Patient Information

Milton Keynes University Hospital
NHS Foundation Trust

Women's and Children's Health

Induction of Labour

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This Leaflet:

- Gives information to help you make choices about induction of labour.
- Provides information on the main reasons for induction of labour.
- Provides information on the methods for induction of labour offered at Milton Keynes.
- Is based on national evidence based clinical guidelines on induction of labour.

What is Induction of labour?

Labour is a natural process which in most cases starts on its own between 37 and 42 weeks, leading to the birth of the baby. Induction of labour (IOL) means deliberately attempting to start labour artificially and is performed when there is evidence to suggest that there is a benefit to either the mother or the baby from an earlier delivery, rather than waiting for labour to start naturally.

Your doctor or midwife should fully discuss options with you to help you make a decision about induction of labour. They should explain the procedures and care that will be involved and whether there are any risks to you or your baby.

When is induction recommended?

There are several reasons why induction may be offered and recommended. For example:

- There is concern over the wellbeing of your baby
- If you are more than 37 weeks pregnant and your waters have broken but you have not gone into labour.
- To avoid your pregnancy lasting longer than 42 weeks (known as a prolonged pregnancy).
- If you have a medical condition such as diabetes or pre-eclampsia (high blood pressure).
- If you are aged 40 years or more

The most common reason for induction of labour is to avoid prolonged pregnancy, even if you are healthy and have had an uncomplicated pregnancy. This is because a pregnancy which goes beyond 42 weeks carries a slightly higher risk of stillbirth or a baby dying in the newborn period. In a healthy pregnancy where labour is induced, the risk of your baby dying is less than 1 in every 1000 women (or 0.07%), compared with 1 – 2 in 1000 women (or 0.16%) where pregnancy is continued (National Institute for healthcare research 2016). For mothers aged 40 years old or more this risk increases from 40 weeks onwards and induction of labour will be offered around your due date (RCOG 2013). Your doctor will discuss your individual circumstances with you. Extra monitoring is recommended for women who chose to continue their

pregnancies, but it is important to know that it is not possible to identify all babies who will be affected by stillbirth or death in the newborn period.

The risks of having labour induced are considered carefully to ensure that induction of labour is appropriate in each woman's case. Risks include:

- Labour can take longer to start, sometimes taking up to 48 hours or more.
- There is a small risk when labour is induced that your baby will not tolerate the induction process or labour well. A period of continuous monitoring of your baby's heart rate is advised following the procedures used to induce labour and during labour itself.
- Induced labours can be more painful. Women who undergo induction of labour are more likely to request medical pain relief during labour. Pain relief will be available depending on your individual needs in the same way as for natural labour.
- You are more likely to need an assisted delivery (ventouse or forceps). There does not appear to be reliable evidence to suggest that induction of labour increases your risk of needing a Caesarean section.
- Induction can fail to start labour for approximately 1 in 100 women (1%). If this happens your doctors and midwives will discuss your options. These include waiting longer for labour to start, trying to induce for a second time or having a caesarean section.

When induction of labour is being considered, your doctor or midwife should fully discuss your options with you before any decisions are reached. This should include explaining the procedures and care that will be involved and whether there are any risks to you or your baby.

What effect might an induction have on labour?

In 2004-05, 1 in every 5 births in the UK were induced, according to the National Institute for Health and Care Excellence (NICE 2008).

Among these induced births, when labour was started using drugs:

- less than two-thirds of these women gave birth without further intervention
- about 15% had instrumental (assisted) births (such as forceps or ventouse)
- 22% had emergency caesarean sections

The effect that induction may have prior to 41 weeks of pregnancy is very much personalised and depends on the individual circumstances of the woman concerned. Your doctor will be able to discuss this with you.

The National Institute for Health Research (2016) report that when women are induced at 41 weeks of pregnancy:

- Approximately 7-8 out of 10 women have a normal vaginal birth
- Approximately 1 out of 10 women have an assisted vaginal birth

- Approximately 1 out of 10 women have a caesarean birth
- Approximately 8 out of 100 women will have a blood loss greater than 500mls, compared to an approximate rate of 10 out of 100 in women who are not induced
- Approximately 7 in 100 women will have babies who need admission to a neonatal unit, the same rate as for women who are not induced.

What happens if I choose not to be induced?

If you choose not to be induced your doctor or midwife will discuss your individual circumstances with you. You should be offered:

- Information and explanation of the risks to help you make an informed decision.
- Advice to monitor your baby's movements and report any changes if they occur.
- An individualised plan to include regular checks of your baby's heartbeat using electronic fetal monitoring (CTG).
- You may be offered an ultrasound scan to check the depth of amniotic fluid ("waters") surrounding the baby or an umbilical artery Doppler scan (measurement of blood flow in the baby's cord).
- The option to seek advice and support from a senior midwife.

It is important to understand that even with extra monitoring it is not always possible to predict or prevent all serious problems for you or your baby.

If your waters break before labour starts

Sometimes a woman's waters break before labour starts. This happens in about one in twenty pregnancies and is known as pre-labour rupture of the membranes or PROM. If you are more than 37 weeks pregnant and your waters have broken but you have not gone into labour you should be offered the choice of either:

- A "wait and see approach" to see if labour will start naturally.

Or

- Induction of labour

If there are no concerns about you or your baby you can go home to wait for labour to start. Approximately 6 out of 10 women (60%) will go into labour naturally within 24 hours. It is recommended that you take your temperature every four hours whilst you are awake to monitor for signs of infection. If you feel unwell or have any signs of infection, (a temperature raised above 37 degrees centigrade, fever or shivering), you should contact the labour ward at Milton Keynes Hospital (01908 996478). You can contact the hospital if you are worried at any time but should also report any change in the colour of your vaginal loss and any reduction in your baby's movements. The risk of serious infection affecting your baby is 1 in 100 pregnancies (1%), compared to 1 in 200 pregnancies (0.5%) where the waters have not broken. If after 24 hours, you have not gone into labour a plan for induction is advised (NICE 2017).

If you are known to have/carry Group B Streptococcus (GBS) or there are any concerns about you or your baby induction of labour is advised rather than a 'wait and see' approach. Your doctor or midwife will discuss your individual circumstances with you to enable you to make an informed decision about the next steps in your pregnancy.

If you chose to wait for longer than 24 hours after your waters have broken you will be offered daily fetal heart monitoring and assessment in hospital. At home, it is recommended that you take and record your temperature every 4 hours whilst you are awake to help detect any infection that may be developing. You should contact the labour ward immediately if your temperature is raised, if you develop any signs of infection (fever or shivering), if there is a reduction in your baby's movements or if there is any change in the colour or smell of your vaginal loss. Bathing or showering is not associated with an increase in infection, but you are recommended to avoid sexual intercourse as the may increase the possibility of infection (NICE 2017).

Membrane sweeping

Before you are offered an induction, women should be offered a membrane sweep (sometimes referred to as a 'stretch and sweep') before any other induction methods are used. This is an optional procedure and you are able to decline a membrane sweep if you wish.
A membrane sweep involves your midwife or doctor placing a finger just inside the opening of your cervix and then making a circular, sweeping movement to separate the membranes from the cervix. The procedure can be carried out at home, at an antenatal clinic or in hospital and works by stimulating the production of prostaglandin hormones to encourage the start of labour. Membrane sweeping makes spontaneous labour more likely, and so reduces the need for formal induction of labour to prevent prolonged pregnancy (NICE 2017). For women with an uncomplicated pregnancy after 41 weeks of pregnancy, there is a 50% chance that at least one membrane sweep will stimulate the onset of labour within 48 hours (Yildirim et al 2010). A membrane sweep is not recommended if your waters have broken. If labour doesn't start after a membrane sweep you may be offered either a date for induction or a further membrane sweep.

The procedure may cause some discomfort or show (plug of mucus which can sometimes be brown or spotted with blood) which is released as the cervix opens. A membrane sweep will not cause any harm to your baby and does not increase the chance of you or your baby getting an infection. Cramping and period type pains are also common after a membrane sweep.

How is labour induced (started)?

There are a variety of methods that can be used to induce labour. For some women one method can induce labour, but for others it may be necessary to use all of the methods described below. This will depend on your individual circumstances.

Please be aware that induction of labour can be a long process and, in some women, can take up to 72 hours before labour begins. When performed as a hospital procedure you will need to remain in hospital until the birth of your baby, although in some circumstances you are able to leave the ward for a walk if there are no concerns about you or your baby. You may wish to bring in books, magazines, music or games to keep yourself busy during this time.

Prostaglandins

If the cervix is closed it needs to be ripened before labour can be induced. This is done with drugs known as prostaglandins. These act like the natural hormones to stimulate contractions of the womb which soften, shorten (ripen) and open the cervix. As the cervix changes it will begin to dilate and the contractions of labour may start without any further intervention. If labour does not start you may be given further prostaglandins or have your 'waters' broken to stimulate the onset of labour. This will depend on your individual circumstances.

The maternity unit here at Milton Keynes currently uses two types of prostaglandin, known as Prostin and Propess. Prostaglandins are normally given as a tablet or pessary that is inserted into the vagina by the midwife or doctor. This is done in hospital on either the antenatal ward or labour ward. More than one dose of prostaglandin may be needed to induce labour. Subsequent doses may be given if you have not gone into labour and we are unable to proceed to the next step of induction, 'breaking your waters'. Although one or two doses of Prostaglandins are usually enough, occasionally it can take 2-3 days for labour to begin.

If the use of the Prostin or Propess has been sufficient to start labour, and the only reason for your induction is to avoid a prolonged pregnancy, a low risk approach to your care will be taken, provided there are no concerns or anticipated problems for you or your baby. This means that there is no need for continuous monitoring and if you wish you could consider using the birthing pool.

Propess

Only one dose is given on admission and should remain in place for 24 hours. After the Propess is given you will be asked to lie down for at least 60 minutes, to ensure the pessary has begun to activate, during which time your baby's heart rate will be monitored via electronic fetal monitoring (EFM). After this time if there are no concerns you will be free to mobilize around the hospital as you wish. Once your contractions start you should return to the ward area where your midwife will monitor your baby's heartbeat via EFM.

Currently Propess is only offered to women expecting their first baby. This is because these women are generally more likely to require more than one prostaglandin to stimulate labour.

Prostin

Prostin is given as a pessary every six to eight hours and is inserted vaginally. If, after a second dose of Prostin, there is no change in the condition of your cervix after six hours, the doctor will review your plan of care.

Before giving Prostin your midwife or doctor will check your baby's heartbeat. After being given Prostin you should lie down for at least 60 minutes, to ensure the pessary has absorbed. During this time, your baby's heart rate will be monitored via electronic fetal monitoring (EFM). After this time if there are no concerns you will be free to mobilize around the hospital as you wish. Once your contractions start you should return to the ward area where your midwife will monitor your baby's heartbeat via EFM.

Possible side effects of using prostaglandins

Prostaglandins have been found in the available research to be safe for both mothers and babies, but every woman's experience of using prostaglandins is different. Some women have very minor side effects and do not experience any pain until labour contractions begin, whilst some women do experience period type pains. This is normal and it is an effect of the hormone contained in the pessary. Prostin can sometimes cause vaginal soreness and you may have some nausea or diarrhoea. Very occasionally prostaglandins can cause the uterus to contract too much which may affect the pattern of your baby's heartbeat. If, this happens you should be asked to lie on your left side. You may be given other medication to help relax the uterus and any prostaglandin remaining in your vagina may be removed.

Artificial rupture of membranes (ARM)

If your waters have not broken, a procedure called amniotomy or ARM may be recommended to artificially rupture the membranes. This takes place on the labour ward and is when your midwife or doctor makes a hole in your membrane to release (break) the waters. This procedure is done through the vagina and cervix using a small instrument. This will cause no harm to your baby, but the vaginal examination needed to perform this procedure may cause you some discomfort. Following on from the ARM, a wait and see approach may be adopted, depending on the plan of care discussed with the doctor. This means that after the ARM if there are no concerns with baby's heart rate and the waters are clear, up to 2 hours of mobilization may be considered, before proceeding to the next step of the induction process, commencing a Syntocinon (synthetic oxytocin) drip.

Using Syntocinon

Syntocinon is given in hospital on the labour ward. It is a synthetic hormone that is given as a continuous infusion through a cannula (a small tube that is placed into a vein in your arm). Your midwife will increase the dose of Syntocinon at regular intervals until your contractions are strong and regular.

Whilst you are being given Syntocinon, your baby's heartbeat will be monitored continuously. This can be done using a wireless telemetry monitor to enable you to remain upright and mobile in labour. However, your mobility can be limited due to the need to use the medical devices necessary to administer Syntocinon and to monitor your baby if a telemetry monitor is not available.

If your membranes have ruptured (waters broken) Syntocinon may be used without a previous use of prostaglandins to ripen the cervix. Both prostaglandins and Syntocinon have been shown to be equally effective methods of inducing labour.

Possible side effects of using Syntocinon

Very occasionally, Syntocinon can cause the uterus to contract too much. This may affect the pattern of your baby's heartbeat. If this happens, you should be asked to lie on your left-hand side and the drip will be turned down or off to lessen the contractions. The main benefit of Syntocinon is that the effects wear off quickly and often this is all that is required to treat this. Occasionally another drug will need to be given to lessen the contractions.

Mechanical Method (Cook's Cervical ripening balloon (CCRB) or Foley's catheter)

Another method to induce labour is to use a cervical ripening balloon catheter to open the neck of the womb (cervix) so we can break your waters.

The cervical ripening balloon catheter or Foley's catheter is inserted through the cervix; sometimes we will need to put your legs in stirrups to insert the balloon catheter. A speculum is inserted into the vagina and the cervix is cleaned. The catheter is inserted through the cervix and the balloons (if CCRB) or a balloon (if Foley's catheter) are inflated with fluid carefully so pressure is applied to the cervix. The speculum is removed and the catheter is loosely taped to the thigh or supported in a second pair of underwear. The balloon is left in place for around 24 hours.

If labour begins then the balloon will fall out. If labour doesn't begin the balloon is deflated after 24 hours and removed and your waters are broken and the oxytocin (hormone) drip will be started. If we can't break your waters at this point alternative options will be discussed with you.

What are the advantages of using balloon catheters? The benefits of the balloon catheters are:

1. It reduces the risk of your womb contracting too much which can distress you baby

2. If you had a previous caesarean section, the use of a catheter can reduce the risk the scar from opening up.

Pain relief will be discussed with you by your midwife or doctor before or during your labour

If I am induced can I still choose to use a pool in labour?

If your pregnancy has been straightforward and there are no other risks for you may be able to use water in labour if you go into labour following the administration of one dose of prostaglandin or after an ARM provided the 'waters' are clear.

Water is not suitable for every woman whose labour is induced and each case is assessed individually. If you require more than one dose of prostaglandin to induce labour or there are any concerns about you or your baby the use of the pool will not be recommended. Your midwife will be able to discuss pool use with you.

Who can come with me?

You may have one birthing partner stay with you during the induction process, although you may prefer them to go home at night if you are on the ward and your labour has not started. The midwife can telephone them for you, if you go into labour and are transferred to the Labour Ward. The ward can accommodate one partner overnight, but you may have two birth partners following your transfer to the labour ward.

The facilities for partners are limited with only a chair being available for rest. Your partner will also have to provide their own food and drink. Public toilets are available on the ward, but there are no showering facilities. Partners are asked to be respectful of other women on the ward.

Where do I go?

Your community midwife or hospital doctor will arrange for you to contact either the maternity ward or Labour Ward on the day your induction is due to arrange a suitable time for you to come in. This may be as early as 07.00 or may not be until after midday. The time will depend on the method of your induction, the reason for the induction and how busy the maternity unit is.

Why might induction be delayed or postponed?

Midwives and doctors understand that, when your induction is either postponed in the first place or delayed whilst you are in hospital, that you will be frustrated and upset. However, the safety of both you and your baby is vital and although this may be a distressing situation, a delay may be necessary until both you and your baby can be safely cared for. Your induction of labour may be postponed if:

- The workload on labour ward means that there is no bed or midwife to look after you.
- The doctors and or midwives have to prioritise the needs of another woman due to clinical need.

Doctors and Midwives will endeavour to keep any delays to a minimum. If your induction is postponed you may be asked to attend the Antenatal Day Assessment Unit for an assessment of your baby's wellbeing.

What happens if the induction doesn't work?

If you don't go into labour after an induction your midwife and doctor will discuss the next steps with you and ensure that both you and your baby are safe. There may be several options but this will depend upon your individual circumstances. If your 'waters' have not broken it may be possible to stop the induction process and allow a period of rest. Alternatively, you may be offered further doses of prostaglandin. In some circumstances, a caesarean section may be recommended.

Useful telephone numbers and websites

Community Midwives - 01908 996478

Labour Ward - 01908 996471

Maternity Ward (Ward 9) – 01908 996406

National Childbirth Trust - 0300 330 0772 – www.nct.org.uk

NHS Choices - www.nhs.uk

Royal College of Obstetricians and Gynaecologists (RCOG) – www.rcog.org.uk

Group B Strep Support - www.gbs.org.uk

The Trust cannot be held responsible for the accuracy of non-government sponsored sites in respect of any particular condition.

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