



## Inflammatory Bowel Disease and Breastfeeding

*The information on this sheet is based upon my professional experience as a pharmacist with a specialised interest in the safety of drugs in breastmilk, supported by evidence from expert sources. However, I cannot take responsibility for the prescription of medication which remains with the healthcare professionals involved. I am happy to discuss the evidence by email [wendy@breastfeeding-and-medication.co.uk](mailto:wendy@breastfeeding-and-medication.co.uk)*

I have set up a facebook page Breastfeeding with IBD (Colitis and Crohns) where mums are able to access support from others in the same situation [www.facebook.com/groups/BreastfeedingIBD/](http://www.facebook.com/groups/BreastfeedingIBD/)

Inflammatory Bowel Disease (IBD) is a chronic condition affecting the gastro intestinal tract. The morbidity produced by the condition can be considerable, particularly in younger patients. It can affect growth, fertility, education, employment and limit much of normal life. IBD fluctuates through cycles of remission and relapse controlled by medication and surgery, including temporary or permanent stoma formation. Hospital admissions may be frequent during flares. The most common age for diagnosis is 10-40 years..

The incidence of Ulcerative Colitis is 10.4 per 100,000 and Crohns Disease 5.6/100,000 in western populations. Extrapolating this about one person every 400 in the UK has IBD with 50% being diagnosed before the age of 35 years. Twenty five percent of females with IBD will conceive after their diagnosis.

The cause of IBD is not clear with genetic and environmental factors having been identified. The incidence of CD has been steadily rising, particularly amongst younger patients but more recently has stabilised

There is no evidence that pregnancy causes progression of the disease and some evidence that it has a favourable effect. However the activity of the disease at the time of conception strongly influences its course during the pregnancy. Patients with active disease at the time of conception have an increased risk of miscarriage – reportedly up to 35%. Crohns disease carries an increased risk of low birth weight and pre-term birth. Women with IBD may benefit from 5mg folic acid under 12 weeks of pregnancy because they have a higher rate of vitamin deficiency. Women should be advised to attempt to become pregnant when their disease is in remission in order to minimise the risk to the foetus.

Whorwell (1979) studied 57 patients with IBD and matched controls. He found that 29.9% of the patients had been artificially fed compared with 11.8% of controls, a statistically significant

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difference. He did not find a similar difference in patients with CD but did find significantly different incidences of early gastroenteritis in the first 6 months of life. He hypothesised that a pathogenic infection occurred which persisted and manifested as CD in later life. Whorwell suggested that either bottle feeding was harmful or that breastfeeding is protective, possibly due to sensitisation to cow's milk proteins in early life, due to increased permeability to macromolecules. Further that artificial feeding may alter bacterial flora at a time when sensitisation to bacterial antigens may occur

There is a higher chance of developing IBD if there is a first degree relative with the condition. Patients with IBD have a 5% risk of having a child who develops IBD. If both parents have the condition the risk rises to 35%. However in only 45% of monozygous twins both develop IBD and fewer dizygotic twins. Environmental risk factors identified include smoking, diet, vitamin c consumption and the use of the oral contraceptive for females.

The incidence of diarrhoeal disease in the first 6 months of life seems to increase the risk of developing both CD and UC. (Koletzko 1989). Similarly recurrent respiratory

infections were significantly more common in UC and CD patients than matched controls and patients with CD were more likely to have taken antibiotics. Breastfeeding is known to lower the incidence of gastrointestinal disease and respiratory tract infections and may therefore be expected to prevent these influences on the development of IBD.

Corrao (1998) studied 819 cases of IBD diagnosed between 1989 and 1992 (594 with UC and 225 with CD). He found that being a former smoker increased the odds ratio for UC whilst being a current smoker increased the OR for CD by 1.7. For females using the oral contraceptive increased the risk for CD but had no effect of UC. Lack of breastfeeding in infancy accounted for the highest proportion of CD in females in later life (OR UC 1.5, CD 1.9). However the data collected on breastfeeding was any or none with no account taken for duration or exclusivity. Other factors investigated included limited physical activity, dietary factors, previous diseases e.g. psoriasis, early infections, absence of appendectomy, alcohol intake, contact with animals but the results of these was conflicting.

Kane (2004) studied 122 women with IBD who had delivered in the previous 5 years. Only 44% had breastfed their babies. The reasons cited for choosing to formula feed included recommendation by the caring physician, fear of the safety of medication reaching their baby as well as personal choice. Of the women with CD, only 29% chose to breastfeed with a median duration of 8 months (3-14months). Of the population in the study who breastfed (54), 43% (23) experienced a postpartum flare but when adjusted for medication cessation this was not statistically significant. Factors associated with a flare in the post partum period (defined as an increase in disease activity within 8 months of delivery) were hypothesised as discontinuation of medication, resumption of smoking and a possible significant change in hormones.

More women with CD expressed a desire to stay on their medication following delivery, fearing a flare and therefore choosing not to breastfeed. Of the 30% who experienced a flare, 64% had been breastfeeding in the month before development of symptoms but 74% had chosen to stop their medication. The drugs most frequently cited were mesalamine and azathioprine. At the time of the study 60% of women in the general population were initiating breastfeeding.

In a meta analysis of 17 articles Klement (2004) found evidence that supported the hypothesis that breastfeeding is associated with a lower risks of developing both CD and UC, although few studies were of good quality and data on the duration and exclusivity of breastfeeding were lacking or limited in all studies. All but two studies were retrospective, case-controlled studies therefore

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subject to recall bias. However the latent period for the development of IBD makes prospective studies difficult. Launer has demonstrated the high accuracy of recall of breastfeeding duration by mothers up to 18 months after delivery but in many of the studies analysed by Klement data was collected after many years.

### Summary

- IBD affects approximately 1 in 400 of the population of the UK.
- Of females affected 25% will conceive after their diagnosis
- Children of mothers with IBD have an increased risk of developing IBD
- Breastfeeding protects infants from developing IBD
- Women with IBD who breastfeed are no more likely to have a postnatal flare if they continue with their medication
- Most drugs taken to control symptoms of IBD are safe to be taken by breastfeeding mothers

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