

Water Birth Workshop

Lecture 1 Evidence-informed Positioning

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History of water birth

Oral history suggests that the use of water during labour, and birth under water, were probably known among people as diverse as the ancient Egyptians, the Indians in Panama, some Pacific Islanders and, perhaps, the Maoris of New Zealand. ... In ancient Greece Aphrodite, the goddess of love, was born from the foam of water, while in Cyprus the goddess of love was born on the beach at Paphos (Johnson & Odent, 1995: 62-63).



Intimacy



Birth as a family affair



Transitions



Free movement & positioning



Benefits

- "Facilitates mobility and enables the mother to assume any position which is comfortable for labor and pushing"
- Speeds up labor
- Reduces blood pressure
- Gives mother more feelings of control
- Provides significant pain relief
- Promotes relaxation
- Conserves her energy
- Reduces the need for drugs and interventions
- Protects the mother from interventions by giving her a protected private space
- Reduces perineal tearing
- Reduces cesarean section rates
- Is highly rated by mothers - typically stating they would consider giving birth in water again
- Is highly rated by midwives
- Encourages an easier birth for mother and a gentler welcome for baby"

Pain and water birth



- Significantly less '1st stage' labour pain reported (Cluett & Burns, 2009)
- Significant reduction in epidural, spinal, paracervical analgesia or anaesthesia use (Cluett & Burns, 2009)
- 69.7% water births required no analgesic – 58.0% for land births (Geissbuehler et al, 2004).



Perineal trauma and water birth

Less

- 2nd degree tear & episiotomy than birth stool (Dahlen et al, 2013)
- 3^o, 4^o & episiotomies (Dahlen et al, 2013; Geissbuehler et al, 2004)

More

- Vaginal, labial, 1^o & 2^o tears than land births (Geissbuehler et al, 2004)



[D]espite the limitations of available data, it appears that waterbirth is likely associated with a decreased likelihood of severe lacerations and a higher incidence of intact perineums (Nutter et al, 2014, p. 314).

Infection and water birth

Maternal

- Prophylactic AB
 - 2.1% water birth
 - 4.2% land birth
 - Therapeutic
 - 3.1% water birth
 - 4.7% land birth
- (Geissbuehler, 2004)



healthtop.com/topics/vaginal-bites-strap-infection

Neonatal

- Washout effect in water, less GBS colonisation (Zanetti-Dällenbach et al, 2006)
- Legionella pneumophila – contaminated water (Franzin et al 2001)



watertech.net/legionella/index.asp

Blood loss and water birth

- Significantly less blood loss - average 5.26 g/l vs 8.08 g/l land births (Geissbuehler et al, 2004).
- Lower PPH rate compared to birthstool (OR 2.04 [1.44–2.90]). (Dahlen et al, 2013).



metformin-side-effects.com



livestrong.com



http://www.youtube.com/watch?v=ucp_hyMq2v8

Apgar, admission to NBU & water birth

- Significantly lower incidence of 5-min Apgar scores <7 than those born in semi-recumbent position (OR 4.61 [1.29–16.52]) (Dahlen et al, 2013)
- Significantly fewer admissions to NBU from birth (Geissbuehler et al, 2004)
- No statistically significant difference in Apgar <7 at 5 mins or admission to NBU (Cluett & Burns, 2009)



bmsch.org

Burns et al (2012)

8924 women, 55.5% 1st babies -> 88.9% spontaneous birth, 58.3% water births

- Pool use associated with high frequency of spontaneous and 'normal' birth, especially 1st births
- Community women spent more time in the pool and fewer left the pool
- Care setting did not affect outcomes for babies or subsequent births



Nutter et al (2014)

... Case-controlled studies have included thousands of women who gave birth underwater without an apparent increase in maternal or neonatal morbidity or mortality. Potential risks associated with waterbirth for women and neonates appears minimal, and outcomes are comparable to those expected in any healthy childbearing population (p. 286).

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Lecture 2 Newborn Transition

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Fetal breathing

(Johnson 1996)

Inhibition

- Endocrine
- Warmth
- Metabolism - non shivering thermogenesis inhibited
- Hypoxia
- Chemoreceptors at larynx entrance - water swallowed

Stimulus

- Chronic changes or drugs
- 1-2°C environmental cooling
- Behavioural thermogenesis intact
- Severe hypoxia
- Chemoreceptors - physiological solutions inhaled



youtube.com/watch?v=0b2z9g0s

Position of baby on surfacing



youtube.com/watch?v=Z5L0m1E6tIE



youtube.com/watch?v=miWV956eQ

Apgar score



Facial bruising and lip colour



Cord avulsion

- 26 out of 10,797 water births = 2.4:1000
(Nutter et al, 2014)



Somersaulting for a nuchal cord

(Mercer et al, 2005)



The beginning of the babymoon



[youtube.com/watch?v=oz_hyMqN8](https://www.youtube.com/watch?v=oz_hyMqN8)
