



# POSITION STATEMENT

## HYDROTHERAPY DURING LABOR AND BIRTH

**The American College of Nurse-Midwives (ACNM) affirms that**

- Warm water immersion hydrotherapy during labor provides comfort, supports relaxation, and is a safe and effective non-pharmacologic pain relief strategy that promotes physiologic childbirth.
- High quality research demonstrates the use of hydrotherapy for pain relief during labor does not increase risk for healthy women or newborns when evidence-based, clinical guidelines are followed.
- Results from observational research on warm water immersion hydrotherapy during birth are less conclusive. Researchers indicate that women who experience uncomplicated pregnancies and labors with limited risk factors and evidence-based management have comparable maternal and neonatal outcomes whether or not they give birth in water.
- Women should be given the opportunity to remain immersed during labor and birth if they wish to do so within the context of a shared decision-making process with their health care providers. This process includes ongoing maternal and fetal assessment as labor progresses.
- To make an informed choice for the use of hydrotherapy, women should have access to information regarding the state of the science, including strengths and limitations, and documented benefits and risks of available pain relief options including water immersion and or water birth as demonstrated in the published literature.
- Women should have access to qualified maternity care providers who provide safe immersion hydrotherapy during labor and birth using evidence-based, clinical guidelines, regardless of the women's geographic location, socioeconomic or insurance status, or birth setting.
- Certified nurse-midwives (CNMs®) and certified midwives (CMs®) are qualified to provide education, risk assessment, and care to women who desire water immersion for labor or birth.
- Professional liability carriers, hospital administrators, health care insurers, and regulatory entities should not prevent or disallow maternity care providers or facilities with maternity services from providing immersion hydrotherapy for labor and birth with trained attendants who follow evidence-based guidelines.

### **Background and State of the Science**

More than 31,000 underwater births have been reported in studies worldwide, and approximately 6% of women in the United States experience the pain relieving benefit of water

immersion hydrotherapy during labor and/or birth.<sup>1</sup> Utilization rates of water immersion hydrotherapy in midwifery and midwife-led collaborative practices in the United States tend to be higher, ranging from 15%-64% during labor<sup>2-4</sup> and 9%-31% during birth.<sup>3-5</sup>

The safety and efficacy of immersion hydrotherapy are well established for the first stage of labor. While pain relief is the only certain effect of immersion hydrotherapy in labor at this time, immersion may also hasten cervical dilation, resolve labor dystocia, and contribute to postpartum maternal satisfaction with childbirth.<sup>6,7</sup> Regarding potential risks associated with hydrotherapy during labor, no evidence demonstrates that immersion during the first stage of labor affects maternal intrapartum or postpartum infection, length of second or third stage labor, type of delivery, perineal laceration incidence or severity, postpartum blood loss, rate of hemorrhage, or postpartum depression.<sup>7</sup> Similarly, no relationship has been found between hydrotherapy and abnormal fetal heart rate patterns, meconium stained amniotic fluid, umbilical cord blood pH values, newborn Apgar scores, infections, admissions to special care nurseries, or rate of breastfeeding at 6 weeks postpartum.<sup>7</sup>

Most evidence about birth in water has been gathered from clinical audits and observational studies rather than randomized controlled trials. While additional research is needed regarding the effects of water immersion in the second and third stages of labor, there is a growing body of evidence available. Despite excellent neonatal outcomes observed in these studies of water birth<sup>4, 8-41</sup> concerns about the limitations of prior study designs are heightened by case reports of various adverse neonatal outcomes that have been attributed to labor and/or birth in water.<sup>42-63</sup> While these concerns warrant follow up and future study, observational studies provide more reliable evidence versus case studies which should not be used as the basis for final practice recommendations.<sup>64, 65</sup>

An additional consideration is the potential for intrapartum immersion to support physiologic birth and cost containment in maternity care, primarily due to its efficacy as a non-pharmacologic method of pain relief.<sup>7</sup> Childbearing women in the United States typically experience multiple medical and obstetric interventions during labor and birth that result in increased cost of maternity care and potential for iatrogenic complications as unintended consequences.<sup>1</sup> For example, epidural analgesia presents a greater risk for operative vaginal delivery than other forms of pain relief in labor, and its use is often accompanied by interventions such as continuous fetal monitoring, administration of intravenous fluids, and bladder catheterization.<sup>66</sup>

### **Evidence-Based Practice**

The use of hydrotherapy during labor and birth should be guided by evidence-based guidelines. To date, data on hydrotherapy guidelines are limited, but researchers have suggested regulation of water temperature to 36-37.5 degrees Celsius to prevent maternal and fetal hyperthermia and minimize the risk of premature respiration at the time of underwater birth.<sup>67</sup> During immersion hydrotherapy, maternity care providers should monitor maternal temperature and vital signs and fetal well-being per individualized risk assessment. The infant's

face should be brought to the surface immediately after underwater birth without stimulation en route or subsequent re-immersion to avoid the unlikely event of water inhalation.<sup>61,68-70</sup> Attention to umbilical cord length to reduce tension during the process of bringing the infant to the surface, followed by immediate inspection of the umbilical cord and attachment site post birth is recommended.<sup>71</sup> Thermoregulation can usually be maintained by keeping the infant's body submerged with the face above water. Other standards of care during labor and birth for mothers and their newborns remain the same regardless of the use of hydrotherapy. Consistent with the use of obstetric emergency drills to assure quality care, scenarios involving hydrotherapy should be included in sites where applicable.

In summary, labor and birth in water can be safely offered to women with uncomplicated pregnancies and should be made available by qualified maternity care providers. Labor and birth in water may be particularly useful for women who prefer physiological childbirth and wish to avoid use of pharmacological pain relief methods.

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Note. Midwifery as used throughout this document refers to the education and practice of certified nurse-midwives (CNMs<sup>®</sup>) and certified midwives (CMs<sup>®</sup>) who have been certified by the American College of Nurse-Midwives (ACNM) or the American Midwifery Certification Board, Inc. (AMCB) formerly the American College of Nurse Midwives Certification Council, Inc. (ACC).

Source: Division of Standards and Practice, Clinical Documents Section  
 Approved by the ACNM Board of Directors: April 2014