



# Expulsion of Postpartum Placement Intrauterine Device A Systematic Review and Meta-analysis

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## OBJECTIVE:

To estimate expulsion rates among women with postpartum intrauterine device (IUD) placement by timing of insertion, post placental ,inter caesarean section and interval intrauterine device insertion, IUD type, and delivery method.

## DATA SOURCES:

We searched PubMed, Cochrane Library from 1974 to May 2018.

## METHODS OF STUDY SELECTION

We searched databases for any published studies that examined postpartum placement of a copper IUD or levonorgestrel intrauterine system and reported counts of expulsions and calculated pooled absolute rates of IUD expulsion and estimated adjusted relative risks (RRs) for timing of postpartum placement, delivery method, and IUD type using multivariable regression model.

## RESULTS:

We identified 48 level I to II-3 studies of poor to good quality. Pooled rates of expulsion varied by timing of IUD placement, ranging from 1.9% with interval placements (4 weeks postpartum or greater), 10.0% for immediate placements (10 minutes or less after placental delivery), and 29.7% for early placements (greater than 10 minutes to less than 4 weeks postpartum). Immediate and early postpartum placements were associated with increased risk of expulsion compared with interval placement (adjusted RR 7.63, 95% CI 4.31–13.51; adjusted RR 6.17, 95% CI 3.19–11.93, respectively)CuT380A

Postpartum placement less than 4 weeks after vaginal delivery was associated with an increased risk of expulsion compared with caesarean delivery (adjusted RR 5.19, 95% CI 3.85–6.99). Analysis of expulsion rates at less than 4 weeks postpartum also indicated that the levonorgestrel intrauterine system was associated with a higher risk of expulsion (adjusted RR 1.91, 95% CI 1.50–2.43) compared with CuT380A.

## CONCLUSION:

Postpartum IUD expulsion rates vary by timing of placement, delivery method, and IUD type. These results can aid in counselling women to make an informed choice about when to initiate their IUD and to help institutions implement postpartum contraception programs