

Infants of mothers given opioids after birth are at low risk of harm, says study

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Infants born to mothers prescribed opioids after delivery, mostly after a cesarean, are at no greater risk of harm shortly after birth than infants of mothers not prescribed opioids, finds a large study from Canada

published by *The BMJ* today.

These findings should reassure clinicians and parents that these [infants](#) are at low risk of harm, say the researchers.

Opioids, such as codeine and morphine are often given to patients to relieve pain shortly after surgery. All opioids pass into breast milk, albeit in amounts not expected to cause harm in nursing infants, but concern that opioids in [breast milk](#) could pose a risk remains the subject of debate.

To address this uncertainty, researchers in Canada set out to examine whether maternal opioid treatment after delivery is associated with an increased risk of adverse outcomes in infants.

They drew on eight years of healthcare data from 865,691 mother-infant pairs discharged from hospital in Ontario within seven days of delivery from 1 September 2012 to 31 March 2020.

After exclusions were applied, 85,852 mothers filled an [opioid prescription](#) within seven days of discharge and 538,815 did not. Each mother who filled an opioid prescription within seven days of discharge was matched to a mother who did not (control group).

Most (81%) of mothers in the matched cohort delivered by cesarean section. Among the mothers prescribed opioids, 42% received oxycodone, 20% codeine, 19% morphine, and 12% hydromorphone, with an average supply of 3 days.

The researchers then followed all infants for 30 days for a range of serious outcomes including readmission to hospital, emergency department visit, admission to a neonatal intensive care unit, and death from any cause.

After taking account of other potentially influential factors, including mother's age and [medical history](#), the researchers found that, of the infants admitted to hospital within 30 days, 2,962 (3.5%) were born to mothers who filled an opioid prescription compared with 3,038 (3.5%) born to mothers who did not.

Infants of mothers who were prescribed an opioid were no more likely to be admitted to hospital for any reason than infants of mothers who were not prescribed an opioid (absolute risk increase of 0.08%).

Infants of mothers prescribed an opioid were marginally more likely to be taken to an emergency department in the subsequent 30 days (absolute risk increase of 0.41%), but no differences were found for any other serious outcomes in the infants, including breathing problems or admission to a [neonatal intensive care unit](#), and no infant deaths occurred.

This is an [observational study](#), so can't establish cause, and the researchers acknowledge several limitations, such as a lack of information on the extent to which the drugs were taken, use of other non-prescription painkillers, and breastfeeding status. What's more, they can't rule out the possibility that some other, unmeasured factors may have affected their results.

Nevertheless, they point out that initial breastfeeding rates in Canada are very high (90%), providing greater confidence in their conclusions. Findings are also consistent with the fact that millions of new mothers are prescribed opioids after delivery each year, yet no convincing reports have been published of serious opioid toxicity in infants associated with breastfeeding.

As such, they conclude, "Findings from this study suggest no association between maternal opioid prescription after delivery and adverse infant

outcomes, including death."

This new study shows that [opioids](#) do not present a unique hazard for infants of breastfeeding mothers, say experts in a linked editorial.

Alternative analgesics, including [non-steroidal anti-inflammatory drugs](#), are also generally non-hazardous to babies, they add, although short acting ones are advised for mothers who are breastfeeding.

However, they point out that evidence on optimal analgesia after delivery, particularly for breastfeeding mothers, is poor, and the balance of risks and benefits for both [mothers](#) and babies remains uncertain. As such, they say more research is needed in this population.

More information: Maternal opioid treatment after delivery and risk of adverse infant outcomes: population based cohort study, *The BMJ* (2023). [DOI: 10.1136/bmj-2022-074005](https://doi.org/10.1136/bmj-2022-074005)

Editorial: Opioid analgesia for breastfeeding mothers, *The BMJ* (2023). [DOI: 10.1136/bmj.p514](https://doi.org/10.1136/bmj.p514)

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