

## What is induction of labour?

Natural pregnancy lasts between 37 and 42 weeks. This period of time is referred to as being 'full term'. In most cases, labour will start spontaneously within this time. Labour is characterised by a number of changes within your body, including:

- The uterus begins to contract
- The cervix softens and shortens
- The cervix begins to dilate (open)
- The bag of fluid (waters) surrounding your baby may break

Labour is 'induced' when Doctors and Midwives start your labour using artificial means.

## When is induction of labour recommended?

Approximately one fifth of women have an induction of labour and there are a number of reasons why this might be recommended by your midwife or doctor. Reasons for induction include:

- Your pregnancy has progressed 10-14 days past your due date
- You are over 40 years of age and over 40 weeks gestation
- You are experiencing health concerns such as diabetes or high blood pressure
- Your baby is showing signs of distress, growth restriction or other complications
- The bag of waters around your baby has broken but contractions have not started spontaneously

Before planning an induction a number of factors are considered. Induction is only recommended when the benefit to yourself and your baby outweighs any potential risks.

## Why choose an induction

Although your midwife or doctor may recommend that you have an induction, the final decision is always yours to make. It is important that you are fully informed about the risks and benefits of induction before making your choice. Your midwife will discuss with you:

- Why an induction of labour has been recommended for you
- The potential risks to you and your baby if you choose to continue with your pregnancy
- The potential risks associated with induction
- What the process of induction involves.

## Risks / Things to be aware of when choosing an induction of labour

- The risk of having a postpartum haemorrhage increases with Induction of labour
- There is a slightly increased risk of having an instrumental (vacuum or forceps) birth
- Your induction may be postponed if the birth suite is busy
- Written consent must be obtained by your midwife or doctor before induction of labour can proceed.

## How is labour induced?

Before starting an induction your cervix must be assessed by your midwife or doctor. This vaginal examination will determine which method of induction is most appropriate. Based on these findings, one or a combination of the following methods may be used for your induction:

- Dinoprostone
- Prostin
- Oxytocins
- Breaking the waters - Artificial rupture of membranes (ARM).

### Dinoprostone (Cervidil tape)

Dinoprostone is a slow release pessary which is inserted into the posterior vaginal fornix (a recess in the upper part of the vagina caused by the protrusion of the cervix into the vagina) and is used to 'ripen' or soften the cervix. Once inserted, the pessary absorbs water, swells and releases Dinoprostone which is a synthesised version of the naturally occurring hormone Prostaglandin. Dinoprostone may initiate contractions however in some cases it can cause the uterus to become overstimulated, which in turn can impact on the baby's heart rate. If this occurs the dinoprostone may be removed and other alternatives discussed. Dinoprostone is inserted in the late afternoon and remains in overnight. You will need to stay in hospital after having dinoprostone inserted.

### Prostin

Prostin is similar to dinoprostone but is a gel rather than a tape. Like dinoprostone it is inserted inside the vagina to soften the cervix. Sometimes one dose is enough but other times doses may need to be repeated every 6 hours to start working.

### Artificial Rupture of Membranes (ARM)

If your membranes have not ruptured spontaneously either prior to the induction or after the dinoprostone has been inserted, your midwife or Doctor will perform an ARM. This process involves a vaginal examination, at which time your midwife or Doctor will make a little hole in the bag of fluid around the baby using a small instrument. For some women, an ARM will be enough to bring on contractions and 'get things going', however most women will require oxytocin to start the contractions. ARM can be performed in the birth centre.

### Risks / things to be aware of:

- The vaginal examination needed to perform this procedure may cause you some discomfort
- Although ARM is usually straightforward, it can increase the risk of cord prolapse, bleeding and infection.

### Oxytocin

After your membranes have been ruptured, your body may need some assistance to commence contractions. This is particularly true if you are having your first baby. Oxytocin is the hormone which gives you contractions. A synthetic version of oxytocin, called syntocinon is used during inductions to help your uterus contract. Oxytocin is given through a drip that is placed in your hand or arm. Initially a very small dose of oxytocin is given, and



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this is gradually increased until you are having regular, strong contractions. Some women respond instantly to the oxytocin however it may take some women a few hours before they begin to contract. Throughout this time, the baby will be continuously monitored using a Cardiotocograph (CTG) machine to make sure that he/she is happy. If you require oxytocin, and you are in the birth centre you and your midwife will move to the Birth Suite for the duration of your labour as this cannot be given in the birth centre.

#### **Risks / things you should know**

- The drip and CTG machine may inhibit your ability to move around as much as you desire however, every effort is made to limit this impact. Bath and/or shower may still be possible if a telemetry machine is available (discuss this with your midwife).
- Oxytocin carries a very small risk of causing your uterus to contract too regularly (hyperstimulate). If this occurs, the drip will be turned down or stopped altogether and the baby will be monitored closely for any change in heart rate. If the contractions do not slow down another drug may be given to counteract the oxytocin.

#### **References:**

- Australian College of Midwives (2015). National Midwifery Guidelines for Consultation and Referral, 3rd ed. Issue 2. ACT, Australia
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- Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2015) Use of prostaglandins for induction of labour RANZCOG C-Obs 22