



# Inflammatory Bowel Disease and Pregnancy

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**Inflammatory Bowel Disease** is the name for conditions that cause inflammation of the digestive tract, including Crohn's disease and ulcerative colitis. Many women worry about how the changes of pregnancy will affect their inflammatory bowel disease and if IBD treatments will harm their baby. With appropriate therapy, most women can have a normal pregnancy and deliver a healthy baby.

IBD therapy during pregnancy is most successful when a woman receives regular medical care and follows her treatment plan closely. Before becoming pregnant, women with IBD should discuss plans for their care with a healthcare provider. Women who discover that they are pregnant should continue their IBD medications until speaking to a healthcare provider.

## Fertility

In most cases, IBD does not affect a woman's ability to become pregnant. However, a man's fertility can be affected by one of the drugs used to treat UC, sulfasalazine (Azulfidine). This medication causes sperm abnormalities in about 80 percent of men. These abnormalities resolve when the drug is discontinued.

Extensive abdominal or pelvic surgery (eg, removal of the colon) can increase the risk of impotence (inability to maintain an erection) in men. In women, extensive surgery can increase the risk of infertility, usually as a result of the development scar tissue.

## Genetics

Men and women with IBD have a risk of passing a susceptibility to IBD to their baby through their genes. First-degree relatives (children, siblings) of people with IBD are between 3 and 20 times more likely to develop the disease compared to relatives of people with no history of IBD.

## Pregnancy

The severity and extent of a woman's disease when she becomes pregnant appears to influence the course of her disease during pregnancy. About two-thirds of women in remission will stay in remission, and women with active disease are likely to have continued active disease during pregnancy. Thus, doctors usually recommend that women try to conceive while their disease is in remission.

## Care before pregnancy

These recommendations apply to any woman who is considering pregnancy.

- All women should take a supplement containing at least 400 mcg of folic acid (the amount in a prenatal vitamin). Taking folic acid can reduce the risk of a specific birth defect, called a neural tube defect. Folic acid should be started before trying to conceive and continued until at least the end of the first trimester. Most prenatal vitamins contain adequate folic acid.
- Women should stop smoking and consuming alcohol or any recreational drugs (eg, marijuana) before trying to become pregnant.
- Women who take prescription or non-prescription medications should review these with a healthcare provider. Some medications are safe during pregnancy while others are not. In some cases, an alternate medication can be substituted for an unsafe drug.
- Caffeine intake should be limited to less than 250 mg per day while trying to become pregnant and during pregnancy. Table 1 lists the caffeine content of several common beverages.
- Blood testing for rubella (German measles), varicella (chicken pox), HIV, hepatitis B, and inherited genes (eg, cystic fibrosis) may be recommended before pregnancy.

## Effect of IBD on pregnancy

Studies disagree about the effects of IBD on the growth and development of a fetus and the outcome of a pregnancy. In general, the health of the baby and risk of premature delivery depends upon the type, severity, and extent of IBD before and during pregnancy and the treatments used during pregnancy. Women with more severe disease have an increased risk of delivering prematurely and having a low birth weight infant.

Women with Crohn's disease are at increased risk for having a low birth weight infant and delivering prematurely. In studies, significantly more infants of mothers with Crohn's disease weighed less than 2500 grams (5.5 pounds) and were born prematurely [1].

Women whose IBD is in remission at the time of conception are likely to remain in remission during pregnancy. Approximately 33 percent of women with ulcerative colitis relapse during pregnancy, commonly during the first trimester [2]. The course of a woman's first pregnancy does not necessarily predict the course of future pregnancies.

In contrast, women whose IBD is active at the time of conception are likely to have active disease during pregnancy. Surgical treatment, including removal of the colon, is possible during pregnancy, although there is an increased risk of premature labor or miscarriage if surgery is performed. Most women who have had surgery for ulcerative colitis before pregnancy can have a normal pregnancy and delivery, including a vaginal delivery.

### Care during pregnancy

During pregnancy, care of women with IBD may be shared between a gastroenterologist and an obstetrical provider. Visits with the gastroenterologist are scheduled based upon the severity of disease during pregnancy. Most women are seen by their obstetrical provider every two to four weeks until 28 weeks of pregnancy. Between 28 and 36 weeks, most women are seen every two weeks. Women are usually seen once per week between 36 weeks and delivery. At every visit, blood pressure and urine testing will be done.

Some women, especially those who take steroids or have moderate to severe disease flares during pregnancy, will have ultrasound monitoring of the baby's growth every four weeks after 18 to 20 weeks of pregnancy.

### Testing during pregnancy

Flexible sigmoidoscopy appears to be safe during pregnancy, although colonoscopy and x-rays should be avoided, if possible.

### Monitoring baby's well-being

A baby's well-being is monitored during regular medical visits throughout pregnancy. Women who are greater than 24 weeks pregnant should monitor the baby's movements every day. If the baby is not moving normally, contact your obstetrical provider immediately.

### Medications

Women with IBD often require medications to control their disease. Some of these medications are probably safe during pregnancy and breastfeeding. In other cases, there is not enough information about the medication to determine if they are safe or not. Women who take one or more of these medications

during pregnancy should discuss their concerns with a healthcare provider.

- **Sulfasalazine** — Women who wish to become pregnant can continue taking sulfasalazine during pregnancy and while breastfeeding. Sulfasalazine does not increase the risk of any complications of pregnancy or birth defects.
- **Antibiotics** — Antibiotics are frequently required in the treatment of Crohn's disease and are sometimes used for people with UC. The most common antibiotics used for treatment of IBD are ciprofloxacin and metronidazole. Short courses of metronidazole are probably safe for use during pregnancy. However, ciprofloxacin is not recommended for pregnant or breastfeeding women.
- **5-ASA** — The safety of the 5-ASA drugs during pregnancy and breastfeeding is still being studied. Preliminary studies suggest that they are safe when taken during pregnancy and that women should continue taking these drugs during pregnancy. However, women who take 5-ASA medications should speak to their clinician before trying to conceive.

If 5-ASA medications are taken during breastfeeding, the American Academy of Pediatrics recommends monitoring the infant's stool consistency. There have been reports of diarrhea in breastfeeding infants of women who took rectal 5-ASA.

- **Steroids** — Some studies have suggested that there may be a very small increased risk of cleft lip or cleft palate in the babies of mothers who took oral steroid medications during the first 13 weeks of pregnancy. Two studies found a slightly increased risk of premature delivery, and one study found a slightly increased risk of having a low birth weight baby.

Women who take steroids during pregnancy may be more likely to develop gestational diabetes and high blood pressure, although these conditions can be detected and managed with regular medical visits. Women who are taking steroids during pregnancy will need to be given a "stress dose" of steroids by IV (into a vein) during labor and delivery. The increased dose helps the body respond normally to the physical stresses of childbirth.

Steroids (eg, prednisone) are probably safe to take during breastfeeding.

- **Azathioprine and 6-mercaptopurine** — Azathioprine and 6-mercaptopurine can be continued during pregnancy if other types of treatment cannot be used. However, some studies have suggested that these drugs can cause birth defects and miscarriage. Men and women are often advised to stop taking these medications at least three months before trying to conceive, if they have experienced long-lasting remission. Women taking

azathioprine and 6-mercaptopurine are often advised to avoid breastfeeding, although there are no good data about the risks of these medications in a nursing infant.

- **Infliximab** — Infliximab is probably safe during pregnancy although there are limited data. In general, infliximab is given during pregnancy only if it is clearly needed. It is not clear if infliximab is excreted into breastmilk. The potential effects of infliximab in an infant are also unknown.
- **Adalimumab** — Studies in monkeys have not revealed harm to the fetus when adalimumab was given during pregnancy. There are no well-controlled studies in humans. In general, adalimumab is given during pregnancy only if it is clearly needed.

It is not clear if adalimumab is excreted into breastmilk. The potential effects of infliximab in an infant are also unknown.

- **Certolizumab pegol** — There are no well-controlled studies of certolizumab pegol in pregnant or breastfeeding women. In general, certolizumab is given during pregnancy only if it is clearly needed. It is not known whether certolizumab pegol is excreted into breast milk.
- **Antidiarrheal drugs** — Antidiarrheal drugs such as diphenoxylate with atropine (Lomotil®) and loperamide (Imodium®) have questionable safety during pregnancy and breastfeeding. Alternate drugs, such as Kaopectate and psyllium (Metamucil), are usually recommended.

breastfeeding varies, women are encouraged to consult a reliable source of up-to-date information. LactMed is provided by the National Library of Medicine and is available on the internet (<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT>).

## Labor, Delivery, and the Postpartum Period

In women with Crohn's disease, the type of delivery (vaginal versus Cesarean) depends upon the health of the tissues around the vagina and anus, the patient and physician's preference, and the woman and baby's progress during labor. If Crohn's disease affects the areas around the vagina or if a woman has an ileoanal pouch, a Cesarean delivery may be preferred to reduce the risk of developing fistulas.

### Breastfeeding

There does not appear to be any risk that IBD will worsen as a result of breastfeeding. Breastfeeding is strongly encouraged because there are a number of benefits for both women and infants.

Women who take medications for IBD should discuss the safety of these medications for their breastfeeding infant with an experienced healthcare provider. In addition, because the quality of information regarding medication safety in