Breastfeeding and Multiple Sclerosis

Information on this page outlines the consensus opinion of the UK MS Pregnancy Register Steering Group and has been produced to help you in your discussions with your MS team about what you should do.

- This information is condensed from the main booklet which you can find along with references to all studies used on the pregnancy.MS website.

Decisions around breastfeeding for mothers with multiple sclerosis

General approaches to breastfeeding

- Decisions around breastfeeding can be very emotive. MS and its treatments can influence this decision. For some people, breastfeeding might be easy, for others it might not go as well as hoped. It's important to seek support if things aren't working for you and your baby.
- There are benefits of breastfeeding for both mothers and babies outside of MS, and these should be considered alongside decisions around MS treatments.
- In the first few days after giving birth, your body produces colostrum. This has lots of antibodies in it which helps the infant's immune system. After a few days, more mature breastmilk is produced, with lower antibody levels in it.
- Exclusive breastfeeding is recommended for around the first 6 months of your baby's life and alongside solid foods from 6 months. It is recommended that you continue breastfeeding in this way for up to two years or more.
- Benefits of breastfeeding for mothers include a decreased risk of breast and ovarian cancers, and type 2 diabetes.
- The MS Trust recommends that women with MS consider storing supplies of breast milk in the freezer to use as a backup in case of relapse-associated disability or severe fatigue.

Breastfeeding and MS treatments

- There is little data available on the safety of different medications used to treat MS during breastfeeding, meaning that this can be a tough decision for you and your family.
- Although many medications are labelled as unsafe for breastfeeding, this is usually due to a lack of safety data (i.e. no-one has done the studies) rather than specific evidence that they are harmful.
- Breastfeeding is generally considered safe if only small amounts of medication pass into the breastmilk and can be absorbed by the baby.
- The amount of medication a baby gets is not the only important factor; other important considerations include how the medication works, its overall effect on the body, and how it is absorbed.

- In general, antibody treatments are thought to be relatively safe for use in breastfeeding. This is because very little of the medication gets into mature breastmilk, and they are not well absorbed by the baby through the gut. These medications include natalizumab, ocrelizumab, ofatumumab and rituximab.
- However, these antibody treatments may pass into colostrum in higher quantities and so should be avoided in the first few days after giving birth if breastfeeding.
- Small studies with these antibody medications have shown that babies potentially exposed through breastmilk show no negative effects on infant growth, development, infections or lymphocyte (immune cell) levels.
- The MS trust recommends that mothers with MS not on medication contraindicated for breastfeeding follow current general guidance.

Breastfeeding and risk of postpartum relapses – what does the data indicate?

- Breastfeeding exclusively for at least two months might be associated with a reduced risk of postpartum MS relapses.
- There are worries about bias in some of these studies, as they were based on the choices that women made. In the past, women have often had to choose between breastfeeding and restarting DMT. Whilst the studies haven't looked in detail at how people made these choices, this could have been influenced by previous MS disease activity/severity.
- When the results of 24 studies were combined, researchers found that the risk of postpartum relapse was up to a third lower in those who exclusively breastfed compared to non-exclusive or not breastfeeding, however they couldn't take into account disease activity before pregnancy or other factors that might influence postpartum relapse risk.
- Between 6-12 months postpartum, the proportion of women who had their first postpartum relapse was very similar between women who breastfed exclusively for at least the first 2 months postpartum, those who breastfed exclusively and those who did not breastfeed, suggesting that the protective effects of breastfeeding are time limited.
- It is important to recognise that women with higher MS activity are more likely to decide not to breastfeed, or to stop breastfeeding early to start DMT, which could influence all of these results.

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Summary of medications and available data on impact on/of breastfeeding:

Disease Modifying Therapy	Current labelling (EMA = European Medicines Agency) (FDA = Food and Drug Administration in the USA)	Transfer into breastmilk	Potential effect on infant following exposure through breastmilk	Recommendation for use during breastfeeding from two weeks postpartum
Interferon betas (subcutaneous or intramuscular)	EMA: can be used during breastfeeding. FDA: Consider the benefits of breastfeeding for the baby along with the mother's clinical need for interferon beta and potential adverse effects on baby from interferon beta or from underlying maternal condition.	Very low concentrations.	Overall no side effects and typical development and growth.	Yes, no interval needed between injection and next breastfeeding. Premedication with ibuprofen or paracetamol is allowed.
Glatiramer acetate (subcutaneous)	EMA: can be used during breastfeeding. FDA: Consider the benefits of breastfeeding for the baby along with the mother's clinical need for glatiramer and potential adverse effects on baby from glatiramer or from underlying maternal condition.	No data but we presume low or undetectable amount due to large molecule size.	Overall typical development and growth.	Yes, no interval needed between injection and next breastfeeding.
Dimethyl fumarate and diroximel fumarate (oral)	EMA: a decision must be made whether to discontinue breastfeeding or discontinue therapy. FDA: Consider the benefits of breastfeeding for the baby along with the mother's clinical need for dimethyl fumarate and diroximel fumarate and potential adverse effects on baby from the medication or from underlying maternal condition.	Very low reported concentrations (although small sample size) for dimethyl fumarate. No data for diroximel fumarate.	No data	Discuss with your neurologist – given low concentrations in breastmilk may be possible to breastfeed on this medication.
Teriflunomide (oral)	EMA and FDA: contraindicated during breastfeeding.	No data although presumed to be present. Detected in milk in animal studies.	No data	No
S1P receptor modulators (oral) (includes fingolimod, ponesimod, ozanimod, Siponimod)	EMA: should not breastfeed FDA: Consider the benefits of breastfeeding for the baby along with the mother's clinical need for S1P receptor modulators and potential adverse effects on baby from the medication or from underlying maternal condition.	No data although presumed to be present. Detected in milk in animal studies.	No data	No

Cladribine (oral)	EMA: breastfeeding contraindicated for 1 week after last dose. FDA: breastfeeding contraindicated for 10 days after last dose.	Study found low molecular calculated RIDs of 2.99% (10 mg dosage) and 4.73% (20 mg dosage), below the 10% safety threshold.[24]	No data	Need to stop breastfeeding when taking a course, and wait until at least a week after the last dose before restarting.
Natalizumab (intravenous or subcutaneous)	EMA: discontinue breastfeeding during treatment. FDA: Consider the benefits of breastfeeding for the baby along with the mother's clinical need for ocrelizumab and potential adverse effects on baby from ocrelizumab or from underlying maternal condition.	Low concentration but unclear if accumulation could occur. Low amounts detected in 20 women's breastmilk.	No effects on infant development and health found. No haematological abnormalities in infants exposed only during lactation. No natalizumab detected in blood of two infants after first infusion during lactation.	Yes, in discussion with neurologist. No interval needed between infusion and next breastfeeding.
Ocrelizumab (intravenous)	EMA: ocrelizumab can be used during breastfeeding starting a few days after birth. FDA: Consider the benefits of breastfeeding for the baby along with the mother's clinical need for ocrelizumab and potential adverse effects on baby from ocrelizumab or from underlying maternal condition.	Low or undetectable concentrations.	No adverse effects and typical development observed.	Yes
Ofatumumab (sc)	EMA: In humans, excretion of IgG antibodies in milk occurs during the first few days after birth, decreasing to low concentrations soon afterwards. Consequently, a risk to the breast-fed child cannot be excluded during this short period. Afterwards, ofatumumab could be used during breast feeding if clinically needed.	Unknown; presumed to be low.		Yes

This table is adapted from 'Family Planning considerations in people with multiple sclerosis' in the Lancet[1] and collates the most up-to-date data available from a number of recent studies.

New data on cladribine not from the original source is referenced within the table.
Where SmPC have been updated this is reflected in the table.