

# WATERBIRTH – ARE WE SWIMMING OR DROWNING?

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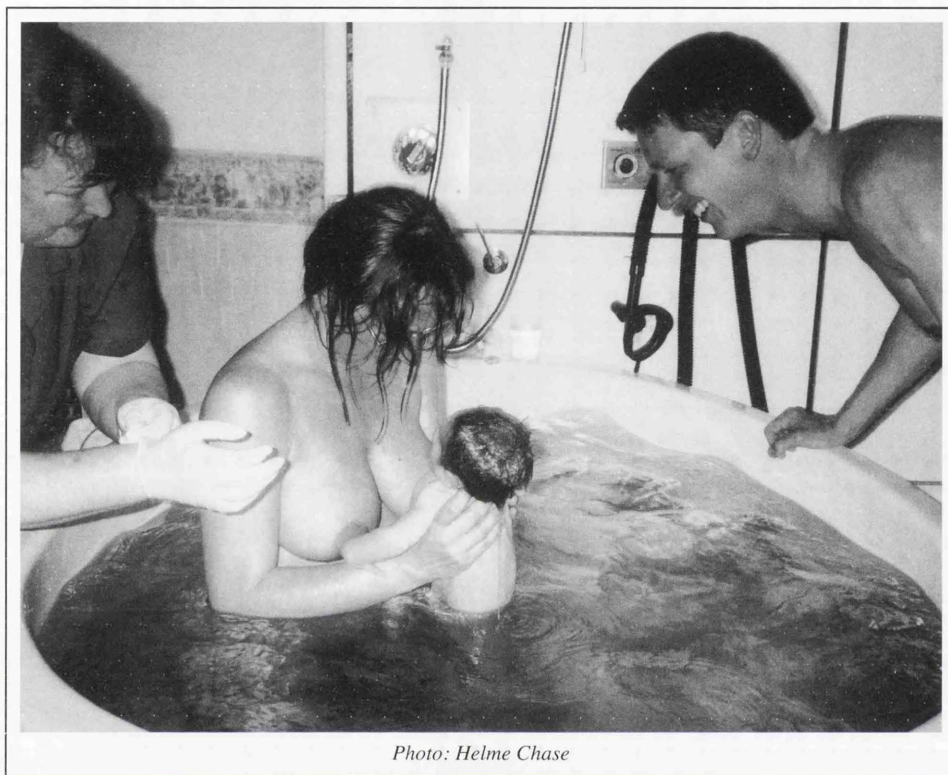


Photo: Helme Chase

*'The midwife, Jenny, was saying, "She's coming, Heather. Reach down in the pool and feel her head." I reached down and felt her soft hair and the roundness of her head. It felt odd, feeling another person slipping out of my body. A few more pushes, and her head was out. With the next contraction and a good push, she was born, and Jenny was saying, "Lift her up, Heather." I opened my eyes, and reached down, and pulled her out of the water and onto my chest. Her eyes were open and she was alert. Within a few minutes, she was rooting around for the breast. Chloe was here.'*

This story, written by a first-time mum in control of her positive birth, is typical of many births in water. Why should the seemingly positive experience of waterbirth evoke such strong passions, bitter arguments and non-research-based reactions amongst some professionals?

## HISTORY

The use of water during labour and birth was made popular in Britain in the early 1980s when French obstetrician Michel Odent gave lectures with graphic pictures of women labouring and giving birth in pools within the Pithier Obstetric Unit outside Paris<sup>(1)</sup>. Although he was initially dismissed by most of the medical and midwifery profession he was welcomed by the consumer groups such as the

National Childbirth Trust (NCT) and the Association for Improvements in Maternity Care (AIMs), who spearheaded the view that physical survival and absence of injury were not the only thing that mattered in childbirth. A sense of fulfilment was also important.

Waterbirth at that time became synonymous with 'alternative', 'women centred' and 'radical' childbirth. Since then, many mainstream maternity units have adopted these aspects supported by national documents. The Winterton Report<sup>(2)</sup> recommended that all women be given the option to labour or deliver in water. The Changing Childbirth Report<sup>(3)</sup> called for greater choice and control by women, not medical personnel, of the childbirth process. The Royal College of Midwives Position Paper on the use of water in labour and birth stated that all midwives should ensure they are competent to

provide support to women who choose to use water<sup>(4)</sup>. They considered this to be a 'core' competency. The Royal College of Obstetricians and Gynaecologists statement on birth in water neither advocates nor condemns waterbirth<sup>(5)</sup>. The National Service Framework (NSF) for Children, Young People and Maternity Services again reiterates that all staff caring for women in labour should be competent in waterbirth<sup>(6)</sup>.

There is currently a huge variation among maternity units in the use of water in labour, with some units actively discouraging or forbidding its use and others having up to 80% of women using water and 70% of normal births taking place actually under water<sup>(7)</sup>. Neither the available research (or lack of it), nor the staffing levels of the labour units involved can account for these variations.

## POLITICS

In 1993, two cases of neonatal death following birth in water were widely reported in the British media; one was in Stockholm, the other in Bristol. This resulted in the subsequent overreaction and condemnation of any midwife or obstetrician who continued to support waterbirth. Recently fitted pools, often paid for by funds raised by women and midwives, were removed and waterbirths were banned in many hospitals. Rosser (1994) regarded this as unjustified given the similar lack of research-based evidence supporting

epidural anaesthesia, electronic fetal heart monitoring, fetal blood sampling, etc<sup>(8)</sup>.

The 'overreaction' culminated in the disciplinary action and suspension from duty of two midwives who supported a woman using water during labour. The outcome was good and the woman had the birth of her choice at home in a pool<sup>(9)</sup>. The midwives did not contravene any of the Midwives' Rules or Code of Practice but supported the woman's choice in line with the recently published Winterton Report<sup>(2)</sup>. Both midwives lost their appeal against the disciplinary action taken by East Herts Health Trust because they 'violated' trust policy.

Page and Kitzinger (1995) deplored the knee-jerk reaction by obstetricians and managers which has prejudiced waterbirth research and rational communication and seriously frightened many midwives even through to today<sup>(10)</sup>. Redwood (1999) suggests the reaction was indicative of waterbirth being developed by women and midwives which perhaps threatens the status quo of institutional control and the authority of the medical model<sup>(11)</sup>.

## EVIDENCE TO DATE

Cluett *et al* (2004) reviewed immersion in water in pregnancy, labour and birth for the Cochrane database<sup>(12)</sup>. Eight randomised controlled trials were reviewed, involving 2939 women. They concluded that water immersion during the first stage of labour reduces the use of analgesia and reported maternal pain, without adverse effect on labour duration, operative delivery or neonatal outcomes. Trials on birth in water were too small to determine outcomes for women or neonates.

American and Italian journals reported two major audits of waterbirth compared to land births. Theoni *et al* (2003) analysed 1325 consecutive waterbirths and reported<sup>(13)</sup>:

- little difference in the length of the second stage of labour
- cord blood pH and postpartum maternal haemoglobin measurements remain unchanged
- infection levels following waterbirth were no more frequent
- waterbirth is as safe as land birth for low risk cases for both the mother and the neonate

Geissbuehler *et al* (2004) compared neonatal and maternal morbidity and mortality levels of 3617 waterbirths with 5901 low risk land births<sup>(14)</sup>. The waterbirth group demonstrated:

- less perineal trauma of all levels
- less blood loss
- less analgesia required
- fewer admissions of the neonate to Neonatal Intensive Care Units (NICUs)
- an equal number of maternal and neonatal infections
- they conclude that waterbirths are associated with low risks for both mother and baby

Back in Britain, a survey of 4032 waterbirths by the British Paediatric Surveillance Unit states, 'Our study provides good evidence that, for women who deliver in water, perinatal mortality is not substantially increased compared with low risk women delivering on dry land.'<sup>(15)</sup>

These results and conclusions justify a cautious recommendation of waterbirth to women in our care. In contrast, Kassim *et al* (2005) discusses one case of a baby with respiratory distress requiring admission to a NICU a few hours after waterbirth<sup>(16)</sup>. No infection was isolated but aspiration was diagnosed on X-ray. The author concludes that:

- this is due to aspiration of the pool water
- waterbirth has risks for the neonate
- women should be informed antenatally of the potential risks of waterbirth

Case studies are vital to pose questions and enquiries which then lead to relevant research. They cannot lead to sweeping recommendations to change or restrict practice. As professionals we should be demanding quality research in line with the Research Governance guidelines.

## WATERBIRTH EXPERIENCE IN MORECAMBE BAY HOSPITALS

Due to the positive support of the Women's Health Clinical Director, Head of Midwifery and consultant obstetricians, each of the three hospitals in Morecambe Bay Hospitals Trust has a waterbirth pool in its maternity unit and strict research-based guidelines developed by midwives and obstetricians, with the help of the Infection Control and Moving and Handling Teams, for its use. All the pools were plumbed in 6-10 years ago.

Hospital	2000	2001	2002	2003	2004	SVD
FGH	7	32	18	42	31	3.7%
RLI	15	22	8	11	32	2.5%
WGH	61	70	67	126	121	39.6%

Table 1 Number of waterbirths for the last five years at Furness General Hospital (FGH), the Royal Lancaster Infirmary (RLI) and Westmorland General Hospital (WGH) expressed as a proportion of the total numbers of spontaneous vaginal deliveries (SVDs) on each site.

Helme Chase Midwife-Led Unit in WGH, which is able to focus solely on normality in childbirth, understandably has the most women giving birth in water. Each site has carefully recorded the outcome of every waterbirth, including Apgar scores, perineal trauma and length of first and second stages. Any adverse outcome generates a joint Critical Incident Review by senior midwives and obstetricians.

For the last two years, Helme Chase midwives have undertaken a comparative audit of waterbirths versus low risk land births. In 2004, 50 consecutive waterbirths were compared with 50 consecutive land births that did not use water for labour and were matched for parity.

## CONCLUSIONS

There is a growing interest in waterbirths worldwide, with an international conference held for the last 20 years. However, this is still a relatively new phenomenon, and as such, caution needs to be exercised in all who support women having waterbirths. This comes in the form of strict guidelines limiting waterbirth to healthy low risk women at least until sound evidence exists of the any potential risks. To this end, Helme Chase will continue with local audits and is currently involved in a long term national audit of waterbirths by Ethel

## HELME CHASE WATERBIRTH AUDIT 2004

50 land births (16 primiparous and 34 multiparous)

50 waterbirths (16 primips and 34 multips)

Length of 2nd stage	LAND BIRTH		WATERBIRTH	
	Primip	Multip	Primip	Multip
Less than 15 mins	2	19	0	20
16-60 mins	9	14	10	14
61-120 mins	3	1	5	0
More than 2 hours	2	0	1	0
<b>TOTAL</b>	<b>16</b>	<b>34</b>	<b>16</b>	<b>34</b>

The practice of 'non-directed pushing' is used for all Helme Chase births. This involves the woman 'pushing' when her body tells her to, not 'directed' by the midwife. Research shows slightly longer second stage, less perineal trauma and better fetal outcomes for this method<sup>(17)</sup>.

Perineal trauma	LAND BIRTH		WATERBIRTH	
	Primip	Multip	Primip	Multip
Intact	2	18	4	16
1st degree tear	3	9	6	9
2nd degree tear	11	7	6	9
3rd degree tear	0	0	0	0
Episiotomy	0	0	0	0
<b>TOTAL</b>	<b>16</b>	<b>34</b>	<b>16</b>	<b>34</b>

In line with research showing that overall trauma is less and tears heal better, the practice of episiotomy is virtually only performed for fetal distress in the second stage<sup>(18)</sup>. First degree tears do not require suturing.

The above figures may suggest trauma requiring suturing for primips having waterbirths is less than that for land births, although these figures have not been statistically analysed.

Apgar less than 6 at 1 minute	LAND BIRTH		WATERBIRTH	
	Primip	Multip	Primip	Multip
	0	1	2	0
<b>TOTAL</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>

(Neither group had a baby with Apgar score less than 6 at 5 minutes)

Analgesia	LAND BIRTH		WATERBIRTH	
	Primip	Multip	Primip	Multip
None	3	10	5	11
Entonox	5	17	5	19
Meptid & Entonox	8	4	3	1
Meptid and TENS	0	1	0	0
Meptid, Entonox & TENS	0	1	0	0
Entonox and TENS	0	1	3	2
TENS	0	0	0	1
<b>TOTAL</b>	<b>16</b>	<b>34</b>	<b>16</b>	<b>34</b>

Transcutaneous electrical nerve stimulation (TENS) is used prior to entering pool. The use of Meptid (Meptazinol) and Entonox is not in any way restricted from either group, unlike some hospitals which restrict injected analgesia from women using water.

Although caution must be exercised in drawing conclusions from non-statistically analysed data, it would appear that the Helme Chase waterbirth outcomes are no worse and in some areas may be better than the land births.

A final point from Helme Chase's Audits for 2004; there were no neonatal transfers to the NICU related to birth in water during the year.

Burns, co-author of the Cochrane Review on water in childbirth<sup>(12)</sup>.

Each major audit or review to date cautiously supports waterbirths as being safe for low risk women but strongly recommends further rigorous research into these births. With the absence of statistically significant risks to the baby and the very positive maternal outcomes, midwives and medical staff should support the wishes of women in achieving birth in water and thus following recommendations of the NSF and Changing Childbirth reports.

The next international waterbirth conference is in spring 2007 in California. Research papers will be presented which may provide the evidence to enable professionals to categorically recommend this gentle method of birth. Until then, we need to inform women of the current research-based outcomes for waterbirth, without allowing unsupported scepticism of alternative births to influence our judgement. We can then support them in taking back control of the birth of their babies.

## ACKNOWLEDGEMENTS

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