What is an induction of labour?

Induction of labour is the process of starting labour artificially, rather than waiting for labour to start naturally. An induction will only be offered if there is a good medical reason, because there are potential risks as well as benefits involved.

Why is an induction performed?

Induction of labour is carried out when it is assessed that it is safest for your baby to be born rather than to remain inside. This means that something is potentially making continuing the pregnancy risky — either for you or the baby. Therefore, some babies may need to be born before labour starts naturally. Common reasons for an induction of labour include; high blood pressure, diabetes, bleeding, concerns with baby’s health and pregnancy beyond your due date. Induction can only be performed with your consent.

How does an induction of labour work?

Induction of labour is a two stage process:
- Ripening of the cervix, and
- Bringing on of labour

RIPENING OF THE CERVIX

The cervix is the opening to the womb. It is normally about 3 cm long and closed. Ripening of the cervix is performed to prepare the cervix for labour. The cervix softens and shortens and, in some cases, begins to open. Ripening of the cervix increases the chances of successful induction. If you are not being induced this happens naturally but with induction, we encourage your body to do this.

See diagram below. Effacement is the shortening and thinning of the cervix, dilation is how open it is internally.

Membrane sweeping (a ‘stretch and sweep’) may be carried out during a clinical examination at home, the clinic or in a community birthing unit by your midwife/obstetrician. A finger is passed through the cervix and ‘swept’ between the wall of the uterus and the bag of waters that surrounds the baby. It works by stimulating your body’s own production of a hormone called prostaglandin. It should only be done after 37 weeks of pregnancy and when the cervix is ripe (soft and slightly open). For wāhine/women whose pregnancies have
gone past the due date, we recommend you have a discussion with your LMC about the option to have a membrane sweep to help soften the cervix and to try to bring on labour yourself.

**There are two main methods of cervical ripening** used at Christchurch Women's Hospital (CWH). These are the use of oral misoprostol solution (medical ripening) and the insertion of a balloon catheter (mechanical ripening). For most wāhine/women medical ripening is our preferred method but for a number of specific cases we recommend mechanical ripening. If you have a strong preference, please discuss this with your midwife or obstetrician.

**Oral (taken by mouth) misoprostol tablet in solution**

The misoprostol solution is taken for ‘ripening’ the cervix and starting labour. You will be given a time to come to the Birthing Suite. Firstly, your baby’s heart rate will be monitored and you will undergo a vaginal examination to assess your cervix. Half a teaspoon of the prepared misoprostol solution will be drawn into a plastic syringe and you will be asked to squirt it into your mouth and swallow. The solution is watery and does not have a bad taste.

After that you will be assessed at least every 2 hours to see if you are contracting, check baby’s heart rate and then you will be given a further dose of oral misoprostol. Once you are contracting regularly you will be examined vaginally to see if your waters can be broken. If your waters cannot be broken a further dose of oral misoprostol will be given. Your baby’s heart rate will be monitored for 20 minutes before every dose of misoprostol and for 40 minutes after the first dose.

You can have a maximum of 8 doses in a 20-hour period. If labour has not started by then you will be able to rest for a minimum of 4-6 hours after which the cervical ripening process will recommence. Labour may still start during this period so rest while you can.

**A balloon catheter** may be chosen as a method to ripen your cervix. The balloon catheter is a narrow, flexible tube which is passed upwards through your cervix. Once it is in place the balloon on the end of the catheter is inflated with a small amount of water. The pressure of the balloon can assist in softening your cervix.

You will come to Birthing Suite at an agreed time to have the catheter inserted as part of a vaginal examination. Depending on the reason for your induction, you may be able to go home afterwards with the catheter remaining inside, or you will be asked to stay overnight in the hospital. The condition of your baby is monitored.

Whether at home or still at CWH, you must inform your LMC or Birthing Suite staff if:
- The catheter falls out
- You have regular painful contractions, 5 minutes apart for your first baby or 10 minutes apart for any subsequent babies
- Your waters break
- Your baby seems to be moving less than usual
- You have fresh vaginal bleeding
- In some cases, you will be asked to get in contact with the hospital with any mild contractions. This will be because we want to monitor you as soon as you start to have contractions to check that baby is coping well with the contractions.

If nothing happens overnight, then you will be assessed again next morning. We will tell you what time to come back if you have gone home. If your cervix has not changed enough to allow your waters to be broken, we will discuss with you whether you need to start the oral misoprostol protocol.

**AUGMENTATION OF LABOUR**

**Artificial rupture of membranes**: During pregnancy a ‘bag’ (membranes) of ‘waters’ (amniotic fluid) surrounds your baby which may break naturally (‘waters breaking’). If this does not happen then we try to do this to help labour on its way. You will be examined internally by your midwife or doctor. If the cervix is open enough, we will make a small hole in your membranes to release the fluid. For some wāhine/women, particularly those who have gone through labour before, breaking the waters might be enough to start labour and, depending
upon why you are being induced we will discuss with you, waiting a couple of hours to see if contractions start naturally.

**Oxytocin** is a hormone that is naturally released by the body during labour and birth. If we need to start your contractions after any of the above methods, we will use artificial oxytocin given to you through an intravenous (IV) drip into your arm/hand during labour to start contractions. Sometimes we discuss using it with you because your contractions are not strong enough or happening often enough. We start with a low dose and gradually increase it until your contractions are regular and working well. We aim for 3-4 contractions every 10 minutes. Occasionally oxytocin can cause the uterus to contract a little too much. To make sure baby is managing OK with this part of induction we monitor the heartbeat all the time using a machine called a CTG (Cardiotocograph). You may not be able to move around easily at this point as you will have an IV drip and a monitor attached to you.

**Non-medical or ‘natural’ methods of induction**

There are a wide variety of other methods of inducing labour. They include nipple stimulation and sexual intercourse. There are also other tales regarding how to start labour, but due to limited evidence to prove their safety and effectiveness, CWH does not support or recommend these methods of induction.

If you wish to use a non-medical method of induction, please discuss with your LMC before commencing so we also know what else you may have tried to get your labour going.

**Pain relief**

Like naturally started labours, induced labours vary in their length and amount of pain experienced. Please discuss pain relief options further with your LMC.

**What are the risks of an induction?**

Any medical intervention has risks and your LMC, hospital midwife or doctor will discuss these with you before an induction starts.

- A small number of wāhine/women are sensitive to misoprostol. This can result in too frequent contractions or long contractions. If this happens and the baby’s heart rate is affected, you will be assessed and given a drug to relax the uterus and stop it contracting so frequently. Rarely a caesarean section is necessary if the baby’s heart rate is not recovering.
- For wāhine/women where a balloon catheter is used a small number may experience some vaginal bleeding at the time of insertion. This is not usually significant, and we would monitor to check that you and your baby are well. In a small number of wāhine/women, the membranes break during the insertion of the balloon catheter and we monitor for this and should it happen, it may mean that the way labour is induced changes.
- If your cervix is not ready for labour or if this is your first baby, there is a chance that starting the labour process can take a number of days. This may make a difference to how much and what type of pain relief you need.
- There is a chance that an induction will not be successful. If this is the case, other options with be discussed with you and your LMC.
- When we actively manage the first part of labour using an induction, wāhine/women are more likely to experience a heavier blood loss after the birth. We recommend active management of the third stage when the whenua/placenta is being delivered by giving wāhine/women an injection of syntometrine into your thigh. This will assist your uterus to contract reducing the risk of heavy bleeding.

**What you need to know about using oral misoprostol for Induction of Labour**

- Many studies have shown that oral misoprostol tablet in solution is a safe and effective method for IOL and reduces the chance of having a caesarean section following induction of labour compared to other methods.
• These studies have shown that oral misoprostol tablet in solution is a safe and more efficient than the vaginal Cervidil® method (vaginal pessary) which is what CWH used to use for induction of labour.
• Oral misoprostol tablet in solution is linked to a higher rate of meconium staining of the fluid around baby but this was not associated with any adverse effect on the unborn baby and could be a direct effect of misoprostol on the baby’s gut.
• The use of misoprostol tablet in solution for induction of labour is endorsed by WHO (World Health Organisation) and well recognised internationally in medical journals. Currently, misoprostol is not registered for this use in New Zealand however the medicines Act permits the use of medicines for unapproved/unregistered indications, see http://www.medsafe.govt.nz/profs/Riss/unapp.asp for further information.
• Maternal side effects of misoprostol can include gastrointestinal upset such as abdominal pain, diarrhoea and nausea with occasional patients experiencing headache symptoms. At the low doses used for induction of labour and when given by the oral route (by mouth) these side effects are rare and other more serious side effects are extremely rare.
• If you choose to not have your labour induced with misoprostol, other options can be discussed with you by your LMC or hospital team.

Making your decision
• The risks and benefits to you and your baby of induction or ‘waiting for labour’ will be fully explained.
• You will be fully involved in the decision if an induction of labour is recommended.
• Your LMC/doctor will fully explain the procedures and the care involved.

What if I choose not to be induced?
Your decision will be respected, and your LMC/Doctor will discuss choices with you including on-going monitoring of your pregnancy.
If you choose not to be induced, your LMC may suggest fetal heart monitoring and/or an ultrasound scan, to assess the overall picture regarding your pregnancy.

Who can I have support me during the induction of labour?
In addition to a midwife, your partner and whanau are encouraged to be involved. Sometimes with COVID-19 Alert Levels you can only have one support and in some case two. When at Level 1 or no alert levels we encourage whoever else you may want at your birth to support you. The induction process may take up to 72 hours, so you need to make arrangements for any other children to be cared for at home. In an emergency situation, if you really need to bring children with you during the day, please make sure there is someone (apart from you) to look after them as the hospital staff are unable to provide childcare. At all times we ask that if your support person is unwell that they do not attend the hospital with you and that you bring an alternative support.

References