

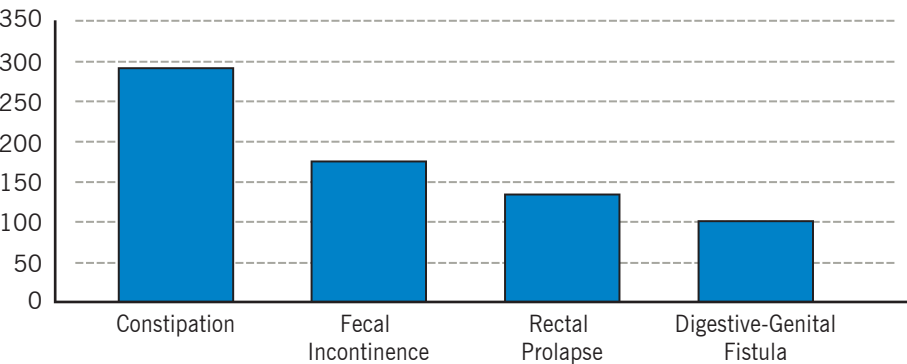
Motility Disorders

Pelvic Floor

Colorectal Center for Functional Bowel Disorders (N = 701)

January 2010 – November 2011

New Patients

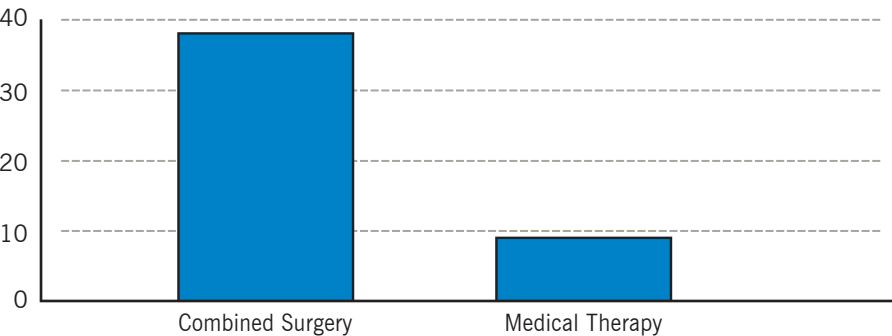


The Colorectal Center for Functional Bowel Disorders saw 701 new patients from January 2010 through November 2011. The majority of new patients were seen for management of constipation or fecal incontinence.

Multidisciplinary Pelvic Floor Clinic Treatment Modalities (N = 47)

March 2010 – December 2011

Number

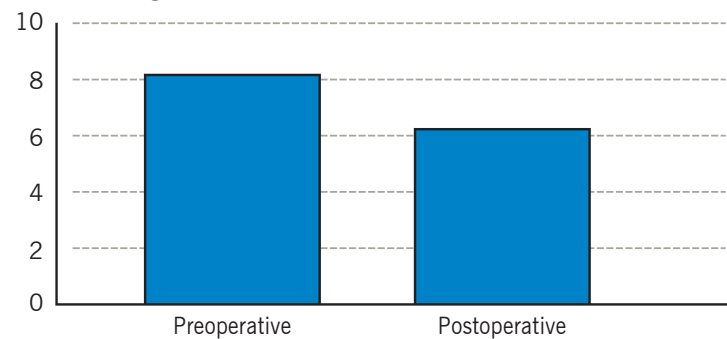


Cleveland Clinic offers a Multidisciplinary Pelvic Floor clinic staffed by a colorectal surgeon and uro-gynecologist for same-day evaluation by both specialists. In appropriate patients, we offer multidisciplinary surgery to address all pelvic floor issues, eliminating the patient's need for multiple procedures. The majority of our patients seen in the clinic are managed surgically.

Pelvic Floor Pain Management (N = 105)

2011

Visual Analog Scale, 0 (No Pain) – 10 (Maximum Pain) Scale

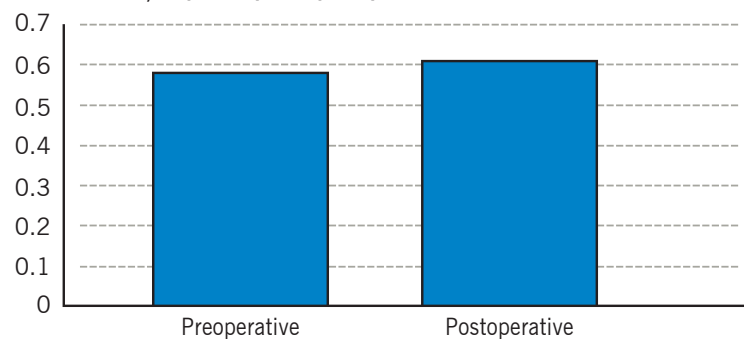


Patients surveyed regarding their preoperative and postoperative pain reported a 30 percent decrease in pain level.

Cleveland Global Quality of Life Score (CGQL) (N = 105)

2011

CGQL Score, 0 (Worst) – 1 (Best) Scale



Patients reported a slight improvement in their general quality of life after pelvic floor surgery.



Motility Disorders



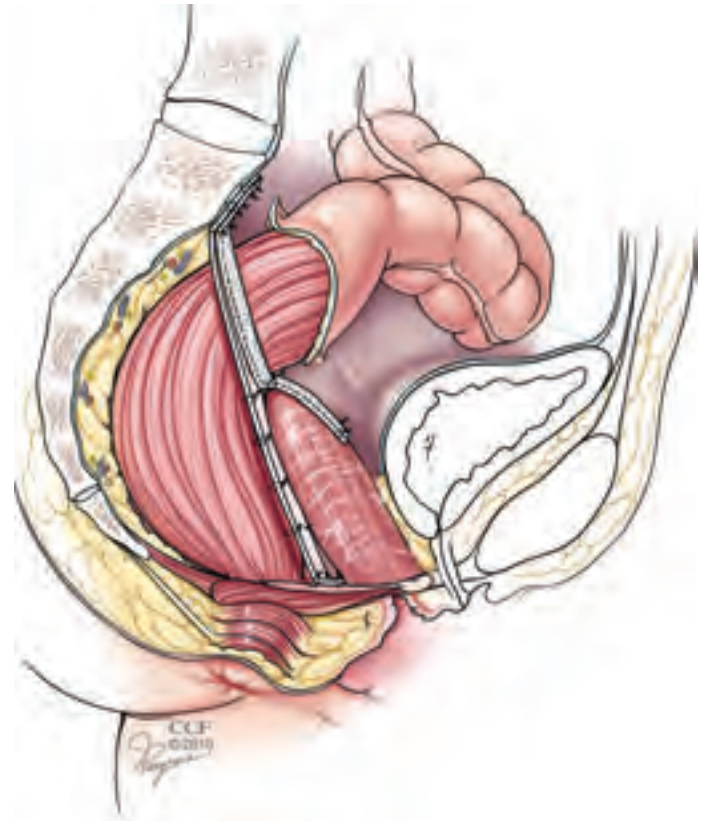
Pelvic Floor Surgery Complications* (N = 237) 2011

Complication	Percent
Abscess (Intra-abdominal)	1.7
Abscess (Pelvic)	3.8
Acute Renal Failure	1.3
Anastomotic Leak	2.1
Anastomotic Stricture	0
Arrhythmia	1.3
Clostridium Difficile	1.3
Colostomy/Stoma Complications	1.3
Dehydration	0.8
Ileus	11
Leak (Rectal Stump)	0.4
Liver Dysfunction	0
Major Bleeding	0
Mortality	0
Pneumonia	0.8
Readmission	14.8
Reoperation	3.4
Sepsis	0.8
Small Bowel Obstruction	2.1
Transfusion	4.2
Ureter Injury	0.4
Urinary Retention	2.1
Urinary Tract Infection	2.1
VTE (Deep Venous Thrombosis)	2.1
VTE (Mesenteric/Portal Venous Thrombosis)	0.4
VTE (Pulmonary Embolism)	0
Wound Infection	5.5

*30-day complication rates associated with inpatient procedures

Rectal Prolapse Treatment

In the past decade, ventral rectopexy to treat full-thickness rectal external prolapse, internal rectal prolapse and obstructed defecation has gained popularity in Europe. The procedure involves anterior rectal mobilization and mesh fixation of the rectum to the sacrum. Ventral rectopexy can be performed laparoscopically, robotically or open. Vaginal prolapse procedures and total pelvic floor repair are frequently undertaken. This procedure has been shown to achieve acceptable anatomic results with low recurrence rates, few complications, and improvements of both constipation and fecal incontinence. Few centers in the United States perform ventral rectopexy.



Ventral Rectopexy (N = 57)

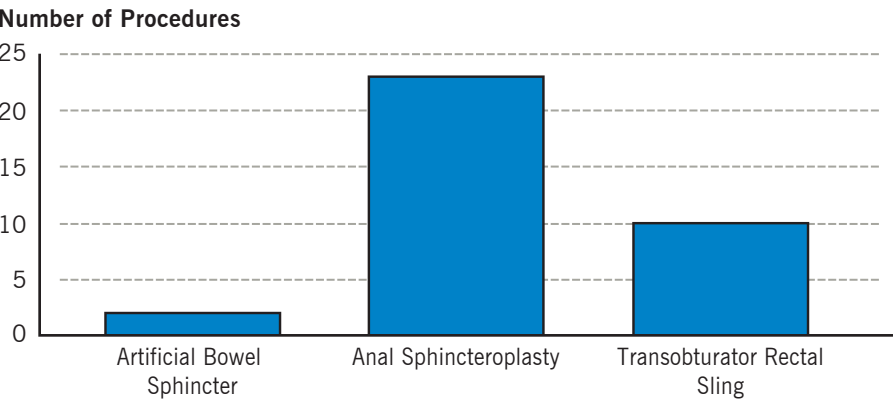
2008 – 2011

Description	Percent
Procedure type:	
Robotic	60%
Laparoscopic	20%
Open	20%
Recurrence of prolapse	5%
Satisfied with surgery results	90%
Would recommend surgery to others	90%

Motility Disorders

Surgical Procedures for Fecal Incontinence (N = 35)

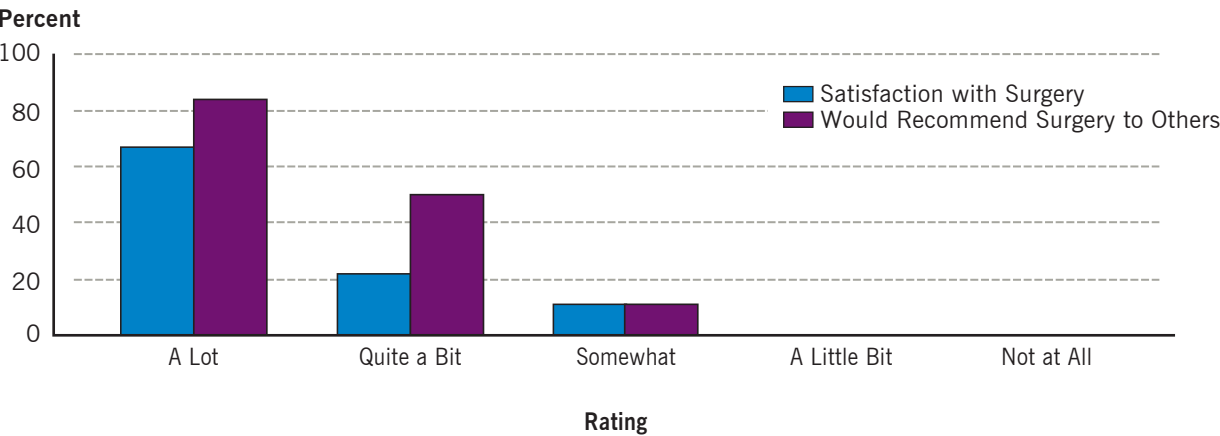
2011



While some patients with fecal incontinence responded well to conservative measures such as diet changes, fiber supplementation, anti-diarrheal medications and pelvic floor retraining, others required surgical management.

Satisfaction with Fecal Incontinence Surgery (N = 18)

2011

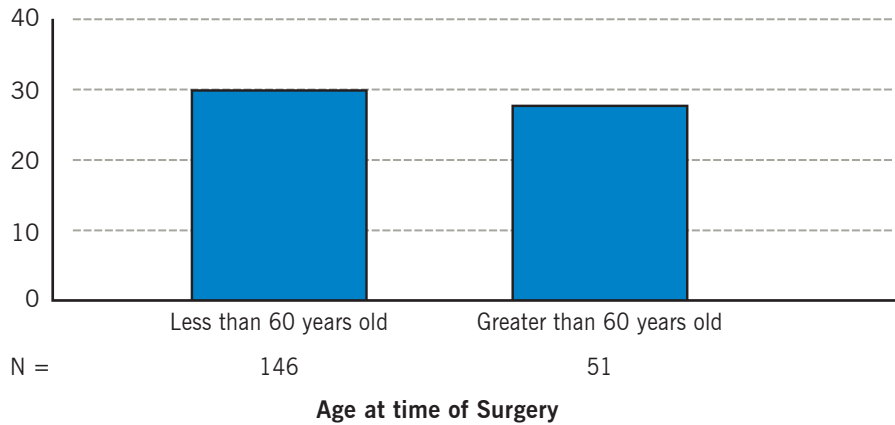


All patients reported satisfaction after surgery.

Age at Time of Sphincteroplasty (N = 197)

1996 – 2007

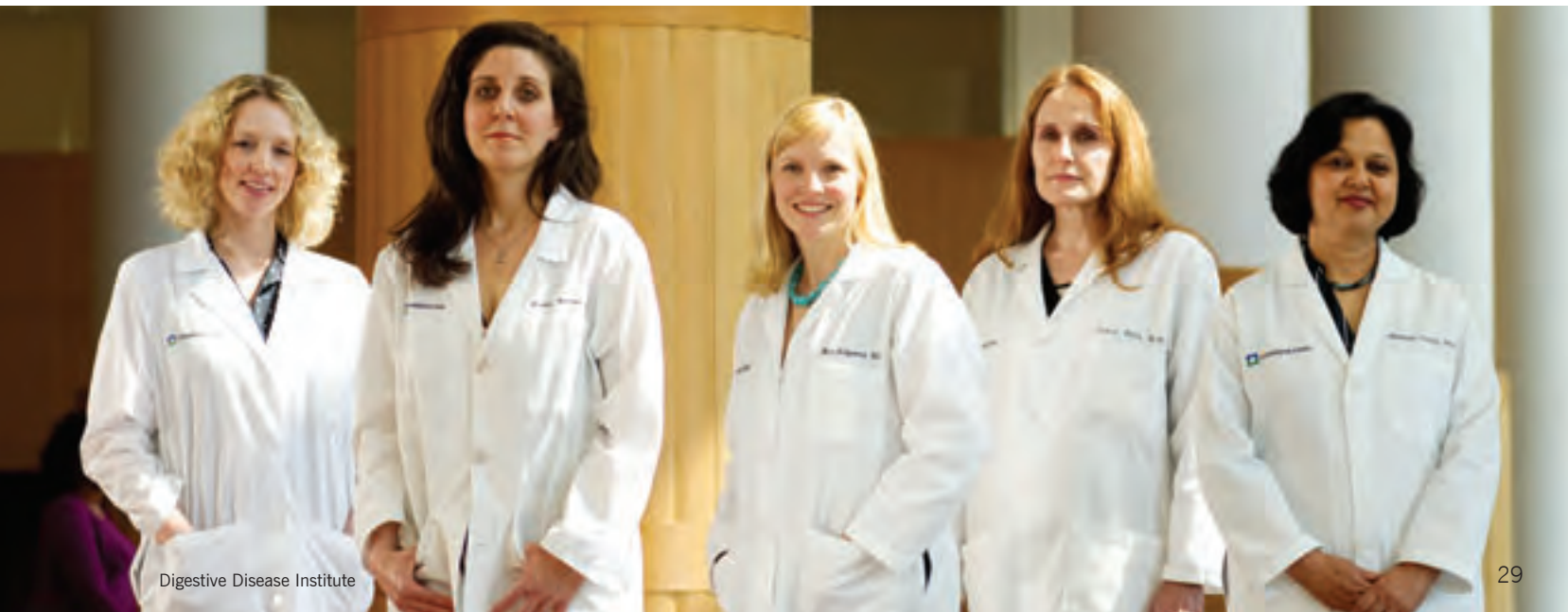
FISI Score*



Age does not impact long-term incontinence scores in patients undergoing sphincteroplasty.

El-Gazzaz G, Zutshi M, Hannaway C, Gurland B, Hull T. Overlapping sphincter repair: does age matter? *Dis Colon Rectum*. 2012 Mar;55(3):256-61. Source: Pelvic Floor Unit, Department of Colorectal Surgery, Digestive Disease Institute, Cleveland Clinic, Cleveland, Ohio 44195, USA

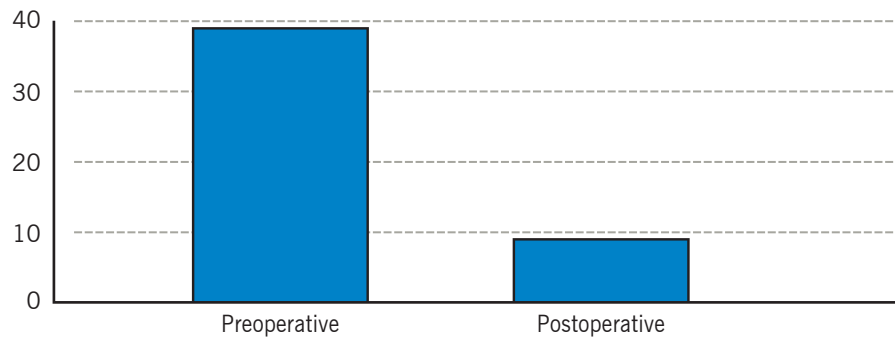
* Fecal Incontinence Severity Index (FISI): FISI scores range from 0 – 61, with higher scores indicating more severe incontinence.



Anal Encirclement with Sphincter Repair (AESR Procedure) (N = 13)

January 2009 – June 2010

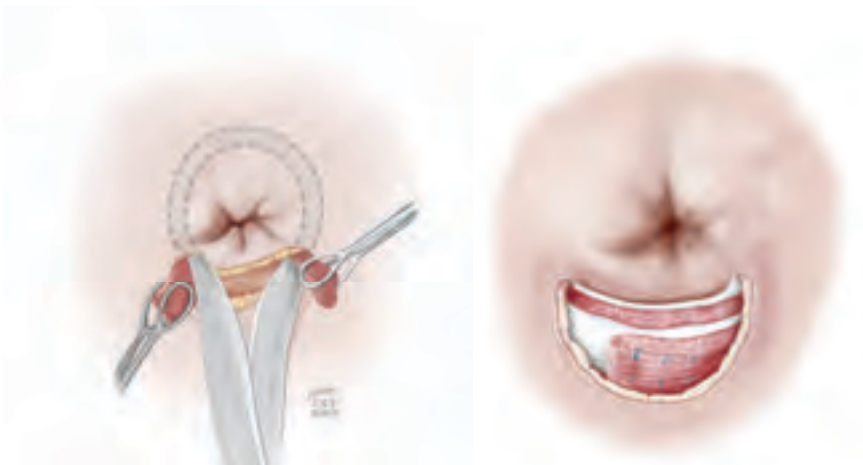
FISI Score*



Zutshi, M, Hull, T, Gurland, B (2012). Anal encirclement with sphincter repair (AESR procedure) using a biological graft for anal sphincter damage involving the entire circumference. *Colorectal Dis*, 2012 May; 14(5);592-595. doi:10.1111/j.1463-1318.2011.02675.x

* Fecal Incontinence Severity Index (FISI): FISI scores range from 0 – 61, with higher scores indicating more severe incontinence.

Biological material to support an overlapping sphincter repair can be used in patients with damage to the entire circumference of the external sphincter due to radiation or trauma.



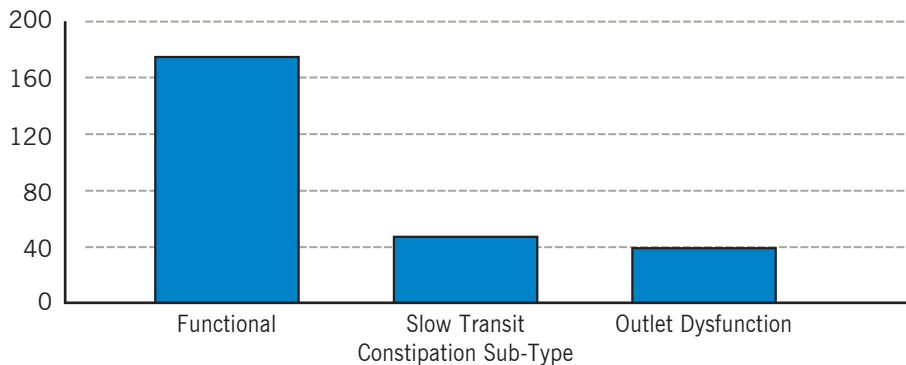
Constipation

The Colorectal Center for Functional Bowel Disorders includes a dedicated practitioner who works with patients to optimize their diet, activities, and laxatives. Colectomy is an option for patients with refractory slow transit constipation and a poor quality of life as a result of their bowel function. Physical therapy is recommended for patients with outlet dysfunction.

New Consults (N = 291)

2011

Number of Consults

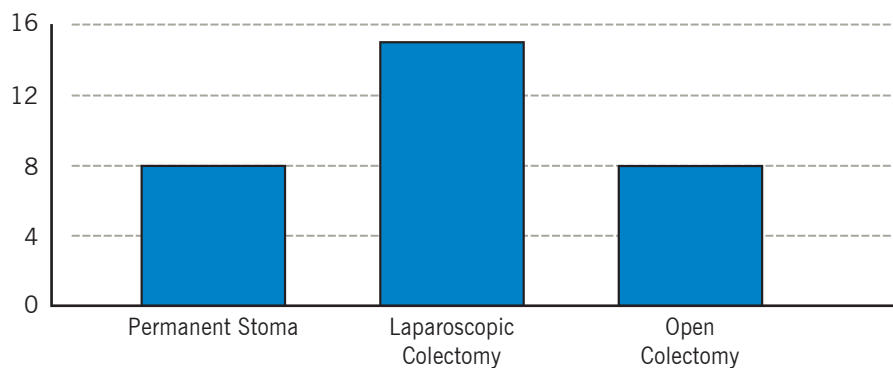


The majority of new consults were patients with functional constipation or constipation where no specific cause was identified.

Surgical Management (N = 31)

2011

Number of Procedures



Surgical management of constipation included permanent stoma and laparoscopic and open colectomy.

Motility Disorders

Functional Outcomes After Total Abdominal Colectomy with Ileorectal Anastomosis (TAC/IRA) for Constipation (N = 144) 1999 – 2010

Removal of the colon with creation of an ileorectal anastomosis is an option for patients with slow transit constipation who are refractory to medical therapy and who have a poor quality of life.

	Prior to TAC/IRA	After TAC/IRA
Bowel Movements	< 2 BM per week	4.4 daily
Intermittent Fecal Accidents	0	11%
Laxative Usage	100% daily ineffective	13% intermittent small doses and effective
Intermittent Antidiarrheal Usage	0	10%
Abdominal Pain	>20% of the Time 65%	31%
Postoperative Satisfaction		87%

TAC/IRA Surgery For Slow Transit Constipation vs. Neoplastic Disorders (N = 333) 1999 – 2010

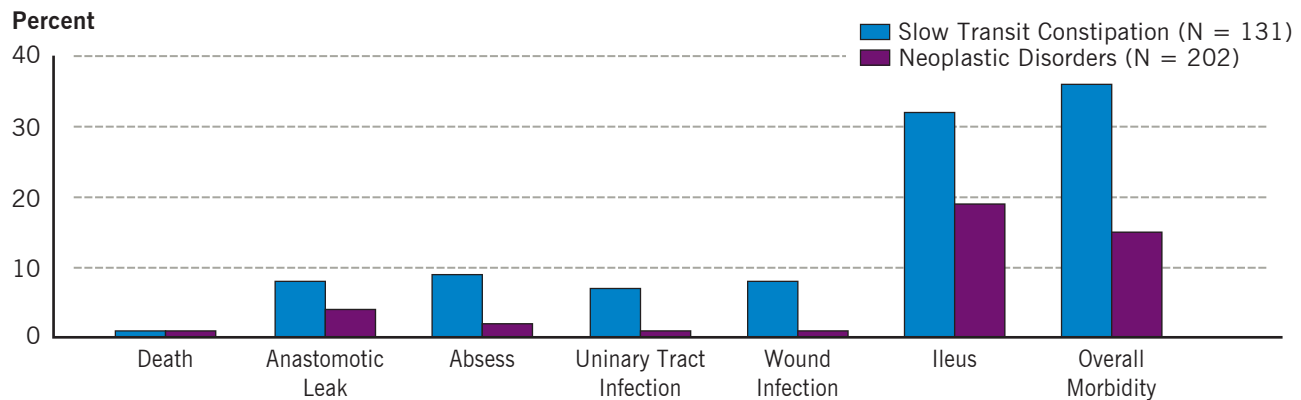
Cleveland Clinic series of patients who underwent Total Abdominal Colectomy with Ileorectal Anastomosis (TAC/IRA) for chronic constipation compared to Neoplastic Disorders is shown below.

Variable	Slow Transit Constipation	Neoplastic Disorders	P Value
Number of patients	131	202	
Age (years)	39 ± 11*	39 ± 19*	0.4
ASA class	2.2 ± 0.5*	2.4 ± 0.7*	0.3
Male/Female ratio	1/130 (1/99%)	98/104 (49/51%)	<0.001
Body Mass Index (BMI) ± SD	25 ± 5*	28 ± 8*	0.002
Laparoscopic/Open ratio	56/75 (43/57%)	107/95 (53/47%)	0.04
Hand Sewn/Stapled	8/123 (6/94%)	34/168 (17/83%)	0.002

*± Standard Deviation

30-Day Outcome Profile for Patients Undergoing TAC/IRA for Slow Transit Constipation compared to TAC/IRA for Neoplastic Disorders (N = 333)

1999 – 2010



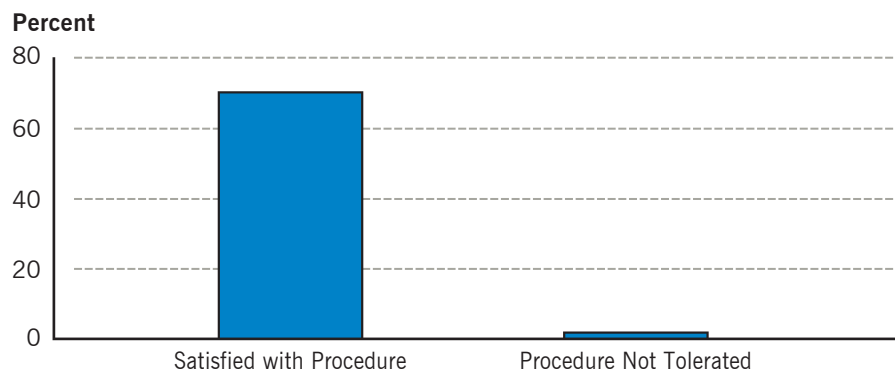
Patients undergoing surgery for slow transit constipation were primarily women. Overall morbidity was significantly higher and length of stay was longer (length of stay 8.4 versus 6.2 days, $P < 0.001$).

Enema Therapy and Colon Hydrotherapy for Refractory Constipation

Colon hydrotherapy is gentle flushing of the entire colon using the Aquanet EC 2000® closed colonic irrigation system. Purified-temperature and pressurized, regulated water is introduced into the colon and released through several cycles to flush out fecal waste. Colonic hydrotherapy is offered as a therapeutic option for patients with dysmotility, functional and outlet constipation who are refractory to laxatives and represents an alternative to colectomy and ileostomy. Colonic hydrotherapy can also be used as a method for colonic cleansing prior to colonoscopy for patients who cannot tolerate the standard colonic preparations.

Patient Satisfaction with Results of Hydrotherapy Collected Two Weeks after the Procedure (N = 12)

November – December 2011



Twelve patients underwent hydrotherapy. More than half were satisfied with the treatment.