Induction of labour (starting your labour)

What is an induction of labour?

In order for a baby to be born, the cervix (the opening to the womb) has to shorten, soften and open and there must be contractions. Your womb has a powerful muscular wall that tightens and then relaxes; these contractions gradually open your cervix. In most pregnancies this starts naturally between 37 and 42 weeks and is called 'spontaneous labour'. An induction of labour is a process used to encourage labour to start artificially.

Approximately 33% of women will have their labour induced (NHS Digital 2022).

Induction of labour is a medical intervention that will have an effect on your birth options and experience. You should be aware of the following:

- Vaginal examinations to assess the cervix are needed before and during induction, to determine the best method of induction and to monitor progress
- Your choice of place of birth will be limited, as you may need extra care(for example, oxytocin infusion, continuous fetal heart rate monitoring and an epidural) that are not available for home birth or in midwife-led birthing units
- For all methods of induction, you and your baby will be monitored regularly
- You may still have the option to use a birthing pool for labour and/or birth. You can discuss this with your midwife, as considerations will need to be made regarding the reason for your induction and the methods used for induction. Unfortunately, for safety reasons, The oxytocin drip can not be administered while you are in the birthing pool.You may need an assisted vaginal birth (using forceps or ventouse), this has an increased risk of third- or fourth-degree perineal tears
- Medical induction of labour can cause hyperstimulation – this is when the uterus contracts too frequently or contractions last too long, which can cause changes in your baby's heart rate and well-being. There is medication we can give you to help with this should this happen.
- An induced labour may be more painful than a spontaneous labour; your doctor or midwife will discuss your options for pain relief with you.
- Your hospital stay may be longer than with a spontaneous labour (NICE 2021)

If you are offered an induction of labour we encourage you to look at other information (for example, NHS Inducing Labour); to ask questions and take time to think about your options. You may decide to proceed with, delay, decline or stop an induction.

Please note that your induction of labour may take place at either Heartlands or Good Hope hospitals, and on rare occasions you may be asked to travel to Birmingham Women's Hospital. This is to ensure that all women within our region have access to induction of labour with minimal delays.

Reasons for inducing labour

There are many reasons why an induction of labour may be offered or recommended. Your

midwife or doctor will discuss your individual circumstances with you. Some common reasons are mentioned below.

Prolonged pregnancy

Your due date is at 40 weeks of pregnancy. Labour usually starts naturally before 42 weeks; we will give you every opportunity to go into labour naturally unless there is any reason to induce you sooner (NICE 2021).

However, there are some risks associated with a pregnancy continuing beyond 41+0 weeks that may increase over time and these include:

- More chance of caesarean birth
- More chance of the baby needing admission to the neonatal intensive care unit
- More chance of stillbirth and neonatal death

Babies of black and Asian mothers and those whose mothers live in deprived areas are at higher risk of dying at any point in pregnancy (NICE 2021); for this reason, if you have any concerns about yours or your baby's health you must contact your local maternity unit straight away.

Inducing labour at 41 weeks may reduce these risks, but this may affect your birth experience. We encourage you to discuss your options and preferences with your doctor or midwife. You may choose to have your labour induced from 41 weeks onwards. Whatever you decide, if you change your mind before your next appointment, you should contact your midwife or local maternity unit straight away.

If you choose not to have your labour induced, you will be offered extra monitoring from 42 weeks; this may include an ultrasound scan and monitoring your baby's heartbeat twice per week. However, you should be aware that:

- Monitoring only gives a snapshot of the current situation and cannot reliably predict any changes after monitoring ends. Monitoring provides information on how your baby is at the moment and so may help you make a decision on options for birth
- Adverse effects on the baby (including stillbirth), and when these events might happen, cannot be predicted reliably, or prevented even with monitoring (NICE 2021).

If your waters break before labour starts

Before 34+0 weeks

Induction of labour will be recommended at 37 weeks unless there is a medical reason to offer it sooner (NICE 2021).

After 34+0 weeks, but before 37+0 weeks

Induction of labour will be recommended at 37+0 weeks, but you should discuss with your doctor the risks of infection to yourself and the baby (NICE 2021).

If you have tested positive for Group B Streptococcus (GBS) at any time in your pregnancy, you will be offered immediate induction due to the increased risk of infection (NICE 2021).

At 37+0 weeks or after

You will be offered the choice of waiting for 24 hours to see if labour starts naturally or inducing labour as soon as possible.

If you choose to wait for 24 hours and your labour does not start naturally, you will be offered an induction of labour.

If you have tested positive for Group B Streptococcus (GBS) at any time in your pregnancy, you will be offered immediate induction due to the increased risk of infection (NICE 2021).

Until your induction of labour is started or labour is established you should:

- Look for signs of infection by recording your temperature every 4 -6 hours during waking hours (abnormal if above 37.5°c) or signs of fever (shivering or sweating)
- Look for any change in colour or smell to vaginal discharge
- Notice the pattern of your baby's movements
- Return immediately if there are any changes in baby's movements; you feel unwell or your vaginal discharge changes colour or becomes smelly
- Be aware that bathing or showering is not associated with an increase in infection, but having sexual intercourse may be.

Your baby is bigger than expected

If your doctor thinks your baby is bigger than expected for you:

- The options for birth are to wait for natural labour, induction of labour or caesarean birth
- There is uncertainty about the benefits and risks of induction of labour compared to waiting for natural labour, but:
  - With induction of labour the risk of shoulder dystocia is reduced compared with waiting for natural labour. Shoulder dystocia is when the baby's head has been born but one of the shoulders becomes stuck (for more information on this, you may wish to see RCOG Shoulder Dystocia patient information leaflet)
  - With induction of labour the risk of third- or fourth-degree perineal tears is increased compared with waiting for natural labour (for more information you may wish to see RCOG OASI patient information leaflet)
  - There is evidence that the risk of death of the baby, injuries to the baby's arm, or the need for emergency caesarean birth is the same between the two options
  - You will also need to consider the impact of induction on your birth experience and on your baby

Special circumstances

Previous caesarean section

If you have previously had a caesarean section, an induction of labour can lead to an increased risk of an emergency caesarean birth and the risk of your uterus tearing or rupturing.

If your baby needs to be born before you go into natural labour, you will be offered an induction of labour or planned caesarean section.

The methods used for an induction are guided by the need to reduce these risks. Some medications used for inducing labour are not suitable for women who have previously had a

caesarean section. Your midwife or doctor will explain your options and the related benefits and risks to you or your baby.

You can choose not to have an induction of labour or caesarean birth, even when it is recommended for the health of you or your baby.

Maternal request

If you request an induction of labour without a medical indication, your doctor or midwife will discuss with you the benefits and risks and take into account your circumstances and preferences.

Before your labour is induced

Membrane sweeping

A membrane sweep involves your doctor or midwife inserting two fingers into your vagina to locate your cervix, then sweeping their finger around your cervix. This should separate the membranes of your amniotic sac from your cervix which will encourage your body to release a hormone (prostaglandin), which may make natural labour within the next 48 hours more likely.

You may find the procedure slightly uncomfortable and may notice a small amount of blood afterwards. Your doctor or midwife will advise you further.

At antenatal visits after 39 weeks, you can discuss and choose to have a membrane sweep. If you do not go into labour, you may choose to have further sweeps at future antenatal visits (NICE 2021).

Assessing your cervix

Your doctor or midwife will offer to do a vaginal examination to assess your cervix before your induction is started. This will allow them to advise you on the best method for starting your labour.

How might labour be induced?

Mechanical methods

- **Dilapan pessary**

These are slim rods made of synthetic firm gel. They are inserted into the cervix by a doctor or midwife.

They do not contain any medicines or hormones. Each rod expands from 4mm to max width of 15mm in 12-24 hours. Cervical ripening with Dilapan is safe for you and your baby.

How does Dilapan work?

The Dilapan gradually absorbs natural fluids in the cervix and expands. This dilates (opens) the cervix and encourages your body to release hormones that naturally prepare your cervix for labour.

After 12- 15 hours after insertion (maximal insertion time is 24 hours) the rods are removed, and a repeat vaginal examination is performed. Most of the time your doctor or midwife can break your waters at this point.

In 90% of women the cervix opens to at least 2 to 3cm after the first set of rods.

What are the risks?

The Dilapan might cause discomfort or bleeding on insertion.

What are the benefits?

- Dilapan does not contain any drugs or hormones, which means there is no chance of overstimulating your womb.
- It is safe to be used for women who have previously had a caesarean section.
- There is less chance of getting uterine contractions during the cervical ripening and therefore you are less likely to need pain killers
- You can relax/sleep during this process of induction
- You can have a shower or go for a walk
- You may be suitable to have this procedure as an outpatient

What should I not do?

Under no circumstances you should attempt to remove Dilapan yourself.

Avoid baths, vaginal douching and sexual intercourse while Dilapan is in place

What should I expect?

The doctor/midwife will ask to perform a speculum examination to gently insert the Dilapan rods. This may briefly be a bit uncomfortable and there might be a little bit of bleeding.

The procedure usually takes about 5 – 10 minutes.

Your baby's heartbeat will be monitored after the rods are inserted as routine.

Once your cervix has dilated (usually within 12-24 hours) we will be able to remove the Dilapan, break your waters and your labour will start; either on its own or we will start a hormone drip to give you contractions.

What if my cervix has not changed after the Dilapan rods have been in place for 12-24 hours?

If there has been no change in your cervix i.e. – if the cervix is not opened enough to break the waters easily, your doctor or midwife will discuss further options with you. These may include:

- A second round of Dilapan, possibly after a break of between 12 and 24 hours
- A trans-cervical balloon catheter
- Prostaglandin vaginal pessaries – drugs which act like your natural hormones to encourage labour

- A caesarean section.

- **Trans-cervical balloon catheter**

A balloon is inserted into your cervix and inflated to dilate your cervix so your membranes can be broken.

This method does not use any medicines or hormones, so is safe for you and your baby.

How does the balloon catheter work?

The balloon rubs against and stretches the cervix causing it to produce a hormone called prostaglandin. The prostaglandin causes the cervix to become shorter and soften (ripening). This prepares the cervix for labour and allows your midwife or doctor to break your waters. Sometimes, the release of hormones as the cervix stretched is enough to trigger your waters to break naturally and for labour to begin.

What are the risks?

You may feel some discomfort on insertion.

What are the benefits?

- There are no drugs or hormones, which means there is no chance of over stimulating your womb
- It is safe to be used for women who have previously had a caesarean section
- There is less chance of getting uterine contractions during the cervical ripening, so you are less likely to need pain killers
- You can relax/sleep during this process of induction
- You can have a shower or go for a walk

What should I expect?

The doctor will ask to perform a speculum examination. The balloon is then inserted into the cervix and is gently filled with fluid to apply pressure to the walls of the cervix. This may briefly be a bit uncomfortable and there might be a little bit of bleeding.

The procedure usually takes about 5 – 10 minutes.

Your baby's heartbeat will be monitored after the balloon is inserted.

If the balloon falls out, you will be offered a vaginal examination to see if your cervix has opened enough for us to break your waters.

If the balloon does not fall out, it will be removed after 18 hours, and your doctor or midwife will try to break your waters. They will break your waters if it is possible and your labour will start; either on its own or we will start a hormone drip to give you contractions.

What if my cervix has not changed after the balloon has been in place for 18 hours?

If there has been no change in your cervix i.e. – if the cervix is not opened enough to break the waters easily, the doctor or midwife will discuss further options with you. These may include:

- Dilapan, possibly after a break of between 12 and 24 hours
- Prostaglandin vaginal pessaries – drugs which act like your natural hormones to encourage labour
- A caesarean section.

Medicinal methods

- **Prostaglandins (Propess)**

The pessary looks like a very small tampon, which is inserted into the vagina during an internal examination by the midwife or doctor (if your waters haven't broken).

How does a propess pessary work?

A propess pessary contains the active ingredient dinoprostone, which is a naturally occurring female hormone also known as prostaglandin. Once inserted into the vagina the pessary will stay there for 24 hours slowly releasing the hormone to prepare your cervix. There is a string attached to the pessary to allow us to remove it easily.

Prostaglandins are drugs that encourage labour by encouraging the cervix to soften and shorten. This allows the cervix to open and contractions to start.

The pessary will be removed after 24 hours to allow for a further vaginal examination, or prior to this if labour has started. It can be removed at any time if there are concerns for the wellbeing of you or your baby.

What are the risks?

Prostaglandin pessaries can cause hyperstimulation; this is where the uterus contracts too much, which may affect your baby's heart rate and well-being. If this happens, the pessary will be removed (or no further medication given if using a different type of vaginal prostaglandin). You may be given an injection to reverse the effects.

What are the benefits?

Slow releasing prostaglandins maximise the chance of a vaginal birth.

What should I expect?

the pessary is usually inserted by a midwife. The midwife will do a vaginal examination to assess your cervix and will then insert the pessary so that it sits just behind your cervix. The end of the

string should remain outside your vagina (do not tuck it in as this may make it more difficult to remove); take care not to pull on the string when wiping yourself after going to the toilet, when washing and when getting on and off the bed.

Once the pessary has been inserted, you will then be asked to rest for 20-30 minutes to allow the pessary to swell which will help it to remain in place. During this time your baby will be monitored.

Each woman's response to prostaglandins is different; you may start to experience tightening's soon after insertion; these do not always develop into labour. You will then be encouraged to walk around, continue to shower, bathe, eat and drink normally to encourage labour to start.

You and your baby will be monitored regularly during the induction process.

What if my cervix has not changed after 24 hours?

You will be seen by a senior doctor who will offer a vaginal examination to see if they can break your waters.

If they are unable to break your waters you may be offered:

- Repeat propess and assess in a further 24 hours
- After two cycles of propess, if labour doesn't start, a different type of prostaglandin tablet, called prostin is used (also to be inserted vaginally). Prostin is used as the first tablet in patients with broken waters.

If after this you are still not in labour, you will be seen by a senior doctor or consultant who will talk through your options with you. These may include dilapan, a balloon catheter or the artificial rupture of your membranes or a caesarean section.

What happens next?

Breaking your waters

Artificial rupture of membranes also known as "breaking the waters", this procedure is performed once the cervix has started to open. Your doctor or midwife will carry out a vaginal examination and use small hook to break the sac of fluids surrounding the baby.

The examination may be uncomfortable but will not harm your baby. The leaking of the fluid from the sac through the cervix helps to stimulate your contractions.

We will only proceed with breaking your waters if both a room on delivery suite and a midwife are available, for the safety of you and your baby.

This may not happen straight away. The consultant in charge of the delivery suite, as well as the midwife co-ordinator of the shift, will make a decision about when to admit you to the delivery suite based on your medical needs and keeping in mind the safety of you and your baby.
If you are being induced as an outpatient, this will not affect the decision about when you will be admitted to the labour ward.

If we break your waters, we will offer and recommend monitoring your baby's heartbeat before and after breaking your waters. Depending upon individual circumstances, we may offer continuous monitoring of your baby's heartbeat.

Oxytocin drip

After breaking the waters, labour may not start. A drug called oxytocin may be offered if there are no signs of labour; you may choose whether or not to have this, or to delay starting this, but that this may mean labour takes longer and there may be an increased risk of infection to your baby (NICE 2021).

Oxytocin is a drug that is given to you though a drip into a vein in your arm; this encourages your body to have strong regular contractions, which will continue until your baby is born.

During this process your contractions and your baby's heartbeat will be monitored continuously; you will have regular observations taken to record your blood pressure, heart rate.

If after 24 hours labour has not started, then your doctor or midwife will discuss further options of inducing labour/delivering your baby.

If all of the above steps have been taken and labour does not start you will be offered a planned caesarean section. Your consultant and the ward staff will arrange all this for you.

After an induction of labour

Immediately after your baby is born, you will be offered and recommended to receive a hormone injection; this will speed up the delivery of your placenta and reduce the amount of blood you lose.

Contact information:

If you want to talk over any of the points raised in this leaflet, please ask your community midwife – you will have her number on your pregnancy health records. Alternatively, you can speak to someone in the maternity department at the hospital:

Heartlands Hospital	**0121 424 3514**
Solihull Hospital	**0121 424 5052**
Good Hope Hospital	**0121 424 7201**

You can also speak to your obstetric consultant or contact one of the consultant midwives based at Birmingham Heartlands Hospital or Good Hope Hospital.[need to say how]

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email interpreting.service@uhb.nhs.uk