

# Crohn's Disease and the Ileal Pouch

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# Disclosures

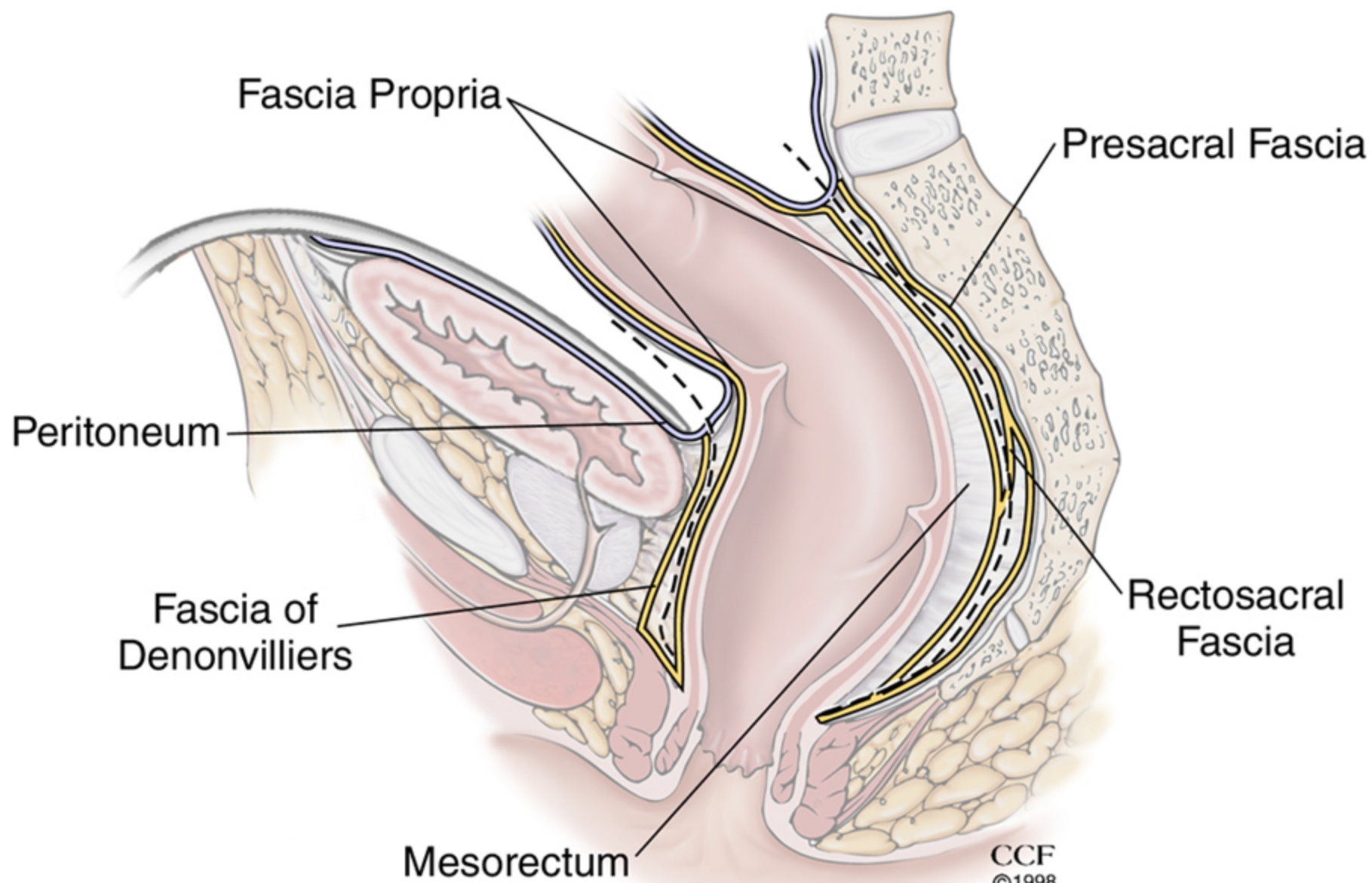
- **Relevant:**
  - None
- **Outside of topic:**
  - Ethicon Endosurgery Consultant
  - Medtronic Consultant

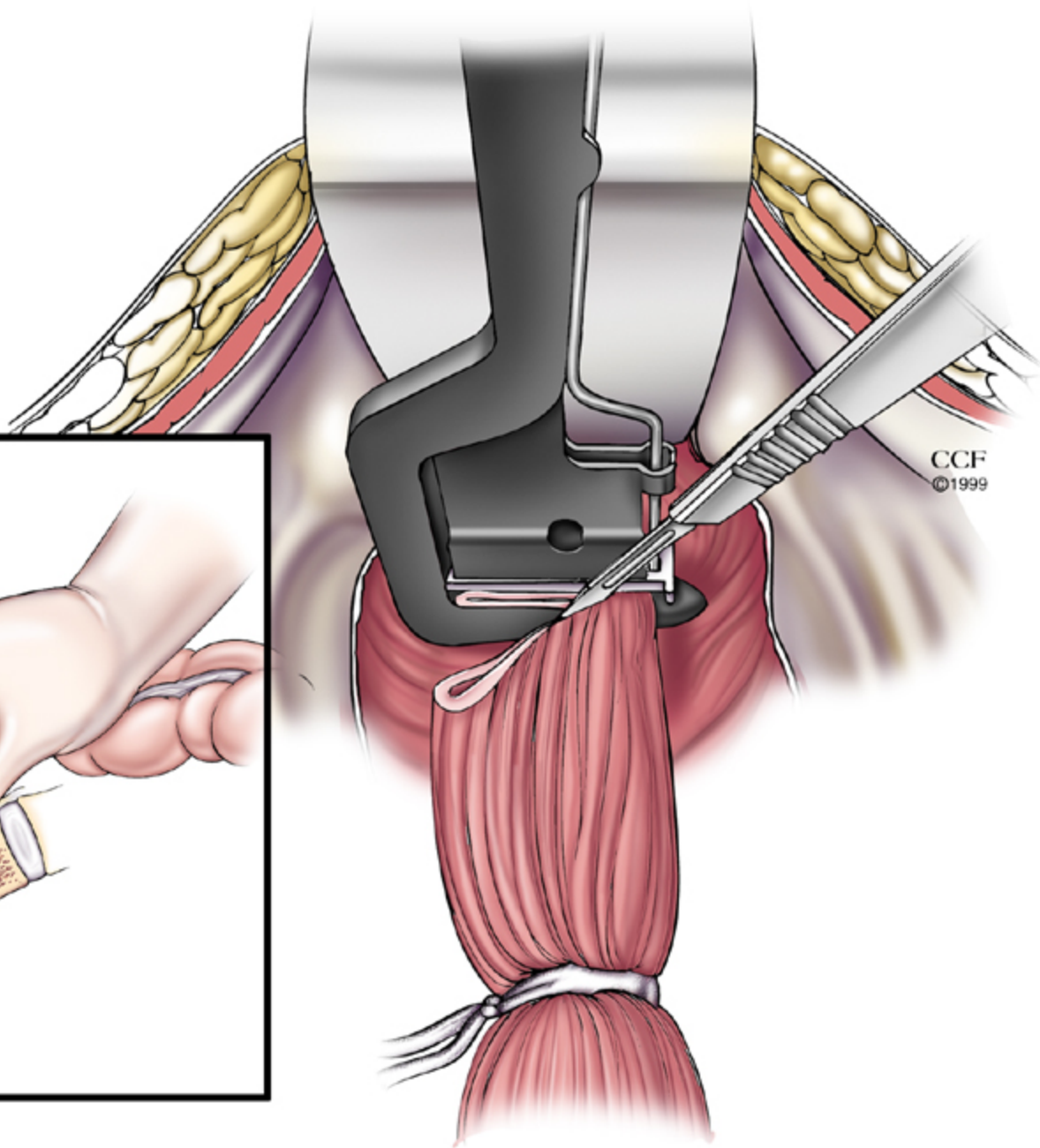
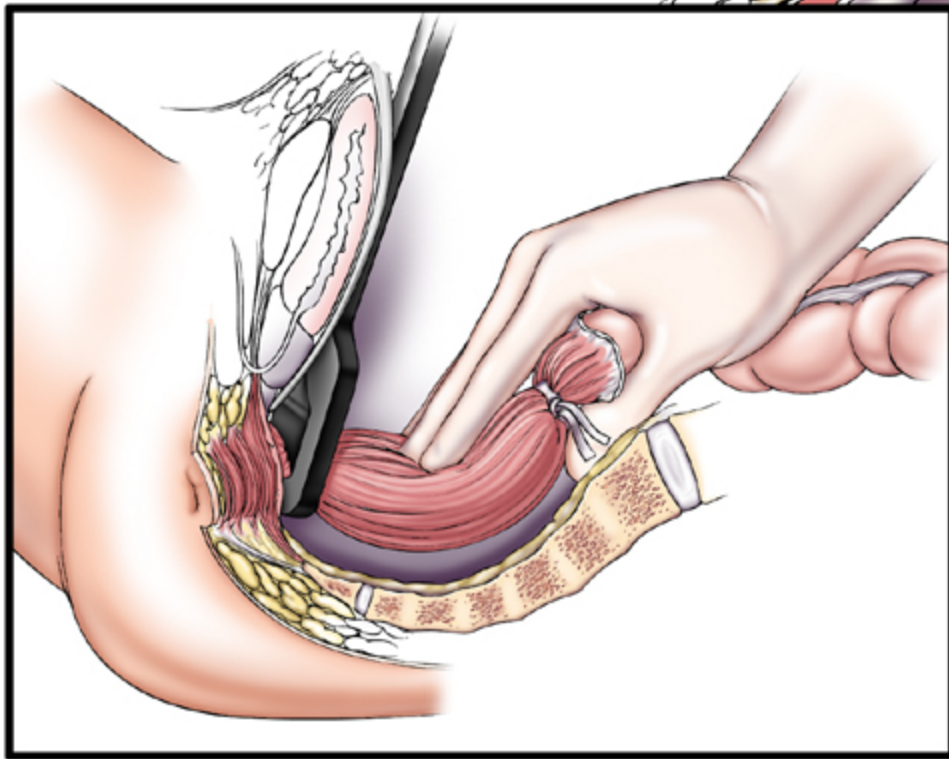


# Ileal Pouch Anal Anastomosis

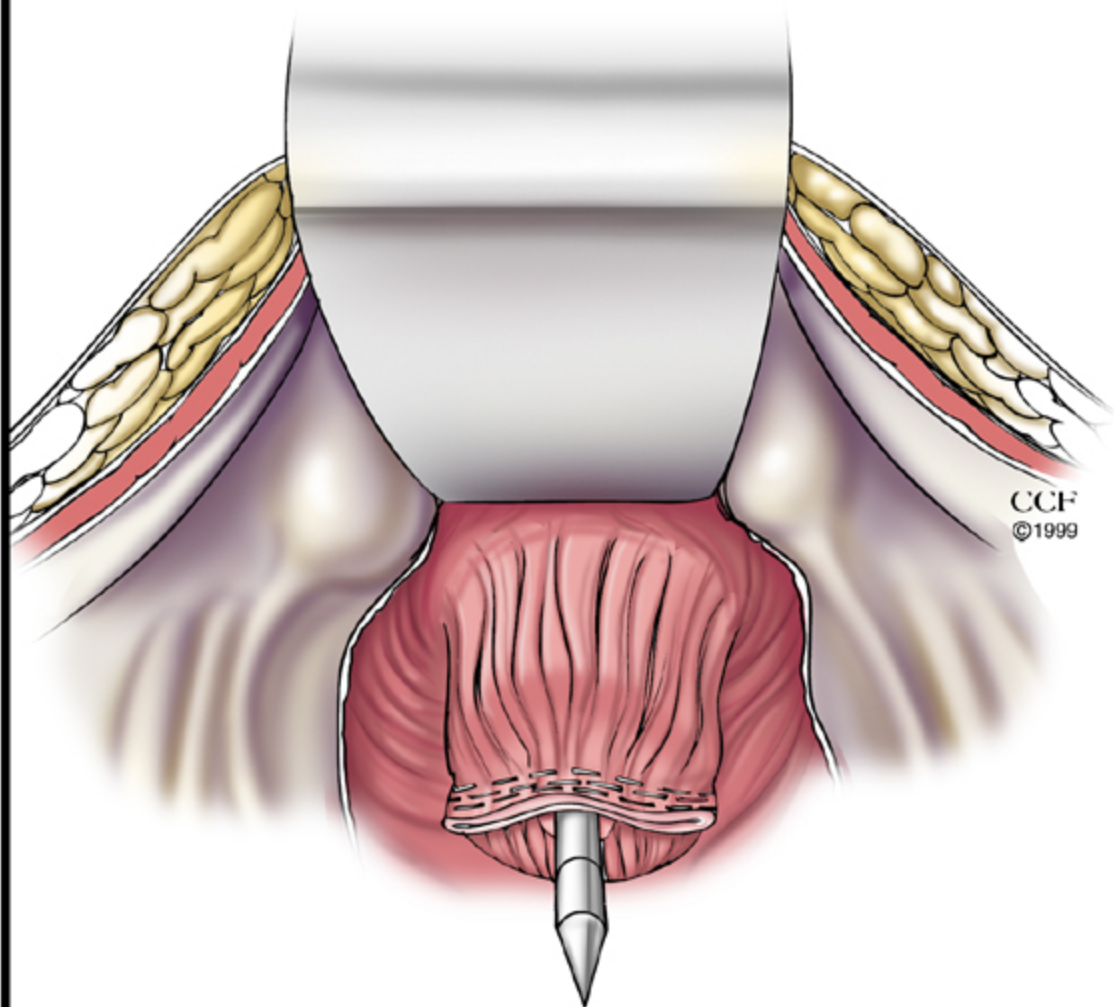
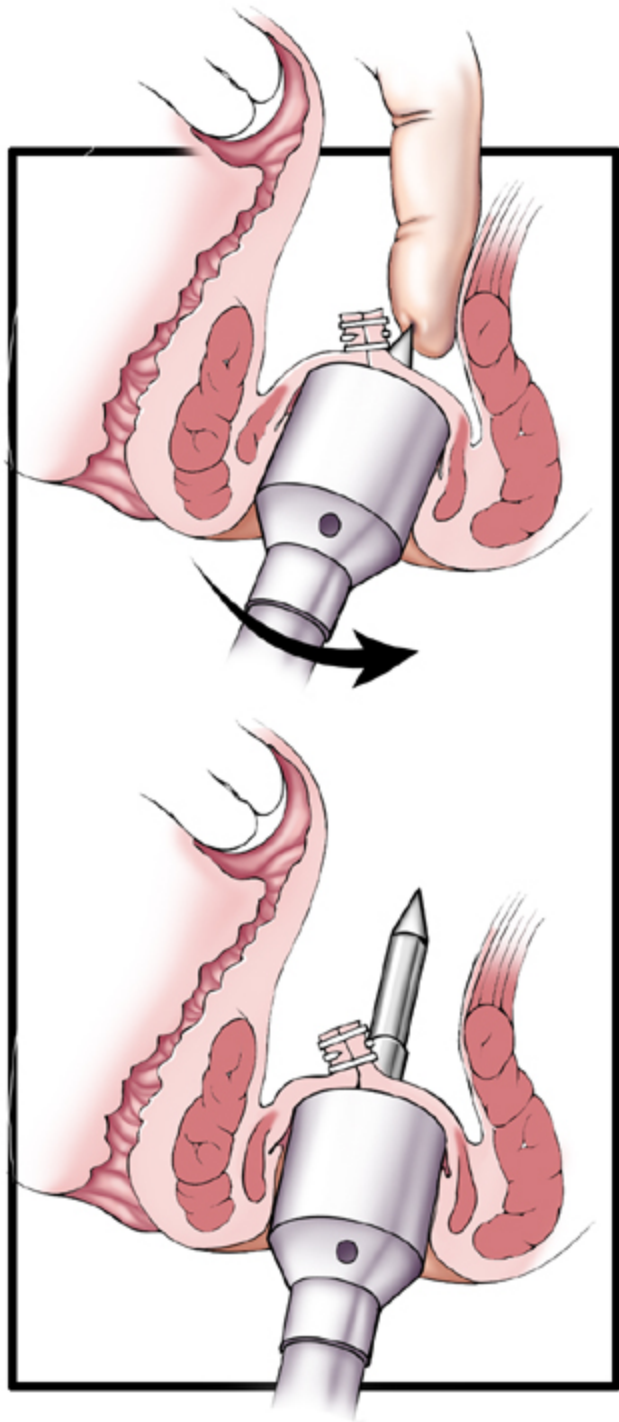
- **After removal of the colon and rectum**
- **Create new reservoir with small intestine**
- **Allows transanal defecation and ideally avoids permanent ileostomy**

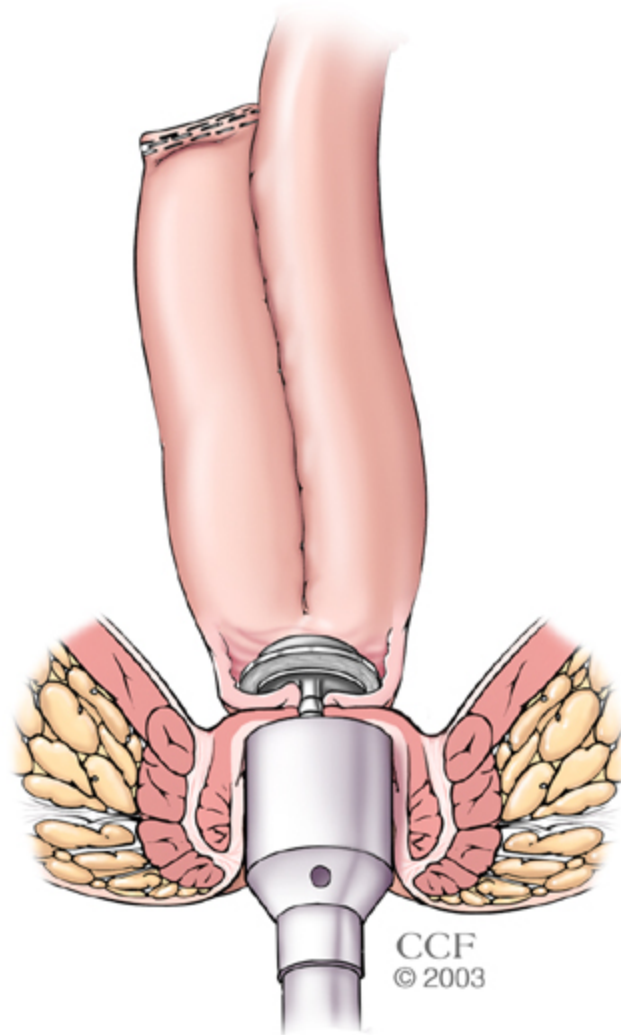
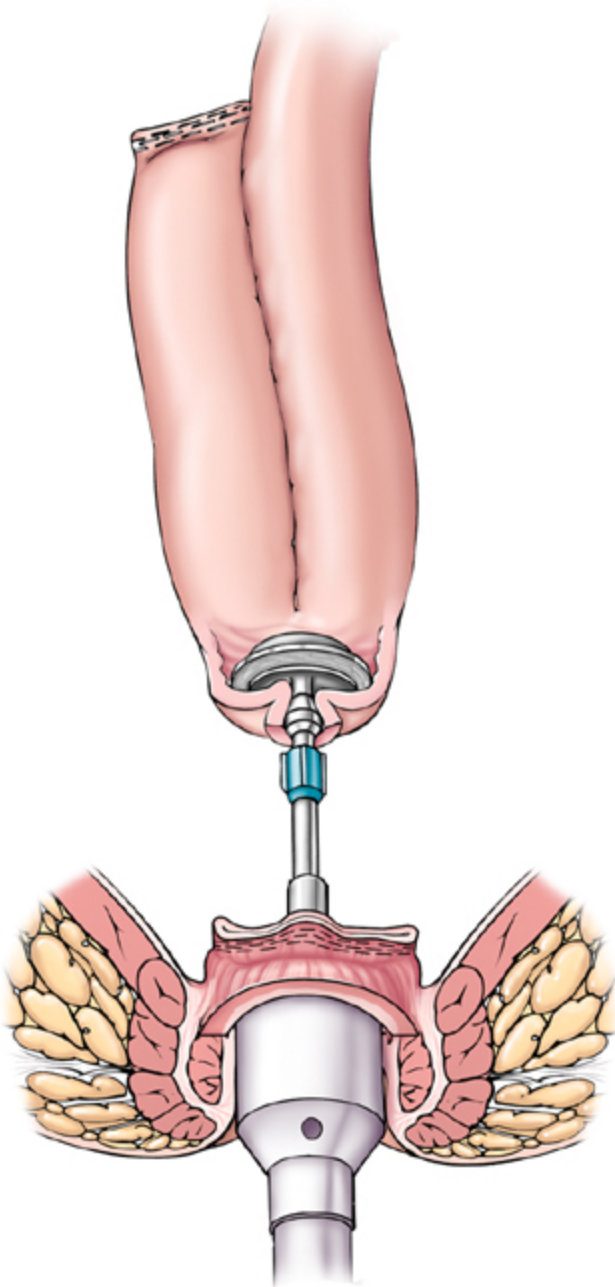












# Life with IPAA

## Functional outcome

**Average BM per 24 hrs: 6**

**Complete continence: 53-76 %**

**Overall Satisfaction: 96 %**

Michelassi Ann. Surg, 2003

**Total 24 hours B.M: 5 (1-15)**

**Nocturnal seepage: 44 %**

**Antidiarrheal usage: 39 %**

Meagher 1998 Br J Surg





# IPAA Patient Outcomes

- 1885 patients
  - Mean f/u 11 years
  - Pouch success
    - 5 years 96%
    - 20 years 92%
  - Fecal incontinence
    - Day -- 5% (5yrs) v 11% (20yrs)
    - Night -- 12% (5yrs) v 21% (20yrs)
  - No decrease in QOL with time
  - 92% in same job



Hahnloser. *Br J Surg*, 2007



# Crohn's Disease

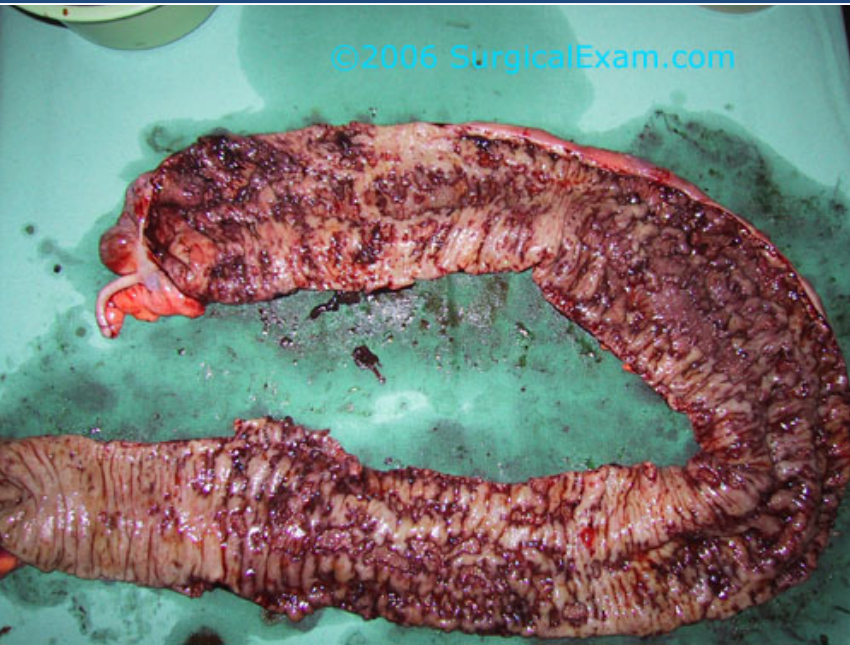
- **Inflammatory process of intestinal tract**
  - Can involve any part of the intestines
- **About 60% Crohn's patients with colonic involvement**
  - ~50% of patients with Crohn's colitis have no small intestinal involvement
  - ~40% of patients with Crohn's colitis have rectal sparing
  - Obviously, proctocolectomy not applicable to patients with normal colon



# Crohn's Disease

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- Treatment of isolated Crohn's colitis
  - Segmental colectomy
  - Abdominal colectomy with ileorectal anastomosis



# IPAA in Crohn's Disease

- Crohn's disease long felt to be a contraindication to ileal pouch
- Many patients with diagnosis of ulcerative colitis receive pouch
  - Some have diagnosis changed to Crohn's disease based upon future clinical course



# IPAA in Crohn's Disease

- UC patients at surgery, diagnosis changes, sometimes termed “phenotype switch”
  - Pathologic specimen
  - Endoscopy
  - Clinical course





# Crohn's Disease

- IPAA with patients with occult Crohn's (25 patients)
  - 9 patients with potential evidence of Crohn's preoperatively (6 anal)
    - 1 of 9 pouches remain functioning
  - 16 patients without any evidence of Crohn's preoperatively
    - 15 pouches remain functioning

Hyman, et al. Dis Colon Rectum, 1991



# IPAA in Crohn's Disease

- **1005 IPAA over 11 years**
  - 67 Crohn's (~7%)
- **3.4% pouch failure**
  - Of 34 failures, 17 were Crohn's
  - 25% of Crohn's patients failed

Fazio, et al. Dis Colon Rectum, 1995



# IPAA in Crohn's Disease

- Long-term results of IPAA in patients with Crohn's
  - 37 patients of 1509 (2.5%)
    - 22 UC, 9 indeterminate, 6 Crohn's on histopathology of resected specimen
  - 11 complex fistulas
  - Pouch failure 17 (45%)
    - 10 excised, 7 defunctionalized
  - 20 intact pouches
    - 3-10BM per day

Sagar, et al. Dis Colon Rectum, 1996



# IPAA in Crohn's Disease

- Long-term results of IPAA Crohn's
  - 1270 IPAA patients (36 CD, 21 IC)
  - Pouch complications
    - CD 64%
    - IC 43%, UC 22%
  - Pouch failure rates
    - CD 56%
    - IC 10%, UC 6%
  - When successful, IPAA and Crohn's affords good functional outcome

Brown, et al. Dis Colon Rectum, 2005



# IPAA in Crohn's Disease

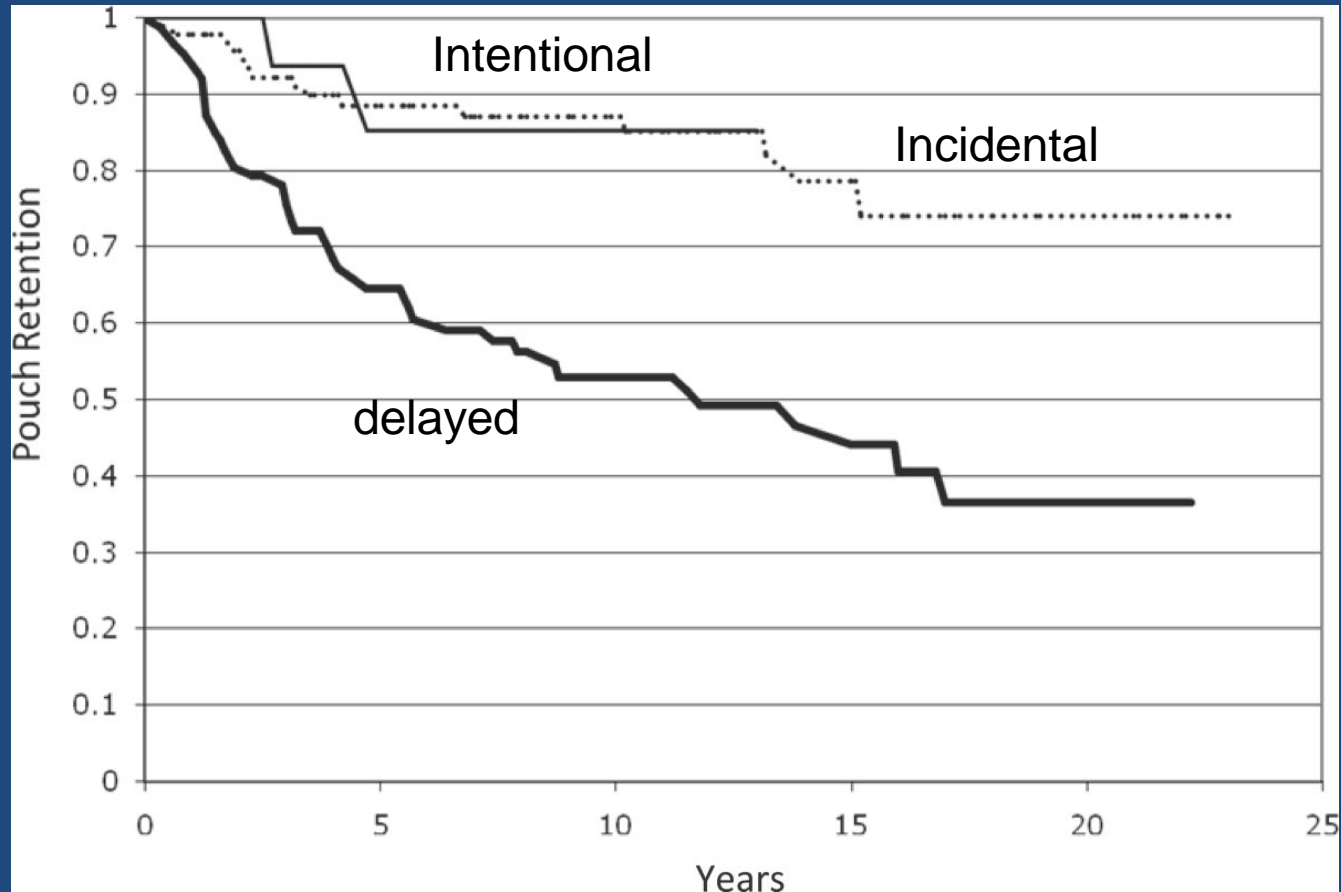
- **Long-term outcomes of IPAA with CD**
  - 204 (7%) pts with IPAA and Crohn's
    - 10% intentional (Dx known prior)
    - 47% incidental (Dx made histopathologic)
    - 43% delayed (Dx on clinical development)
      - Mean 36 months after IPAA
  - 10 year pouch survival 71%

Melton, et al. Ann Surg, 2008





# IPAA in Crohn's Disease



Melton, et al. Ann Surg, 2008



# IPAA in Crohn's Disease

- **Long-term outcomes of IPAA with CD**
  - **Predictors of pouch loss:**
    - Delayed diagnosis
    - Pouch-vaginal fistula
    - Pelvic sepsis
  - **Patients with pouch intact**
    - 72% normal continence
    - 7 BM per day
    - Excellent QOL studies

Melton, et al. Ann Surg, 2008



# IPAA in Crohn's Disease

- Long-term outcomes of patients with IPAA
  - 3707 patients
  - CD 4% (150 patients)
  - 82% pouch retention at 10 years
  - Quality of life and functional outcomes similar to UC and FAP patients

**“IPAA is an excellent option for... select patients with Crohn's disease.”**

Fazio, et al. Ann Surg, 2013



# Crohn's with Anorectal Disease

- **Anorectal Crohn's**
  - Fistula / Abscess
  - Fissure
  - Hemorrhoids
- **Anal disease incidence varies with different report (22-78%)**



# Perianal Disease

- **IPAA with UC patients and known prior perianal disease**

- **52 of 753 patients**

- **Fissure 17**
- **Perianal abscess 13**
- **Fistula 7**
- **Rectovaginal fistula 3**
- **Hemorrhoids/skin tags 23**

- **21% with multiple diagnoses**

**Table 2.**

Types of Perianal Manifestations in Group I

Type of Disease	No. of Conditions	No. of Prior Procedures
Fissure-in-ano	17	7
Anal abscess	13	10
Fistula-in-ano	7	6
Rectovaginal fistula	3	3
Skin tags/hemorrhoids	25	9

A total of 52 patients had a total of 65 perianal problems.

Richard, et al. Dis Colon Rectum, 1997





# Perianal Disease

- **IPAA with perianal disease**
  - **Higer risk of leak**
    - 21% versus 11% (no anal pathology)
  - **Perianal complications**
    - 11.5% v 1.7% (no anal pathology)
  - **No difference in total pouch failure rate**
  - **Crohn' s disease rates low in both groups (1.9% v 2.7%)**

Richard, et al. Dis Colon Rectum, 1997



# Known Crohn's Diagnosis

**Is there a role for planned IPAA in patients with Crohn's disease?**



# Known Crohn's Diagnosis Long Term Results – France

- **31 patients with diagnosis of Crohn's**
  - None had anal or small bowel disease prior
  - All underwent IPAA
  - Mean f/u 59 months
- **6 (19%) Crohn's related complications**
  - 3 Pouch-perineal fistula
    - 2 pouch excisions
  - 1 extra-sphincteric abscess, 1 PV fistula
- **Good functional outcomes (same as UC)**

Panis, et al. Lancet, 1996



# Known Crohn's Diagnosis Long Term Results – France

- For patients with full 10 year f/u
  - 20 patients
  - 35% Crohn's related complications
  - 10% pouch excision
- Postoperative diagnosis of Crohn's was only predictive factor for Crohn's-related complications.

Regimbeau, et al. Dis Colon Rectum, 2001



# Known Crohn's Diagnosis Long Term Results – UK

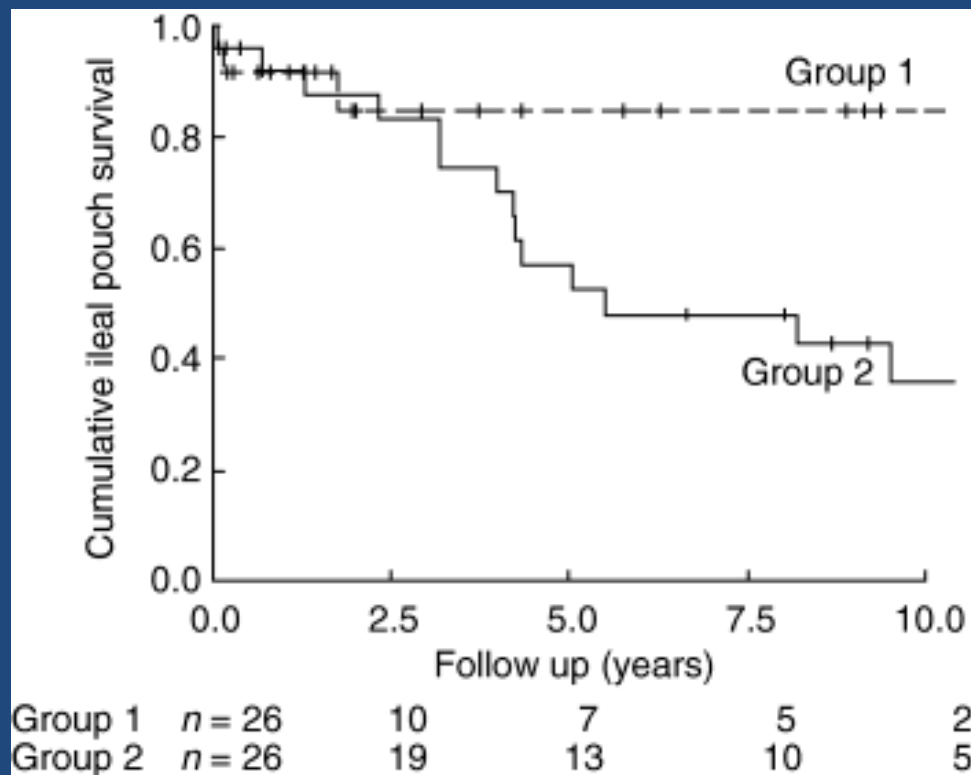
- **52 patients (n=1652) with indeterminate colitis and Crohn's colitis**
  - 26 with IC favoring UC
  - 26 with CD or IC favoring CD
    - 57% pouch loss
  - **Functional outcomes similar**

Tekkis, et al. Colorect Dis, 2005





# Known Crohn's Diagnosis Long Term Results – UK



Tekkis, et al. Colorect Dis, 2005



# IPAA for Crohn's Disease

- **“At present, an IPAA is not recommended in a patient with Crohn's colitis.”**

**From: The second European evidence-based Consensus on the diagnosis and management of Crohn's disease: Current management, 2010**



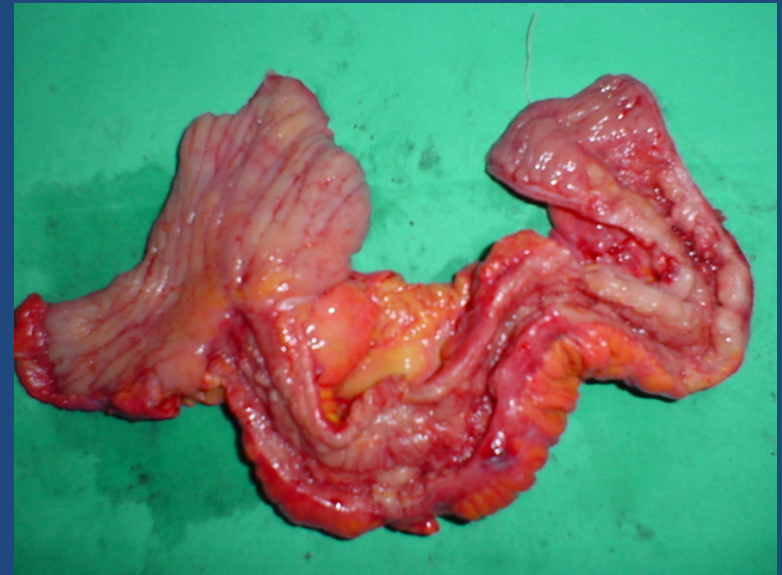
# Acceptable Rates of Failure?

- **These rates of pouch loss acceptable (?)**
  - Only other option is permanent stoma
  - Patient is young
- **Some surgeons and patients agreed to try IPAA with Crohn's when only other option would be ileostomy**



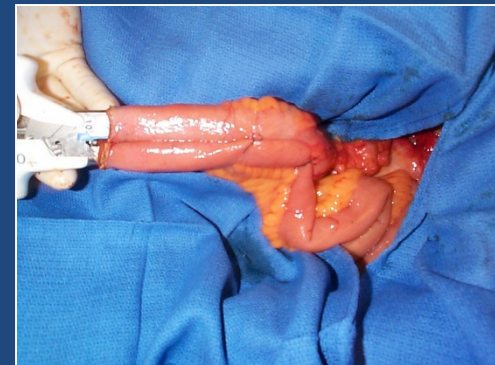
# IPAA and Crohn's Disease

- **Typical Patient**
  - Small intestinal involvement
  - Rectal sparing
  - Many with anal disease



# IPAA and Crohn's Disease

- **Ideal Patient for IPAA**
  - Rectal involvement requiring resection
  - No anal disease or history of prior anal disease
  - No small intestinal involvement



# Conclusions

- **Surgeons should not proceed with IPAA lightly, but may be acceptable for selected patients with Crohn's**
- **Potential IPAA patients must be**
  - **Free of small bowel and anal disease**
  - **Have diffuse colorectal involvement**
  - **Be warned of potentially higher risks of complications and pouch loss**



