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The use of water during labour and birth





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Introduction

Using water for pain management during labour and birth has been gaining in popularity over many years and is found to have numerous benefits including a decreased use of epidural analgesia, a reduction in the length of the first stage of labour and an overall satisfaction with the birthing experience¹. This guidance provides practical advice for Victorian maternity and neonatal care providers to support, sustain and expand the use of water during labour and birth.

This guidance aims to:

- provide qualified, registered practitioners with a safe and supportive framework in which to encourage the use of water during labour and birth
- assist women to make informed decisions on whether water use and water birth are suitable for them.

Definitions

For the purpose of this guidance, unless otherwise stated, the following definitions apply:

Water use and water immersion: Use of water in a shower, a fixed or inflatable birthing pool or bath, during the first stage of labour.

Water birth: Birth where a baby is born fully submerged in water.

This guidance consistently uses the terms 'woman', 'she', 'mother' and 'maternity'. This is for clarity and is not intended to exclude pregnant people who do not identify as women.

Evidence

Theoretical concerns have been raised in relation to the possibility of adverse neonatal outcomes during water birth including water aspiration, increased infection and an increase in morbidity and mortality, but these concerns have not been conclusively proven.³

Meta-analyses of randomised controlled trials and comparative studies (both prospective and retrospective), demonstrated that when midwives and medical staff are adequately trained and follow evidence-based guidelines, there is no evidence to suggest that using water for pain relief in a bath, an inflatable or fixed pool during labour, nor water birth for women with low-risk pregnancies, is harmful to the woman or the neonate.^{1,2,3}

Numerous international peak bodies endorse and recommend the use of water for labour and birth as a beneficial method for pain relief and to enhance the birth experience. However, it should be noted that some of the recommendations are consensus views and are not based on robust research.⁴⁻⁹ Many health services across Australia have recommended the use of water for labour and birth for many years.

Health services and practitioners are encouraged to ensure that women have the option of water use during labour and if appropriate, water birth is available to them. Women must be able to make informed decisions about whether this is a preferred and safe choice for them.^{4-9,12}

Governance

Health services and practitioners are governed by state and national frameworks and standards for practice. See **Appendix 1**.

- Health services should provide planned care to pregnant women using a risk management approach that establishes when advice, referral or transfer is required. This is to ensure that the right care is offered in the right place, at the right time and aligns with the Capability Framework for Victorian Maternity and Newborn Services.
- If the level of care that is required falls outside the capability of the health service, then consultation, referral and transfer processes need to be enacted, taking into consideration geographical boundaries, weather and road conditions.
- If emergency neonatal referral or retrieval is required, consult with the [Paediatric, Infant and Perinatal Emergency Retrieval service](https://www.rch.org.au/piper/) (PIPER) <<https://www.rch.org.au/piper/>> by phoning **1300 137 650**.
- Documentation should be objective, factual, comprehensive and contemporaneous.

Preparation

Information on the benefits of water use and suitability should be provided to a woman early in the pregnancy. This will help them make an informed decision on whether water use and water birth is appropriate for them. It is important to convey this information in a way that can be understood and is culturally appropriate.

During these discussions, please highlight:

- plans may need to change either during pregnancy or in labour, if circumstances arise that necessitate the need to transfer out of the water
- they will need to leave the water if they request an opioid or epidural analgesia
- while using water immersion for pain relief in labour, an unplanned water birth may occasionally occur.

Discussions regarding other aspects of labour and birth including consent for the third stage of labour management, should be documented in the woman's medical record.

Further information can be found in our [Care during labour and birth](#) guidance

<<https://www.bettersafercare.vic.gov.au/clinical-guidance/maternity/care-during-labour-and-birth>>

Water use during the first stage of labour

Showers

Many women find the sensation of water falling onto their back or abdomen soothing during the first stage of labour.

Where practical, appropriate and feasible, please provide showers as a pain relief option for all women.

Bath or pool

Suitability

Although evidence is limited, national and international good practice guidance suggests water immersion during the first stage of labour is suitable for women with a low risk of complications. That is, they have no pre-existing or emerging medical or obstetric conditions that may impact on labour and birth.

Water immersion is most suitable for women:

- with a singleton pregnancy, at term gestation (37+0 to 41+6 completed weeks' gestation)
- with cephalic presentation
- who are free from infectious diseases (hepatitis B, C and HIV) in the current pregnancy
- with a body mass index (BMI) <35 at the onset of labour
- who are physically able to enter and exit a pool with minimal help
- who have not received opioid analgesia within two hours of entering a pool
- with no epidural in situ
- who have apyrexial and other observations within normal parameters
- who do not have meconium-stained liquor
- with labour within normal parameters of progress.

Please note: Group B Streptococcus positive status is not a contraindication for water use, providing appropriate antibiotics are given to the woman during labour.⁵

If continuous fetal monitoring is required, then waterproof telemetry in this higher-risk setting must be available.

Use with caution and with appropriate monitoring equipment when the woman has:

- previously had a caesarean section or uterine surgery
- a history of previous shoulder dystocia or postpartum haemorrhage (document agreement that the woman will leave the pool when birth is imminent)
- confirmed macrosomia (>90th percentile) on ultrasound (document agreement the woman leaves the pool when birth is imminent)
- previous antepartum haemorrhage (not actively bleeding)
- ruptured membranes of <24 hours, with clear liquor.

When to enter a bath or pool

There is some evidence to suggest that progress of labour may be delayed if the woman enters the pool at a cervical dilation of less than four centimetres. This may lead to increased rates of epidural and need for augmentation of labour.¹² Conversely, there is also evidence to suggest water immersion can augment labour.

Practitioners should use their clinical judgement and in partnership with the woman, decide when the optimal time to enter the water should be.¹⁰

Facilitating water use during the first stage of labour

- Use tap water only. Additives like soap or essential oils are not recommended.
- The water level should reach the woman's axilla or breasts when sitting.
- Monitor the water temperature, maintaining a temperature between 36°C and 37.5°C to prevent hypo- or hyperthermia. The woman will guide you as to a temperature that is comfortable for her. If her temperature exceeds 37.5°C it is wise to request that the woman leaves the water for a short while or until her temperature returns to normal.
- A caregiver should be with the woman at all times while they are in the pool.
- Ensure adequate hydration is maintained by offering frequent, cooled water.
- A vaginal examination can be undertaken underwater if deemed necessary.
- Nitrous oxide and oxygen may be used while in the pool. Guide the woman on the appropriate and safe use of this pain relief medication.

Water birth

Health service requirements

Training

The health practitioner assisting a water birth must:

- be qualified and registered with the Australian Health Practitioner Regulation Agency (Ahpra), and practice according to local policies
- have appropriate experience, with knowledge of the correct procedures to help women leave the water in an emergency (according to individual hospital guidelines or through risk mitigation in homebirths)
- be competent in obstetric emergency procedures, maternal resuscitation, newborn examination and newborn resuscitation.

The need for practitioners to be accredited to facilitate water births has been identified as a barrier to providing this option for women. Health services should support practitioners who wish to gain experience in the use of water for labour and birth, by facilitating access to training opportunities. There is insufficient evidence to recommend a separate accreditation process.¹¹

Equipment

In addition to the standard equipment made available for birth, ensure the following items are available for a first stage labour and birth in water:

- Appropriate waterproof lifting device for emergency evacuation of the pool – for example, a sling or net.
- Appropriate oxygen and suction devices for both mother and baby.
- Water thermometer.
- Waterproof doppler.
- Waterproof continuous cardiotocograph monitoring (if indicated).
- Waterproof gown/apron and gloves of adequate length to cover bare skin when in contact with water containing body fluids.
- Disposable liner for an inflatable pool.
- A sieve to remove faecal contamination.
- Kneeler pads, cushions, non-slip mat, low stool or birth ball for midwives and birth companions.
- Resuscitation equipment able to be brought to the pool side.
- Handheld mirror (able to be sterilised or the woman's own).

Health and safety

Qualified practitioners should always provide a safe working environment by maintaining effective work practices, adopting local procedures and practices and those that comply with the relevant legislative requirements in the [Work Health and Safety Act 2011](https://www.legislation.gov.au/Details/C2018C00293). <<https://www.legislation.gov.au/Details/C2018C00293>>

In addition:

- wipe up spillages as quickly as possible. Place cautionary signs near any spills to alert staff, patients and visitors of any potential dangers
- wear non-slip footwear
- ensure the floor is structurally strong enough to support the weight of the filled birth pool
- use kneeling pads and/or a stool to protect your knees and back and avoid prolonged periods of sustained awkward posture/s
- attempt to keep a straight back when auscultating the fetal heart rate (FHR) or when assisting the birth if required. Ask the woman to come to the side of the birthing pool and raise her abdomen closer to you for FHR auscultation
- ensure the inflatable birthing pool is placed with an access space on at least three sides, for ease of evacuation.

Infection precautions

Principles of infection control during the first stage labour and birth in water should be maintained in accordance with local policies and the National Health and Medical Research Council's Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019).

- Fill the pool at the commencement of labour.¹⁰
- The primary midwife should:
 - remove debris prior to draining the pool
 - do the initial rinse of the birthing pool.
- A fixed pool should be disinfected as part of routine room cleaning.
- For inflatable pools:
 - drain using a suitable hose, rather than manually with buckets
 - remove the pool liner and dispose of with clinical waste
 - clean with disinfectant wipes before deflating
 - air dry before storing.

Suitability for water birth

- No previous caesarean section or uterine surgery.
- No previous shoulder dystocia.
- No previous postpartum haemorrhage.
- Baby is appropriately grown – that is, no growth restriction or macrosomia.
- No active bleeding aside from a mucous, light blood streaked show.
- No opioids received within two hours.
- There is clear liquor, not meconium-stained.
- Apyrexial and other observations are within normal parameters.
- Ruptured membranes for less than 24 hours.

Facilitating water birth during the second stage of labour

A water birth occurs when a woman's body is immersed to the level of her axilla and her baby is born fully submerged into water

The baby's head must remain submerged until after the body is born, then the baby should be brought to the surface immediately.

- Ensure the pool temperature is between 36°C and 38°C at the time of the birth.
- Encourage a natural urge to push. A mirror can be used to observe for external signs of progress if necessary.
- Support the woman with a 'hands off' birth with quiet, supportive verbal guidance, ensuring minimal stimulation of the baby underwater.
- Await spontaneous restitution and birth of the body.
- Ensure the baby is born completely underwater with no air contact, until brought gently to the surface immediately after the body has birthed.
- If a woman raises herself out of the water during the birth, exposing the fetal head to air, advise her to then remain out of the water for the remainder of the birth.
- Do not feel for the presence of a nuchal cord. If apparent and impeding the progress of birth, loosen the cord and disentangle as the baby is born. Under no circumstances should the cord be clamped and cut under water prior to the baby being fully born and lifted to the surface.
- If shoulder dystocia is suspected, do not wait for more contractions before helping the woman from the water and initiating emergency procedures and manoeuvres.
- In order to minimise the risk of avulsion, avoid excessive cord traction as the newborn is brought to the surface.
- Dry the newborn's face and head. Skin-to-skin contact between the newborn and mother is encouraged, with only the newborn's body submerged in the water. The newborn's head or face should not be resubmerged.

Reasons the woman may be asked to leave the pool for the second stage of labour

- Considerations as above ('Suitability for water birth').
- If the pool becomes heavily contaminated, in order to clean or change the water.
- Excessive bleeding.
- If contractions reduce or become ineffective and prolonged labour is suspected or diagnosed.
- If there are any other concerns for maternal or fetal wellbeing.

Third stage of labour

- Give the woman information on the benefits and harms of both active and physiological management for the third stage of labour, in order to support her informed choice.
- Active management of the third stage of labour is recommended for all births. Help the woman to leave the water after the baby is born. Follow procedure as per [Care during labour and birth](#)
- Do not administer the oxytocic injection under the water.
- In an uncomplicated pregnancy and labour, the woman may exercise her choice of a physiological third stage of labour, either in or out of the water. Women who wish to have physiological management of the third stage should understand the reasons why they may need to exit the bath and have active management commenced.
- Unless perineal trauma is assessed as severe (3rd or 4th degree tears) or the woman is actively bleeding, any suturing should be delayed for an hour following birth and after exiting the pool, as perineal tissue may be water-logged and friable.¹²

Water birth at home

Preparation for a home water birth should include an assessment of a suitable environment, including access to adequate heating, lighting and hot running water. The delivery of any supplies and equipment prior to 37 weeks' gestation is advisable.

Discuss the optimal pool placement site, evacuation procedure, clearing electrical equipment in proximity to the pool, adequate hot water tank capacity and encourage the family to fill the pool prior to its use, but only just prior to immersion, to avoid waterborne opportunistic infections.¹⁰ For more, read our [Homebirth guidance](#)
<<https://www.bettersafercare.vic.gov.au/clinical-guidance/maternity/homebirth>>

Newborn care

- Dry the newborn's face and head. Skin-to-skin contact between the newborn and mother is encouraged with only the newborn's body submerged in the water in order to stay warm. Consider placing a hat on the baby.
- Assessment of the baby should take place as per usual routines. Apgar scoring should not be delayed.
- Delayed cord clamping is recommended See [Care during labour and birth](https://www.bettersafercare.vic.gov.au/clinical-guidance/maternity/care-during-labour-and-birth)
<<https://www.bettersafercare.vic.gov.au/clinical-guidance/maternity/care-during-labour-and-birth>>
- If respirations have not commenced within one minute of birth, the cord should be clamped and cut, then the baby removed from the pool for immediate resuscitation.
- If remaining in the water, the temperature of the newborn should be monitored. The temperature of the water should be maintained at 36.5 to 37.5°C during this time.
- The newborn should be dried quickly and kept warm once leaving the water.

Care of the mother in the first hour after birth

- The mother should be kept warm following birth. The water temperature should be maintained at 36.0 to 37.5°C while remaining in the pool. Consider having warm towels and blankets available on leaving the water.
- If there is any evidence of maternal compromise, help the woman leave the water immediately.
- The woman and her baby must be fully assisted when leaving the water.
- If perineal suturing is required, it is preferable to delay this until one hour after leaving the water, in the absence of excessive bleeding. This allows time for water retained in the tissues to dissipate following prolonged immersion.¹²

Appendix 1

Maternity and newborn care should be provided in accordance with the following state and national frameworks, standards and guidelines:

- Australian College of Midwives (ACM) National Midwifery Guidelines for Consultation and Referral
- Australian National Breastfeeding Strategy: 2017 and beyond
- Capability framework for Victorian maternity and newborn services
- Department of Health and Human Services policy and funding guidelines (published annually)
- National Perinatal Mental Health Clinical Practice Guideline
- National Safety and Quality Health Service Standards
- National Strategic Approach to Maternity Services (NSAMS)
- Nursing and Midwifery Board of Australia (NMBA) Midwife Standards for Practice
- Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Standards of maternity care
- Victorian Clinical governance framework
- National Health and Medical Research Council Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019)

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