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**Hypnosis for pain management during labour and childbirth**

**Vitamin supplementation for preventing miscarriage**

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**Anti-inflammatory drugs for relief of perineal pain after childbirth**

**Cup feeding versus other forms of supplemental enteral feeding for newborn infants unable to fully breastfeed**

### **Hypnosis for pain management during labour and childbirth**

Authors: Madden K, Middleton P, Cyna AM, Matthewson M, Jones L

#### **What is the issue?**

Women's experiences of pain in labour are variable and complex. Techniques such as hypnosis have been proposed as ways to help women cope with pain during labour. Hypnosis represents an aspect of conscious awareness similar to daydreaming and involves focusing attention inwards and increased responsiveness to suggestions. Suggestions are verbal and non-verbal communications, that may influence perceptions (such as the way contractions are experienced), mood or behaviour. During childbirth women may use hypnosis in a range of ways; to promote relaxation, as a means of dissociating from pain or to change their perceptions, for example, perceiving contractions as a way to get closer to birthing their baby rather than an experience of pain and suffering more usually associated with injury and disability. Women can be guided into hypnosis by a practitioner during labour or individuals can learn self-hypnosis during pregnancy, for subsequent use during labour. This training on how to use hypnosis during the pregnancy is sometimes supplemented by audio recordings of hypnotic suggestions.

#### **Why is it important?**

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Childbirth is a major physical, emotional and social event in a woman's life. The experience and management of pain during labour are important issues for many women.

**What evidence did we find?**

We included nine trials that randomised 2954 women to hypnosis or to control groups receiving; standard care, relaxation training or supportive counselling. In eight trials the women were trained in self-hypnosis during pregnancy for later use during labour. In the other trial, the hypnotherapist was present during the woman's labour.

There were no clear differences between women in the hypnosis group and those in the control groups in terms of the number of normal deliveries, women's satisfaction with the method of pain relief or women's sense of coping with labour. However, fewer women in the hypnosis group used pain relief medication for labour. Epidural use did not differ between the groups. All the evidence for these outcomes was found to be of low quality. The studies measured a range of other outcomes and no consistent differences were found.

**What does this mean?**

Hypnosis may reduce the overall use of pain medication during labour, but does not seem to reduce the use of epidurals. Women using hypnosis are no more likely to have a normal vaginal birth. There is currently not enough evidence to say whether hypnosis helps women feel more satisfied about their pain relief in labour, nor whether it improves their sense of coping with labour. Further high-quality research is needed and should include assessment of women's satisfaction with pain relief and sense of coping in labour. Our conclusions about the impact hypnosis has on pain during labour and childbirth may change with future, high-quality research.

**Vitamin supplementation for preventing miscarriage**

Authors: Balogun OO, da Silva Lopes K, Ota E, Takemoto Y, Rumbold A, Takegata M, Mori R

**What is the issue?**

Miscarriage occurs frequently among pregnant women but it is often difficult to know the factors responsible. Poor diet, without enough vitamins, has been associated with an increased risk of women losing their baby in early pregnancy. Does vitamin supplementation taken by women before pregnancy and during pregnancy decrease the risk of spontaneous miscarriage? Does supplementation improve maternal, birth and infant outcomes, and are there any side effects?

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Vitamin supplementation is commonly recommended for pregnant women and women planning to conceive. Considering the widespread use of vitamin supplementation before and during pregnancy, it is important to study the relation between vitamin supplementation and early pregnancy outcomes, particularly since the causes of miscarriage are unknown and the nutritional status of a mother can affect her baby's development.

### **What evidence did we find?**

This review included 40 randomised controlled trials involving 276,820 women and 278,413 pregnancies. Supplementing women with any vitamins does not reduce the number of women who have miscarriages. However, the risk for stillbirth was reduced among women receiving multivitamins plus iron and folic acid compared with iron and folate only groups. Although total fetal loss was lower in women who were given multivitamins without folic acid and multivitamins with or without vitamin A, these findings included one trial each with small numbers of women involved. Also, they include studies where the comparison groups included women receiving either vitamin A or placebo, and thus require caution in interpretation.

### **What does this mean?**

Taking vitamin supplements before pregnancy or in early pregnancy may be beneficial; but this review did not show sufficient evidence that taking vitamin supplements prevents miscarriage.

## **Treatment for breast engorgement (overfull, hard, painful breasts) in breastfeeding women**

Authors: Mangesi L, Zakarija-Grkovic I

### **Review question**

What are the best forms of treatment for engorged breasts in breastfeeding women?

### **Background**

Breast engorgement is the overfilling of breasts with milk leading to swollen, hard and painful breasts. Many women experience this during the first few days after giving birth, although it can occur later. It is more common when the timing of breastfeeding is restricted or the baby has difficulty sucking or the mother is separated from her newborn. This leads to the breasts not being emptied properly. Breast engorgement may make it difficult for women to breastfeed. It may lead to complications such as inflammation of the breast, infection and sore/cracked nipples. So far, consistent evidence for effective forms of treatment is lacking.

### **Study characteristics**

We searched for trials on any treatments for breast engorgement in breastfeeding women. We looked at 13 trials including 919 breastfeeding women who had engorged breasts. The trials looked at treatments including acupuncture, acupressure, cabbage leaves, cold packs, medication, massage and ultrasound. Four of the

studies were funded by an agency with a commercial interest in the results of the studies, two received charitable funding and two were funded by government agencies. The other five did not declare the source of funding.

## Results

One study comparing acupuncture with usual care (advice and oxytocin spray) found no difference in terms of stopping breastfeeding. However, women in the acupuncture group were less likely to develop an abscess, had less severe symptoms on day five and had a lower rate of fever than women in the usual care group. Three trials looking at cabbage leaves showed no difference between room temperature and chilled cabbage leaves, between chilled cabbage leaves and gel packs and between cabbage cream and the inactive cream; however, all forms of treatment provided some relief. Hot/cold packs were found to be more effective than acupressure. *Gua Sha* scraping therapy was found to be more effective than hot packs and massage in reducing symptoms of breast engorgement, though both forms of treatment decreased breast temperature, engorgement, pain and discomfort at five and 30 minutes after treatment. A study on ultrasound therapy had the same, minimal effect as the fake ultrasound, whereas oxytocin injections in another study provided no relief at all. When breast-shaped cold gel packs were compared with routine care, women who used gel packs seemed to have less pain; however, the study was of very low quality making the results unreliable.

## Quality of evidence

The quality of evidence was low due to the small number of participants in the included studies and limited number of studies looking at the same outcomes. More robust research is urgently needed on the treatment of breast engorgement.

## Anti-inflammatory drugs for relief of perineal pain after childbirth

Authors: Wuytack F, Smith V, Cleary BJ

### What is the issue?

Following childbirth, many women experience pain in the perineum, an area between the anus and the vagina. This Cochrane review asked if this pain can be reduced by one dose of a non-steroidal anti-inflammatory drug (NSAIDs), such as aspirin or ibuprofen.

### Why is this important?

The pain some women experience in the perineum after childbirth can be particularly acute if the perineum tears during the birth, or needs to be cut (a procedure known as an episiotomy). Even a woman without tearing or surgery often experiences a degree of discomfort in her perineum, which can affect her mobility as well as

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her ability to care for her baby. This review is part of a series of reviews on the effectiveness of different drugs for pain relief for perineal pain immediately after birth. It is looking specifically at NSAIDs, such as aspirin and ibuprofen.

### **What evidence did we find?**

We found 28 studies with 4181 women that examined 13 different NSAIDs (aspirin, ibuprofen etc.). We included studies up to 31 March 2016. The studies we found only included women who had trauma of the perineum and who were not breastfeeding. Studies were conducted between 1967 and 2013, were small and not of high quality.

The studies showed that a single dose of a NSAID provided greater pain relief at either four hours (low-quality evidence) or six hours (very low-quality evidence) after administration when compared to a placebo (dummy pill) or no treatment in breastfeeding women who had sustained perineal trauma during childbirth. Women who received a single dose of NSAID were also less likely to need additional pain relief at four hours (low-quality evidence) or six hours (low-quality evidence) after initial administration compared to women who received placebo or no treatment. Not all of the studies assessed adverse effects of the intervention but some studies reported maternal adverse effects such as drowsiness, headache, weakness, nausea, gastric discomfort but there was no clear difference in the incidence of maternal adverse effects between groups at six hours post-administration (very low-quality evidence). One small study reported that there were no maternal adverse effects at four hours post-administration (low-quality evidence). None of the studies measured possible adverse effects on the baby.

A NSAID also appeared to be better than paracetamol in providing pain relief at four (but not six hours) after administration, although only three small studies looked at this comparison. Women who received a single dose of NSAID were also less likely to need additional pain relief at six (but not four) hours after administration compared to women who received paracetamol. There were no maternal adverse effects observed at four hours (one small study). Three small studies reported maternal adverse effects at six hours after administration but there were no clear differences between groups. Adverse effects on the baby were not reported in any of the included studies and all studies excluded women who were breastfeeding.

Comparisons of different NSAIDs and different doses of the same NSAID did not demonstrate any clear differences in their effectiveness on any of the main outcomes measured in this review. However, few data were available for some NSAIDs.

None of the included studies reported on any of this review's secondary outcomes, including: extended hospital stay or readmission to hospital due to perineal pain; breastfeeding, perineal pain at six weeks after having the baby; women's views, postpartum depression or measures of disability due to perineal pain.

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**What does this mean?**

For women who are not breastfeeding, a single dose of a NSAIDs may help with perineal pain, after four and six hours. Paracetamol may be similarly helpful. No serious side effects were reported, but not all studies examined this. For women who breastfeed, there are no data and these women should seek help as some NSAIDs are not recommended for women who breastfeed.

**Cup feeding versus other forms of supplemental enteral feeding for newborn infants unable to fully breastfeed**

Authors: Flint A, New K, Davies M

**Review question:**

For both term and preterm infants we wanted to identify the best method for offering supplemental feeds and asked if cup feeding is a better way to supplementally feed rather than bottle feeding or feeding with a tube, when newborn infants are unable to fully breastfeed.

**Background:**

Most infants born at term or slightly preterm can fully breastfeed following birth. However for a number of reasons some term newborns and many preterm newborns may not be able to fully breastfeed and require supplemental feeding by alternative methods, such as a cup, syringe, bottle or feeding tube, until they are able to fully breastfeed.

**Study characteristics:**

Our search for eligible studies conducted on 31 January 2016 revealed five studies, all comparing cup and bottle feeding in newborn infants, which we were able to include in this review. These studies were conducted in neonatal and maternity units in hospitals in Australia, the United Kingdom, Brazil and Turkey. The mean gestational age of the infants in most of the studies were similar at the time of entry into the study. In four of the studies the intervention (cup or bottle) commenced from the time of enrolment into the study, when the infants first needed a supplemental feed and were as young as 30 weeks' gestation. In the study conducted in Turkey, supplemental feeding was not commenced on enrolment into the study and at the time of first supplemental feed but delayed until infants were at least 35 weeks of age.

**Key results:**

For some of the outcomes, the results of the different studies could not be combined. This included not breastfeeding at hospital discharge; not exclusively breastfeeding at three months and at six months; the average time taken for a feed; and the number of days spent in hospital. For each of these outcomes, the results from some studies favoured cup feeding, while the results from other studies favoured bottle feeding.

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For some of the outcomes, the results of the different studies could be combined: there was no difference in weight gain or gestational age at discharge between those infants who received supplemental feeds by cup compared to bottle. However those infants who received supplemental feeds by cup were more likely to be exclusively breastfeeding at hospital discharge and were more likely to be receiving some breastfeeds at three and six months of age.

As the studies mostly included preterm infants and few term infants, no recommendations can be made for cup feeding term infants.

**Quality of evidence:**

The quality of evidence for weight gain, length of stay, not breastfeeding at hospital discharge and at six months of age and exclusively breastfeeding at hospital discharge and at six months of age is graded very low to low. In the studies included in this review, it is reported that many infants who were to receive supplemental feeds by cup received supplemental feeds by other means as either the parents or nurses did not like cup feeding.

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

Kind regards

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