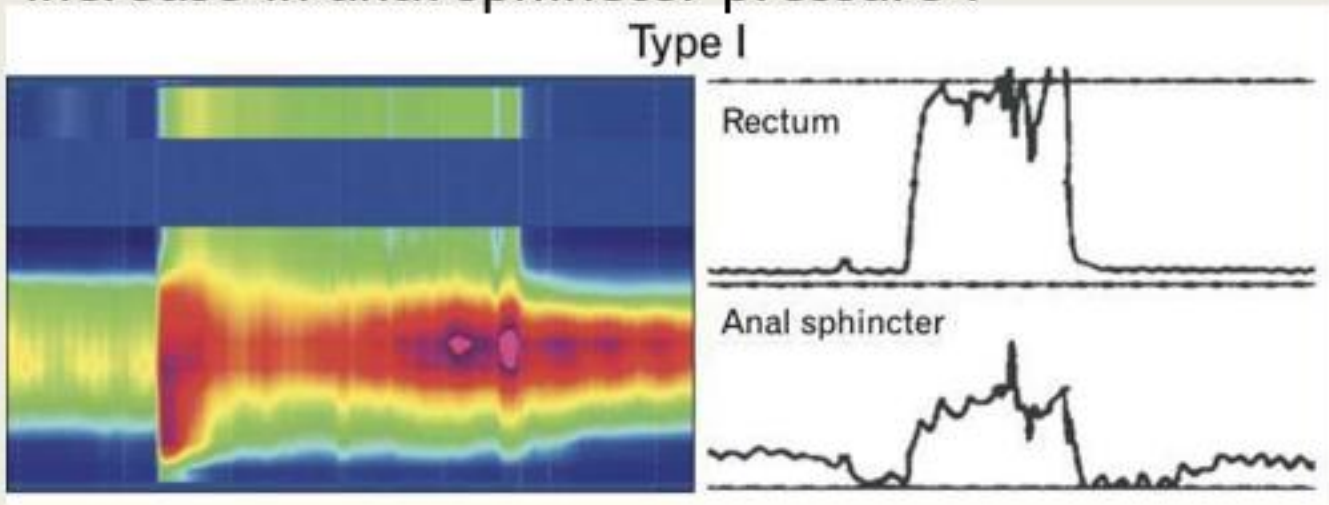


Normal



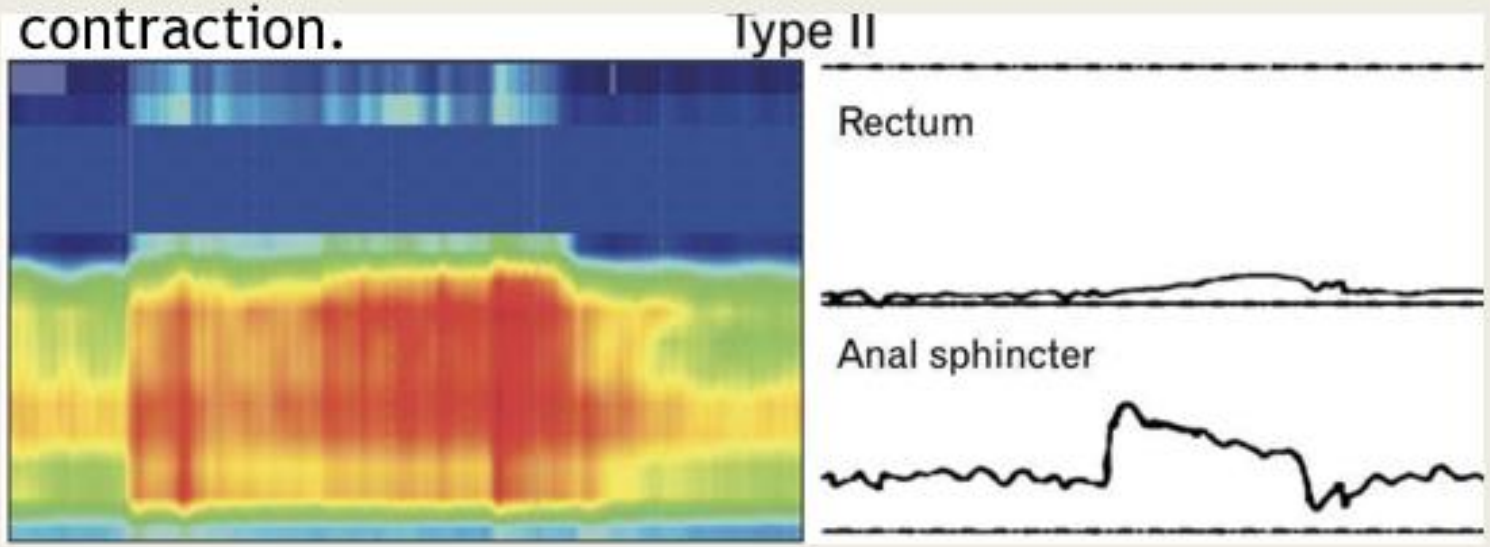
TYPE 1

The patient can generate an adequate pushing force, (rise in intra abdominal pressure) along with a paradoxical increase in anal sphincter pressure .



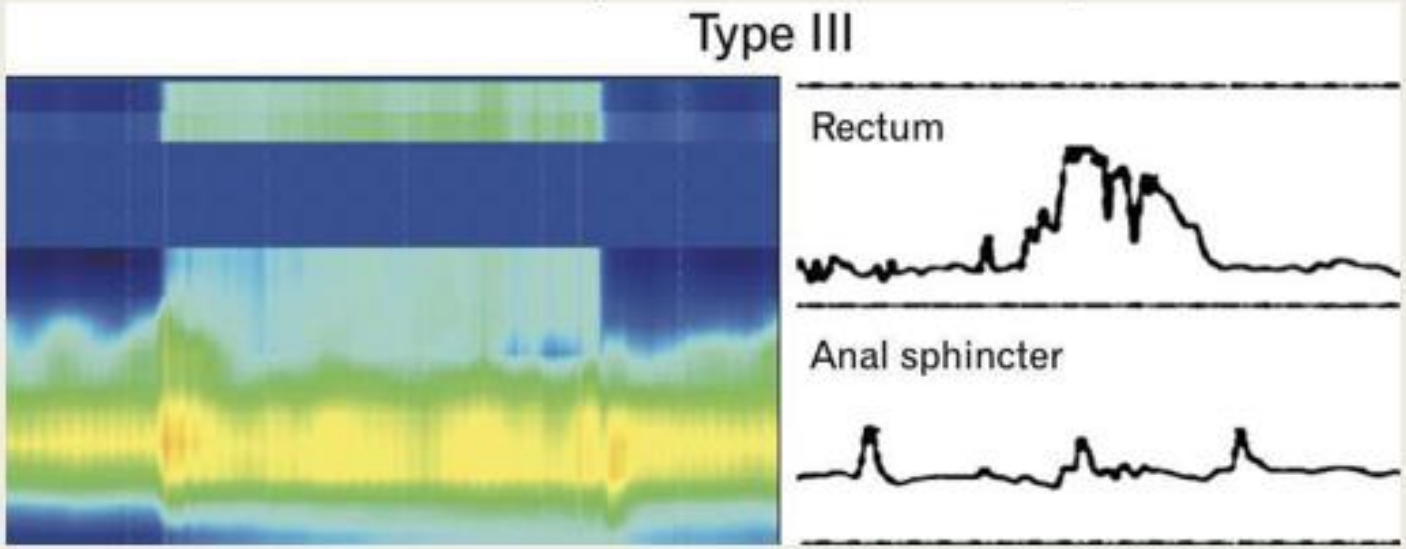
TYPE 2

Patient is unable to generate an adequate pushing force (no increase in intrarectal pressure) but can exhibit a paradoxical anal contraction.



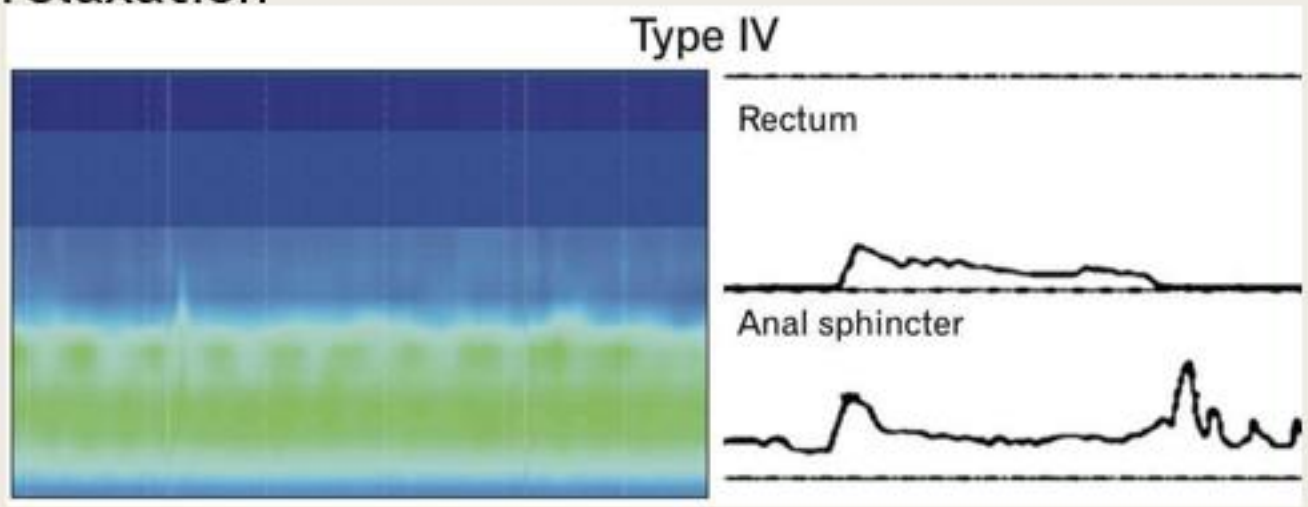
TYPE 3

The patient can generate an adequate pushing force but, either has absent or incomplete (<20%) sphincter relaxation (i.E. No decrease in anal sphincter pressure) .



TYPE 4

The patient is unable to generate an adequate pushing force and demonstrates an absent or incomplete anal sphincter relaxation



Defaecography

- Useful if balloon Expulsion or manometry is inconclusive
- Obtain real time images at various stages of defaecation
  - MRI
  - Barium
- Will also identify mechanical issues
  - Rectocoeles
  - Rectal prolapse

Management

Lifestyle

- Try to defaecate within 2 hours of waking up
- After breakfast
- Colon motility is strongest ± 30 minutes after a meal
  - ➢ Facilitated by gastro-colic and duodeno-colic reflexes
- Establish a routine (same time, same place)
- Heed ‘Natures call’ immediately
  - ➢ The defaecation reflex (the urge to defecate) slows after a few minutes and may remain quiet for hours
- No more than **15 minutes** on the toilet

Dietary fiber content of frequently consumed foods

Food	Fiber, g/serving
Fruits	
Apple (with skin)	3.5/1 medium-sized apple
Apricot (fresh)	1.8/3 apricots
Banana	2.5/1 banana
Cantaloupe	2.7/half edible portion
Dates	13.5/1 cup (chopped)
Grapefruit	1.6/half edible portion
Grapes	2.6/10 grapes
Oranges	2.6/1 orange
Peach (with skin)	2.1/1 peach
Pear (with skin)	4.6/1 pear
Pineapple	2.2/1 cup (diced)
Prunes	11.9/11 dried prunes
Raisins	2.2/packet
Strawberries	3.0/1 cup
Juices	
Apple	0.74/1 cup
Grapefruit	1.0/1 cup
Grape	1.3/1 cup
Orange	1.0/1 cup
Vegetables	
Cooked	
Asparagus	1.5/7 spears
Beans, string, green	3.4/1 cup
Broccoli	5.0/1 stalk
Brussels sprouts	4.6/7-8 sprouts
Cabbage	2.9/1 cup (cooked)
Carrots	4.6/1 cup
Cauliflower	2.1/1 cup
Peas	7.2/1 cup (cooked)
Potato (with skin)	2.3/1 boiled
Spinach	4.1/1 cup (raw)
Squash, summer	3.4/1 cup (cooked, diced)
Sweet potatoes	2.7/1 baked

Zucchini	4.2/1 cup (cooked, diced)
Raw	
Cucumber	0.2/6-8 slices with skin
Lettuce	2.0/1 wedge iceberg
Mushrooms	0.8/half cup (sliced)
Onions	1.3/1 cup
Peppers, green	1.0/1 pod
Tomato	1.8/1 tomato
Spinach	8.0/1 cup (chopped)
Legumes	
Baked beans	18.6/1 cup
Dried peas	4.7/half cup (cooked)
Kidney beans	7.4/half cup (cooked)
Lima beans	2.6/half cup (cooked)
Lentils	1.9/half cup (cooked)
Breads, pastas, and flours	
Bagels	1.1/half bagel
Bran muffins	6.3/muffin
Cracked wheat	4.1/slice
Oatmeal	5.3/1 cup
Pumpernickel bread	1.0/slice
White bread	0.55/slice
Whole-wheat bread	1.66/slice
Pasta and rice cooked	
Macaroni	1.0/1 cup (cooked)
Rice, brown	2.4/1 cup (cooked)
Rice, polished	0.6/1 cup (cooked)
Spaghetti (regular)	1.0/1 cup (cooked)
Flours and grains	
Bran, oat	8.3/oz
Bran, wheat	12.4/oz
Rolled oats	13.7/1 cup (cooked)
Nuts	
Almonds	3.6/half cup (slivered)
Peanuts	11.7/1 cup

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Medications for treatment of constipation

Medication	Usual adult dose	Onset of action	Side effects
Bulk-forming laxatives*			
Psyllium	Up to 1 tablespoon (≅3.5 grams fiber) 3 times per day	12 to 72 h	Impaction above strictures, fluid overload, gas and bloating
Methylcellulose	Up to 1 tablespoon (≅2 grams fiber) or 4 caplets (500 mg fiber per caplet) 3 times per day	12 to 72 h	
Polycarbophil	2 to 4 tabs (500 mg fiber per tab) per day	24 to 48 h	
Wheat dextrin¶	1 to 3 caplets (1 gram fiber per caplet) or 2 teaspoonsful (1.5 gram fiber per teaspoon) up to 3 times per daily	24 to 48 h	
Surfactants (softeners)			
Docusate sodium	100 mg 2 times per day	24 to 72 hours	Well tolerated, **but less effective than other agents**. Use lower dose if administered with another laxative. Contact dermatitis reported.
Docusate calcium	240 mg 1 time per day	24 to 72 hours	
Osmotic agents			
Polyethylene glycol (macrogol)	8.5 to 34 grams in 240 mL (8 ounces) liquids	1 to 4 days	Nausea, bloating, cramping
Lactulose	10 to 20 grams (15 to 30 mL) every other day. May increase up to 2 times per day.	24 to 48 hours	Abdominal bloating, flatulence
Sorbitol	30 grams (120 mL of 25% solution) 1 time per day	24 to 48 hours	Abdominal bloating, flatulence
Glycerin (glycerol)	One suppository (2 or 3 grams) per rectum for 15 minutes 1 time per day	15 to 60 minutes	Rectal irritation
Magnesium sulfate	2 to 4 level teaspoons (approximately 10 to 20 grams) of granules dissolved in 8 ounces (240 mL) of water; may repeat in 4 hours. Do not exceed 2 doses per day.	0.5 to 3 hours	Watery stools and urgency; caution in renal insufficiency (magnesium toxicity)
Magnesium citrate	200 mL (11.6 grams) 1 time per day	0.5 to 3 hours	
Stimulant laxatives			
Bisacodyl	10 to 30 mg as enteric coated tabs 1 time per day	6 to 10 hours	Gastric irritation
	10 mg suppository per rectum 1 time per day	15 to 60 minutes	Rectal irritation
Senna	2 to 4 tabs (8.6 mg sennosides per tab) or 1 to 2 tabs (15 mg sennosides per tab) as a single daily dose or divided twice daily	6 to 12 hours	Melanosis coli
Other			
Lubiprostone	24 micrograms 2 times per day	24 to 48 hours	Nausea, diarrhea
Linaclotide	145 micrograms 1 time per day	12 to 24 hours	Diarrhea, bloating
Plecanatide	3 mg 1 time per day	12 to 24 hours	Diarrhea
Prucalopride	2 mg per day	6 to 12 hours	Nausea, headache, diarrhea

Bulking agents

- Ispagula husk (Fybogel)
- Sterculia derivatives (Normacol)
- Methycellulose (Metamucil)

- Mechanism of action:

➢ Retains fluid (drink it with lots of water)

➢ Increases biomass which stimulates motility

- Safe and cheap and effective
- Can cause cramps and bloating (avoid in IBS-C)

Osmotic Laxatives

- Poorly absorbable sugars which draw water into lumen
  - Lactulose (Duphalac) and Sorbitol
  - Safe and relatively cheap

- Saline laxatives: Epsom salts, Milk of Magnesia
  - Prolonged use can cause hypermagnesaemia

- Polyethylene Glycol (Go-lytely, Kleen-prep)
  - High doses are used for bowel prep
  - Short course, low dose as treatment for CIC (Movicol)
  - Not for chronic use due to electrolyte disturbances

Stimulant laxatives

- Senna (Soflax, Sennokot, Brooklax)

- Bisocodyl (Dulcolax)
- Also available as suppositories

- Short courses
- Difficult to discontinue

- Sodium picosulphate (Picoprep, Picolax)
- Usually for colonoscopy bowel prep
- Only short courses for severe constipation
- Not for chronic use

Stool softeners

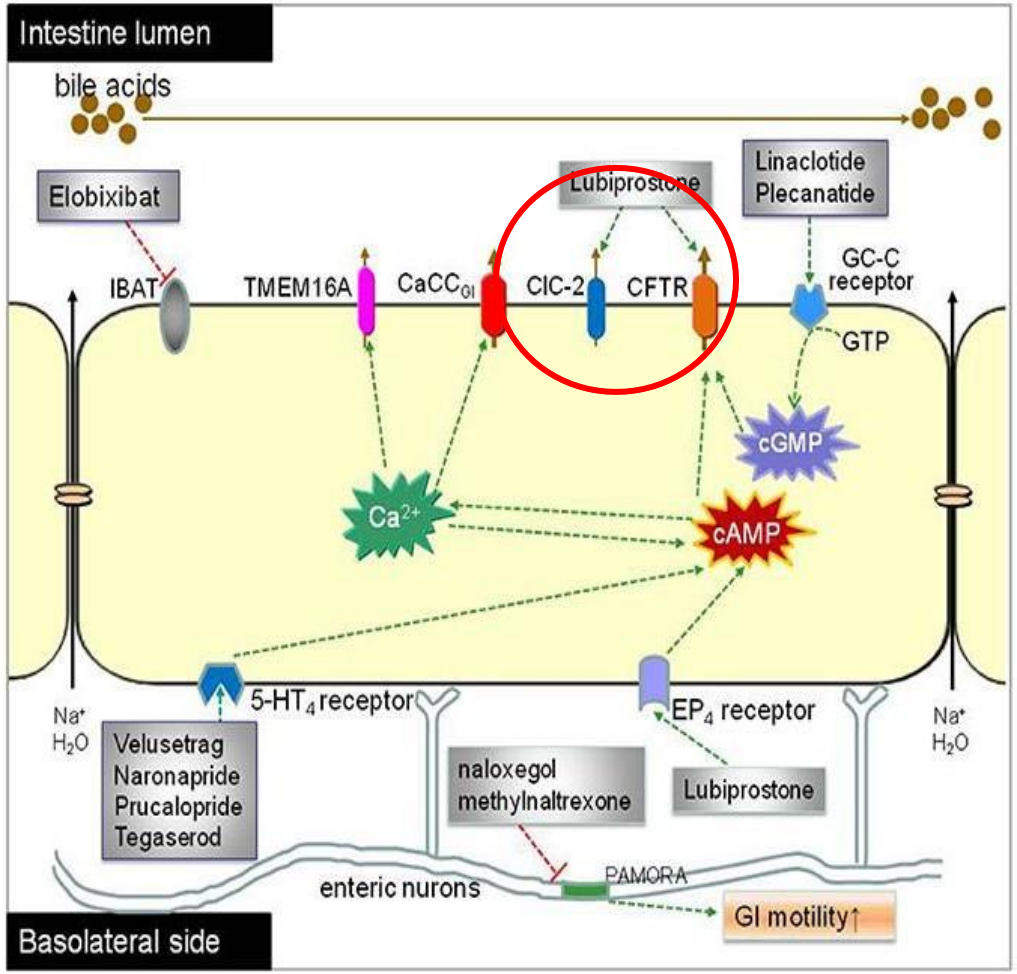
- Glycerin suppositories

- Liquid paraffin still widely used
- Should be avoided
- Causes anal seepage and anal irritation
- Possibly fat soluble vitamin malabsorption

- Patients are often on a cocktail of these meds
- If still refractory and impacting on QOL
- Further workup

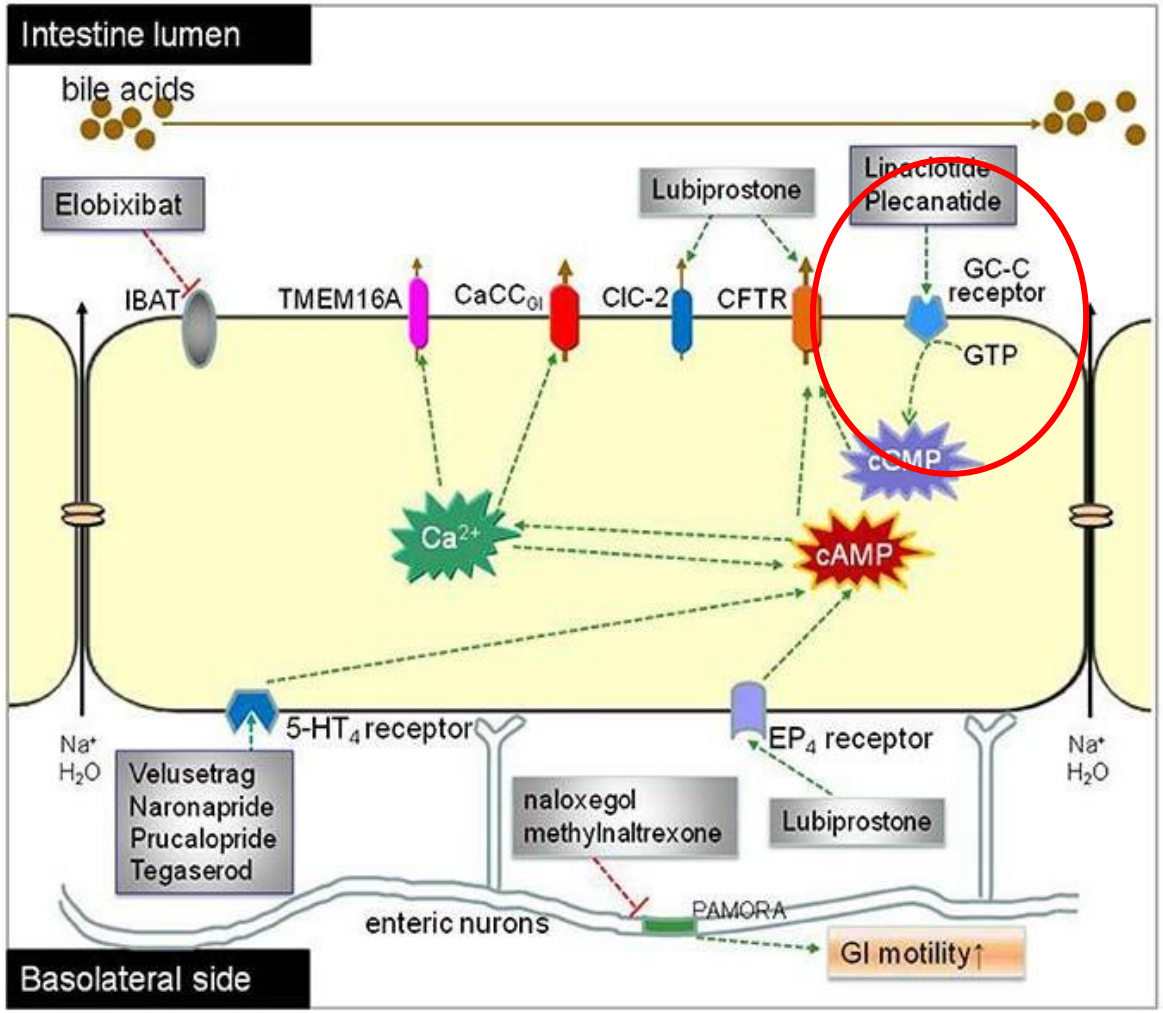
Lubiprostone

- Activates CFTR and CIC-2 chloride channels
- Increases fluid secretion into lumen
- Increases transit

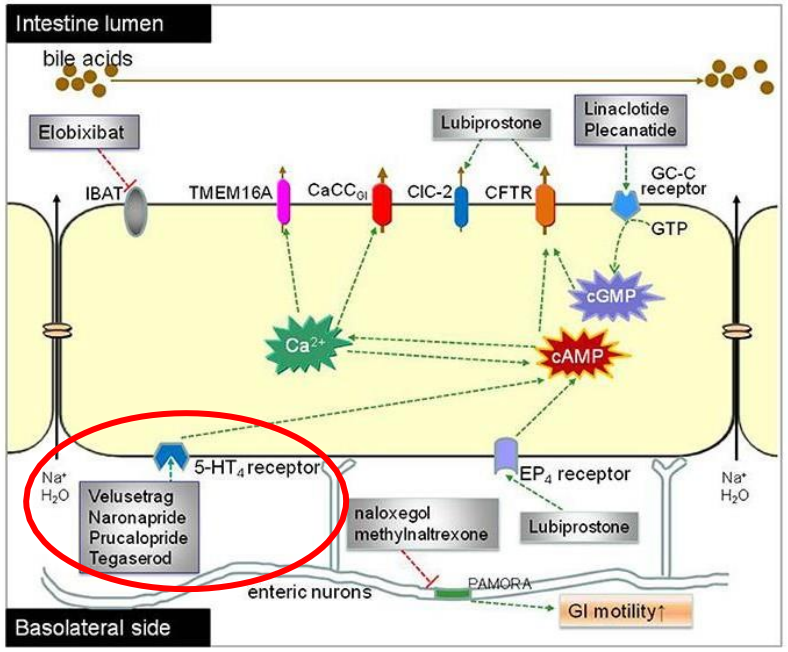


Linaclotide and Plecanatide

- Activate Guanylate cyclase-C receptor
- Causes elevation of intracellular cGMP levels
- Opens the CFTR chloride channel
- Stimulates intestinal fluid secretion and transit



Prucalopride



- A highly selective agonist of 5-HT4 receptors
- Increases colonic motility
- Normalises stool frequency

Biofeedback

- The best treatment for **Dyssynergic defaecation**

- Multiple methods and protocols
- All involve re-learning how to defaecate normally
- Voluntary relaxation of the EAS
- Voluntary relaxation of pubo-rectalis

1. **Manometry**: by watching the screen patients can learn how to relax muscles
2. **Physiotherapy:** pelvic floor biofeedback

Biofeedback therapy

- Principle - any behavior- such as eating or a simple task such as muscle contraction,when reinforced, its likelihood of being repeated and perfected increases several fold.

Correct dyssynergia/incoordination of muscles

Enhance rectal sensory perception

Rectoanal coordination

- Patient is supine/seated on commode with manometry probe in situ.
- Asked to take a good diaphragmatic breath and to push as if to defecate. Encouraged to watch the monitor.
- Visual display of the pressure changes in the rectum and anal canal on the monitor. 10-15 maneuvers are performed.
- Balloon distended in rectum with 60cc air
- Patient is asked to attempt defecation while watching the monitor.5-10 attempts

Simulated defaecation training

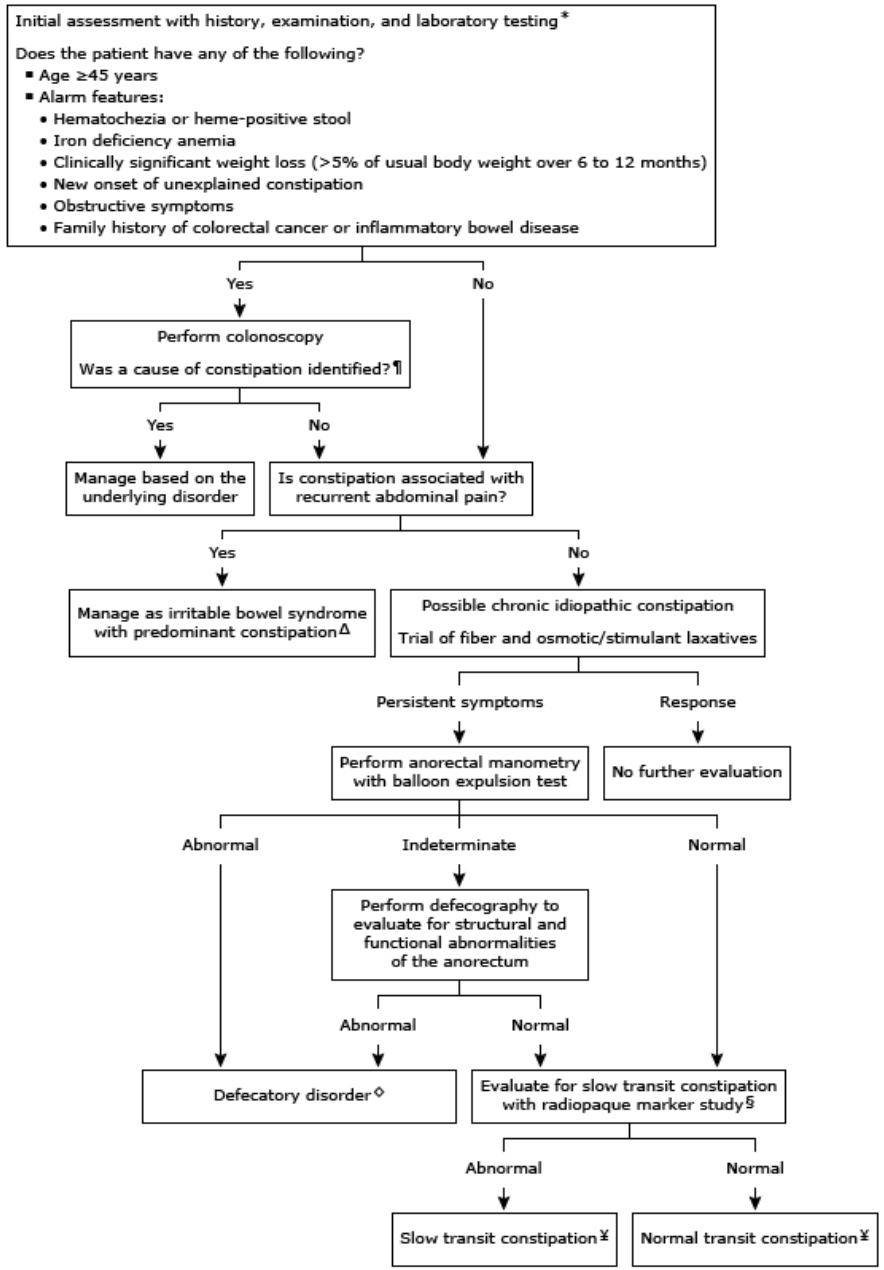
- To teach the patient to expel an artificial stool in the laboratory using the correct technique.

➢ 50ml of water filled balloon in rectum/artificial stool--- ask the patient to expel -– he is taught how to relax the pelvic floor, co-ordinate breathing cycles with the attempt

Enhance rectal perception

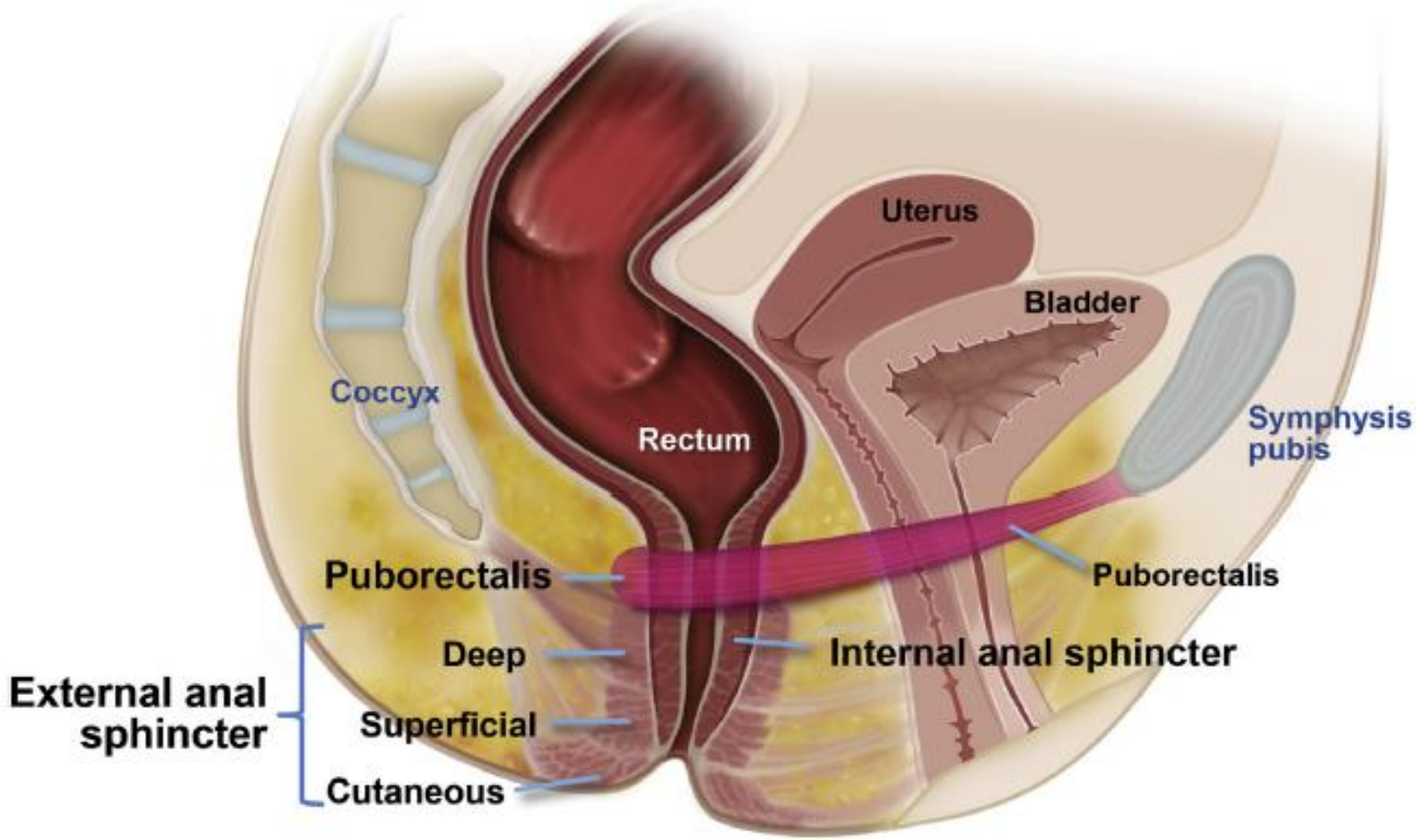
- Progressively inflate the rectal balloon until the patient experiences an urge to defecate
- Deflate and repeat the **same step 2-3 times**
- Then with each inflation, balloon volume is **decreased by 10%**
- Patient is encouraged to observe the monitor and to note the pressure changes and pay close attention to the sensation in their rectum.
- If patient fails to percieve a particular volume, deflate and again inflate with same volume or to previously perceived volume.
- By the end of each session, **newer thresholds for rectal perception are established**
- Number of sessions: customised
- Every session: 1hr, one session every 2 weeks.Avg 4-6 sessions.
- Reinforcement after 1.5 months, 3, 6,12 months

Approach to evaluation of the patient with chronic constipation



Faecal Incontinence

- Faecal Incontinence is defined as the involuntary loss of solid or liquid faeces for at least 3 months
- After attaining toilet training
- Etiology is commonly multifactorial


Uterus
Bladder
Coccyx
Rectum
Symphysis pubis
Puborectalis
Puborectalis
Internal anal sphincter
External anal sphincter
Deep
Superficial
Cutaneous

Fecal continence

Physiological factors

- Continence is maintained by several mechanisms, including anatomical factors (endovascular cushions, integrity of anal sphincter, and puborectalis muscle), rectoanal sensation, rectal compliance, neuronal innervation, stool consistency, mobility, and psychological factors

Anorectal and pelvic floor musculature

- Anal sphincter weakness is the most frequently identified abnormality in FI.
- Internal anal sphincter dysfunction is characterized by exaggerated spontaneous relaxation of the internal anal sphincter or decreased resting pressure

- Anal sphincter weakness
  - Traumatic: obstetric, surgical (eg, hemorrhoidectomy, internal sphincterotomy, fistulectomy)
  - Nontraumatic: scleroderma, idiopathic internal sphincter degeneration
  - Neuropathy
  - Peripheral (eg, pudendal) or generalized (eg, diabetes mellitus)
- Pelvic floor disorders
  - Rectal prolapse, descending perineum syndrome
- Disorders affecting rectal capacity and/or sensation[a]
  - Inflammatory conditions: radiation proctitis, Crohn's disease, ulcerative colitis
  - Anorectal surgery (pouch, anterior resection)
  - Rectal hyposensitivity
  - Rectal hypersensitivity
- Central nervous system disorders
  - Dementia, stroke, brain tumors, multiple sclerosis, spinal cord lesions
- Psychiatric diseases, behavioral disorders
- Bowel disturbances
  - Irritable bowel syndrome, post-cholecystectomy diarrhea
  - Constipation and fecal retention with overflow

Clinical Approach

- History
- Physical examination
- Special investigations

Physical Examination

- A digital rectal examination (DRE) should be done
- Inspection may reveal scars from previous surgery or obstetric injury or a patulous sphincter or perianal fecal soiling or dermatitis.
- An absent anocutaneous reflex in response to gentle stroking of the perianal region suggests nerve impairment.
- After inspection, anorectal digitalpalpation should be conducted
  - This may reveal external anal sphincter and/or puborectalis weakness or defects,stool impaction, and presence of dyssynergia during simulateddefecation.

Special investigations

- Endoscopy
- Anorectal Manometry
- Anal endosonography
- Defaecography

Treatment

- Treatment should be tailored to address its clinical manifestations
- Bowel habit modification, either through dietary or pharmacological interventions, can be beneficial
- Loose stools are a significant risk factor for FI, and correcting reversible factors like laxatives or other medications can help
- In selected patients, dietary trials (e.g., low lactose or low fructose) can normalize stool form

- **Loperamide**, administered at an adequate dose (e.g., 2-4 mg, 30 minutes before meals), can enhance stool consistency and increase internal sphincter tone, thereby reducing incontinence.
- Patients with constipation, faecal impaction, and overflow incontinence often benefit from a program designed to **increase colorectum emptying** through various means.
- Other measures aimed at enhancing rectal emptying include the use of
  - suppositories or enemas
  - fiber supplementation
  - oral laxatives
  - addressing any abnormal toileting behaviors or positioning and biofeedback techniques.

- **Rectal cleansing and anal plug devices** can be practical solutions for patients who fail to respond to bowel modification and biofeedback therapy.
- They should be particularly considered in patients with neurogenic bowel dysfunction
- Plug devices may also be beneficial in some patients with seepage.