

New and updated Cochrane summaries for Midwifery

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Early skin-to-skin contact for mothers and their healthy newborn infants

Authors: Moore ER, Bergman N, Anderson GC, Medley N

What is the issue?

Babies are often separated from their mothers at birth. In standard hospital care, newborn infants can be held wrapped or dressed in their mother's arms, placed in open cribs or under warmers. In skin-to-skin contact (SSC), the newborn infant is placed naked on the mother's bare chest at birth or soon afterwards. Immediate SSC means within 10 minutes of birth while early SSC means between 10 minutes and 24 hours after birth. We wanted to know if immediate or early SSC improved breastfeeding for mothers and babies, and improved the transition to the outside world for babies.

Why is this important?

There are well-known benefits to breastfeeding for women and their babies. We wanted to know if immediate or early SSC could improve women's chances of successfully breastfeeding. Having early contact may also help keep babies warm and calm and improve other aspects of a baby's transition to life outside the womb.

What evidence did we find?

We searched for randomized controlled studies of immediate and early SSC on 17 December 2015. We found thirty-eight studies with 3472 women that provided data for analysis. Most studies compared early SSC with standard hospital care for women with healthy full-term babies. In eight studies women gave birth by cesarean, and in six studies the babies were healthy but born preterm at 35 weeks or more. More women who had SSC with their babies were still breastfeeding at one to four months after giving birth (14 studies, 887

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women, *moderate-quality evidence*). Mothers who had SSC breast fed their infants longer, too, on average over 60 days longer (six studies, 264 women, *low-quality evidence*). Babies held in SSC were more likely to have breast fed successfully during their first breast feed (five studies, 575 women). Babies held in SSC had higher blood glucose levels (three studies, 144 women, *low-quality evidence*), but similar temperature to babies with standard care (six studies, 558 women, *low-quality evidence*). We had too few babies in our included studies and the quality of the evidence was too low for us to be very confident in the results for infants.

Women giving birth by cesarean may benefit from early SSC, with more women breastfeeding successfully and still breastfeeding at one to four months (fourteen studies, 887 women, *moderate-quality evidence*), but there were not enough women studied for us to be confident in this result.

We found no clear benefit to immediate SSC rather than SSC after the baby had been washed and examined. Neither did we find any clear advantage of a longer duration of SSC (more than one hour) compared with less than one hour. Future trials with more women and infants may help us answer these questions with confidence.

SSC was defined in various ways and different scales and times were used to measure different outcomes.

Women and staff knew they were being studied, and women in the standard care groups had varying levels of breastfeeding support. These differences lead to wide variation in the findings and a lower quality evidence.

Many studies were small with less than 100 women participating.

What does this mean?

The evidence from this updated review supports using immediate or early SSC to promote breastfeeding. This is important because we know breastfeeding helps babies avoid illness and stay healthy. Women giving birth by cesarean may benefit from early SSC but we need more studies to confirm this. We still do not know whether early SSC for healthy infants helps them make the transition to the outside world more smoothly after birth, but future good quality studies may improve our understanding. Despite our concerns about the quality of the studies, and since we found no evidence of harm in any included studies, we conclude the evidence supports that early SSC should be normal practice for healthy newborns including those born by cesarean and babies born early at 35 weeks or more.

Nitric oxide donors for cervical ripening and induction of labour

Authors: Ghosh A, Lattey KR, Kelly AJ

What is the issue?

Sometimes it is necessary to bring on labour artificially in the third trimester because of safety concerns for the mother or her baby. Most commonly used cervical ripening or induction agents also cause uterine activity or contraction, which requires close monitoring of mother and baby within a hospital environment.

Why is this important?

Nitric oxide (NO) donor agents such as isosorbide mononitrate, Isosorbide dinitrate, nitroglycerin and sodium nitroprusside are thought to bring on ripening of the cervix (neck of the womb) without producing contractions and could be used in an outpatient setting. There are increasing data to support their use for this purpose.

What evidence did we find?

We searched for evidence on 15th August 2016 and identified a further 13 studies. The review now includes a total of 23 studies involving 4777 women. The five main primary outcomes (after the administration of NO donors) included: vaginal delivery not achieved within 24 hours; uterine hyperstimulation with changes in the fetal heart rate; caesarean section; serious neonatal morbidity/perinatal death; and serious maternal morbidity or death. The evidence for the five primary outcomes was mainly found to be of low quality. There was no evidence of a difference for any of the primary outcomes analysed. There was evidence from four trials to suggest that NO donors were superior to placebo in bringing on ripening of the cervix. Women who received NO donors were also more likely to experience side effects such as headache, nausea or vomiting.

What does this mean?

NO donor leads to little or no difference on the majority of labour process and delivery outcomes. However, there was some evidence to suggest that it probably helps in causing the cervix to be more favourable at 12 to 24 hours after administration. Additional studies are needed to see the true impact of NO donors in bringing on induction of labour and its effect on caesarean section rates.

Antenatal breastfeeding education for increasing breastfeeding duration

Authors: Lumbiganon P, Martis R, Laopaiboon M, Festin MR, Ho JJ, Hakimi M

What is the issue?

Breastfeeding (BF) can improve the child's health, the mother's health and mother-infant bonding. BF infants have lower rates of stomach and breathing problems, fewer ear infections and better speech, vision and overall development of physical and mental skills. The World Health Organization recommends that infants should be

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exclusively breastfed from birth to six months and then breastfed alongside age-appropriate, complementary feeding for two years and beyond. Many women are unable to follow these recommendations, and we want to know how to help women to breastfeed.

Why is this important?

Antenatal BF education is teaching women about BF during pregnancy, before the baby arrives. One reason women are unable to breastfeed has to do with lack of education and knowledge about how to breastfeed. We believe that improving pregnant women's knowledge of BF may help them to breastfeed longer, but we are unsure what types of education are most helpful to women.

What evidence did we find?

We included 24 studies with 10,056 women in the review, and 20 studies involving 9789 women contributed data to the analyses. Most studies took place in high-income countries including the USA, Canada, UK and Australia. Peer counselling, lactation consultation and formal BF education during pregnancy do not appear to improve uptake of BF or duration. However, some larger trials in different settings (one in Nigeria and one in Singapore) had some evidence that education may help.

What does this mean?

We are still unsure if antenatal BF education is able to help women; at present, there is no good evidence from randomised controlled trials to suggest these efforts to educate pregnant women translate into more and longer BF. Women who receive standard care before birth tend to choose BF at about the same rate as women who have extra BF education. We are confident in the results of studies measuring women's uptake of BF at birth and BF at six months; education does not appear to impact these decisions. We have some doubts about the impact of education on exclusive BF at three and six months; education does not seem to help women, but future studies may change our understanding. Future studies are likely to change our understanding of the impact of BF education during pregnancy on BF at three months. Most of the studies in this review took place in higher income countries, so we are not confident that our conclusions are relevant in other settings.

If you have any questions or comments with regard to the above document please feel free to contact me.

Kind regards

Dr Vanessa Jordan PhD

New Zealand Cochrane Fellow
Cochrane New Zealand
Academic Co-ordinator: PoplHlth 711: Systematic reviews and Meta Analysis

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Cochrane New Zealand
Department Obstetrics and Gynaecology
University of Auckland, Private Bag 92019
Auckland, 1142
New Zealand

T (+64) 09 9239490
E v.jordan@auckland.ac.nz

Department Obstetrics and Gynaecology
Auckland University
Private Bag 92019
Auckland 1142
New Zealand
Ph. +64 9 9239490
Fax +64 9 303 5969
Mobile: 027 540 2212
E-mail: v.jordan@auckland.ac.nz

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