

Maternity information factsheet

Using water for labour and birth: water birth

We have given you this factsheet because you may be considering using water during the labour and birth of your baby.

We hope this factsheet will help you to:

- explore the benefits and potential disadvantages of using water as a form of pain relief in labour
- understand the implications of birthing your baby in water
- determine whether the use of water in labour is appropriate for you
- feel more informed of the facilities available locally
- feel prepared for a labour and/or birth in the water

If you are considering labouring and/or giving birth in the water, please discuss this with your midwife.

What are the benefits of using water during labour?

Research has shown that women who use water during their labour:

- **experience less contraction pain and less backache.** Pain in labour is felt when the muscles in your uterus (womb) contract and your perineum (the skin and muscles between your vagina and rectum, also called your back passage) stretches in preparation for birth. Warm water has a soothing effect, relaxing your muscles and encouraging the release of endorphins. Endorphins are your body's natural pain-relieving hormones.
- **use significantly fewer pharmacological forms of pain relief** such as pethidine or epidural.
- **feel less anxious and more relaxed.** As well as relieving pain, endorphins increase your sense of wellbeing. Women who have used water for labour and birth frequently describe it as relaxing and calming.
- **are more able to move around and change position.** This is due to the buoyancy effect created by the depth of the water. The water in a birthing pool will support 75% of your weight. This allows you to move around the pool more easily. Being able to move more easily saves you energy, which gives you more energy for labour itself. It also makes it easier for you to change your position and adopt an upright position.
- **remain upright.** Being upright in labour encourages more efficient contractions and allows gravity to assist you. This encourages your baby to descend through your birth canal in the best position.
- **feel empowered, involved in decision-making and in control.** This is partly due to your increased mobility but also due to the sense of privacy created by the water.
- **have no increase in the risk of infection.** The option to labour and birth in water does not have a higher risk of infection than labouring and birthing without water. Your midwifery team will follow specific guidelines to ensure the pool you use is clean. If you are having your baby at home, the pool you hire should not be left filled and heated before your labour starts. You should add fresh tap water as your labour begins. If you have any

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questions about this, please speak to your midwife or the provider of your pool. If you have an infection, such as herpes, or you are feeling feverish and unwell, your midwife will advise you not to use the pool. For more information about group B streptococcus infection please refer to page 4.

Length of labour

Based on the research that has been done on this topic so far, it's not clear whether water itself affects the length of your labour.

What we do know is that stress and anxiety have been associated with weaker and less frequent contractions and therefore a slower labour. Labouring in water provides pain relief, which encourages women who are feeling stressed and anxious to relax. This allows labour to progress at its usual rate.

Despite this, it is important to avoid getting into the pool too early, however tempting this may be, as it can sometimes slow down your labour. Ideally, you should wait until your labour is established. Please speak to your midwife if you feel you need more pain relief.

Giving birth in water

Unfortunately, labouring in water does not guarantee that you will have an unassisted vaginal birth. The choice of whether or not to use water makes little or no difference to whether you will have an unassisted vaginal birth, assisted vaginal birth (forceps or ventouse) or caesarean section.

Other factors, such as where you choose to give birth, have more influence on the likelihood of you having an unassisted vaginal birth. Please discuss your birthplace options with your midwife. More information is available on page 5.

It is possible to choose to labour in water without choosing to birth in water. Your midwife will discuss your wishes for the pushing (second) stage of labour with you and your birth partner. Your midwife will advise you to get out of the water if there are any concerns with your baby's heart rate or progress in labour.

Birth of your placenta and your blood loss after your baby is born

It's not clear what effect water has on the amount of blood you lose after giving birth. The limited research available suggests there is no difference in the amount blood lost after birth between women who have birthed in water and those who have birthed without water. We recommend you birth your placenta without water.

If you have any questions about this or any other recommendations, please discuss them with your midwife during your pregnancy. We will also discuss the advantages and disadvantages of active versus physiological birth of your placenta and deferred cord clamping. This is discussed in more detail on page 9.

Perineal tears

A perineal tear is a tear to your perineum (the area between your vagina and anus), vaginal wall and labia. A severe tear can extend to the muscle that controls the anus, usually described as a third or fourth degree tear.

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There is no evidence to suggest that water increases the likelihood of severe tears, based on the research that has been done on this topic so far.

The likelihood of 'a tear' is influenced by many factors, including your ethnicity, age, body mass index, baby's weight and whether or not this is your first birth. These factors together with the position of both you and your baby at the time of your baby's birth will have an effect, irrespective of whether you labour and birth in the water or not.

One of the benefits of the pool is the buoyancy of the water which will increase your mobility and allow you to move and change position more easily.

You can find more information about 'How to minimise your likelihood of a perineal tear' on our website: www.uhs.nhs.uk/maternity

Your baby's wellbeing

Research studies have looked at:

- assessments of a baby's health immediately after birth (Apgar scores)
- the likelihood of a baby developing an infection during their first week of life or being admitted to neonatal intensive care unit (NICU)

There is no evidence to suggest labouring or giving birth in water will make any difference to your baby's health and wellbeing, if you and your baby are well during your pregnancy and throughout your labour and birth.

Ensuring you and your baby are well will protect your baby from gasping and inhaling water in the short time their head is under the water after birth. The risk of this is extremely rare, because your baby is protected by:

- the temperature of the pool water
- the reduced gravity associated with the depth of the water
- the minimal touch environment

To minimise the risk further, during your labour your midwife will:

- monitor your baby's heart rate regularly
- observe the colour of the amniotic fluid around your baby
- assess your temperature and the water temperature very carefully

Please be aware that your midwife may ask you to leave the pool at any time if there are concerns about the wellbeing of you or your baby. Your midwife will discuss this with you towards the end of your pregnancy. Please read page 7 for more information.

Umbilical cord

Women often ask if there is a risk of the umbilical cord snapping as their baby is brought to the water's surface. This is very rare. It is estimated to affect 3 in every 1000 babies (0.3%). Of these affected babies, 23 in every 100 (23%) will need to have care on the neonatal unit (NNU) and 13 (13%) may need to have a blood transfusion.

There have been no reports of any harmful long-term effects and for the majority of babies, prompt clamping of the umbilical cord prevents any further cause for concern.

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It is not clear whether the risk of the cord snapping is higher during birth in water or during birth without water. There are only a small number of research studies on this topic, so it is not possible to compare directly. However, being aware of the possibility will allow you and your midwife to take steps to reduce the likelihood of the cord snapping.

Your midwife will:

- ensure the depth of the water is not higher than your breast level at the time of your baby's birth and that your baby is brought gently to the water's surface
- check your baby's umbilical cord as soon as your baby's head has been brought to the water's surface

Placing your baby on your chest so that their head is above the water, but their body remains in the water, will prevent undue tension in the umbilical cord. The warm water will also keep your baby warm and enable you to have skin-to-skin time with your baby. For more information about the benefits of skin-to-skin time, please read page 10.

Is labouring in water appropriate for you?

Using water for pain relief during labour will usually be appropriate for you if:

- you are expecting one baby
- your baby is in a head down (cephalic) position (not breech)
- you are more than 37 weeks pregnant
- you and your baby are healthy and do not have any underlying health problems

If your pregnancy is more complex and you wish to use the pool, a consultant midwife or your obstetrician will discuss your individual circumstances with you. This discussion may also include use of the waterproof telemetry (a method of continuously monitoring your baby's heartbeat) and the pool on Labour ward, as a method of pain relief during labour, if appropriate, and will enable you to make an informed decision.

Using the birthing pool is not recommended if:

- your waters are brown, green or blood-stained
- there is more than 24 hours between your waters breaking and established labour beginning
- continuous monitoring of your baby's heartbeat has been recommended
- you have a known or suspected infection or broken skin

Please discuss these recommendations with your midwife during your pregnancy, as this will enable you and your midwife to decide whether the use of water in labour and for birth is appropriate for you.

Early-onset GBS infection

If antibiotics during labour have been recommended to prevent your baby from developing an early-onset GBS infection, please discuss these recommendations with your midwife.

If using the birthing pool is appropriate for you, you will be given your first dose of antibiotics before you enter the pool. You will also be advised to get out of the pool while you receive the next dose of antibiotics. You will be offered a dose of antibiotics every four hours. You will also need to try and keep your cannula and dressing dry.

For more information, please visit www.uhs.nhs.uk/maternity and download the 'Group B streptococcus (GBS) infection' factsheet.

Preparing for a water birth

When considering labour and birth in the water, it is essential to consider:

- where to have your baby
- your birth partner
- what to bring with you
- additional pain relief

Choosing where to have your baby

Choosing to give birth in an environment where you feel relaxed and in control may not only make a difference to your labour but has also been shown to influence your emotional wellbeing after the birth of your baby.

University Hospital Southampton NHS Foundation Trust is able to offer you a choice of birthplace options, with birthing pools available in both our midwifery-led birth centres and our Labour ward (obstetrician-led delivery suite). The pools are available on a 'first come, first served' basis and it is not possible to book ahead, unless you are having a water birth at home. Please let the midwives know that you would like to use the pool when you contact the maternity triage line during early labour, as they will be aware of pool availability.

For more information about your birthplace options please visit: www.uhs.nhs.uk/departments/maternity-services/having-your-baby/choosing-where-to-have-your-baby

Using water at home

Portable pools can be hired privately if you choose to labour and/or birth in water at home. You will be responsible for the hire, assembly, filling and emptying of a pool that is suitable for labour and birth.

However, when choosing to hire a pool for use at home, it is important to consider:

- access all around the pool – this is important for you as you may wish or be advised to get out of the pool during your labour (it is also important for your birthing partner(s) and midwives)
- adequate ventilation as the room temperature should be comfortable but not too hot
- access to taps and drains
- the location of electrical equipment
- the weight of the pool when filled and the load-bearing capacity of the floor
- protecting your floor (a waterproof sheet covered with towels creates a non-slip surface)
- creating a dry area for you and your baby when you come out of the pool

If you are having your baby at home, the pool you hire should not be left filled and heated before your labour starts. You should fill it with fresh tap water as your labour begins. If you have any questions about this, please speak to your midwife or the provider of your pool.

Transfer to the Princess Anne Labour ward from your chosen place of birth

Choosing to labour in the pool and have your baby at home or in a birth centre is only recommended if you and your baby remain healthy throughout your pregnancy and labour.

Your midwife may recommend that you transfer to Labour ward if your labour is not progressing as well as it should, or if there are concerns about the wellbeing of you or your baby. You may also wish to transfer to Labour ward for additional pain relief.

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Your choice of where to give birth will not affect the reasons for transferring. How urgently you need to transfer to the Labour ward will depend on the reason for your transfer.

While the majority of transfers take place during labour, situations can also arise after the birth of your baby where transfer becomes necessary. Your midwife will be able to discuss the likelihood of this with you.

Using the pool on Labour ward

You may be able to use the birthing pool on Labour ward if:

- you do not wish to give birth at home but the pools in our birth centres are already in use (your midwife will discuss the likelihood of this with you)
- you have a more complex pregnancy and the use of water as a method of pain relief during labour has been agreed with your consultant midwife or obstetrician

Please discuss your birthplace options with your midwife. For more information about choosing where to have your baby, please visit: www.uhs.nhs.uk/departments/maternity-services/having-your-baby/choosing-where-to-have-your-baby or download the 'My Birthplace' app.

Packing your bags

We recommend packing your bag at least six weeks before your baby is due. Page 19 of the maternity services guide provides you with a list of necessities for yourself, your birth partner and your baby. The maternity services guide is available to download from www.uhs.nhs.uk/maternity

If you are using water for labour or birth, you may also find the following items useful:

- plenty of drinks, including isotonic drinks (fruit juice, squash, sports drinks)
- straws or water bottles
- snacks, such as cereals, fruit, yogurt or energy bars
- something to wear – while many women choose not to wear anything in the pool, others prefer to wear a top (a strappy vest top, bra or bikini top is more comfortable than a t-shirt, as tops with sleeves may make you feel cold when the material is wet)
- an inflatable pillow to use as a head rest
- a kneeling mat or swimming float for kneeling on in the pool
- a warm dressing gown and a large, brightly coloured towel (if your towel is brightly coloured it is less likely to be confused with hospital laundry)
- 'slip on' shoes or slippers with a non-slip sole – which may be put on easily when walking to the toilet

If you are planning to use a pool at home, you may find having a supply of ice-lollies or ice-cubes in your freezer is beneficial.

Your care during labour

Before you get into the pool, your midwife will:

- assess your wellbeing
- measure your blood pressure, pulse and temperature
- review the wellbeing of you and your baby during your pregnancy again
- listen to your baby's heartbeat and confirm your baby's position
- observe the frequency and strength of your contractions
- assess your cervix and confirm you are in labour

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This is to ensure the pool is still an appropriate environment for you to labour and birth your baby in. Your midwife will explain the importance of getting out of the pool if there are concerns about the wellbeing of you or your baby. It is important to make sure you are able to get in and out of the pool.

Temperature checks

Every hour during the first stage of labour (when you are contracting regularly and your cervix is dilating), your midwife will check:

- your temperature
- the temperature of the room
- the temperature of the pool water

This is to make sure you are comfortable. The recommended water temperature is between 34 to 37°C. It is important to tell your midwife if you feel too warm.

Your midwife will adjust the water temperature and monitor you closely. Becoming overheated can:

- cause you to become dehydrated and develop hyperthermia (a raised temperature)
- cause your baby's temperature to rise (this may affect your baby's wellbeing and ability to cope with labour)

Your midwife will recommend that you get out of the pool if you develop a temperature:

- greater than 37.5°C, or
- 1°C higher than the temperature recorded at the beginning of your labour

When you are in the second (pushing) stage of labour, the recommended water temperature is 37 to 37.5°C. This is because it is similar to your body temperature. When a baby is born, their breathing reflex is triggered by a change in light, sound and temperature. Keeping the pool water temperature similar to your body temperature should mean that your baby will wait to take their first breath until after they are brought to the water's surface and come into contact with the cooler air. Your midwife will monitor the water temperature regularly and adjust it if necessary.

Monitoring your baby's wellbeing

Regular monitoring of your baby's heartbeat is essential throughout labour, whether you are using water or not.

During the first stage of labour, while your cervix is dilating, your midwife will listen to your baby's heartbeat every 15 minutes.

When you are in the second (pushing) stage of labour, they will listen to your baby's heartbeat after every contraction. This is known as 'intermittent auscultation'. Your midwife will use a waterproof sonicaid to listen to your baby's heartbeat under the water, so you will not need to leave the pool unless there are concerns about your baby's wellbeing.

If your baby's heartbeat is too fast or too slow, or the colour of your 'waters' changes, becoming green, brown or blood-stained, your midwife may ask you to leave the pool. This is because these can be signs that your baby's wellbeing is at risk and they may be more likely to take their first breath (gasp) underwater, which can lead to further problems.

Food and drinks

During labour and particularly while you are in the pool, your midwife will encourage you to drink regularly. It is important to stay hydrated during labour, as dehydration leads to tiredness and affects both your tolerance to pain and the efficiency of your contractions.

As well as drinking water, you should also include cool isotonic (sports) drinks, milk, squash and fruit juices, as these will provide you with energy and ensure the level of sodium in your blood doesn't become too low.

Low levels of sodium can cause hyponatremia. This causes headaches, feelings of confusion, agitation and in rare cases, seizures. This can happen whether you use the pool or not, but it is important to be aware of this because the pool room can become hot and humid.

Your midwife will keep a record of the volume of fluids you drink. Your midwife will advise you to bring a selection of drinks and snacks to your chosen birthplace. A light diet of cereals, fruit, yogurt or energy bars will also help you maintain your energy levels. When you pack your bag, please pack enough for you and your birth partner(s).

Caring for your bladder

Your midwife will encourage you to pass urine regularly, at least every two to four hours, preferably by leaving the pool and walking to the toilet.

They may also ask you to measure the amount of urine you pass during your visits to the toilet. This will allow your midwife to assess your bladder function. For this reason, it is also important to let your midwife know if you pass urine in the birthing pool. Urine is sterile and will be diluted by the pool water so it is not harmful to your baby, but walking to the toilet will allow you to change your position and benefit from the effects of gravity while walking. It will also give your midwife an opportunity to refresh the water in the pool.

Water depth

The depth of the water in the pool is important because it creates the buoyancy effect which supports your weight and allows you to remain upright and change position more easily. The pool will be filled according to your height and the surface of the water should be level with your breasts when you are in a sitting position.

The pools at Princess Anne Hospital have a surface similar to that of a bath. You may therefore wish to use foam kneeling pads or floatation aids to enable you to remain mobile and facilitate your comfort, especially if you adopt a kneeling position. If you wish to do so, please make sure you bring your own selection. Floats cannot be provided due to the difficulties associated with cleaning them.

Additional pain relief

If you have used a TENS machine during early labour, you will need to take this off before you get into the pool.

Aromatherapy oils should not be added directly to the water. If aromatherapy oils have been used for massage during early labour and are still visible on your skin, your midwife will encourage you to have a shower while the pool fills.

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The use of opioids, such as morphine or pethidine, during labour can make you feel nauseous and drowsy, and may make your baby sleepy. Due to this sedating effect, your midwife will advise you to wait for two to four hours after you have had any form of opioid before you get into either a birthing pool or a bath. You should not get into the water if you feel drowsy.

Entonox (gas and air) is a mixture of nitrous oxide and oxygen. This can be used while you are in the pool during labour and birth. Gas and air won't remove all the pain, but it can help reduce it and make it more bearable. It has the advantage of working quickly and is non-accumulative, so there are no harmful side effects for you or your baby.

However, some women find 'gas and air' makes them feel light-headed, sick or sleepy. If this happens, you can stop using it. Your midwife will support you with your use of 'gas and air' and advise you when to breathe it in and when to take a rest to minimise any unwanted side effects.

Your birth partner

If you would like your birth partner to get into the pool to support you, this may be possible if your birth partner is wearing swimwear or a t-shirt and shorts.

Birth of your baby

You can get in and out of the pool as you please during labour. You may choose to use the pool for pain relief during labour and remain in the water for the birth, or you may prefer to leave the pool for the birth of your baby.

After your baby is born, you, your partner and/or your midwife will bring your baby to the surface of the pool slowly (avoiding any excessive pressure on the umbilical cord). Your baby will only be under water for a short time and won't take a breath until they are out of the water.

Cutting the cord

You or your birth partner may wish to cut your baby's umbilical cord. You may also wish to consider 'deferred cord clamping'. Waiting for up to five minutes after your baby is born before cutting the umbilical cord is known as 'deferred cord clamping'. This allows the blood from your placenta to continue supplying your baby with oxygen and nutrients, including iron, which helps with their growth and development.

Birthing your placenta

It is important to discuss the birth of your placenta with your midwife during your pregnancy, although you do not need to make a decision until after your baby is born.

You have two options:

- **physiological birth:** This means that you will birth your placenta naturally, which can take up to an hour. If your placenta hasn't birthed within an hour, your labour is longer than anticipated, or you had a heavy blood loss, you will be advised to have active management.
- **active management:** You will be given an injection of a drug called oxytocin into your thigh as you give birth. This makes your womb contract, so the placenta comes away from the wall of your womb. This usually takes a few minutes, but it can take half an hour. The injection can make you feel sick or vomit, but it also lowers your risk of heavy bleeding.

Please discuss your options with your midwife, who will be happy to answer any questions you may have.

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After your baby is born

Holding your baby against your skin straight after birth will calm them, steady their breathing, keep them warm and encourage them to breastfeed.

We recommend that you have uninterrupted skin-to-skin contact until after your baby has had their first feed, as babies are awake and eager to feed in the first hour after birth. Your midwife will be there to support you and ensure you are relaxed, comfortable and not rushed.

Whether or not you have chosen to breastfeed, there are many benefits of having skin-to-skin contact for both mother and baby.

Further information

We have created a series of online education resources to help support you through your pregnancy, labour and birth. Included within these resources is a session focusing specifically on water birth. Please visit our website www.uhs.nhs.uk/maternity or 'Southampton Maternity Services' Facebook page for more information.

Useful links

www.birthpoolinabox.co.uk

www.homebirth.org.uk

www.nct.org.uk

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**