

# Surgery before pregnancy linked to higher risk of opioid withdrawal in babies

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Babies whose mothers underwent surgery before pregnancy have an increased risk of opioid withdrawal symptoms at birth, according to a new study done by Dr. Nathalie Auger, researcher at the University of

Montreal Hospital Research Centre (CRCHUM), and published in the *Canadian Medical Association Journal*.

"Use of opioids for pain control after surgery may increase the risk of [opioid](#) dependence in women and withdrawal in their newborns," said the study's lead author, Dr. Auger, also a professor at the University of Montreal's School of Public Health.

"We found that mothers who had surgery before pregnancy had 1.6 times the risk of neonatal abstinence syndrome—that is, opioid withdrawal symptoms in their future newborns—perhaps because opioid use continues after surgery."

The large study included data on almost 2.2 million births in Quebec between 1989 and 2016. Of these, 2,346 newborns had neonatal abstinence syndrome, including 1,052 who had mothers who underwent prepregnancy surgery (14.9 per 10,000 babies) compared with 1,294 babies (8.8 per 10,000) born to mothers who did not have surgery.

Multiple surgeries, younger age at surgery, longer time between surgery and pregnancy, and cardiovascular, thoracic, urologic, or neurosurgery were associated with the largest risk of neonatal abstinence syndrome. There was also a strong association with [general anesthesia](#), perhaps because this type of anesthesia is used in more complex surgeries, which can require longer use and higher dosage of pain relievers.

"Physicians have the potential to prevent neonatal abstinence syndrome with careful postoperative pain management in young women," Auger said. "Opioids continue to be overprescribed, despite calls to optimize postsurgical pain control through improvement of surgical guidelines and use of multipronged approaches with nonopioid painkillers or local anesthetics."

"Limiting postoperative opioid exposure, reducing overprescribing, and screening for opioid use in [pregnant women](#) who have had previous [surgery](#) may help reduce the risk of [neonatal abstinence syndrome](#)," she added.

**More information:** Nathalie Auger, Nancy Low, François M. Carrier, Aimina Ayoub and Thuy Mai Luu, Maternal prepregnancy surgery and risk of neonatal abstinence syndrome in future newborns: a longitudinal cohort study, *CMAJ* July 15, 2019 191 (28) E779-E786; [DOI: 10.1503/cmaj.181519](#)

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