

Aklilu Hailegebireal (PhD) Faculty of Health & Environmental Sciences

Fetal malposition occurs when a baby is positioned in a way that makes vaginal birth more difficult, most commonly with the back of the baby's head facing the mother's back (occiput posterior) or sideways (occiput transverse) at the time of birth (Pilliod & Caughey, 2017). It is associated with prolonged labour, increased obstetric interventions, and poorer health outcomes for mothers and babies (Eide et al., 2024; Foggin et al., 2022). However, limited evidence on its global burden, risk factors, and consequences prompted this systematic review and meta-analysis.

This review systematically searched studies published between January 2000 and May 2025 using major electronic databases and Google Scholar. Meta-analysis combined the results from the included studies to estimate the global occurrence of fetal malposition and examine its associations with maternal and newborn health outcomes.

The review showed that fetal malposition affects approximately one in every fourteen births (7.05%) worldwide, with the highest incidence reported in Oceania (16.98%) and Africa (11.75%). Women having their first baby, those of advanced age, those receiving epidural pain relief, and pregnancies continuing beyond the expected due date were at greater risk. Compared with babies in the optimal position, fetal malposition was associated with around eight times and four times higher odds of caesarean birth and assisted (instrumental) vaginal birth, respectively. It was also associated with about twice the likelihood of severe birth-related injuries, postpartum haemorrhage (excessive bleeding after birth), and postpartum infection (chorioamnionitis), as well as a 37% higher likelihood of prolonged labour. Newborns were more likely to have poorer health at birth, including a low Apgar score, and to require admission to a neonatal intensive care unit.

In this presentation, I will discuss the global burden of fetal malposition using figures and key findings, highlight the major risk factors, and explain how these results can support earlier recognition, improve decision-making during labour, and contribute to safer care for mothers and babies.

Keywords

Fetal malposition, maternal outcomes, meta-analysis, neonatal outcomes, occiput posterior, occiput transverse

References

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