



Epidurals For Managing Your Pain During Child Birth

This information sheet is to tell you about pain relief in labour, particularly about epidural pain relief. It also gives information about your Anaesthetist and sources of further information if you wish to find out more.

New Zealand Society of Anaesthetists Inc.

What is an Epidural?

The word Epidural refers to the epidural space, a space between tissue layers which is very close to the membranes that surround the spinal cord. The nerve roots that carry pain messages pass through this space.



Having a baby is a special time, but labour can be painful. The experience of pain is different for each woman. It is impossible to predict how much pain a woman will have in labour or how she will cope with labour. For the majority of women who have experienced a vaginal delivery it was the most painful event of their lifetime. But the level of pain felt by women in labour varies widely:

No pain	0 – 5%
Mild pain	10%
Moderate pain	30%
Severe pain	40%
Intolerable pain	15%

Pain may cause physiological changes which are bad for both the woman and for her baby. Uncontrolled pain may cause severe maternal distress. The World Health Organisation recognises that pain relief is every woman's right.

This information sheet is to tell you about your options for pain relief in labour, but particularly about epidural pain relief.

Pain Management During Labour - Your choice

There are many choices for pain relief to help you cope with the pain of labour. An epidural is just one of these options. It is important to consider all choices and to discuss these with your care givers – midwife, GP, obstetrician – or with an anaesthetist during your pregnancy. You can wait until you are in labour to decide what you want.

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Simpler methods of pain relief include:

Antenatal classes so you have a good understanding of what is happening during labour

Hypnosis

Psychoprophylaxis (Lamaze technique)

Support person

Acupuncture/Acupressure

Immersion in water - warm bath or shower

Aromatherapy

Music

A variety of positions or walking and moving around.

Touch and massage

Swiss ball

More Advanced Methods of Pain Relief are:

Transcutaneous Electric nerve stimulation (TENS)

Entenox (gas)

Pethidine

Fentanyl

Remifentanyl

See separate leaflet for more information on these

Your Anaesthetist

A Specialist Anaesthetist is one of the most highly trained doctors in your hospital. An anaesthetist has spent 6 years studying to obtain their medical degree to become a doctor and then a further seven years with examinations and practical experience before qualifying as a Specialist Anaesthetist. This experience includes all types of anaesthesia, intensive care, resuscitation and the treatment of pain.

Epidural Analgesia

Epidurals are good at reducing the pain of labour and are safe.

- An epidural is currently the most effective way of controlling labour pain, and you will remain clear headed.
- More than 9 out of 10 women who have an epidural think it gives good pain relief. About 8 in 10 of them say they would have one next time.
- A small number of women find epidurals give only partial or no pain relief.
- A well managed epidural is safe for you and your baby and there are no known long-term effects on the baby. Most drugs given to

Dear anaesthetist,

When you discuss this leaflet with your patient, remove this sticker and put it on the patient's medical record. This will remind you and the patient that this leaflet has been provided. Some anaesthetists ask their patients to sign the sticker to confirm receipt of this leaflet.

you will cross the placenta to the baby. Epidural drugs work on the nerves rather than in the blood stream, so very little crosses the placenta.

- There are some situations where it is recommended that you have an epidural, such as when your baby is in the breech position (the baby's bottom is coming first), or you are expecting twins, or when your blood pressure is high.
- If you require induction of labour or a syntocinon infusion to assist your labour, you are more likely to need epidural pain relief.
- If caesarean section or forceps delivery is required, the epidural can be "topped up" to increase the anaesthetic effect and reduce the risk of requiring a general anaesthetic for the procedure. A spinal can also be inserted for a caesarean section or instrumental delivery if an epidural is not placed and is required.

Epidural analgesia is the most complex form of anaesthesia and needs to be carried out by a trained anaesthetist, and cared for by an appropriately trained midwife. Sometimes this will mean a hospital midwife will take over your care.

What is an Epidural?

The word Epidural refers to the epidural space, a space between tissue layers which is very close to the membranes that surround the spinal cord.

- An Epidural is a technique of inserting a small nylon tube (catheter) into the epidural space.
- By injecting local anaesthetic down the catheter into this space the pain nerves are numbed. Your contractions will continue. You will still experience tightening or feel the sensation of touch and pressure when the epidural is working well.

Placing an epidural takes at least 15 minutes and requires an Anaesthetist (specialist doctor) to place the catheter. It will then take a further 20 minutes for pain relief to become fully effective. If the epidural is put in immediately before your baby is born there may not be enough time for it to work properly. Sometimes the epidural space is difficult to find and your Anaesthetist may need more than one attempt to find it.

Your Anaesthetist may choose to use a combined spinal-epidural technique (CSE). The procedure is the same for putting in an epidural but before the epidural catheter is put in to place, an injection can be made

through the epidural needle into the spinal fluid to speed the onset of pain relief. When the effect of the spinal injection wears off, the epidural catheter is used to continue the pain relief.

Only the spinal part of the technique may be necessary when the baby is ready to be delivered or forceps or a suction cup (Ventouse) is needed or the obstetrician can give you local anaesthesia.

What to expect if you request an epidural:

- If you request an epidural, your Lead Maternity Carer (LMC) will consult with an Obstetrician to ensure your condition is satisfactory for an epidural.
 - Your LMC then rings and requests an Anaesthetist to provide an epidural for you.
 - The Anaesthetist will discuss the procedure, the risks and the side effects with you.
 - A drip will be put into a vein to administer intravenous fluids.
 - Your Midwife will position you, either on your side or sitting up.
 - You will be asked to curl up; this opens up the spaces between the bones in your spine.
- The anaesthetist must scrub up and put on a sterile gown and sterile gloves to protect you from infection.

- The Anaesthetist will clean your lower back with antiseptic solution (it's cold!) and put sterile drapes over your back.
- Once the space has been located, the Anaesthetist will inject some local anaesthetic into the skin and surrounding tissues (this will sting).
- You will need to keep very still.
- The epidural needle is then inserted into the epidural space.
- It shouldn't hurt, but sometimes you may feel a dull ache or pressure.
- Once in the space, the anaesthetist will insert the catheter through the needle, into the epidural space.
- Sometimes this brushes against a nerve and causes a brief electric tingling feeling, a bit like when you bang your "funny bone".
- Once the catheter is in the space, the needle is removed, and the catheter is taped onto your back. This means you can move around in the bed freely afterwards. Most women are completely unaware of the catheter taped to her back. The catheter

allows drugs to be given before it wears off or adjustments made without any further needles in the back

There are a number of drugs and combinations of drugs which can be injected through the catheter to relieve pain. The most common are local anaesthetics and fentanyl.

There are different ways in which these drugs can be given.

- Top-ups – you can ask for these before the last dose begins to wear off.
- All the time (infusion) – a small amount of the drugs is continuously given; sometimes you may need a top-up as well.
- Patient Controlled Epidural Analgesia PCEA – a drip which you control yourself by pressing a button.

Effect of epidurals:

Pain relief takes 20 minutes to be complete but it can sometimes take longer. You may need several top-ups to reach the right level of pain relief for you. The Anaesthetist tries to use "low dose" or "weaker" solutions to relieve pain. This is so that your legs do not become too numb or weak, and so you can move freely on the bed and push your baby out through a vaginal delivery. Some women can walk around, but you must have someone with you because of the risk of falling over.

Sometimes stronger local anaesthetics will be necessary to control pain, in which case your legs may feel heavy and weak and you may be unable to stand or walk until the local anaesthetic wears off.

Side effects:

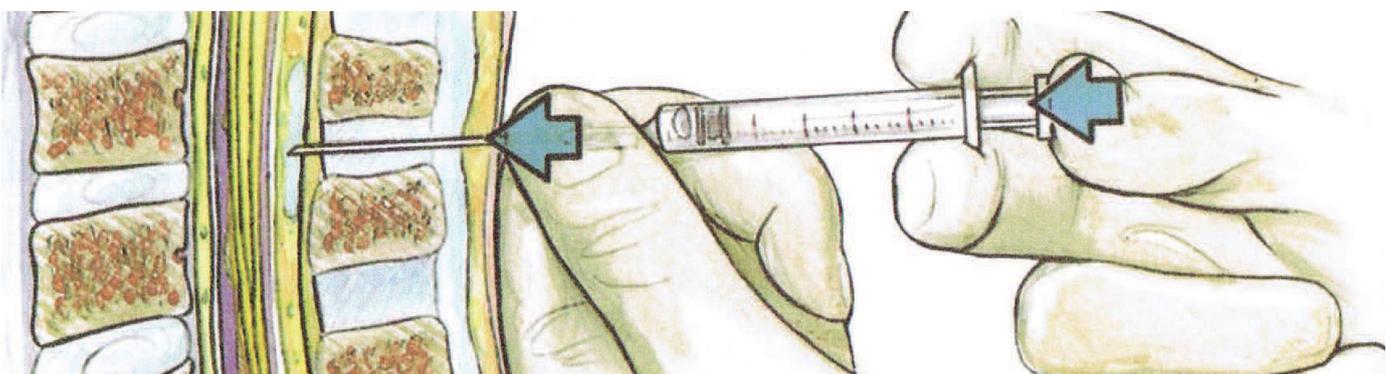
Most side effects are treated quickly and easily by your Anaesthetist

- Your blood pressure may drop; which can make you feel dizzy or sick.

It is important that you do not lie flat on your back as this causes the pregnant uterus (womb) to compress the major blood vessels, and reduce the blood supply to your baby and to your head.

Low blood pressure is treated by turning you onto your left side, giving extra fluid through the drip, or giving special drugs through the drip.

- Urinary retention: the nerves to the bladder can be temporarily affected by the epidural, making it hard for you to pass urine. In this case you will have a small tube (urinary



catheter) placed in to your bladder to help pass urine.

- Itchiness
- Nausea
- Shivering or “the shakes” are common; the cause for this is not understood. Apart from being a nuisance it does not appear to cause any harm to you or baby. If severe, medicine can be given to stop the shivering.
- On occasions, pain relief may be partial, patchy or even one sided. It is often not clear why this may occur. Precise placement of the epidural catheter can be difficult, especially if you are short or overweight. If you do not have enough pain relief the midwife should call the anaesthetist to try to fix the problem. There is a failure rate of 2% that never work, and a range of 10-20% that give only partial relief.

The Anaesthetist will make all reasonable attempts to try and solve the problem. This may include removing and then reinserting the epidural.

- Sometimes you are given a drip (syntocinon) to maintain good progress of labour. Syntocinon causes the uterus to contract and may be needed to maintain progress in labour and descent of your baby’s head into your pelvis. A syntocinon infusion maybe why you need an epidural, as it makes the contractions stronger or it may be put up after the epidural is placed to ensure labour progresses.

- Motor block; your legs will feel heavy and you will usually need to stay on the bed.

- Some studies suggest that epidurals may increase the likelihood of forceps or suction cup (Ventouse) delivery, or episiotomy. There are many other factors that influence the method of delivery much more than epidurals. For example, how well the baby’s head fits in to your pelvis. Even if an epidural does affect a particular labour, there is no evidence that this will harm mother or baby if it is properly managed.

Possible Complications:

- About 1 in 100 women will get a nasty headache as a result of the epidural. The headache can usually be treated effectively. It may require a procedure to “seal” the epidural site in your back.
- Injection of drugs into the spinal fluid or blood stream can occur due to the close proximity of these structures to the space where the epidural catheter is placed. This can cause weakness of the arms, difficulty with breathing, tingling around the mouth, drowsiness and convulsion. Your anaesthetist will be vigilant to detect problems early.
- About 1 in 2,500 women have areas of numbness on their legs or loss of some movement which last for days to weeks after they have given birth. Most commonly this arises from nerves being damaged by your baby pressing on them during delivery. Epidurals, on very rare occasions, may be the cause of the problem.
- Permanent damage, such as paralysis is extremely rare. (1:100,000 – 1:250,000

epidural insertions)

- Deaths linked to epidurals are so rare in modern practice that the precise risks are not known.
- The site of puncture and the region surrounding the spinal cord can become infected. This is a serious condition requiring treatment with antibiotics or, rarely, surgery. This is also very rare.
- Allergic reaction to a drug. This is extremely rare.
- If the labour becomes prolonged or your blood pressure falls markedly the baby may become distressed, possibly leading to medical intervention such as forceps-assisted delivery or Caesarean delivery. Your epidural can be used to provide anaesthesia for those.

Epidurals are always put in by Anaesthetists as they are a specialised technique in pain management. Your Anaesthetist will always attempt to keep complications to an absolute minimum by continuous checks and ensuring you are always closely observed while the epidural is in use. Your blood pressure will be measured frequently and your baby will be continuously monitored after an epidural is put in.

Availability of Epidurals:

As epidurals are specialised techniques and require ongoing monitoring of you and your baby they are not available for homebirths and in delivery suites where there is no Obstetrician immediately available.

Some hospitals are too small to have an anaesthetist available for Delivery Suite epidurals, so there may be a delay as the anaesthetist deals with other emergencies.

Maternity care is free to all eligible women in New Zealand according to residency status. Epidural analgesia is included in this free care. Some hospitals provide a private epidural service, in which case you will receive an invoice for your anaesthetic care.

Frequently Asked Questions about Epidurals in Labour:

Can anyone have an epidural?

- Most women can have an epidural.
- There are some medical conditions that make an epidural unsafe.
- It is important to inform your Midwife/LMC of any medical conditions you have, in particular bleeding problems, neurological conditions, spinal surgery and heart conditions.
- Some conditions in pregnancy mean you will need to be assessed by an Anaesthetist before labour to determine whether or not an epidural is safe for you.

When should I have my epidural?

- At any time you feel you need it once you are in established labour. Sometimes it is given before labour is established when augmentation is required. It is never “too early” to have an epidural, as long as you are in labour. It can be “too late” when the



baby is about to be born and there is not time to put an epidural in, or for it to be effective.

Will an epidural affect my baby?

- Small amounts of the drugs cross the placenta, but there are no adverse effects on the baby.

Does it always work?

- It may be technically difficult or even impossible to locate the epidural space.
- It may not work fully or it may work only down one side.

Some women still feel pressure or pain in their perineum (bottom)

- A small proportion of women find the epidural of no benefit, often because there is insufficient time for it to become effective before delivery of the baby.

If you have any further questions ask your LMC to refer you to an Anaesthetist.

Other Sources of Information;

- www.midwifeinfo.com/topic-epidurals.php
- www.anaesthesiasociety.org.nz
- www.oaa-anaes.ac.uk
- www.womens-health.co.uk/pain.asp

Advanced pain relief in labour

Transcutaneous Electric Nerve Stimulation (TENS),

- Uses a small electric current across the skin to stimulate the body’s natural painkillers.
- It is not available at all delivery centres.
- It is rarely effective for the whole labour.
- TENS needs to be practised before your labour.

Entonox (Gas)

- This is a fifty-fifty mixture of nitrous oxide and oxygen.
- It is the nitrous oxide that produces pain



relief.

- You will be given a mouthpiece or mask to hold, connected to tubing.
- To be effective, it must be breathed as soon as a contraction starts and continued until the contraction wanes.
- Entonox starts to produce some benefit after about 30–45 seconds of breathing, once the level of nitrous oxide in the bloodstream is high enough.

Advantages:

- Flexible, quick-acting pain relief.
- May be used at any stage of labour.
- Self-administered.
- Nitrous oxide does cross the placenta, but has no known long term effects on the baby.

Disadvantages:

- Nausea and vomiting, light-headedness or dizziness, drowsiness–
- Dry mouth.
- It does need practice to use it correctly.
- For some women this is enough on its own.

Pethidine

- Pethidine is usually administered by a Midwife, either as an injection into the muscle in your thigh/buttock (IM) or into a vein (IV).
- IM injection takes 15–20 minutes to act, the maximum effect is after 40–50 minutes, and it lasts 3–4 hours.
- IV injection will act within ten minutes.

Advantages:

Effective in early labour because of duration of action.

May produce good pain relief.

Disadvantages:

- Some women notice very little pain relief at all.
- For many, there is an associated sensation of loss of control.
- Some mothers get hallucinations
- Nausea and vomiting.
- Sedation.
- Slowing of breathing rate (respiratory depression).
- Drug readily crosses the placenta and will affect the baby.
- If the baby is born less than four hours after the injection, it may be sleepy or have difficulty breathing.
- Pethidine has a breakdown product, which can persist in the baby for seventy-two hours, causing impairment of suckling and disturbed sleep-wakefulness

Fentanyl

Fentanyl is a short acting opioid drug which is given into the vein (IV) by a doctor or midwife.

Advantages:

- Fentanyl works within 2–3 minutes and lasts about 10–15 minutes

Disadvantages:

- The drug crosses the placenta and will affect your baby.
- Fentanyl accumulates over time so can take along time to wear off after delivery if your labour is long.
- Your baby may be sleepy and or may have difficulty breathing when born.
- You may feel spacey or less in control.
- You may have nausea and vomiting.
- You may slow your breathing pattern and get sleepy or if very sleepy you might stop breathing so your midwife needs to be with you all the time.

Remifentanyl

Remifentanyl is an ultra-short acting opioid drug which is given by IV

Advantages:

- It works within 1-3 minutes and lasts about 5-10 minutes
- It is very rapidly broken down by both mother and baby so does not tend to accumulate
- Your baby is unlikely to be sleepy from the drug after birth

Disadvantages:

- The drug can cross the placenta and may affect the baby, but only briefly
- Sometimes the best dose for you can be difficult to find and may require a few adjustments
- Over time you may require larger doses as your body inactivates the drug more quickly or your sensitivity to the drug changes
- You may have nausea and vomiting or feel a bit dizzy.
- You may become sleepy or have slower breathing or if very sleepy might stop breathing so your midwife needs to be with you all the time.

If you have trouble reading English, telephone the translation and interpreter service: **0800 744 735** or **09 276 0014**

ARABIC

إذا وجدتم صعوبة في قراءة الأنكليزية، اتصلوا بخدمة الترجمة الخطية والشفهية على الرقم التالي: 0800 744 735.

MANDARIN

如果您阅读英语有困难，请致电口译笔译服务处：0800 744 735.

FIJIAN

Kevaka e dredre na nomu wilika na vosa Vakavavalagi, qiria na tabana ni veiqaravi ni vakadewa vosa vakavivola se vakaveitalanoa, e na naba ni talevoni oqo: 0800 744 735.

KOREAN

영어를 이해하기 힘들 경우, 통역 서비스를 위해 다음 번호 0800 744 735 로 전화하시기 바랍니다.

MĀORI

Ki te uaua ki a koe te pānui i te reo Ingarahi, patua he waea ki te ratonga whakamārama ā-waha, ā-tuhituhi i te reo Māori: Anei te nama waea - 0800 744 735.

SAMOAN

'Āfai e faigatā lau faitau i le gagana fa'aperetānia, telefoni mai le 'ōfisa fa'aliliutusi ma fa'amatala'upu: 0800 744 735.

TONGAN

Kapau 'oku ta'emahino 'a ho'o lau eni 'i he lea fakapapālangi, kātaki 'o telefoni ki he potungāue ko ia 'oku nau fai 'a e liliulea' mo e fakatonulea': 0800 744 735.

NIUEAN

Kaeke kua fai lekua a koe ke he totouaga he Vagahau Pelitānia ti matutaki atu ke he telefoni he matagahua fakaliliu mo e fakahokohoko: 0800 744 735.

VIETNAMESE

Nếu bạn có khó khăn đọc tiếng Anh, hãy điện thoại dịch vụ dịch và thông dịch: 0800 744 735.