Care of women and their babies during labour and birth

About this information

NICE guidelines provide advice on the care and support that should be offered to people who use health and care services.

This information explains the advice that is set out in NICE guideline CG190 about the care of women and their babies during labour and immediately after the birth.

Information in the sections on listening to your baby's heartbeat and if electronic monitoring is needed was updated in 2017.

Does this information apply to me?

Yes, if you have had a straightforward pregnancy and give birth between 37 and 42 weeks of pregnancy.
It does not cover women:

- who give birth before 37 weeks or after 42 weeks
- who have conditions such as pre-eclampsia (high blood pressure during pregnancy) or diabetes
- who are pregnant with more than 1 baby
- who have had a caesarean section before, or are having a planned caesarean section
- who are being induced
- whose baby is 'breech' (bottom down)
- whose baby is not growing properly in the womb (uterus)
- whose baby has an inherited condition that means she or he might need assessment and extra care at birth
- whose baby has died in the womb.

NICE has written other guidelines about pregnancy, birth and postnatal care – see other NICE guidance for details.

Having a baby

Having a baby is an emotional, intense and life-changing event. Healthcare professionals should do everything they can to make the birth a positive experience for you and any birth companions you have. It is important that you are involved in any decisions about your care during labour and birth.

Your care team

A range of healthcare professionals may be involved in your care. These will include midwives (experts in labour and birth), and may also include doctors such as obstetricians, neonatologists and anaesthetists.

Working with you

Your care team should talk with you about what you can expect when you have your baby. They should ask about your hopes and expectations and explain your options, so that you can decide
what is best for you. They should read your birth plan if you have one and talk with you about it. They should make sure that you feel in control of what happens during labour, and ask your permission before carrying out any checks.

It is a good idea to have one or more birth companions (also known as 'birth partners') to support you during labour – for example, your partner, a family member or a friend. You and your birth companions should be treated with kindness and respect.

You may also like to read NICE’s information for the public on patient experience in adult NHS services. This sets out what adults should be able to expect when they use the NHS. We also have more information on the NICE website about using health and social care services.

If you think that your care does not match this advice, talk to your care team.

Choosing where to have your baby

Where you have your baby is your choice, and you should always be supported in this choice.

Giving birth is generally very safe for both you and your baby, wherever you choose to have your baby. Your midwife should explain that you can choose to give birth at home, in a midwife-led unit or in an obstetric unit.

Midwife-led units (also called birth centres) are more 'home-like' and relaxed. They can be in or next to a hospital (called 'alongside' units) or in a different place (called 'freestanding' units). Obstetric units (also called labour wards) have more medical facilities.

If you have had a baby before, your midwife should advise you that planning birth at home or in a midwife-led unit is particularly suitable for you. This is because the evidence shows that:

- you are less likely to have interventions (such as a ventouse or forceps birth, caesarean section and episiotomy) compared with planning birth in an obstetric unit
- the chances of your baby having a serious medical problem (which are very low) are not affected by where you plan to give birth.

If you are having your first baby, your midwife should advise you that planning birth in a midwife-led unit is particularly suitable for you. This is because the evidence shows that:
• you are less likely to have interventions (such as a ventouse or forceps birth, caesarean section and episiotomy) compared with planning birth in an obstetric unit

• the chances of your baby having a serious medical problem (which are very low) are not affected compared with planning birth in an obstetric unit, but there is a small increase in the chance of a serious problem for your baby if you plan to give birth at home.

NICE has said this based on the best available evidence from a number of studies. This includes a study called Birthplace, which looked at where lots of healthy women in England planned to give birth and what happened when they had their babies. The box below gives more details about what was found in the study.

Not all women are able to give birth where they planned or hoped for. Some women will need to be transferred to an obstetric unit during labour if there are concerns about them or their baby, so that extra care is on hand if needed (see what if I need to be transferred to an obstetric unit during labour?).
Information from the Birthplace study

More information (including tables containing figures from Birthplace and other studies) is available in section 1.1 of the version of the guideline for healthcare professionals.

Note that the information here:

- is about healthy women who were at low risk of having problems during labour and birth
- is based on where the women planned to give birth, whether or not they ended up having their baby where they planned.

Women who have had a baby before

- Women planning birth at home or in a freestanding midwife-led unit were more likely to have 'normal' (vaginal) birth than women planning birth in an alongside midwife-led unit. Women planning birth in any of these 3 places were more likely to have a normal birth than women planning birth in an obstetric unit.

- Women planning birth in an obstetric unit were more likely to have interventions, such as ventouse or forceps birth, caesarean section and episiotomy, than women planning birth in other places.

- The chances of a baby having a serious medical problem were the same, and not affected by where women planned to give birth.

Women having their first baby

- Women planning birth at home or in a freestanding midwife-led unit were more likely to have a normal (vaginal) birth than women planning birth in an alongside midwife-led unit. Women planning birth in any of these 3 places were more likely to have a normal birth than women planning birth in an obstetric unit.

- Women planning birth in an obstetric unit were more likely to have interventions, such as ventouse or forceps birth, caesarean section and episiotomy, than women planning birth in other places.

- The chances of a baby having a serious medical problem were the same for women planning birth in an alongside midwife-led unit, a freestanding midwife-led unit or an obstetric unit.

- The chances of a baby having a serious medical problem were slightly higher for women planning birth at home than for women planning birth in the other 3 places.
To help you make a decision about where to have your baby, your midwife should give you information about home births and about all birth units in your local area, including:

- the likelihood of being cared for in labour by a midwife you already know

- the likelihood of being cared for in labour by a midwife who is looking after just you (this doesn't necessarily mean the same midwife throughout the whole of your labour) – this is often called 'one-to-one care'

- which medical staff will be available

- types of pain relief available (epidurals are only available in obstetric units – see epidurals section).

You may be advised to give birth in an obstetric unit if you have certain health conditions. This may also be the case if you have had problems with a previous pregnancy or birth, or if complications develop during your pregnancy. If any of these apply to you, your midwife or doctor will talk with you about your options.

All options should be available to you. Wherever you choose to have your baby, you should be supported in your choice.

**Questions you might like to ask about where to have your baby**

- What are the different places where I can choose to have my baby?

- What are the advantages and disadvantages of these different places?

- Where can I find more information or support for my choice about where I have my baby?

- Can I change my mind about where to have my baby?

- How likely am I to have a midwife I know looking after me during labour?

- What different types of pain relief are available in the different places?

- Can my birth companion(s) stay with me after the birth?

- What types of serious medical problems can affect babies, and how common are they?
The early stage of labour

The early stage is also called 'the latent first stage of labour'.

Information

If this is your first baby, you should be given information at antenatal appointments about what to expect in the early stage of labour, including:

- how to tell the difference between Braxton Hicks contractions and proper labour contractions
- how often contractions are likely to happen and how long they will last
- how to tell if your waters have broken (see below)
- what type of vaginal discharge to expect
- ways to work with any pain you are having
- how to contact your midwife and what to do in an emergency.

If you think you might be in labour

You may be offered an early assessment to see whether you are in labour. If this is your first baby, this might be a face-to-face meeting with a midwife, either at home (even if you are not planning a home birth) or at your planned place of birth. Or you might be offered a phone assessment, whether this is your first baby or not.

In all early assessments, the midwife should:

- ask how you feel, and about your birth plans, hopes and any concerns
- ask about your baby’s movements, and especially about any changes in this
- explain what you can expect in the early stage of labour, including things you can try to help with pain
- offer you support, and pain relief if needed
- encourage you to stay at home, or return home, until your contractions start coming more often
• tell you who to contact next and when
• give advice and support to your birth companion (if you have one).

Pain relief in the early stage

Breathing exercises, massage and being in water may help to ease pain during the early stage of labour. There is not much evidence that aromatherapy, yoga or acupressure work to relieve pain, but you can use them if you want to.

See the pain relief section for more information.

What if my waters break before I go into labour?

Your waters may break before you go into labour. If you or your midwife thinks your waters might have broken but are not sure, you should be offered an internal examination with a device called a speculum. You shouldn't have this type of examination if it is obvious that your waters have broken.

Most women (6 out of 10) whose waters break go into labour on their own within 24 hours. But if this doesn't happen, your midwife should offer to start your labour artificially – this is called inducing labour (which is covered in a separate NICE guideline; see other NICE guidance). This is because your waters breaking before labour starts increases your baby's risk of serious infection (from a chance of 5 in 1,000 to a chance of 10 in 1,000 births).

While waiting to be induced, or if you choose not to be induced, you will be advised to take your temperature every 4 hours while you are awake. You should get in touch with your midwife if you develop a high temperature. You should also tell your midwife straight away if you notice any change in the colour or smell of your vaginal discharge, or if your baby is moving less. Your baby's heartbeat should be checked every 24 hours by your midwife. Having a shower or a bath won't increase the risk of infection, but having sex might.

If you don't go into labour within 24 hours of your waters breaking, you should be advised to give birth in an obstetric unit, so that if there is any infection it can be treated quickly.

See also care of your baby if your waters broke before labour started.
Questions about the early stage of labour

- When should I contact my midwife?
- Why is it best if I stay at home even though I’m having contractions?
- What can I do to help ease labour pain?
- How can I tell if my waters have broken, and what should I do?

Care during labour

You should be offered one-to-one care and support throughout labour, and you shouldn’t be left on your own unless you want to be.

You can play your choice of music in the birth room, and make the room comfortable to suit you. Healthcare professionals should knock and wait before coming into the room, and respect it as your personal space.

You will be able to drink during labour when you want to. You may also want to eat a light snack if you are hungry. But if you have had an opioid drug for pain relief, or there is a chance you might need a general anaesthetic, you will be advised not to eat.

You should be encouraged and helped to move around and change position to find the most comfortable one for you.

Early checks

Once your labour has started, your midwife should ask you questions and do some checks, including:

- talking with you about how you are feeling, your birth plan if you have one and how your pregnancy has gone
- asking about your contractions: how long they last, how strong they are and how often they happen
- asking about your baby’s movements in the last 24 hours
asking about pain, and discussing your options for pain relief

asking whether your waters have broken or you have had any vaginal bleeding

measuring your pulse, blood pressure and temperature, and testing a sample of your urine

checking your baby's position

listening to your baby's heartbeat (see also below).

If these early checks suggest possible problems for you or your baby, and you are at home or in a midwife-led unit, your midwife will advise that you are moved to an obstetric unit to have your baby. This is so that extra care is available if needed (see what If I need to be transferred to an obstetric unit during labour?).

Vaginal examinations

Your midwife will offer vaginal examinations during labour. These are done to check how far your cervix (neck of the womb) has opened (dilated) and the position of your baby's head. The midwife should always explain why an examination is being advised and what it will involve. It should only be carried out with your agreement.

You may be offered a vaginal examination during the early checks, especially if the midwife thinks you are in established labour. But this is not always necessary, and your own wishes should be taken into account.

Your midwife should explain to you and your birth companion(s) what the examinations show.

Listening to your baby's heartbeat

Your midwife will listen to your baby's heartbeat using a hand-held device. This is done as part of the early checks and then regularly during labour.

You should be advised to have electronic monitoring (which involves being attached to a monitor that continuously monitors your baby’s heartbeat and your contractions) if there is concern about you or your baby, or if you are having an epidural (see if electronic monitoring is needed). The reasons for advising electronic monitoring, and the advantages and disadvantages, should be explained to you.

If you have electronic monitoring you will need to be transferred to an obstetric unit if you are not
already there.

If you have electronic monitoring because of possible concerns about your baby's heartbeat but it is found to be normal, the monitor should be taken off after 20 minutes (unless you ask to keep it on).

There is no strong evidence that electronic monitoring either decreases or increases the likelihood of problems for healthy women having a normal labour and their babies.

You can ask for electronic monitoring even if there are no concerns about you or your baby. If you do this, your midwife should explain the advantages and disadvantages.

Pain relief

There are different ways to help ease pain during labour, and you can ask for pain relief at any time. You can choose one method or a few, and you can change from one to another during labour. Your midwife should explain about the advantages and disadvantages of each so that you can decide what is right for you, and should support you in your choice.

Things you can try

Breathing and relaxation techniques and massage may help, and have no side effects.

You should be offered the option of being in water during labour, as this helps with pain. Your temperature will be checked every hour to make sure you are not getting too hot.

You will not be offered acupuncture, acupressure or hypnosis to relieve pain, but you can use them if you want to.

Starting to use a TENS machine once you are in established labour will not help with pain.

Drugs for pain relief

Entonox (also known as ‘gas and air’) is a gas that you breathe in through a mouthpiece or mask. It gives some relief, although it may make you feel sick and light-headed.

Diamorphine, pethidine and similar drugs (called opioids) can be given as injections for pain relief. They may make you feel or be sick (although you will be offered other medication to help with this) and drowsy. You will not be able to get into water for 2 hours after an injection, or longer if you feel...
sleepy. After the birth your baby’s breathing may be affected and they may be drowsy (which could affect breastfeeding).

Epidurals

An epidural is a local anaesthetic. The epidural is injected into the area around the spine and topped up as needed.

You can have an epidural only if you are in an obstetric unit, so if you are at home or in a midwife-led unit you will need to be transferred. You should be able to have an epidural at any point if you want one, including during the early stage of labour.

Your midwife should talk with you about the advantages and disadvantages of an epidural, including:

- it is better at relieving pain than opioids
- you and your baby will need careful monitoring, which is likely to mean that you can’t move around as much
- it is not linked to a longer first stage of labour or an increased chance of having a caesarean section
- it is linked to a longer second stage of labour and an increased chance of a forceps birth or a ventouse birth
- it is not linked to long-term backache.

If you choose to have an epidural, you and your baby will need to be monitored more closely. Your blood pressure will be checked more often and you will be put on a drip. Your baby’s heartbeat will also need to be monitored using a machine (electronic monitoring) for the first 30 minutes after you have the epidural, and after each top-up.

If you are still in pain 30 minutes after the epidural or a top-up, the anaesthetist should be asked to come and assess you again.

The dose of anaesthetic you are given should be low enough that you can still move around a little and get into whatever position you find most comfortable. But as you have top-ups over the course of your labour, you will probably be able to move less.
You may be able to have a type of epidural that you can top up yourself.

Your midwife will tell you when your cervix is fully dilated, and will advise you not to push for at least 1 hour, unless you have a strong urge to do so or your baby's head is visible. You will then be encouraged to push during contractions. (See also information about the second stage of labour.)

Once started, your epidural should continue until after your baby is born, your placenta is delivered and any stitching you need has been done.

### Questions about pain relief

- What types of pain relief are there?
- What can I try if I don't want to have drugs?
- How might being in water help?
- When can I use the birthing pool?
- How might gas and air or opioids affect me and my baby?
- What does having an epidural involve?
- How might an epidural affect me and my baby?
- How much will I be able to move around if I have an epidural?

## What happens during labour?

### The first stage

During labour, your cervix dilates (opens) so that your baby can pass through. When it has dilated to about 4 cm, you are said to be in established labour. Your contractions will come more often and get stronger as time goes on.

For women having their first baby, the first stage of established labour usually lasts about 8 hours and is rarely longer than 18 hours. For women who have had a baby before, the first stage of established labour usually lasts about 5 hours and is rarely longer than 12 hours.
Your midwife should talk with you throughout the first stage about how you are feeling, and ask whether you need pain relief. The midwife will carry out a number of checks, including:

- measuring your baby's heartbeat every 15 minutes
- checking how often you are having contractions every 30 minutes
- measuring your pulse every hour
- measuring your temperature and blood pressure every 4 hours
- checking how often you empty your bladder
- offering vaginal examinations every 4 hours, or more often if there are any concerns or if you want this.

If your labour is going well, you shouldn't need any medical procedures or equipment, such as having your waters broken or being connected to an electronic monitor to check your baby's heartbeat.

See later for what should happen if there is delay in the first stage of labour.

The second stage

Once your cervix is fully dilated, your baby’s head will start moving down through your vagina. This is called the second stage of labour. Even when your cervix is fully dilated, you may not have an urge to push with your contractions straight away – this is called the passive second stage.

The active second stage is when you have an urge to push with most contractions, and ends when your baby is born. The birth is expected to take place within 3 hours of the start of active pushing in most women having their first baby, and within 2 hours for most women who have had a baby before.

Your midwife will help, encourage and talk to you, and monitor both you and your baby closely. You should be guided by your own urge to push. Your midwife should encourage you not to lie on your back but instead to find another position that is comfortable. If pushing doesn't seem to be working well or you are feeling tired, your midwife may advise you to change position, and to empty your bladder if needed.

See later for what should happen if there is delay in the second stage of labour.
When your baby is born

You may choose to pick your baby up straight after the birth, or he or she will be passed to you to hold. You will be encouraged to have skin-to-skin contact with your baby, and she or he will be covered with a towel or blanket for warmth. Your baby's cord should not be clamped or cut straight away. If you would like to breastfeed your baby, you can do so as soon as you wish, and you will be encouraged to start within 1 hour of the birth. You shouldn't be separated from your baby, unless this is essential to provide urgent care.

Delivering the placenta

After your baby is born, your midwife should check how you are. The placenta (which is also known as the afterbirth) will be delivered or pushed out. This is called the third stage of labour. You can usually hold your baby during this stage if you want to.

When you were pregnant, a midwife should have explained to you about the 2 options for the third stage, and about the pros and cons of each. They are called active management and physiological management.

<table>
<thead>
<tr>
<th>Active management</th>
<th>Physiological management</th>
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<tbody>
<tr>
<td>Injection of a drug called oxytocin into your thigh,</td>
<td>No injection is given</td>
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<tr>
<td>usually as you give birth</td>
<td></td>
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<tr>
<td>The cord is clamped and cut between 1 and 5 minutes</td>
<td>The cord is clamped and cut once it has stopped</td>
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<tr>
<td>after the birth</td>
<td>pulsing</td>
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<tr>
<td>The placenta is pulled out by the midwife once it has</td>
<td>You push the placenta out with contractions, which</td>
</tr>
<tr>
<td>separated from the wall of the uterus (womb)</td>
<td>can take up to 1 hour</td>
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Active management speeds up delivery of the placenta, which will usually happen within 30 minutes, and lowers the risk of heavy blood loss (haemorrhage). But the injection does increase the chances of nausea and vomiting.

Your midwife should discuss these options with you again in the early stage of labour. You should be advised to have active management of the third stage, but should also be asked about your preferences. If you have a low risk of heavy blood loss, you may opt to have physiological management.
If you choose physiological management but your placenta is not delivered within 1 hour, or you have heavy blood loss, you will be advised to change to active management. You can also choose to change from physiological to active management at any time.

See later for what should happen if the placenta is not delivered.

After the birth

Routine checks

Once your placenta has come out, your midwife will ask how you are feeling, measure your blood pressure, pulse and temperature, and check that you are able to empty your bladder.

Unless your baby is unwell, you should have time with him or her (at least 1 hour) before your midwife measures your baby’s weight and head size, takes his or her temperature and carries out any other checks. Any checks on your baby should be with your agreement, and in your presence unless this is not possible.

If you need stitches

Your perineum (the area between your vagina and anus) may tear during birth. If this happens to you, your midwife will assess whether you need stitches or whether it will heal on its own. In most cases you will be advised to have stitches, and your midwife should then explain what will happen and why. You will need stitches if you have had an episiotomy.

You should be assessed and have any stitches you need as soon as possible after the birth, to reduce the chances of infection and blood loss. You can usually hold your baby if you want to while having stitches. If you have serious bleeding, your stitches will need to be done straight away.

The assessment and stitches can usually be done where you have given birth, but in some cases you might need to be transferred to an obstetric unit if you are not already there.

You will have pain relief to numb the area, and the tear will be stitched. You may need to put your legs into stirrups while the stitching is carried out. The midwife or doctor should check that you are comfortable. If the pain relief doesn’t seem to be working properly at any stage, you should let the midwife or doctor know.

After having stitches, you may be offered a small anal suppository (a tablet in the back passage) to
help reduce inflammation and pain. You should be given information about painkillers, diet, hygiene and pelvic floor exercises.

Complications

Although most women have a normal labour and birth, there are sometimes complications. The most common ones are described in the following sections.

If you are at home or in a midwife-led unit, you may have to be transferred to an obstetric unit during labour or after the birth if any of these complications develop, so that extra care is on hand if needed.

What if I need to be transferred to an obstetric unit during labour?

If you choose to give birth at home or in a midwife-led unit, your midwife should tell you in advance about reasons why you might need to be transferred to an obstetric unit, the chances of this happening and how long it would take.

If it looks like you may need to go to an obstetric unit during labour, or to hospital after the birth, your midwife should explain the reasons for this to you and your birth companion(s). They should describe your options, answer any questions you have, take your wishes into account and get your consent. You will be advised to go to an obstetric unit if there are certain complications during labour (as described in the next sections), and you will need to do so if you decide that you would like an epidural.

If you are transferred to a hospital from another location, you should be told about the arrangements for this. You should be made as comfortable as possible, and be able to get dressed or be wrapped in a blanket. A midwife who has been looking after you should come with you, and tell the ambulance and hospital staff what has happened so far. Your birth companion should also be able to come in the ambulance with you if that is what you want.

If you are transferred after the birth, your baby should come with you (although this may be in a separate ambulance).
Questions about being transferred to an obstetric unit

• Why might I need to be transferred to an obstetric unit during labour or after the birth?
• Why do you think I should go to an obstetric unit?
• How long will this take?
• Who will go with me?
• Will they know I'm coming?
• Who will look after me there?

If there is a delay in labour

Delay in labour is when the labour is taking longer than expected. It can happen at any stage of labour. You should be offered support and pain relief, and advised to move around or change position. You may need to be transferred to an obstetric unit if you are at home or in a midwife-led unit, so that extra care is on hand if needed. Sometimes it is recommended that the labour or birth is speeded up if there is a chance that the delay may cause problems for you or your baby.

Delay in the first stage

If the first stage of labour is slow, your midwife or doctor may suggest breaking your waters (sometimes called ‘artificial rupture of the membranes’) if they haven’t broken already. This will make your labour shorter and may make your contractions stronger and more painful. Whether or not you agree to have your waters broken, you will be advised to have regular vaginal examinations to see how far along your labour is.

You may also be offered a drip with oxytocin (a drug that makes your contractions stronger). Oxytocin will bring forward the time of birth. If you have oxytocin you should also be offered an epidural, and electronic monitoring will be recommended. You will be advised to have regular vaginal examinations.

Delay in the second stage

If you are having your first baby and your contractions are weak at the start of the second stage, you may be offered an oxytocin drip to make your contractions stronger. You should be offered an
If the second stage of labour is slower than normal, you should be offered a vaginal examination. Your waters may then be broken (with your agreement) if this hasn't already happened. An obstetrician should assess you, and you may be offered an oxytocin drip to speed up your labour (and an epidural). A midwife or doctor should continue to assess you every 15 to 30 minutes. You should be offered support and encouragement, and asked whether you would like more pain relief.

**Instrumental birth and caesarean section**

If the second stage of labour goes on for longer than expected, you may be offered a forceps birth or a ventouse birth – sometimes called an 'instrumental' or 'assisted' birth. You should be advised to have an epidural or a spinal anaesthetic, or effective pain relief if you do not want an anaesthetic. If a vaginal birth is not possible, you will be advised to have a caesarean section (see other NICE guidance).

It may also become necessary for the birth to happen quickly if there are concerns about you or your baby. This might mean an instrumental birth or a caesarean section, depending on how quickly your baby needs to be born. Your midwife and obstetrician should explain why the birth needs to happen soon and what the options are.

**If there is meconium during labour**

**Care during labour**

Meconium is the baby's poo, and is sometimes found in the amniotic fluid ('waters') during labour. If the fluid contains thick meconium or lumps, your midwife will advise that you are transferred to an obstetric unit for the birth if you are not already there. This is so that your baby's heartbeat and your contractions can be monitored continuously using electronic monitoring and doctors are on hand to help if needed.

**After your baby is born**

If there has been thick or lumpy meconium during labour, your baby's heartbeat, breathing and colour will be checked carefully straight after the birth. If these are not normal, your baby's airways will be looked at and cleared out using suction. Even if your baby's heartbeat, breathing and colour are normal, she or he will be observed by a healthcare professional every 2 hours for 12 hours after the birth.
If there has been light meconium (not thick or lumpy), your baby should be checked 1 and 2 hours after birth.

Your baby may be assessed by a neonatologist if checks suggest any concerns. You should be told what is happening.

You should be advised about what to look out for and who to contact if you have any worries after the midwife has left if you have had a home birth, or after you and your baby have gone home from a birth unit.

**If electronic monitoring is needed**

**Why might electronic monitoring be needed?**

Having electronic monitoring involves being attached to a monitor that continuously monitors your baby’s heartbeat and your contractions. Continuous electronic monitoring is not needed if labour is going well. But sometimes it will be advised – for example if:

- you have an epidural
- you have an oxytocin drip to speed up labour
- thick or lumpy meconium is present
- you have high blood pressure, a high pulse rate or develop a temperature
- you start bleeding in labour
- there is a delay in labour
- there are concerns about your baby’s heartbeat.

If you are advised to have electronic monitoring, your midwife should explain why, the advantages and disadvantages, and what it might show. If you have electronic monitoring you will need to be transferred to an obstetric unit if you are not already there.

You should be offered a monitor that allows you to move around, and be encouraged to move and to change position as often as you want. The midwife should stay with you at all times and ask you how you are feeling and about your baby’s movements, as well as checking the monitor and carrying out other tests as needed.
If electronic monitoring is started because of possible concerns about your baby's heartbeat but it is found to be normal, the monitor should be taken off after 20 minutes (unless you ask to keep it on).

**How might electronic monitoring affect my care?**

Your care team should take into account a range of factors, including your wishes, when suggesting any changes to your care – not only the results of the electronic monitoring. You should be kept fully informed about what is happening at every stage. You should be seen by an obstetrician or a senior midwife (or both) if the monitoring raises any concerns.

If the electronic monitoring suggests that your baby might not be coping well with labour, you will be encouraged to move around or shift your position, as this can help. You should be offered extra fluids (either drinks or a drip). If you are on an oxytocin drip to speed up labour, this may be reduced or stopped. You may be offered a drug to slow down your contractions.

**Fetal scalp stimulation**

If the monitor trace still shows that there might be a problem, your midwife may suggest that you have a vaginal examination in which they rub your baby’s head with a finger – this is called ‘fetal scalp stimulation’. This may make your baby’s heartbeat speed up, which is a reassuring sign. Your midwife should explain what it involves.

**Fetal blood sampling**

Fetal blood sampling may be advised if electronic monitoring raises concerns about your baby’s heartbeat, and things don't improve after changes to your care and fetal scalp stimulation.

It is a test to see how the baby is coping with labour, and measures the level of oxygen in the baby's blood. It can help to reduce the need for emergency procedures, such as a caesarean.

Your midwife or doctor should explain why they are advising fetal blood sampling, what will happen and what it may show. They should also tell you about other options that are open to you, including the advantages and disadvantages of each.

Fetal blood sampling involves having a vaginal examination using a device similar to a speculum. A scratch is made on your baby's scalp to take a small amount of blood for testing. The scratch will heal quickly after birth, but there is a small risk of infection.
After the fetal blood sampling, your midwife or doctor should explain what the results show. They will talk to you about what they advise should happen next. Depending on the results, this could be:

- carrying on with labour as normal (with electronic monitoring) or
- having a second fetal blood sample taken after a while if there is still uncertainty or
- having a forceps, ventouse or caesarean birth as soon as possible.

Sometimes a fetal blood sample can't be obtained. This makes an instrumental birth (forceps or ventouse) or a caesarean more likely, because it isn't possible to be reassured about how well the baby is coping. But the process of trying to get a blood sample can sometimes improve a baby's heartbeat – if this happens, it might mean that your labour can continue as normal.

### Questions about electronic monitoring of the baby's heartbeat and fetal blood sampling

- Why do you think I should have electronic monitoring?
- What will this involve?
- What might it show?
- Can I move around?
- What are the advantages and disadvantages of electronic monitoring?
- What are the alternatives to electronic monitoring?
- Will I be able come off the monitor after a while?
- If the monitoring suggests a problem, what will happen next?
- What might rubbing my baby's head (fetal scalp stimulation) show?
- Why do you want to take a blood sample from my baby? What will this involve? What are the advantages and disadvantages?
- What alternatives are there to taking a fetal blood sample?
- How soon will you have results from the fetal blood sampling? What might they show? What will happen next?
If you need an episiotomy

An episiotomy (cut in your perineum) should not be done routinely. If you have had a baby before and your perineum was badly torn, this does not put you at greater risk of having a bad tear again – your midwife should talk with you about your options.

An episiotomy may be carried out if your baby is born using forceps or ventouse, or if the birth needs to happen quickly because it looks like your baby is not coping well with labour. You will be offered pain relief during the procedure, and will need stitches after the birth.

If the placenta is not delivered

Sometimes, some or all of the placenta (afterbirth) stays inside the uterus. If this happens, you will be put on a drip – your healthcare professional should explain why this is needed. You may be advised to have a vaginal examination to check whether the placenta will have to be removed manually (a type of operation). This examination can be painful, so you will be advised to have pain relief. You should let the healthcare professionals know straight away if you need more pain relief.

If you need further care, you will be transferred to an obstetric unit if you are not already there. You may be advised to have an epidural or spinal anaesthetic when the placenta is removed.

If you have heavy blood loss after the birth

There are certain factors that may put you at increased risk of heavy bleeding after the birth (called ‘postpartum haemorrhage’). If any of these apply to you, you will be advised to have your baby in an obstetric unit.

A haemorrhage needs urgent treatment and can be frightening, but healthcare professionals are well trained to deal with it. You will be transferred to hospital if you are not already there. You will be offered the following treatment:

- oxytocin and/or another drug called ergometrine, which helps your uterus contract to stop the bleeding
- if your placenta hasn't already been delivered, the healthcare professional will remove it by pulling carefully on the cord (while protecting the uterus)
• fluids through a drip
• oxygen through a face mask.

If the bleeding continues, you should be given more oxytocin and/or ergometrine, or other drugs. In some cases an examination under anaesthetic and surgery, and/or a blood transfusion, may be needed.

Someone should stay with you and your birth companion(s) throughout the treatment to explain what is happening, support you and answer any questions you have.

If your baby is unwell

When your baby is born, the midwife will check her or his heartbeat, breathing and colour. If there are any concerns, your baby will be given treatment. This may include air to help with breathing. Someone should explain to you and your birth companion(s) what is happening. If your baby has to be moved to another room during this treatment, he or she will not be kept away from you any longer than is necessary.

Care of your baby if your waters broke before labour started

If your waters broke more than 24 hours before labour started, your baby should be closely monitored by healthcare professionals for the first 12 hours after birth. You should be offered antibiotics if you have an infection, but not otherwise. If there are any concerns, you and your baby should be transferred to hospital if you are not already there.

You should let your healthcare professionals know straight away if you have any worries at all about your baby in the first 5 days after the birth, and especially in the first 12 hours.

Terms explained

Anaesthetist

A doctor who specialises in pain relief and anaesthetics (usually epidurals in labour and birth).
Episiotomy

An episiotomy is a cut in a woman's perineum (the area between the vagina and the anus). This makes the opening of the vagina a bit wider, which allows the baby to come through more easily.

Established labour

Established labour is when the woman's cervix is at least 4 cm dilated and she is having regular painful contractions.

Forceps birth

In this type of birth, forceps (smooth metal instruments that look like large spoons or tongs) are placed around the baby's head to pull him or her out of the vagina while you push. An episiotomy is almost always needed for a forceps birth. A spinal block or epidural is usually given beforehand.

Midwife-led unit

Midwife-led units (sometimes called birth centres) are run by midwives. They can be inside or next to a main hospital obstetric unit (called 'alongside') or in a different place (called 'freestanding'). They provide a comfortable environment which is more like being at home. They do not have the same medical facilities as a hospital obstetric unit, but have medical equipment to deal with an emergency for you or your baby.

Neonatologist (or paediatrician)

A doctor who specialises in looking after newborn babies who are unwell.

Obstetrician

A doctor who specialises in the care of pregnant women who have health problems, or develop problems during labour, and their unborn babies.

Obstetric unit

A hospital unit where women give birth. It is sometimes called a labour ward.
Opioid

A type of painkiller that can be used by women in labour, such as diamorphine or pethidine. It is given by injection.

Serious medical problem

Serious medical problems that affected babies in the Birthplace study included neonatal encephalopathy (disordered brain function caused by lack of oxygen before or during birth that may get better but can lead to permanent brain damage or death), problems caused by the baby inhaling meconium into the lungs, a fractured arm or collarbone, stillbirth, and the baby’s death in the first week of life.

Ventouse birth

Ventouse birth (sometimes called vacuum birth) is when the baby is pulled out while you push using a cup that is fitted to the baby’s head by suction. An episiotomy is often needed for a ventouse birth. A spinal block or epidural is usually given beforehand.

Sources of advice and support

- AIMS (Association for Improvements in the Maternity Services), 0300 365 0663
- Birthrights, info@birthrights.org
- NCT (National Childbirth Trust), 0300 330 0700

Information

There is information on NHS Choices about giving birth, including where to give birth: the options. Which? Birth Choice also has information about choosing where to have your baby.

NICE is not responsible for the quality or accuracy of any information or advice provided by these organisations.

Other NICE guidance

- Postnatal care up to 8 weeks after birth
Care of women and their babies during labour and birth

- Antenatal care for uncomplicated pregnancies
- Caesarean section
- Inducing labour
- Preterm labour and birth


Accreditation

Health & care information you can trust

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