

Association Between Endometriosis and Preterm Birth **in** Women With Spontaneous Conception or Using Assisted Reproductive Technology: **A** Systematic Review and Meta-Analysis of **Cohort** Studies(Review)

- Pérez-López, F.R.^{ab}Email Author,
- Villagrasa-Boli, P.^a,
- Muñoz-Olarte, M.^a,
- Morera-Grau, Á.^a,
- Cruz-Andrés, P.^a,
- Hernandez, A.V.^{cd}
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- [View Correspondence \(jump link\)](#)
- ^aFacultad de Medicina, Universidad de Zaragoza, Red de Investigación en Ginecología, Obstetricia y Reproducción, Instituto Aragonés de Ciencias de la Salud (IACS), Zaragoza, Spain
- ^bDepartment of Obstetrics and Gynecology, Lozano Blesa University Hospital, Zaragoza, Spain
- ^cSchool of Medicine, Universidad Peruana de Ciencias Aplicadas (UPC), Lima, Peru

[View additional affiliations_](#)

Abstract [View references \(47\)](#)

Objective: To perform **a** systematic review and meta-analysis to estimate the effect of endometriosis on preterm birth (PB) risk. **Methods:** Searches were conducted **in** PubMed–MEDLINE, Embase, Scopus, Web of Science, Cochrane Library, Google Scholar, and SciELO for studies published **in** all languages from inception through April 2017. We included **cohort** studies evaluating pregnant women with and without endometriosis and conception either by spontaneous conception (SC) or with assisted reproductive technology (ART). Primary outcome was PB (<37 weeks), and secondary outcomes were intrauterine growth restriction (IUGR), low birthweight, small for gestational age (SGA), and birthweight. Pooled odds ratios (ORs) and its 95% confidence interval (CI) were calculated as effects, and random-effects models were used for meta-analyses. Risk of bias was assessed with the Newcastle-Ottawa Scale, and heterogeneity of effects among studies was described with the I^2 statistic. **Results:** We identified 9 **cohort** studies including **a** total of 1 496 715 pregnancies (13 798 with endometriosis diagnosis). **In** women with endometriosis, the PB risk was significantly increased **in** both SC (OR: 1.59; 95% CI: 1.32-1.90) and ART (OR: 1.43; 95% CI: 1.14-1.79). The SGA risk was increased **in** women with endometriosis (OR: 1.16; 95% CI: 1.05-1.28), while the IUGR and low birthweight risks and birthweight were not affected by endometriosis. **Conclusion:** Endometriosis is associated with increased PB risk **in** both SC and

women who obtained pregnancy using ART. Prospective studies evaluating relevant outcomes are needed to confirm these results. © 2018, © The Author(s) 2018.

Author keywords

- assisted reproductive technology
- birthweight
- endometriosis
- infertility
- meta-analysis
- preterm birth
- small for gestational age
- spontaneous conception

Indexed keywords

EMTREE medical terms: birth weight cohort analysis conception disease association endometriosis female gestational age human infertility infertility therapy intrauterine growth retardation low birth weight Ottawa scale pregnancy outcome pregnant woman premature labor priority journal infants systematic review

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