



studying
diabetes &
antenatal
milk
expressing

What is the DAME trial?

Babies of women with diabetes in pregnancy are more likely than other babies to have low blood sugar (hypoglycaemia) and to be given infant formula while they are in hospital. Therefore, some hospitals and maternity care providers have been advising women with diabetes in pregnancy to express some of their own breast milk (colostrum) late in pregnancy so that they can give it to their own baby after the birth, if needed, rather than infant formula.

Given this is relatively new advice, researchers at La Trobe University, with funding from the National Health and Medical Research Council, worked with Mercy Hospital for Women, the Royal Women's Hospital, Monash Medical Centre, Geelong Hospital and Frankston Hospital to conduct a randomised controlled trial. The DAME (Diabetes and Antenatal Milk Expressing) trial was designed to find out if expressing breast milk for women with diabetes during pregnancy is good for mothers and babies. The DAME trial was the first randomised trial of antenatal milk expressing for women with diabetes.

How did we conduct the trial?

Women with diabetes in pregnancy – either pre-existing or pregnancy-induced – were eligible to participate. We approached women between 34 and 36 weeks of pregnancy inviting participation, and women who agreed were randomly allocated to either expressing breast milk during pregnancy or to receive usual care.



Who participated in the trial?

English-speaking women who had diabetes in pregnancy, who were at low risk of complications in pregnancy were recruited between 2011 and 2015. In total 635 women were included in the trial. Half of the women were allocated randomly (by chance) to either expressing breast milk during late pregnancy (antenatally) or to have the usual care (that is, not expressing breast milk during pregnancy). Women in the expressing group were shown how to hand express breast milk twice a day from 36 weeks of pregnancy until their baby's birth. Any milk that was expressed by the woman was stored until her birth, then was used to feed her baby, in addition to breastfeeding, if needed.

All women were telephoned at 2 weeks and 12 weeks after their birth, to ask them about their infant feeding practices and experiences of antenatal expressing. Information was also collected from their hospital records.



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What did the DAME trial find?

- Babies of women with diabetes in pregnancy who were taught hand expressing during pregnancy
 - were no more likely to need admission to the special/ intensive care nursery

expressing group	15%
comparison group	14%
 - were more likely to receive only breast milk in the first 24 hours after birth

expressing group	69%
comparison group	60%
 - were no more likely to be receiving any breast milk at 3 months

expressing group	83%
comparison group	82%
- Women with diabetes in pregnancy who were taught hand expressing during pregnancy did not give birth any earlier than women who did not express during pregnancy

expressing group	38 weeks
comparison group	38 weeks
- Total amount of breast milk expressed for the whole period of expressing was 5 mls (median) range (0 to 904 mls).



STUDY CONCLUSIONS

We found that there is no harm in advising women with diabetes in pregnancy who have a low risk pregnancy to express breast milk from 36 weeks of pregnancy, and that their babies are more likely to have only breast milk while in hospital.

FAQs

Q: Were there women who expressed little or no milk?

A: Yes, about 25 % of women got less than 1 ml total.

Q: What should women with diabetes in pregnancy do now?

A: If they have spoken with their midwife/doctor – they could try hand expressing after 36 weeks, but not be worried if they don't get any milk.

Q: Did the women feel any contractions while expressing?

A: Yes, a few did. So if women are concerned then they should stop expressing.

Q: Did the women who were taught expressing have their milk come in earlier after birth?

A: We haven't analysed that outcome yet, but we will soon.

We are currently interviewing some of the women in the study to hear more about their experiences of antenatal expressing.

The full research paper has been published in *The Lancet*

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(17\)31373-9/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31373-9/fulltext)

We also had an article in *The Conversation*: Health check – Is it safe to express milk before giving birth? <http://theconversation.com/health-check-is-it-safe-to-express-milk-before-giving-birth-78399>

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