

## Immersion in water in pregnancy, labour and birth (Cochrane Review)

Cluett E R, Nikodem VC, McCandlish RE, Burns EE

### ABSTRACT

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A substantive amendment to this systematic review was last made on 10 October 2003. Cochrane reviews are regularly checked and updated if necessary.

**Background:** Enthusiasts for immersion in water during labour, and birth have advocated its use to increase maternal relaxation, reduce analgesia requirements and promote a midwifery model of supportive care. Sceptics are concerned that there may be greater harm to women and/or babies, for example, a perceived risk associated with neonatal inhalation of water and maternal/neonatal infection.

**Objectives:** To assess the evidence from randomised controlled trials about the effects of immersion in water during pregnancy, labour, or birth on maternal, fetal, neonatal and caregiver outcomes.

**Search strategy:** We searched the Cochrane Pregnancy and Childbirth Group trials register (September 2003).

**Selection criteria:** All randomised controlled trials comparing any kind of bath tub/pool with no immersion during pregnancy, labour or birth.

**Data collection and analysis:** We assessed trial eligibility and quality and extracted data independently. One reviewer entered the data and another checked them for accuracy.

**Main results:** : Eight trials are included (2939 women). No trials were identified that evaluated immersion versus no immersion during pregnancy, considered different types of baths/pools, or considered the management of third stage of labour. There was a statistically significant reduction in the use of epidural/spinal/paracervical analgesia/anaesthesia amongst women allocated to water immersion water during the first stage of labour compared to those not allocated to water immersion (odds ratio (OR) 0.84, 95% confidence interval (CI) 0.71 to 0.99, four trials). There was no significant difference in vaginal operative deliveries (OR 0.83, 95% CI 0.66 to 1.05, six trials), or caesarean sections (OR 1.33, 95% CI 0.92 to 1.91). Women who used water immersion during the first stage of labour reported statistically significantly less pain than those not labouring in water (40/59 versus 55/61) (OR 0.23, 95% CI 0.08 to 0.63, one trial). There were no significant differences in incidence of an Apgar score less than 7 at five minutes (OR 1.59, 95% CI 0.63 to 4.01), neonatal unit admissions (OR 1.05, 95% CI 0.68 to 1.61), or neonatal infection rates (OR 2.01, 95% CI 0.50 to 8.07).

**Reviewers' conclusions:** There is evidence that water immersion during the first stage of labour reduces the use of analgesia and reported maternal pain, without adverse outcomes on labour duration, operative delivery or neonatal outcomes. The effects of immersion in water during pregnancy or in the third stage are unclear. One trial explores birth in water, but is too small to determine the outcomes for women or neonates.

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This is an abstract of a regularly updated, systematic review prepared and maintained by the Cochrane Collaboration. The full text of the review is available in *The Cochrane Library* (ISSN 1464-780X).

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