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Does chewing gum after a caesarean section lead to quicker recovery of bowel function?

Does breastfeeding reduce vaccination pain in babies aged 1 to 12 months?

Interventions for encouraging women to start breastfeeding

Does chewing gum after a caesarean section lead to quicker recovery of bowel function?

Authors: Pereira Gomes Morais E, Riera R, Porfirio GJM, Macedo CR, Sarmento Vasconcelos V, de Souza Pedrosa A, Torloni MR

What is the issue?

Many women deliver by caesarean section (CS) nowadays. The proportion of women who deliver by CS ranges from 15% to over 50%, in some countries. After a CS it is common for the bowel to stop working for several hours or days. Although this usually resolves by itself in a few days, it may be very uncomfortable. The retained gases and stools can cause the mother's belly to become swollen and painful with cramps and she may feel nauseated and vomit so she is not able to eat. She may need additional medications to ease these symptoms and her hospital discharge may be delayed. The use of medications that relieve pain during labour and painkillers following the surgery can also delay bowel function.

Although early feeding after a CS can stimulate the gut, it could also lead to vomiting. That is why many obstetricians still withhold food until bowel sounds are detected and there is passage of gas, or flatus. Chewing gum can help the bowels to function again earlier, as shown with other types of surgeries. We wanted to see if it also worked after a CS. Chewing gum in the first 24 hours after the surgery is a simple and cheap intervention.

What evidence did we find?

We included randomised controlled studies published up to June 2016.

We found 17 studies, with 3149 women who had just delivered by CS. In these studies, a group of women chewed gum and a second group did not, receiving usual care. The studies were conducted in nine countries

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(mostly low- to middle-income countries) and were different in many aspects. For instance, some studies included only women having their first baby and others included women with a previous CS; some studies included only elective (pre-scheduled) CS and others also included emergency CS. The way that gum was given also differed in the studies; in some the women started chewing gum right after the CS and in others they waited for up to 12 hours. Also, the women could not be blinded to receiving the gum. The combination of the results (in a meta-analysis) of these studies showed that the women who chewed gum after a CS had an earlier return of their bowel function. On average, they passed gas seven hours earlier (13 studies, 2399 women). This effect was consistent for first versus repeat CS, time spent chewing gum per day, early feeding versus nothing by mouth until the return of intestinal function, elective versus non-elective or emergency CS, and length of time after CS when gum-chewing was initiated. The quality of the evidence for this outcome was very low. The women chewing gum were at least half as likely to have 'ileus' (a combination of symptoms such as bloating, cramping, nausea, vomiting and inability to defecate) than the women who did not chew gum (four studies, 1139 women, low-quality evidence). Gum chewing reduced the time to first defecation to about nine hours earlier (11 studies, 2016 women, very low-quality evidence) and the time to hospital discharge by some eight hours (seven studies, 1489 women). Only three out of 925 women complained about having to chew gum and there were no reports of adverse effects associated with gum-chewing (eight studies, 925 women, low-quality evidence). None of the studies assessed women's satisfaction in relation to chewing gum.

The overall quality of the evidence was low to very low, mostly due to lack of blinding of the participants (the women knew they were chewing gum) and heterogeneity between the studies.

What does this mean?

The available evidence suggests that gum-chewing in the first 24 hours after a CS is a well-tolerated simple, low-cost, safe and easy intervention that enhances early recovery of bowel function, improves maternal comfort and potentially reduces hospital costs. Further research is necessary to establish the optimal regimen of gum-chewing (when to start, number and duration of sessions per day) to enhance bowel function recovery and to assess potential adverse effects and women's satisfaction with this intervention.

Does breastfeeding reduce vaccination pain in babies aged 1 to 12 months?

Authors: Harrison D, Reszel J, Bueno M, Sampson M, Shah VS, Taddio A, Larocque C, Turner L

Bottom line

We found that breastfeeding before and during vaccination injections helped to reduce pain in most babies up to the age of one year.

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Background

Needles are used for babies' early childhood vaccinations and medical care during childhood illnesses. These are essential, but painful. They cause distress for the babies and often their parents/caregivers, and can result in future anxiety and fear about needles. Breastfeeding during blood tests in newborn babies reduces pain. Breastfeeding when possible and feasible may also help to comfort babies and reduce their pain beyond the newborn period and throughout infancy.

Study characteristics

In February 2016 we searched the medical literature for studies examining the effectiveness of breastfeeding babies 1 to 12 months old during the use of needles. We compared effectiveness of breastfeeding in reducing pain (as scored by crying time and pain scores), to holding, babies lying flat, or the giving of water or sweet solutions. We found 10 studies with a total of 1066 infants. All studies examined if breastfeeding reduced pain during vaccinations.

Key results

Breastfeeding reduced crying in young babies having vaccinations. On average, breastfed babies cried for 38 seconds less than babies who were not breastfed (6 studies; 547 infants; moderate-quality evidence), and pain scores were significantly lower (5 studies; 310 infants; moderate-quality evidence).

No studies reported on any harm (very low-quality evidence). We could draw no conclusions on risk of harm while breastfeeding healthy babies during vaccination.

Going forward: if mothers are breastfeeding, it could be considered when possible for babies during vaccinations. More evidence is needed to learn if breastfeeding helps older babies and babies in hospital during blood work or procedures such as insertion of drips.

Quality of the evidence

The quality of the evidence was moderate for crying time and pain scores. Most studies included younger infants aged 1 to 6 months. Further research including older infants up to 12 months of age may change our conclusions. In addition, the studies evaluated the effects of breastfeeding during vaccination. We do not know whether breastfeeding helps sick babies aged 1 to 12 months in hospital during blood sampling or drip insertion.

Interventions for encouraging women to start breastfeeding

Authors: Balogun OO, O'Sullivan EJ, McFadden A, Ota E, Gavine A, Garner CD, Renfrew M, MacGillivray S

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International rates of breastfeeding initiation are extremely variable both between and within countries. Low- and middle-income countries generally have high rates of women starting breastfeeding, and the challenge is for breastfeeding to begin within one hour of birth. High-income countries have a much greater variation in the number of women who start breastfeeding, with more highly educated and more well-off women likely to start. The World Health Organization recommends that breastfeeding should start within the first hour after giving birth, that all infants should be exclusively breastfed from birth to six months of age, and that breastfeeding should continue until 2 years or beyond. We know that breastfeeding is good for the health of women and babies. Babies who are not fully breastfed for the first three to four months of life are more likely to suffer from infections of the stomach and intestines, air passages and lungs, or develop ear infections. Babies who are not breastfed are more likely to be overweight or have diabetes later in life, and mothers who do not breastfeed have increased risks of breast and ovarian cancer. Other practical benefits of breastfeeding include saving money on buying breast milk substitutes and, for society, on treating illness. Yet many women feed their babies with infant formula.

Why is this important?

We want to have a better understanding of what works to promote breastfeeding, for women, their families, the health system and society. Women face many barriers to breastfeeding, including lack of public spaces where women can breastfeed without feeling embarrassment; lack of flexible working days for breastfeeding women at work; widespread advertising of breast milk substitutes; and public policy that ignores the needs of breastfeeding women. New ways to promote breastfeeding are needed.

What evidence did we find?

We searched for evidence on 29 February 2016. This updated review now includes 28 randomised controlled studies involving 107,362 women. Twenty studies involving 27,865 women looked at interventions to increase the number of women who started breastfeeding, in three high-income countries (Australia, 1 study; UK, 4 studies; and USA, 14 studies) and one lower middle-income country (Nicaragua, 1 study). Three studies investigated the effect of an intervention to increase the number of women who started breastfeeding early, within one hour after birth. These involved 76,373 women from Malawi, Nigeria and Ghana. The study from Malawi was large, with 55,931 participants.

Health education delivered by doctors and nurses and counselling and peer support by trained volunteers improved the number of women who began breastfeeding their babies. Five studies involving 564 women reported that women who received breastfeeding education and support from doctors or nurses were more likely to start breastfeeding compared to women who received standard care. Four of these studies were conducted in low-income or amongst minority ethnic women in the USA, where baseline breastfeeding rates

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are typically low. Eight studies involving 5712 women showed improved rates of starting breastfeeding with trained volunteer-delivered interventions and support groups compared to the women who received standard care.

Breastfeeding education provided by trained volunteers could also improve the rates of early initiation of breastfeeding, within one hour of giving birth, in low-income countries.

We assessed all the evidence in this review to be low-quality because of limitations in study design and variations in the interventions, to whom, when, where, and how an intervention was delivered. Standard care also differed and could include some breastfeeding support, for example, in the UK.

We found too little evidence to say whether strategies with multimedia, early mother-infant contact, or community-based breastfeeding groups were able to improve breastfeeding initiation.

What does this mean?

Doctors, nurses, and trained volunteers can deliver education sessions and provide counselling and peer support to increase the number of women who start breastfeeding their babies. High-quality research is needed to understand which interventions are likely to be effective in different population groups. More studies are needed in low- and middle-income countries to find out which strategies will encourage women to start breastfeeding just after giving birth.

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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