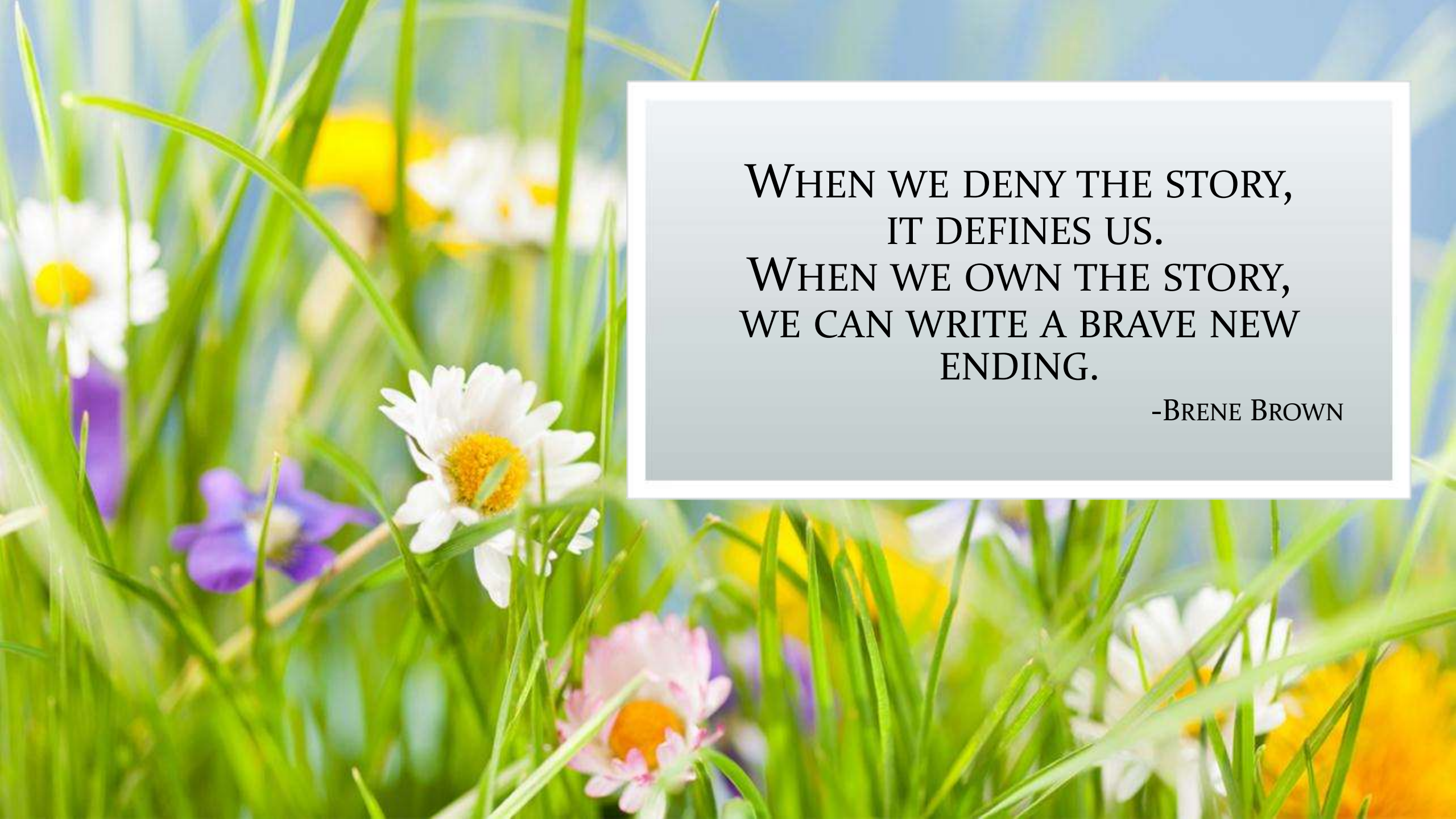
Taking Care of Grace & Frankie

In the season of fecal incontinence

I HAVE NO DISCLOSURES.


When we deny the story,
it defines us.
When we own the story,
we can write a brave new
ending.
-Brene Brown

Fecal Incontinence Defined

·The involuntary loss of solid or liquid feces or gas
· Urge Fecal Incontinence
desire to defecate but cannot retain stool prior to getting to toilet
· Passive Fecal Incontinence
lack of awareness, can be small or large volume stool seepage in between regular BM's or especially with activity, noticing stool on TP with wiping

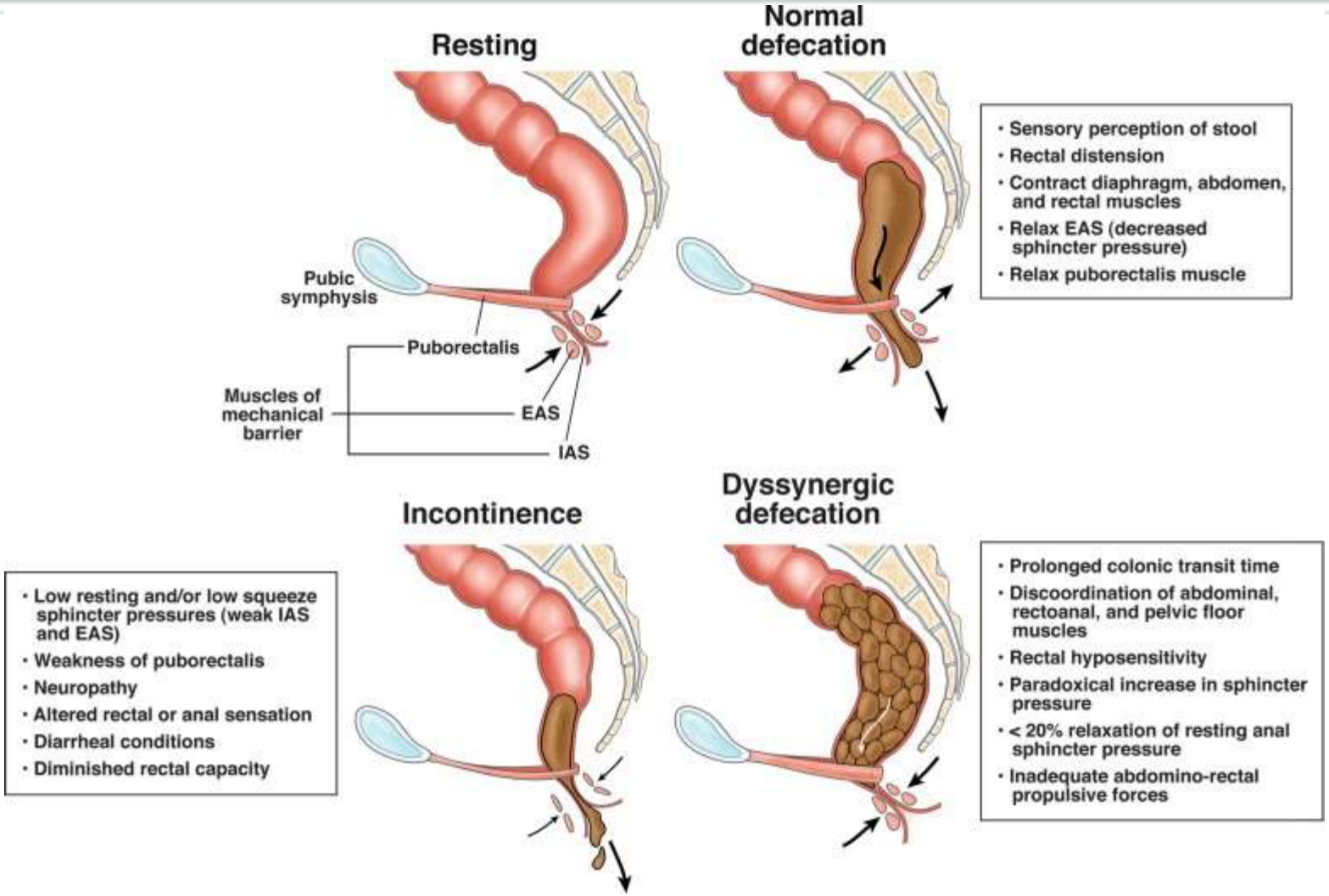
· Estimated to occur in approximately 7%-12% of the population
· Nurses' Health study 4%, dual urinary and fecal incontinence 7%

Risk Factors:

- · older age
- · diarrhea
- · nursing home/mobility issues
- · urinary incontinence
- · diabetes mellites
- · hormone therapy
- · obstetrical injury

- · non obstetrical sphincter injury (radiation, intersphincteric fistulas, sexual trauma)
- · chronic constipation
- · rectal prolapse

PATHOPHYSIOLOGY OF FECAL INCONTINENCE

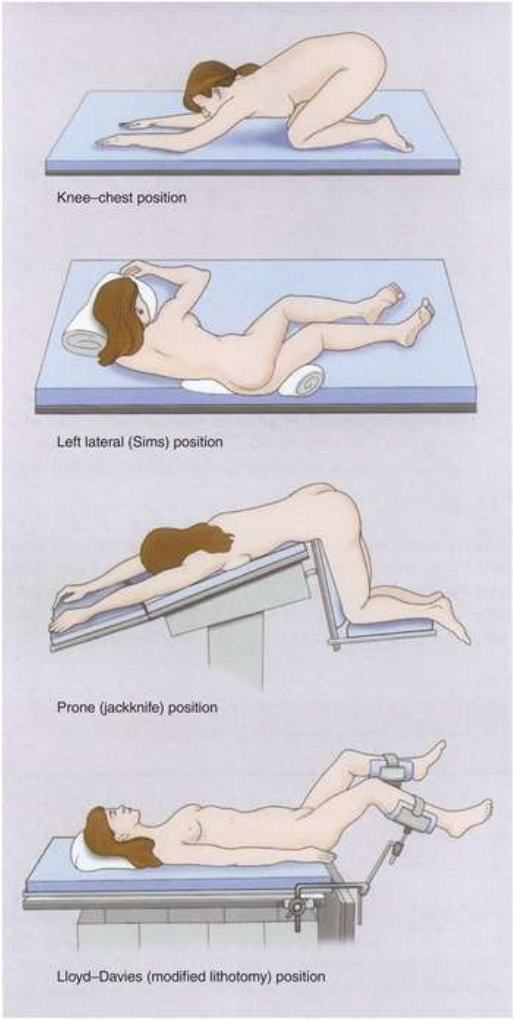


Getting Curious

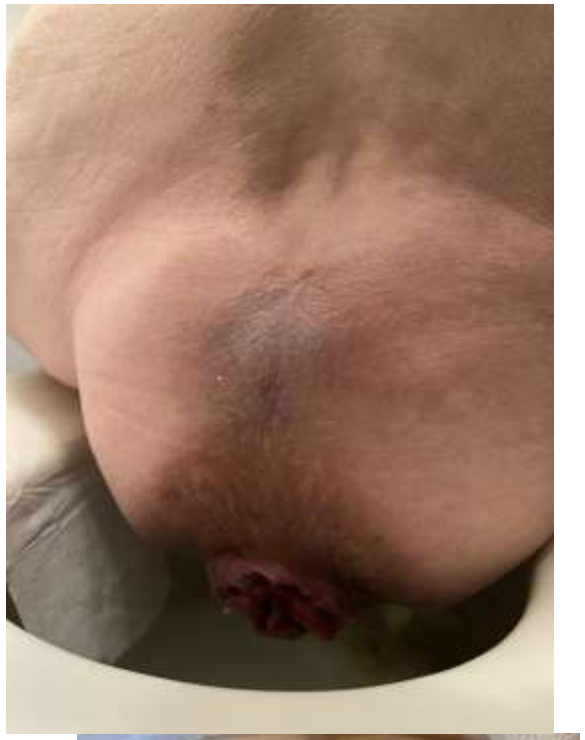
- Important HPI:
  - Bowel habit (how often and stool consistency)
    - any prior history of chronic constipation?
  - Bowel regimen
  - Frequency of both urge and passive FI
  - Obstructive defecation symptoms
  - Abdominal/pelvic/anorectal surgical history. Pelvic radiation.
  - Last colonoscopy. Family history of CRC or IBD.
  - Pelvic Organ Prolapse/Urinary and Pelvic Symptoms
  - Obstetrical history

Digital Rectal Exam

Explain exam thoroughly and ensure consent
Assess basal anal pressure
Assess anal squeeze pressure
Assess for laxity of the rectum upon valsalva
Assess rectal wall weakening (rectocele)
Any obvious vaginal prolapses?
Perform anoscopy when appropriate
    Does lining of rectum fall into anoscope? (intussusception)



Resting Score	
0	No discernable tone at rest, an open or patulous anal canal
1	Very low tone
2	Mildly decreased tone
3	*Normal*
4	Elevated tone, snug
5	Very high tone, a tight anal canal, difficult to insert a finger
Squeeze Score	
0	No discernable increase in tone with squeezing effort
1	Slight increase
2	Fair increase but below normal
3	*Normal*
4	Strong squeeze
5	Very strong squeeze, to the point of being painful to the examiner



DIAGNOSTICS

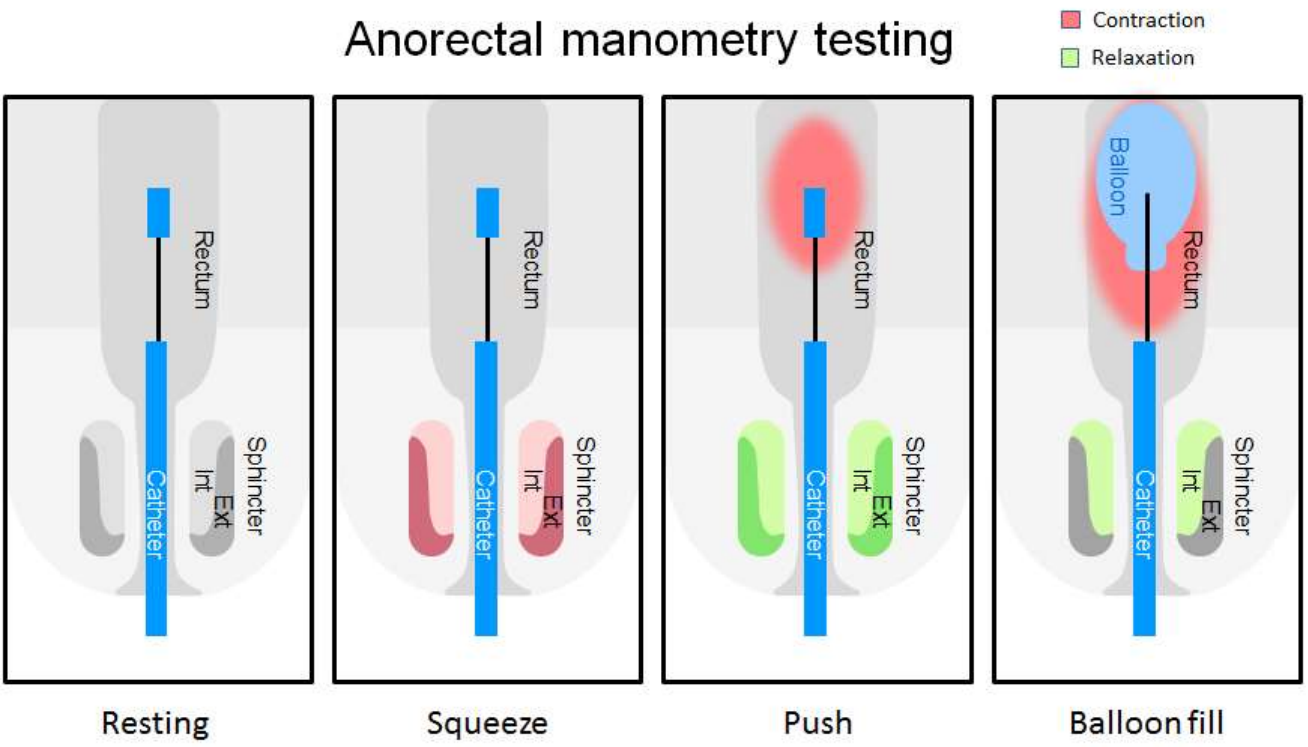
Meet patient where they are at and consider psychosocial and financial factors

AnoRectal Manometry

Physiologic test that identifies:

- Basal anal sphincter pressure
- Anal squeeze pressure
- RAIR
- Sensations
- Dyssynergia

AnoRectal Manometry



Manoeuvres	What are you asked to do?	What are we measuring?
Resting	Asked to remain still for 30 seconds	Baseline pressure measurements are taken
Squeeze	Asked to squeeze your anal sphincter	The squeeze strength of the internal and external anal sphincters
Push	Simulate defecation	An increase in rectal pressure and relaxation of the anal sphincter muscles
Balloon fill	A small balloon is inflated in the rectum and you are asked to respond at first sensation, urge, and discomfort	Simulated content triggering the rectoanal inhibitory reflex (RAIR): an involuntary relaxation of the internal anal sphincter. Rectal compliance and sensation are also measured

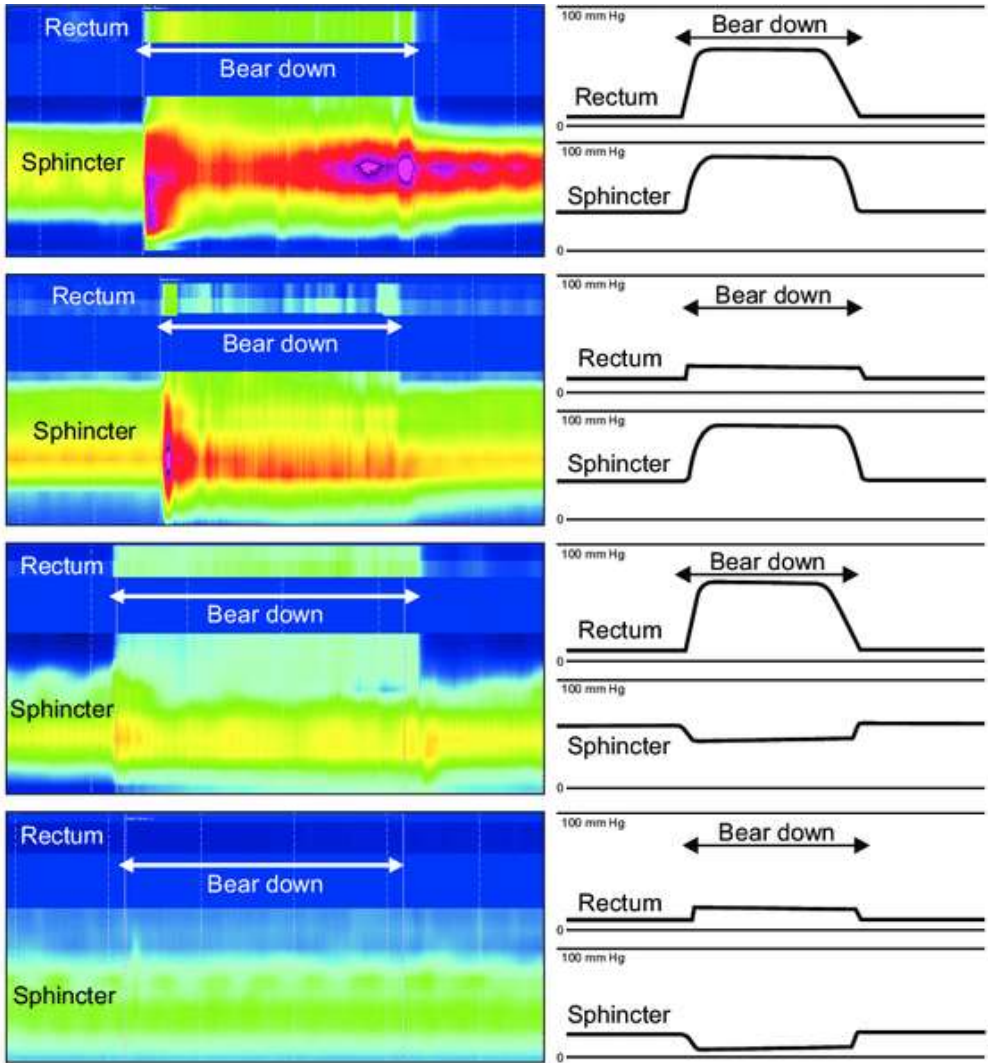
AnoRectal Manometry

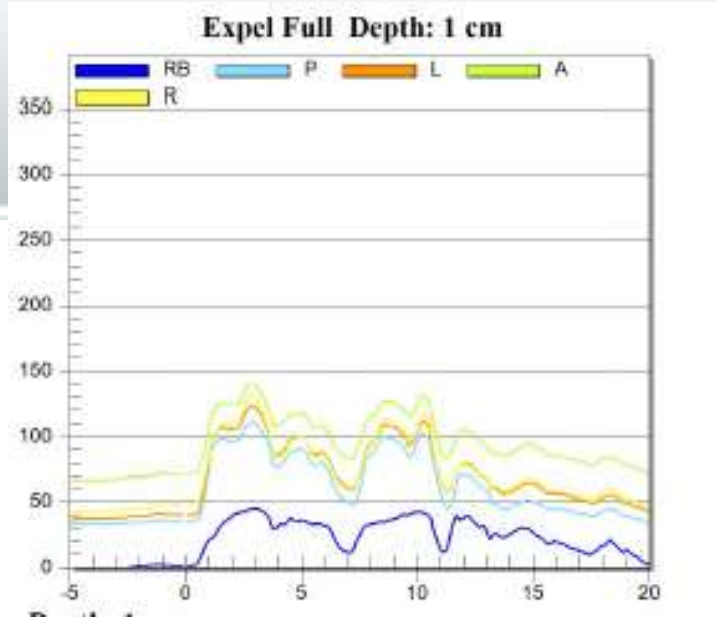
Type I
The patient can generate an adequate pushing force (rise in intra-abdominal pressure) along with a paradoxical increase in anal sphincter pressure.

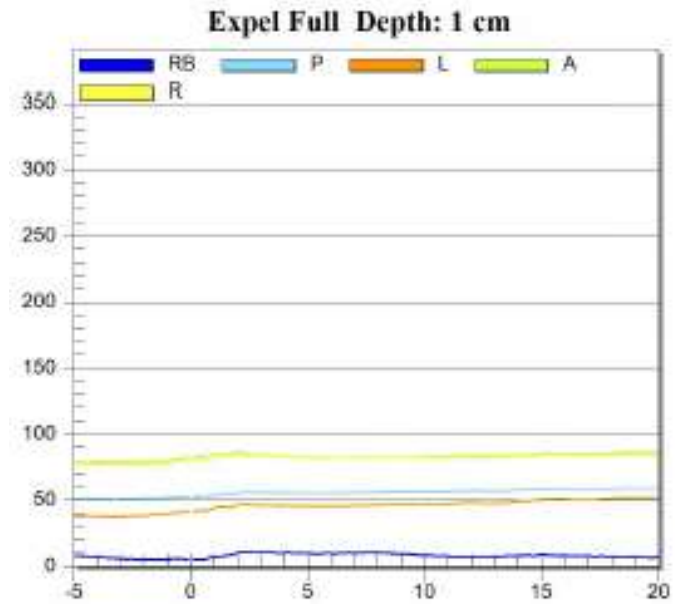
Type II
The patient is unable to generate an adequate pushing force (no increase in intrarectal pressure) but can exhibit a paradoxical anal contraction.

Type III
The patient can generate an adequate pushing force (increase in intrarectal pressure) but, either has absent or incomplete (<20%) sphincter relaxation (i.e., no decrease in anal sphincter pressure).

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







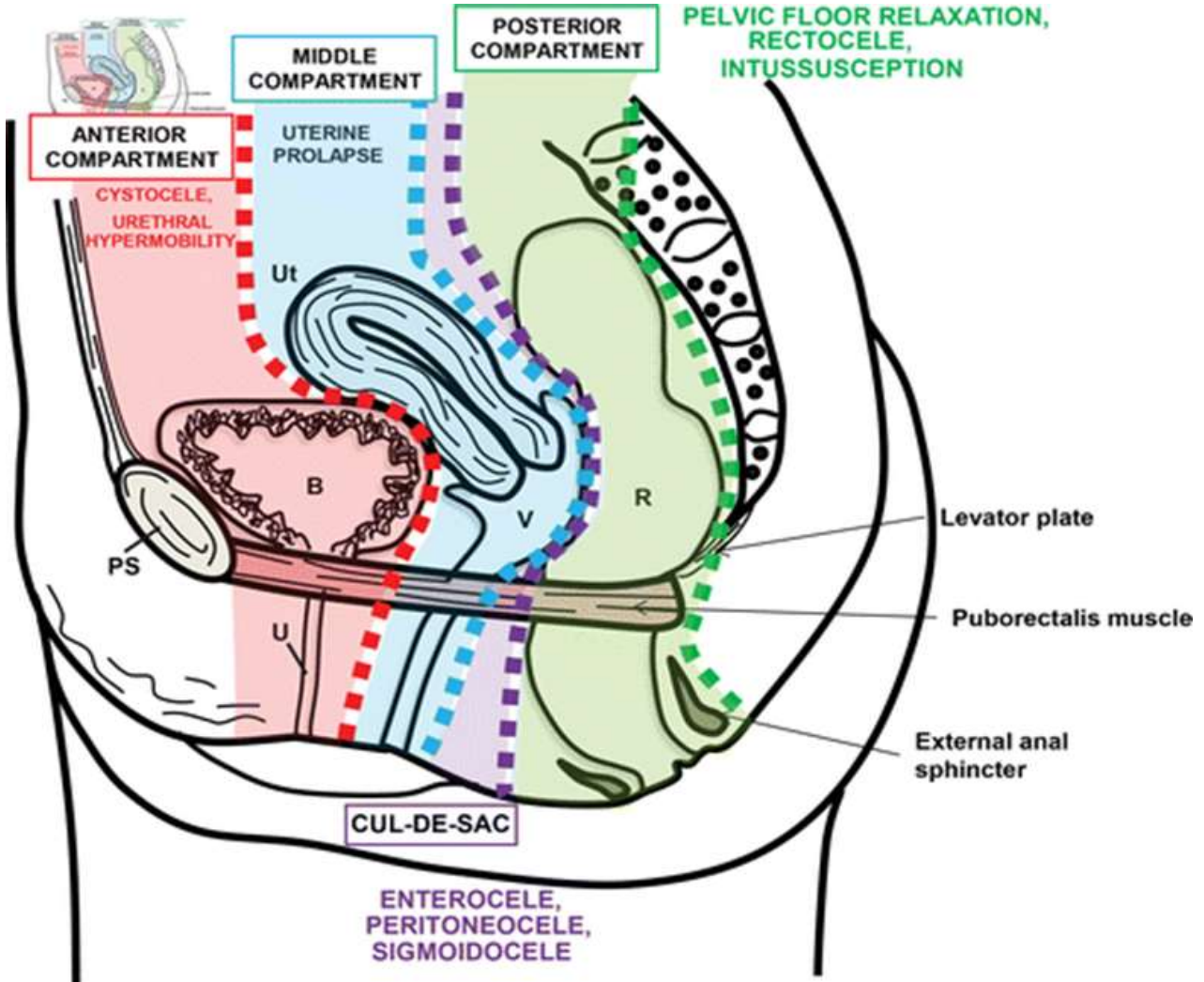
Dynamic Pelvic MRI

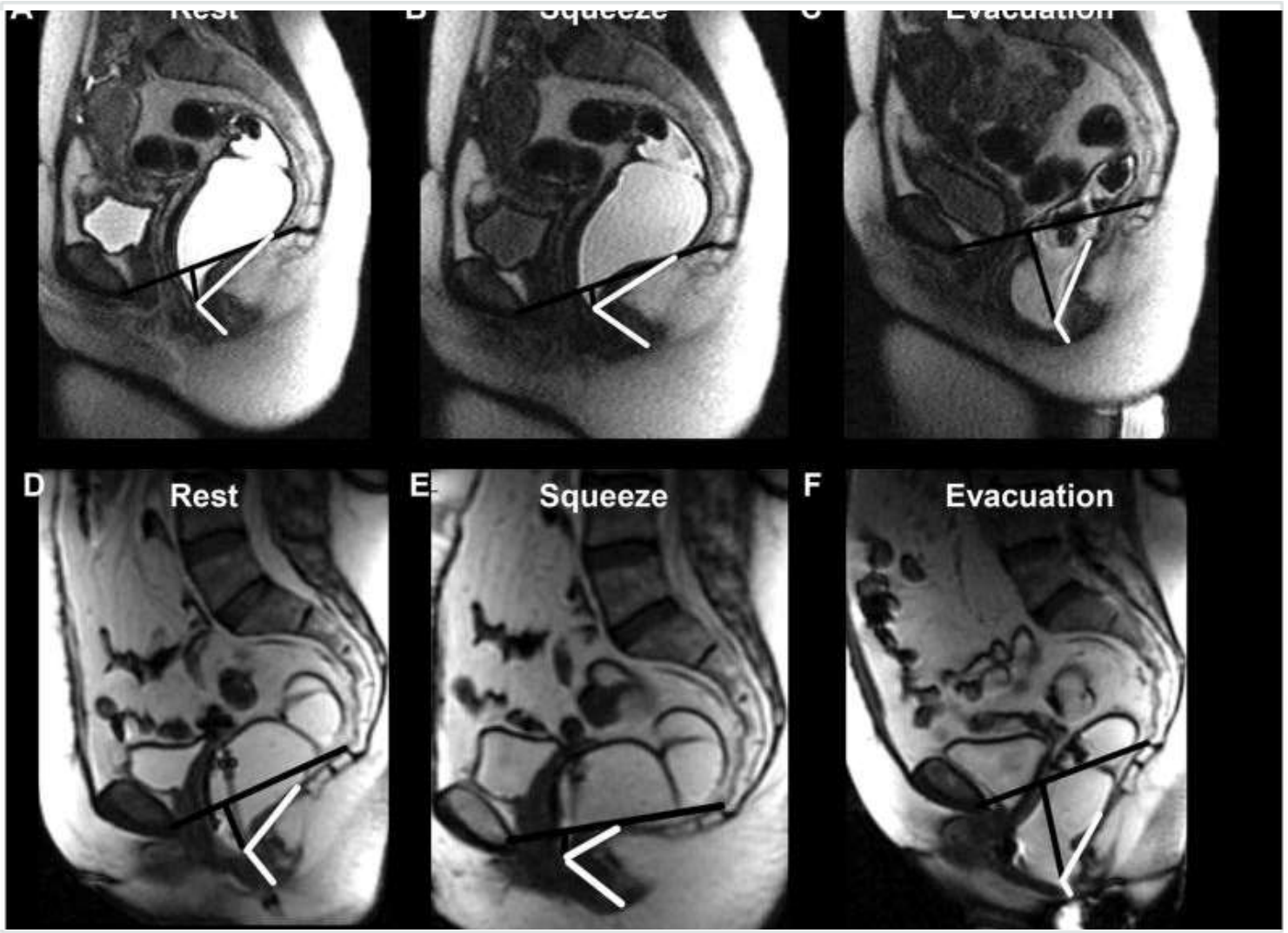
·Provides more accurate assessment of prolapse/pelvic floor weakness

· Identifies pathologic conditions

· Can lead to a change in surgical therapy in up to 67% of cases

· Must have a basic understanding of pelvic floor anatomy





Dynamic Pelvic MRI basics

Figure 1

Representative examples of anorectal motion during rest, squeeze and defecation in a younger women aged 34 years (upper panel) and an older women aged 63 years (lower panel) The pubococcygeal line and the perpendicular extending from this line to the anorectal junction are marked in black. The boundaries of the anorectal angle are shown in white. Compared to the younger woman, the anorectal junction at rest and during squeeze was lower in the older woman, in whom the angle change during squeeze was also more pronounced.

Dynamic Pelvic MRI

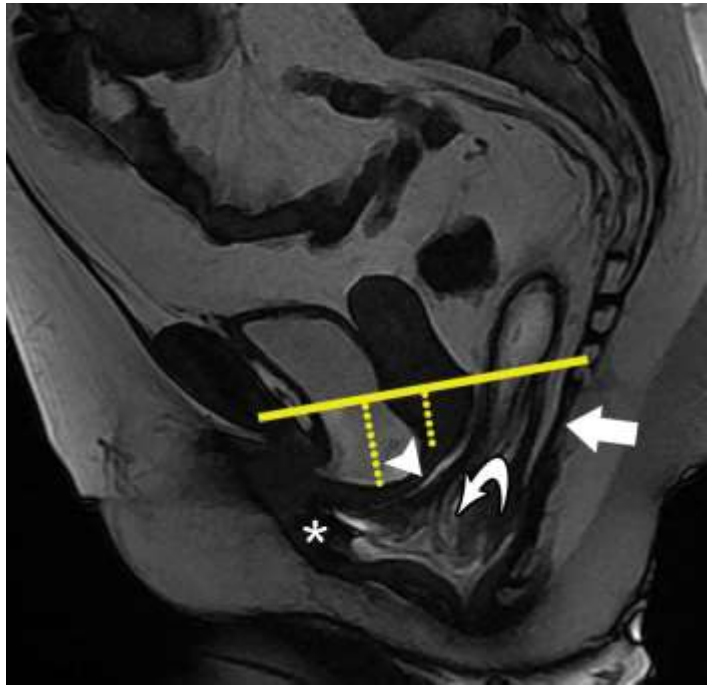


Figure 23 Rectal intussusception in a 48-year-old woman with suspected obstructed defecation. Midsagittal FIESTA MR image obtained during defecation shows intrarectal intussusception of the rectal wall (curved arrow). A large anterior rectocele (*) and pronounced caudal angulation of the levator plate (straight arrow) also are depicted. In the anterior and middle compartments, a moderate cystocele (long dotted line) and mild uterine prolapse (short dotted line) can be seen along with a peritoneocele (arrowhead), a lamella of mesenteric fat extending into the rectovaginal space alongside the upper third of the vagina. The detection of rectal intussusception in this patient altered surgical planning, resulting in the use of a transabdominal approach instead of a transperineal one and the addition of rectopexy to rectovaginal fascia repair.

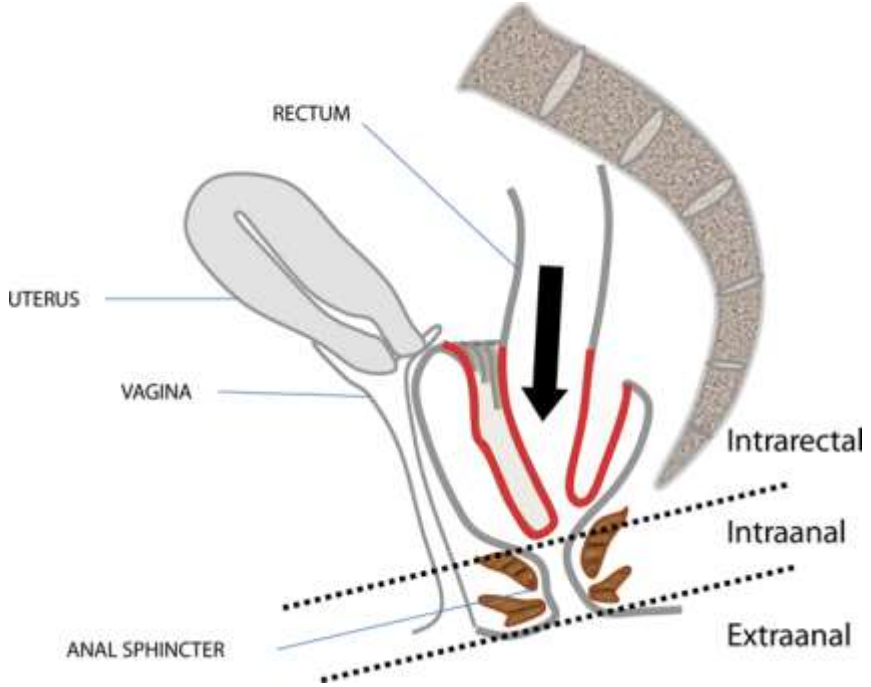
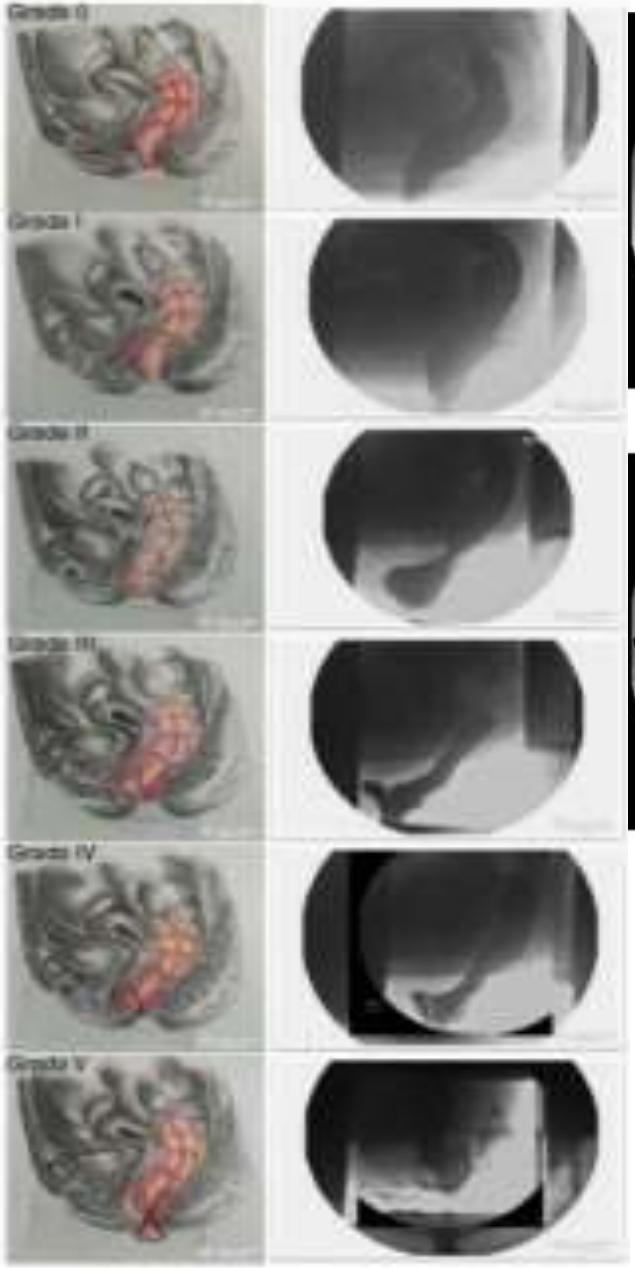
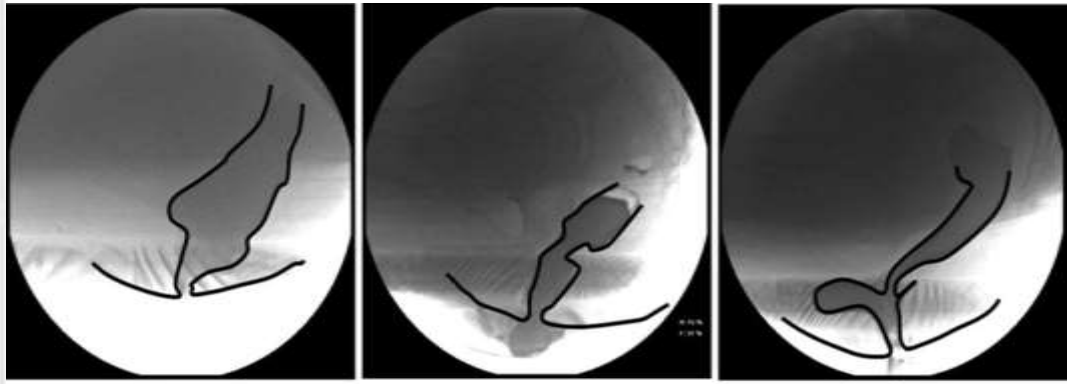


Figure 22 Schematic shows the grading of rectoanal intussusception according to its location and extent: intrarectal intussusception (minimal partial or circumferential rectal wall infolding that remains within the rectum), intraanal intussusception (infolding that extends into the anal canal), and extraanal intussusception or rectal prolapse (full-thickness invagination and eversion of the rectum, which protrudes from the anal canal).

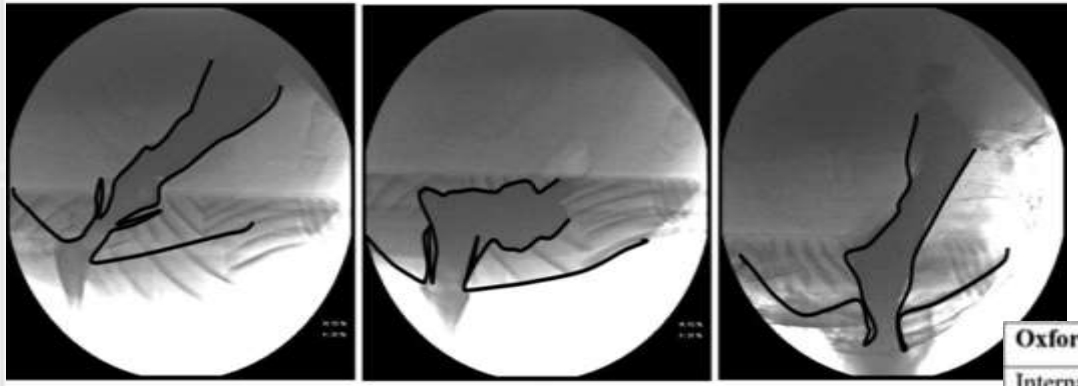




Normal

Grade I

Grade II



Grade III

Grade IV

Grade V

XR Defecogram & Oxford Grading

Oxford Grading System for Rectal Prolapse		
Internal Rectal Prolapse		
Rectal Intussusception	Grade I	Descends no lower than the proximal limit of a rectocele
	Grade II	Descends into the level of a rectocele, but not into the anal canal
Rectoanal Intussusception	Grade III	Descends to the top of the anal canal
	Grade IV	Descends into the anal canal
External Rectal Prolapse	Grade V	Protrudes from the anus

The National Institute for Health and Care Excellence (NICE). Laparoscopic Ventral Mesh Rectopexy for Internal Rectal Prolapse.; 2018. https://www.nice.org.uk/guidance/ipg618/evidence/overview-final-pdf-4897863901.

Colon Transit Study

"Sitz Marker Study"

·24 markers

· XR days 1,3,5

· + 5 or more markers on day 5

Location of markers matters

· No value in additional days

Treatment Recommendations

Good advice is always certain to be ignored, but that's no reason not to give it.

-Agatha Christie

Bowel Regimen Optimization "Proactive Versus Reactive"

Reverse Diarrhea: (after making sure this isn't an infection, overflow issue or microscopic colitis)

- ·Identify any supplements or medications that provoked diarrhea (Metformin and Mg)
- ·Remove artificial sweeteners, dairy and excessive caffeine
- · FiberCon (calcium polycarbophil) (Occasionally patients will report better success with psyllium fiber)
- · Loperamide (Imodium) and/or Diphenoxylate/Atropine (Lomotil)
- · Bile Acid Sequestrants (colestid, cholestyramine, colesevelam)
- · Pancreatic Enzymes (if stool studies confirm pancreatic insufficiency)
- · Antispasmodics like dicyclomine (Bentyl) or hyoscyamine (Levsin)
- · Tricyclic antidepressants like Amitriptyline/Nortriptyline

Address Constipation:

- ·Encourage adequate fiber intake
- ·Encourage adequate hydration
- ·Encourage walking and regular exercise
- ·Psyllium fiber supplement
- ·Polyethylene glycol (teach how to titrate to effect)
- ·Prokinetic medications (Lubiprostone/Amitiza, Linaclotide/Linzess, Prucalopride/Motegrity)
- ·Glycerin/bisacodyl rectal suppositories or tap water enemas

Body Mechanics

- Squatty Potty
- Pelvic Floor Physical Therapy

(with a qualified PT with training and expertise with bowel and anorectal conditions)

- Sacral Nerve Modulator
- Glycerin/Bisacodyl Rectal Suppositories
- Saline or Warm Tap Water Enemas
- TransAnal Irrigation
- Diversion

Pelvic Physical Therapy

TERESA DEBECHE-ADAMS MD, KAROLINE NEUMANN, ARNP

COLORECTAL Guidelines

OUTLET OBSTRUCTION, DYSSYNERGIA, ANAL SPASMS, RECTAL/ANAL PAIN, CONSTIPATION, FECAL INCONTINENCE FROM INCOMPLETE EMPTYING, FECAL URGENCY

☐ **1.No Pelvic or Core STRENGTHENING EXERCISES: 8-10 weeks**

Lumbar and hip stretching program
Treatment frequency 2x/week
Absolute resolution of rectal pelvic floor spasms, dyssynergia before progression, no vaginal Kegels
Colon massage, breathing, biofeedback emphasis, external rectal myofascial release
Light cardiovascular equipment/walk, no resistance

☐ **2. Internal sEMG biofeedback on 2nd visit: Downtraining goal**

Supine sEMG biofeedback with internal Pathway sensor, perform 1x/week and record data.
Seated: if an opening on the plinth or cushion/padding to prevent pain, discomfort, and incorrect data
Goals: 3 uV resting and below, minimal or no paradoxical spasms more than 5-10 uV, depression of wave during active bulging/elongation phase

☐ **3. Internal rectal PFM assessment and treatment**

Internal rectal myofascial release **each visit**
Goals: no pelvic muscles in contact with all four sides of finger at rest and with active bulging (no narrowing)
- No guarding of coccygeus at coccyx attachment
- Estimated 1.5 fingerwidth of rectal space
- Perineum to have controlled mobility
- Target muscles: levator ani, puborectalis, coccygeus, external anal sphincter

☐ **5. Bristol stool scale use and diary**

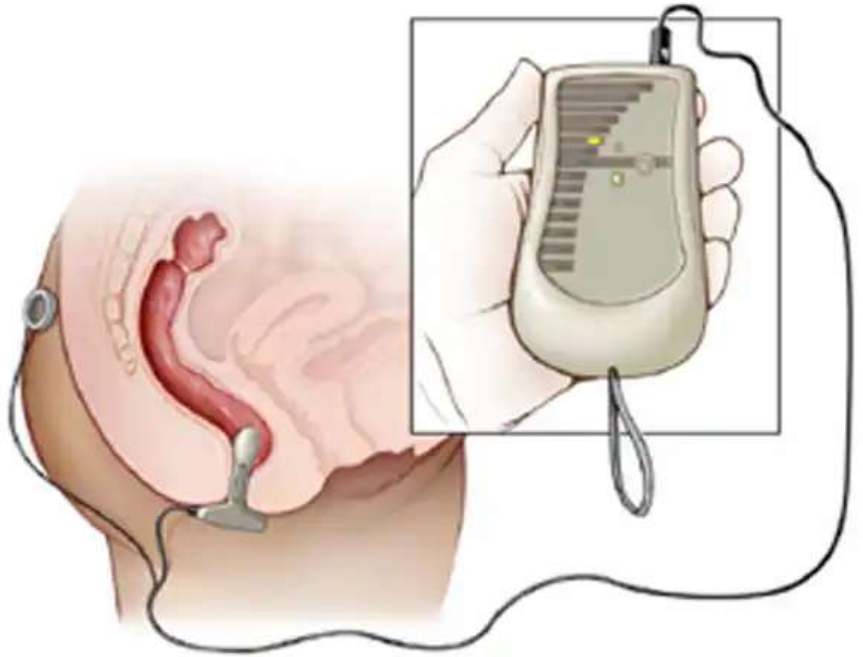
Desired: Type 3 – 4 for full bowel evacuation
Actual: Type 3 – 6
Abnormal:
Type 1: related to rectocele from not emptying, dyssynergia, induces excessive straining and assisted splinting or finger expulsion
Type 5: spasm from dyssynergia if small pieces

☐ **6. Functional goal and progression**

Bowel frequency 3x/week up to 3x/day is normal
Bowel initiation within 3 - 4 minutes of sitting on toilet
Squatty potty and any assisted breathing, posturing
Longer stool pieces for proper elimination
Minimal to no straining, no Valsalva techniques
No excessive wiping more than 3 times at the end (dyssynergia present if up to 10+ times)

☐ **7. **Communicate bi-weekly or monthly with physician and/or nurse practitioner if any change of treatment plan, updates patient compliance, and/or plateau ****

Communicate with HIPAA encrypted messaging: TEAMS, email and type: [secure], phone call (no texting of)



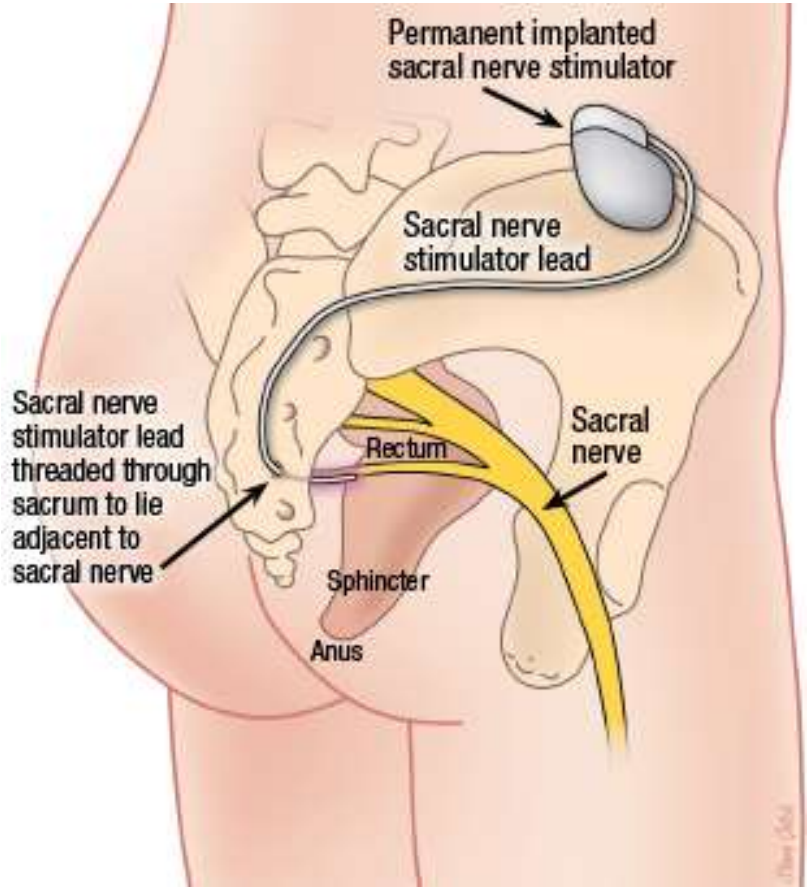
Rectal sensor

A smooth biofeedback sensor inserted in the anal canal monitors muscle tension and relaxation through electromyography and displays feedback that patients can see on a screen.

Sacral Nerve Modulator

Electrical stimulation of the sacral nerves
- Improves resting and squeeze pressures
- Improves rectal sensation
- Increases retrograde colonic propagating sequences

Approved by FDA in 2011
Works in patients with anal sphincter defects
Success is at least a 50% reduction in episodes in 1 week
86% > 50% at 3 years
40% of patients completely continent at 3 years
89% with sustained benefit after 5 years
10 year data shows 1/3 will maintain long term benefit



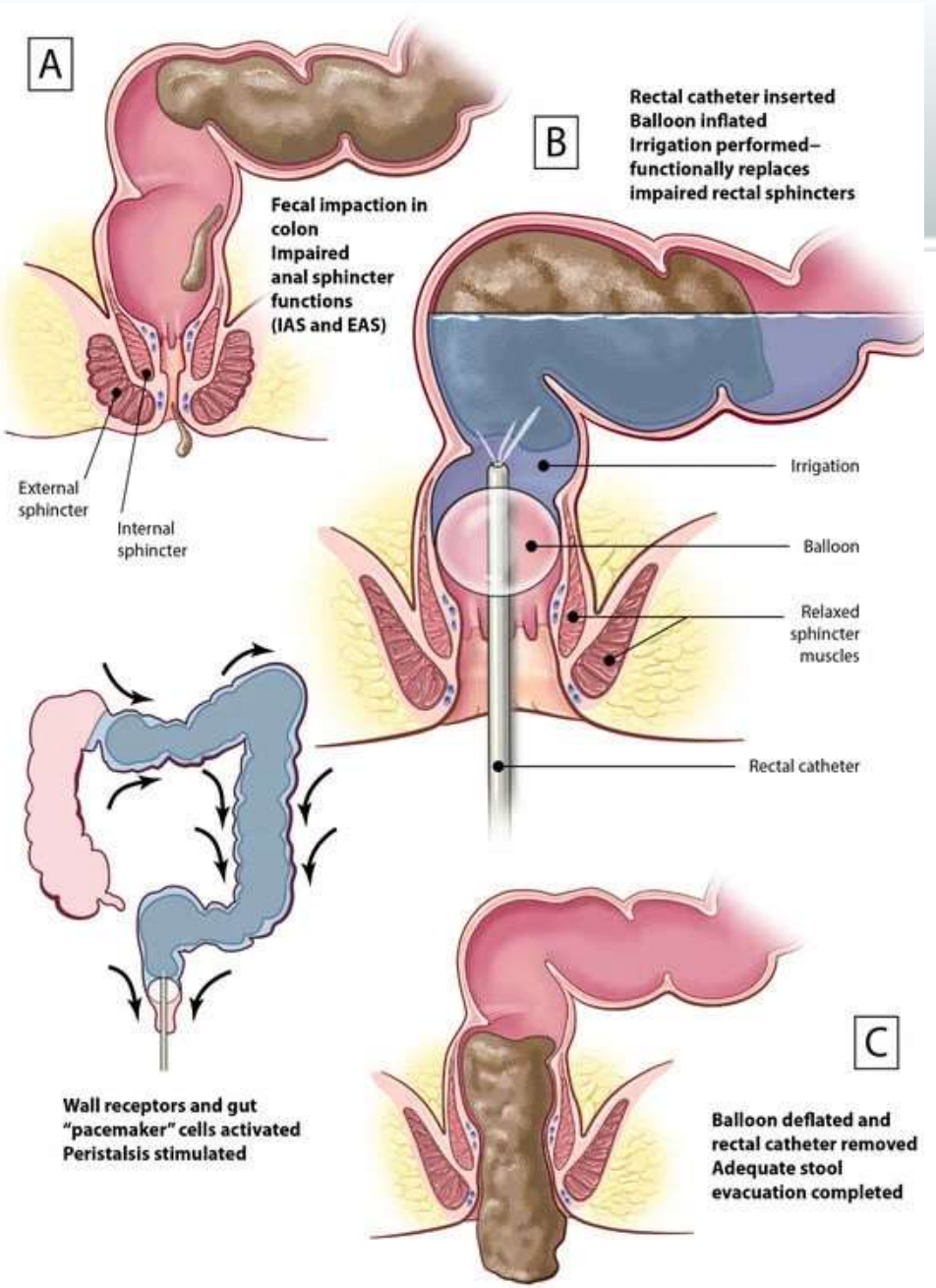
TransAnal Irrigation

Peristeen Plus

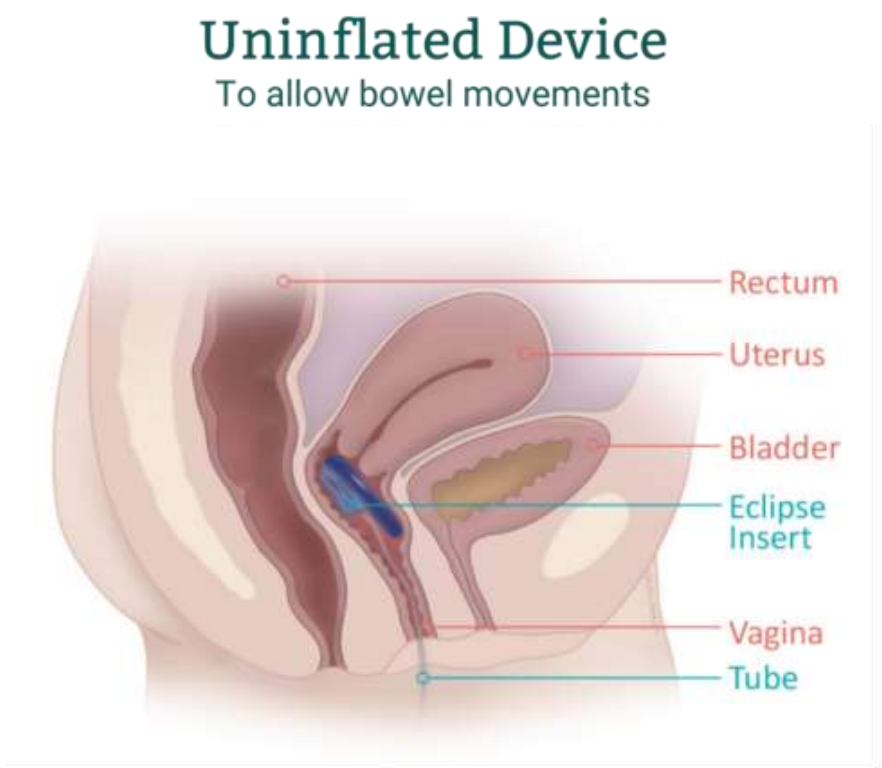
Coloplast

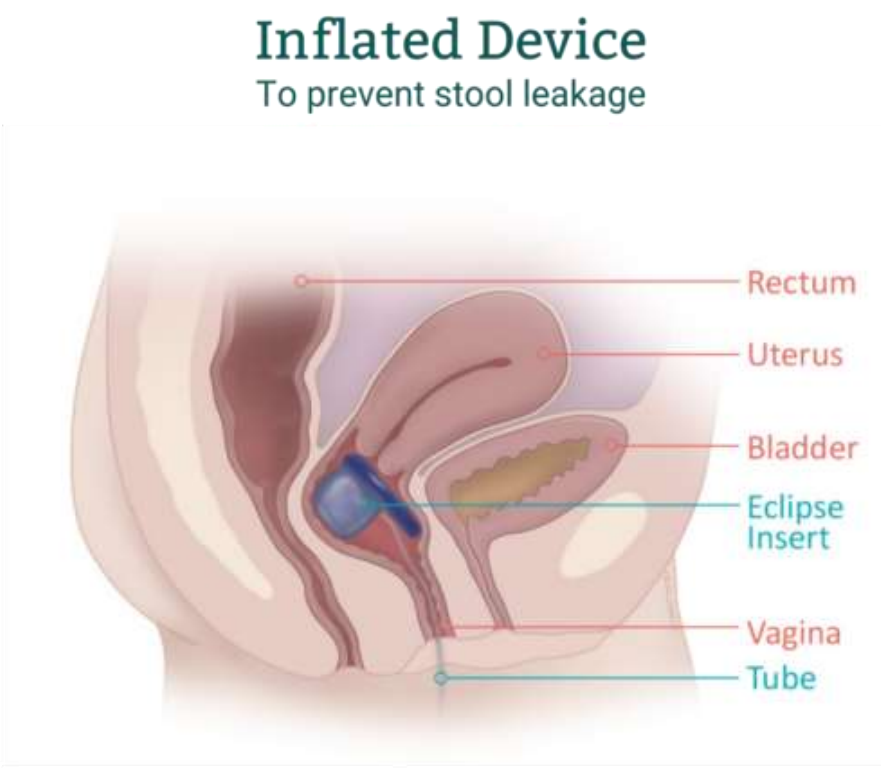
Navina Bowel Irrigation

Wellspect HEALTHCARE

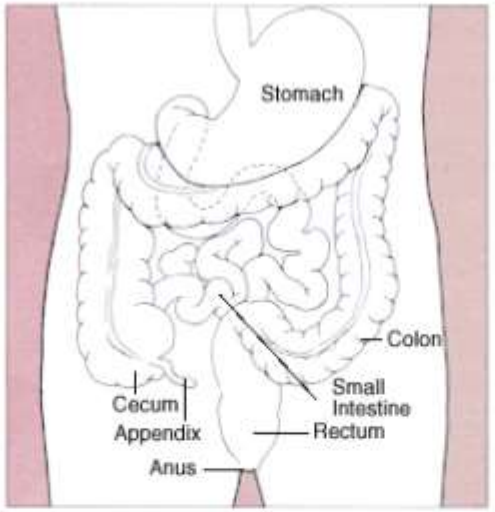


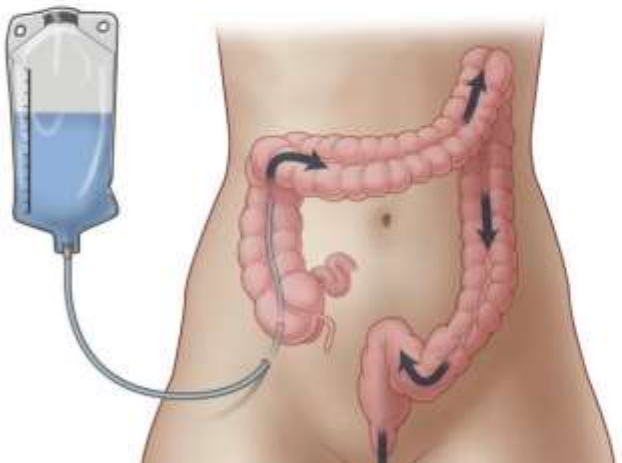
MECHANICAL "STOOL BLOCKERS"





ACE and Elective Diversion





An ACE allows the administration of a bowel washout through a small opening (stoma) on the abdominal (tummy) wall. Your child will sit on a toilet and a specialist catheter is passed into the stoma. A bag of fluid is connected to the catheter. The fluid flows along the large bowel and empties out bowel contents via the anus into the toilet. Once the washout fluid has all been given, the catheter is removed. Your child remains sitting on

"Anything can be achieved with a good, healthy dose of courage."
-Viola Davis