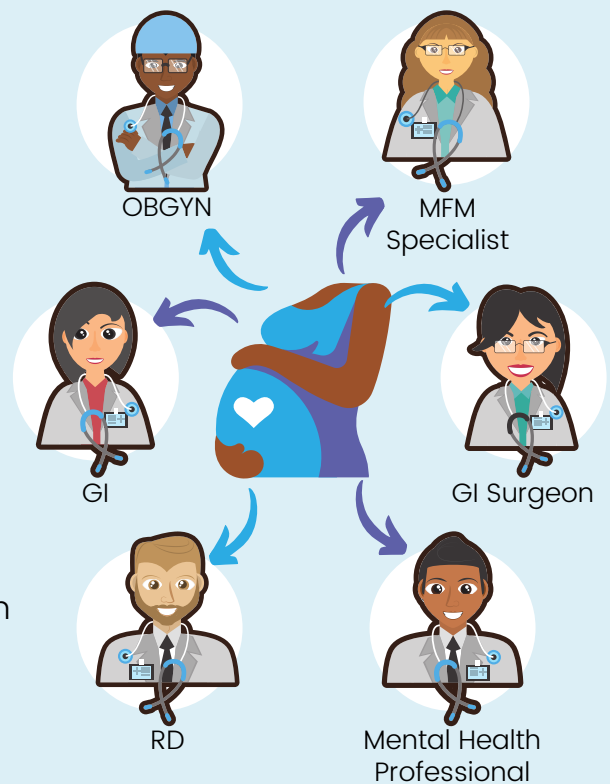


Overview

It is understandable that many women have concerns over pregnancy and IBD – both in how IBD can impact pregnancy and in how pregnancy can impact IBD. These concerns can range from contraception itself to family planning to postpartum complications. By utilizing a multidisciplinary health team, women with IBD and/or an ostomy can have healthy pregnancies for both the mother and baby. A multidisciplinary health team consists of multiple healthcare professionals from a variety of fields who are able to contribute different types of knowledge in assisting a patient. When it comes to pregnancy with IBD and/or an ostomy, a multidisciplinary health team could consist of an obstetrician and gynecologist (OBGYN) or maternal fetal medicine (MFM) specialist, a gastroenterologist (GI), a GI surgeon (especially if you are planning on a Cesarean delivery), a registered dietitian (RD) and/or a therapist/counselor/psychologist/psychiatrist/social worker.



Women with IBD/ostomy are recommended to consult a multidisciplinary team throughout their pregnancy

Addressing Concerns Over Fertility



Fortunately, IBD has not been associated with impaired fertility; however, a higher percentage of women suffering from IBD are childless in comparison to the general population. This is likely due to other factors associated with IBD (Schmidt). Patients with uncontrolled IBD or who have had surgery, especially multiple surgeries, are at heightened risk for decreased fertility due to intra-abdominal scarring and increased propensity for pelvic and fallopian tube damage. It is important to note that a controlled disease state, as managed through different medication options and working with a knowledgeable healthcare provider, reduces these factors and thus reduces risk of impaired fertility.

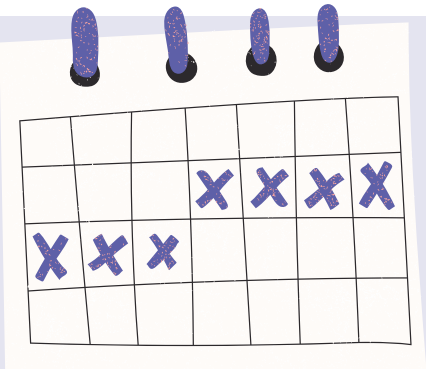
Addressing Concerns Over Fertility (continued...)

The American Gastroenterological Association (AGA) currently recommends women be in a state of steroid-free remission for at least 3 months prior to attempts at conception (Mahadevan). Pregnancy during active disease is associated with an elevated risk of complications; thus, IBD management and adherence to treatment is crucial (see “Medication Options While Pregnant” for more information on treatment adherence) (Bröms).

For women who have had a past surgery for their IBD, certain operations can carry an increased risk of impaired fertility. While past bowel resections in individuals with Crohn’s do not seem to impact fertility, traditional approaches to proctocolectomy with an ileostomy or an ileoanal pouch anastomosis (IPAA/J-Pouch) can lead to adhesions, scar tissue and tubal anatomy alteration which can then interfere with fertility. With this being said, many women with permanent ileostomies or IPAA/J-Pouches do have successful pregnancies. It is crucial to utilize a coordinated healthcare team to ensure the best steps are taken towards a healthy pregnancy (Isaacs).

3 MONTHS

Women with IBD are advised to be in a state of remission for at least 3 months prior to attempts at conception.



Family Planning

Many women with IBD who are interested in having children are concerned about their children developing IBD. The interplay between genetics and development of IBD is complicated and poorly understood at the time, so there is further room for advancement in this regard. Many studies do show an increased chance of a child developing IBD if one or both parent(s) has IBD in comparison to parents without IBD.

Family Planning (continued...)

In one study, individuals who had a first-degree relative (parents, children, siblings) with Crohn's were shown to be 7.77 times more likely to develop Crohn's when compared to relatives of the same type without Crohn's disease. Individuals who had a first-degree relative with UC were shown to be 4.08 times more likely to develop UC than individuals with a relative of the same type without UC (Moller). While these values can look intimidating at first glance, it is important to note that because IBD is a relatively rare health condition in the general public, increased risk amongst individuals with relatives who have IBD is not necessarily incredibly significant as the rate in the general population is low.

7.77x

Individuals who had a first-degree relative with Crohn's were 7.77 times more likely to develop Crohn's when compared to the general population.

4.08x

Individuals who had a first-degree relative with UC were 4.08 times more likely to develop UC when compared to the general population.

Because IBD is such a rare disease, these rates are not as high as they may seem at first glance and a conversation with your healthcare provider is key.

**3 months
prior to
conception**



**400mcg
folic acid
daily**

Because maintenance of remission is such a key aspect to a healthy pregnancy, those planning to get pregnant should take certain steps to ensure both their health as well as the health of their baby. Speaking with a healthcare provider to go over prescription and non-prescription medication options (this includes supplements/vitamins) is recommended. In addition, women looking to conceive should consume 400 mcg of folic acid daily before conception and 3 months following conception (this amount is found in most prenatal supplements). Folic acid is essential to appropriate neural tube development with low levels increasing risk for conditions such as spina bifida, anencephaly and encephalocele. Most neural tube development occurs within the first month of conception, so many women may not even recognize they are pregnant at this point; hence, it is crucial to have appropriate folic acid intake if you are planning to get pregnant.



Medication Options While Pregnant

Many of the medication options used in treatment of IBD are considered low-risk during pregnancy and breastfeeding. With this being said, it is important to discuss with a healthcare provider who understands the risk of certain medications and also the importance of avoiding a flare during pregnancy. Many women who conceive during a state of remission are able to stay in remission throughout their pregnancy (Crohn's & Colitis Foundation).

While many IBD medications can be taken during pregnancy, methotrexate use should be ceased 3 to 6 months prior to conception (in both partners), throughout pregnancy and during breastfeeding. Methotrexate can lead to spontaneous abortion and congenital defects. Additionally, for those taking sulfasalazine, focus on supplementation of folic acid is recommended as sulfasalazine can impair folic acid absorption. It is recommended that every IBD and ostomy patient check with their physician about their medication use as there may be considerations or medications not discussed specifically in this sheet or via online resources.

The two most well-known sources for review of IBD medications and pregnancy/breastfeeding are the PIANO Study and MotherToBaby. Both sources are frequently updated and invite pregnant IBD patients to join their studies (see the Further Resources section for access to these sources).

Medication	Current Research
Anti-TNF- α antibody therapy (Remicade, Humira, and Simponi)	<ul style="list-style-type: none"> • Category B, meaning no evidence so far of malformity • Being the oldest of treatments, Remicade has been thoroughly studied • Dosing schedule may need to be adjusted but treatment should continue • Minimal amounts have been found in breastmilk
Cimba	<ul style="list-style-type: none"> • Category B, meaning no evidence so far of malformity • Safe for breastfeeding • This drug does not cross the placenta barrier
Stelara	<ul style="list-style-type: none"> • MotherToBaby states early studies have not found an increased risk of birth defects or miscarriage
Entyvio	<ul style="list-style-type: none"> • The PIANO Study has found Entyvio to be safe during pregnancy • MotherToBaby states Entyvio has not been studied for breastfeeding but that it is unlikely much of the medication passes into breast milk

Current research from the PIANO Study and MotherToBaby



Delivery

Vaginal delivery is safe for most women with IBD and/or a pouch; however, a Cesarean delivery may still be recommended on the basis of certain factors. (Cimpoca). For Crohn's patients with rectal/vaginal involvement as well as individuals with an ileoanal pouch, a Cesarean delivery may be preferred to avoid development of fistulas and incontinence. While it is possible to have a vaginal delivery with an ostomy, if there is increased risk, a Cesarean delivery will be needed (Peppercorn). Again, coordination with a multidisciplinary team is of utmost importance to ensure a healthy delivery for both the mother and baby.



Postpartum

The postpartum period can be a difficult time for new mothers – particularly those who must balance motherhood with IBD and/or an ostomy. There is heightened risk for development of postpartum depression and anxiety especially for mothers already struggling with depression and anxiety as a manifestation of their IBD. Depending upon the delivery, there may also be changes in bathroom use. While still being researched further, certain links have been drawn between altered hormone release during pregnancy and worsening IBD symptoms. The combination of all these factors (depression and anxiety, alterations in bathroom use and differences in hormone release) can contribute to a flare. It is estimated 1 in 3 women with IBD will experience a flare following delivery (Van der Woude).

Breastfeeding



As with medication use during pregnancy, it is recommended to discuss medication options during breastfeeding with a healthcare provider. Most IBD medications are considered safe to use during breastfeeding with the exception of methotrexate. IBD biologics tend to not show up in breastmilk, or show up in very low amounts considered safe for the baby. In a sub-study done by PIANO, there was no increased risk of infection or developmental delay found in breastfeeding infants with mothers taking biologics (Mahadevan). Again, mothers who plan on breastfeeding are recommended to consult with their physician and also to utilize the LactMed database (see Further Resources) to review their medications.



General Recommendations

The key to a healthy pregnancy with IBD is staying in remission. This requires working with a multidisciplinary team to ensure the health of both the mother and baby. This may include an obstetrician and gynecologist (OB/GYN) or maternal fetal medicine (MFM) specialist, a gastroenterologist (GI), a GI surgeon (especially if you are planning on a Cesarean delivery), a registered dietitian (RD) and/or a therapist/counselor/psychologist/psychiatrist/social worker. By utilizing all health resources, a healthy pregnancy and delivery can be achieved for women with IBD and/or an ostomy.



Further Resources

1. American Gastroenterological Association: IBD Parenthood Project (<https://ibdparenthoodproject.gastro.org/>)
2. Crohn's and Colitis UK: Pregnancy and Breastfeeding (<https://www.crohnsandcolitis.org.uk/about-crohns-and-colitis/publications/pregnancy-ibd>)
3. Crohn's and Colitis Foundation: Pregnancy Fact Sheet (<https://www.crohnscolitisfoundation.org/sites/default/files/legacy/assets/pdfs/pregnancyfactsheet.pdf>)
4. LactMed: Drugs and Lactation Database (<https://www.ncbi.nlm.nih.gov/books/NBK501922/>)
5. MothertoBaby (<https://mothertobaby.org/pregnancy-breastfeeding-exposures/inflammatory-bowel-disease/>)
6. United Ostomy Associations of America: Pregnancy (<https://www.ostomy.org/pregnancy/>)
7. University of California San Francisco: PIANO Study (<https://gastroenterology.ucsf.edu/piano>)

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Written by Catherine Liggett

Medically reviewed by Nathan Schomaker M.D. & Kathryn Vidlock M.D.

