

## Preconception and Pregnancy in IBD Clinic Information Sheet

# I have IBD, could surgery affect my ability to become pregnant?

## IBD surgery and pregnancy

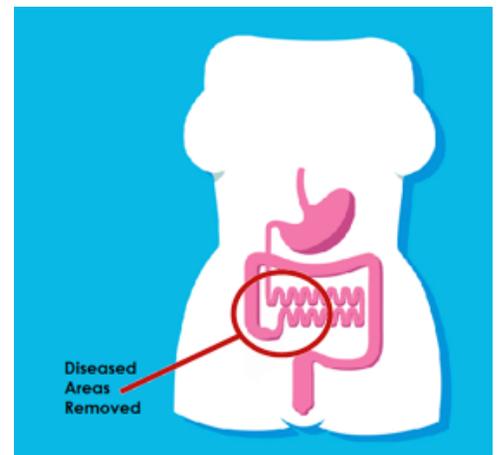
### Background

Patients with IBD may require surgery for various reasons: bowel narrowing (stricture) causing obstruction, connections between bowel and other organs (fistula), ongoing active disease despite treatment, and non IBD related reasons. Some types of IBD surgeries may affect fertility, pregnancy, and delivery method.

### Crohn's Disease

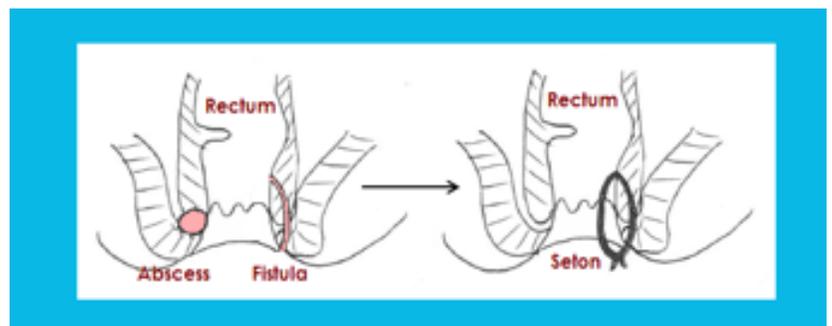
#### Ileal resection and ileocolic resection

For patients with Crohn's Disease, two common surgeries are the ileal (small bowel only) resection and the ileocolic (small bowel and part of large bowel) resection. During these surgeries the portion of the bowel that is strictured or diseased is removed and the healthy ends are attached. These surgeries usually do not interfere with the reproductive organs and are unlikely to affect fertility. However, adhesions (scar tissue) can form from any surgery, and adhesions that block the fallopian tubes can lead to infertility.



#### Perianal abscess and Fistula surgeries

Patients with Crohn's Disease who have abscesses around the anus need to have them incised (cut open) and drained. Patients with fistulas (connections from the bowel to the skin) around the anus may need to have them cut open or a seton inserted to prevent formation of abscesses.



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A seton is a rubber band that is passed through the fistula tract as well as the anus, creating a loop as the ends are tied together. This surgery is performed to keep the fistula open so it can heal. As these surgeries do not interfere with an individual's reproductive organs, they do not affect fertility.

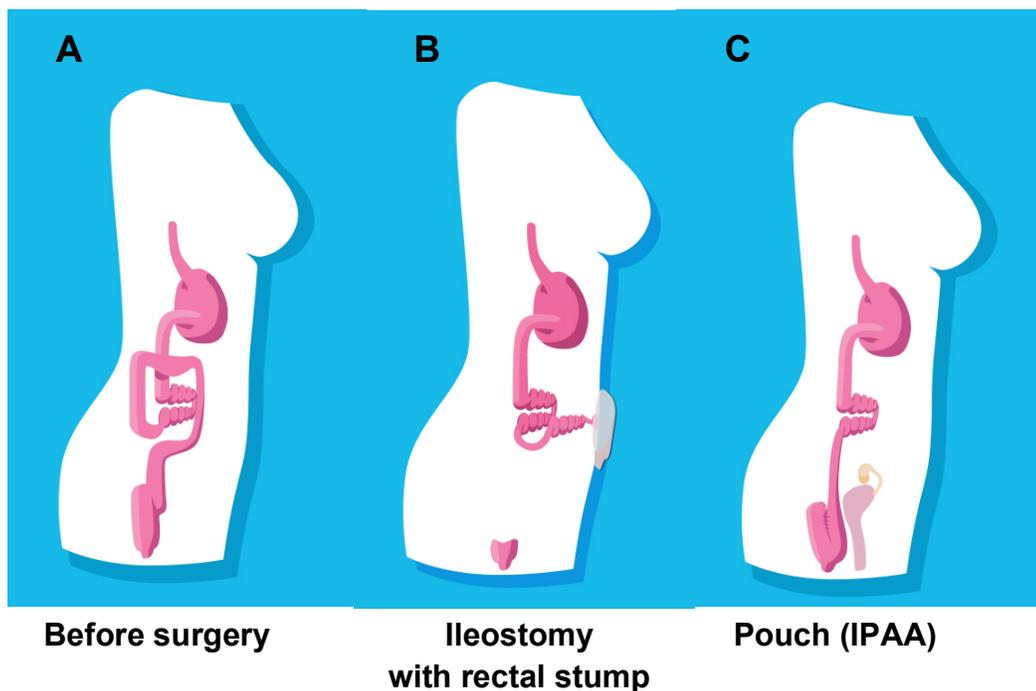
- Women who have active perianal disease or complications from prior perianal disease should discuss the mode of delivery with their gastroenterologist, surgeon, and obstetrician.

### Ulcerative colitis

#### **Colectomy and Ileal pouch-anal anastomosis (IPAA)**

For patients with ulcerative colitis unresponsive to medical therapy, colectomy is often needed. The small intestine is brought up to an opening in the abdominal skin and formed into an ostomy (Image B). An ostomy bag sits outside to collect the waste. The ostomy can be a permanent end-ileostomy, or a temporary ostomy, depending on the situation.

In some cases, the ileum (small bowel) is brought down into the pelvis, shaped into a pouch, and connected to the anus - ileal pouch-anal anastomosis (IPAA, or J-pouch).



**Before surgery**

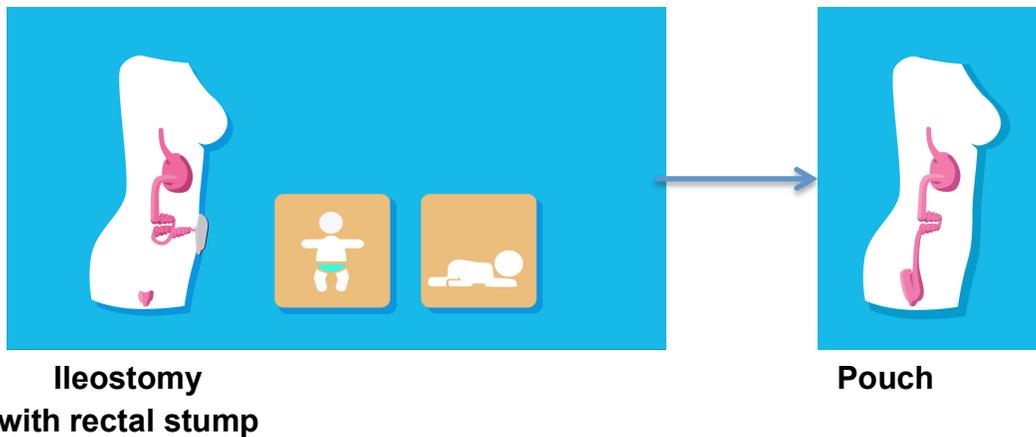
**Ileostomy  
with rectal stump**

**Pouch (IPAA)**

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Since the surgery occurs deep in the pelvis, injury can occur to the fallopian tubes (a reproductive organ through which an egg travels from the ovary to the uterus); scarring and adhesions that form after the surgery can block the fallopian tubes. The IPAA surgery is associated with infertility rates as high as 63% compared to an infertility rate of 20% in women who are pre-IPAA<sup>1</sup>. However, laparoscopic IPAA are associated with lower rates of infertility (approximately 27%) as laparoscopic procedures result in fewer adhesions<sup>2,3</sup>.

- For women who need a colectomy but also wish to have children, it is suggested that they have the colectomy with a temporary ileostomy until they have finished having children. Then they can undergo the IPAA procedure to create a J pouch.



Studies have not found a significant increase in the incidence of maternal or fetal complications in females who have had an IPAA<sup>4</sup>. Pregnancy may result in transient and inconvenient changes in pouch function (such as soiling, urgency, and perianal irritation), however these changes typically resolve after delivery<sup>4</sup>. Patients may also be at a small increased risk of small bowel obstruction, pouchitis (inflammation of the pouch), and perianal abscesses (infected cavity near the anal canal, typically containing pus)<sup>4</sup>.

Vaginal delivery has been associated with pouch dysfunction and risk of anal sphincter damage leading to incontinence. However, caesarean section also comes with its own risks and benefits as it is a surgical procedure. Women with a pouch should therefore discuss mode of delivery with their gastroenterologist, general surgeon, and obstetrician.

### Summary

In summary, most surgical options for patients with IBD do not affect fertility, unless there are complications or adhesions that block the fallopian tubes. An ileal pouch-anal anastomosis is associated with an increased risk of infertility, which is decreased with a laparoscopic approach.

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# I have IBD, could surgery affect my ability to become pregnant?

## IBD surgery and pregnancy

If you have IBD and have had IBD-related surgery, and are contemplating pregnancy or are already pregnant . . .

- discuss how your history of IBD-related surgery could affect your fertility and pregnancy outcome
- ensure your obstetrician is aware of your IBD-related surgical history, especially if you have an IPAA (ileal pouch anal anastomosis)
- ensure you discuss delivery method with your obstetrician, and your general surgeon if applicable

### Acknowledgements

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### References

1. Rajaratnam S G et al. Impact of ileal pouch-anal anastomosis on female fertility: meta-analysis and systematic review. *Int J Colorectal Dis.* 2011;**26**:1365-1374.
2. Beyer-Berjot L et al. A Total Laparoscopic Approach Reduces the Infertility Rate After Ileal Pouch-Anal Anastomosis: A 2 Center Study. *Annals of Surgery.* 2013 August; **258**(2):275-282.
3. Bartels S A L et al. Significantly Increased Pregnancy Rates After Laparoscopic Restorative Proctocolectomy: A Cross-Sectional Study. *Annals of Surgery.* 2012 December; **256**(6):1045-1048.
4. Seligman N S, Wingkan S,&Berghella V. Pouch function and gastrointestinal complications during pregnancy after ileal pouch-anal anastomosis. *J Mat Fet Neo Med.* 2011;**24**(3):525-530.