

# Common antibiotics linked to increased risk of miscarriage

May 1 2017

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Pregnancy test. Credit: public domain

Many classes of common antibiotics, such as macrolides, quinolones, tetracyclines, sulfonamides and metronidazole, were associated with an increased risk of miscarriage in early pregnancy, according to a new study published in *CMAJ* (*Canadian Medical Association Journal*).

Erythromycin was not associated with increased risk nor was nitrofurantoin, often used to treat [urinary tract infections](#) in pregnant women.

"Infections are prevalent during pregnancy," says Dr. Anick Bérard,

Faculty of Pharmacy, Université de Montréal, Montréal, Quebec.

"Although antibiotic use to treat infections has been linked to a decreased risk of prematurity and [low birth weight](#) in other studies, our investigation shows that certain types of antibiotics are increasing the risk of [spontaneous abortion](#), with a 60% to two-fold increased risk."

Bérard and her team looked at data from the Quebec Pregnancy Cohort between 1998 and 2009. For this study, 8702 cases, defined as clinically detected spontaneous abortions, were matched with 87 020 controls; mean gestational age at the time of miscarriage was 14 weeks of pregnancy. A total of 1428 (16.4%) cases were exposed to antibiotics during [early pregnancy](#) compared to 11 018 (12.6%) in controls.

Participants were between the ages of 15 and 45 years and covered under Quebec's drug insurance plan. Women who miscarried were more likely to be older, living alone and to have multiple health issues and infections, all of which were taken into account in the analyses.

Study strengths include a large sample, valid information on filled prescriptions and routinely collected information on diagnosis of spontaneous abortion or related procedures. The authors note that [infection](#) severity could be a confounder, that is, contribute to pregnancy loss and explain some of the increased risk, although they did adjust for this variable in the analysis.

"Given that the baseline risk of spontaneous abortion can go as high as 30%, this is significant. Nevertheless, the increased risk was not seen for all antibiotics, which is reassuring for users, prescribers and policy-makers," states Dr. Bérard.

The authors hope that these findings may be useful for policy-makers to update guidelines for the treatment of infections during [pregnancy](#).

**More information:** Flory T. Muanda et al. Use of antibiotics during pregnancy and risk of spontaneous abortion, *Canadian Medical Association Journal* (2017). [DOI: 10.1503/cmaj.161020](https://doi.org/10.1503/cmaj.161020)

Provided by Canadian Medical Association Journal

Citation: Common antibiotics linked to increased risk of miscarriage (2017, May 1) retrieved 2 May 2024 from <https://medicalxpress.com/news/2017-05-common-antibiotics-linked-miscarriage.html>

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