PAIN RELIEF DURING LABOUR

EPIDURAL AND SPINAL-EPIDURAL INFORMATION SHEET

KEEPING WOMEN WELL

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Most women find labour moderately or severely painful. There are many ways of reducing and coping with this pain. Important ones include: the support of your partner or others; physical methods such as walking, bathing, massage, and breathing techniques; and drug methods including narcotics (pethidine), nitrous oxide gas, **epidural analgesia** and **combined spinal-epidural analgesia.**

These last two of these are the most effective way of relieving the pain. This does not mean, however, that they are the best approach for everyone, or necessarily for you. However, they are popular and safe methods of pain relief, and in this information sheet we hope to tell you a little about how they are put in, ways of using epidurals, their effects and complications. After you have read this information, a highly-qualified doctor, your Anaesthetist, can be contacted to discuss any questions you have in more detail.

How is the Epidural or Spinal-Epidural Inserted?

After obtaining your agreement, the Anaesthetist (a doctor with special skills, knowledge and training related to epidurals and spinals, as well as general anaesthesia, pain control and resuscitation) will insert an intravenous cannula if one is not already in place. They will then ask you to lie curled up on your side or to sit up, wash your back with antiseptic, cover your back with a clean towel and numb the skin at the injection site with local anaesthetic (this may sting sharply for a few seconds).

You will feel a pressure or ache as the epidural needle passes through the ligaments between the spines of your vertebrae. This usually causes minimal discomfort, but if this is too painful, tell the Anaesthetist. Also tell them if a contraction is starting, since this may be far more painful and it is important to stay in the same position and not make sudden movements. You may feel a twinge or ache in your back, bottom, hip or leg at some stage. This is normal and not dangerous - try and remain still.

After removing the needle, the epidural catheter is taped in place. You are then free to move about, although for the next few minutes you may be asked to remain lying in bed. Thereafter most positions are OK, including standing or walking if your leg strength is OK. Lying on the side is best if you are in bed, and all pregnant women should avoid being flat on their back (this can result in both you and your baby becoming unwell).

What Type of Epidurals are there?

Epidural pain relief begins about 10 minutes after the first solution is injected, and usually works fully in 20 min, although not uncommonly requires some extra solution and takes a little longer. After the first dose is working well, the epidural pain relief can be continued in three ways if needed (as it usually will be unless you deliver very quickly). Further similar doses can be given by the Midwife or Anaesthetist when the pain returns (usually after just over an hour). Alternatively, a pump can be used to run in solution continuously, thus keeping the pain under more even control. Thirdly, a pump can be set up allowing you to press a button and safely give yourself small additional doses when the pain returns (patient-controlled analgesia.) This also smoothes pain relief and gives you some control.

Another approach, which is popular overseas and which we are now also using, is combined spinal-epidural analgesia. This feels exactly like an epidural, but involves the Anaesthetist placing the first dose of solution into the spinal fluid (well below the spinal cord itself) through a very fine needle, before inserting the epidural catheter. The advantage of this approach is that good pain relief occurs within 5 minutes and lasts about one and a half hours or more.

With all methods, the aim is to reduce and control pain, rather than make all sensation disappear. It is thus possible to be aware of contractions and delivery, yet have no, or minimal, pain. Extra stronger doses can always be given by the staff, though the pump methods reduce the likelihood that you will need them. You should feel free to ask for (or give yourself) pain-relieving solution until you have delivered. If you have a very sore bottom or have had a Caesarean section, the epidural can be left in for further pain relief, instead of removing it straight after delivery. Removal is done by the nursing staff, who remove the tape, allowing the epidural catheter to be pulled out completely painlessly.

What Other Effects might Epidural or Spinal-Epidural Pain Relief have?

As blood pressure can fall, and for your safety, an intravenous cannula must be inserted and usually (but not always) 'drip' fluid is also given through it. The midwives will keep a close check on your blood pressure, but you should always tell staff if anything unusual happens or you feel unwell or different.

Some sensation of mild numbness can occur, as can shaking, itchiness and heaviness in the legs. In some women, mild increases in temperature occur after several hours. This is not usually of any importance.

The aim of modern epidural pain relief in labour is to keep you comfortable without making you numb and weak, so that you are able to move, empty your bladder and push strongly to deliver your baby. The spinal-epidural is particularly good at minimising muscle weakness.

A few days of mild tenderness at the epidural site is not uncommon.

What are the Complications of Epidurals and Spinal-Epidurals?

Problems with getting the epidural in the right spot and getting it working well on both sides are not uncommon (at least 1 in 10). Blocking pain from contractions is easier than pain from pressure in the vagina or rectum. Although it is usually easy for the Anaesthetist to get the epidural to 'work', occasionally the solutions will not spread adequately or the epidural catheter slips out and has to be reinserted (about 1 in 20).

Spinal-epidurals will cause a headache in 1 in 100 to 200 cases (usually a day or more later). A "dural tap" is a complication of an epidural which occurs in about 1 in 200 epidurals at King Edward. It is very rarely dangerous, but is very likely to cause a headache. If at anytime a bad headache results from the epidural or spinal-epidural, we will talk to you about ways of relieving it.

Serious complications are very uncommon. The doctors, especially the Anaesthetists, and the nurses here, are trained to recognise and treat any problems, so that you do not come to harm.

Numbness from the chest up or difficulty with breathing can occur, but this requires rapid treatment in only about 1 in 5,000 cases. Injection of epidural solution into the blood stream can occur, but rarely causes a danger (a fit initially) requiring treatment (less than 1 in 10,000). Damage to a nerve (causing skin numbness which is usually temporary) or serious infection are reported in less than 1 in 10,000 epidurals or spinals. Your spinal cord is not in danger from the needle insertion. However, disastrous complications involving brain damage, paralysis or death have been reported (less than 1 in 100,000).

In 30 years of epidural and spinal use at King Edward (possibly over 35,000 patients), no patient has died or come to serious permanent harm.

Other Common Questions about Epidurals

Q. ***Do epidurals harm the baby?***

A. In general, epidurals have very little effect on the baby and are often recommended for this reason if the baby is small or unwell. They do not cause the sleepiness or slowing of breathing which can follow the use of pethidine. After the epidural is inserted, about 1 in 20 babies will show changes in their heart rate pattern. If this is due to a drop in blood pressure or the position you are in, it can be easily corrected without any harm resulting. Most commonly it is due to an

increase in the strength of contractions (which affect blood flow through the placenta).This too can be treated if your obstetrician thinks it is necessary.

Q. ***Do epidurals cause backache?***

A. Apart from 1 in 2 women having tenderness at the spot in the first few days, epidural pain relief does <u>not</u> increase your chance of getting backache. Backache occurs in about 1 in 2 women after delivery whether or not they had an epidural. It persists in about 1 in 10 for several months, and occasionally stays long-term.

Q. ***Do epidurals cause numbness or weakness after delivery?***

A. After delivery about 1 in 3 women, whether they had an epidural or not, will have some changes in skin sensation in the legs for a couple of days. Persistent leg weakness or skin numbness is uncommon (about 1 in 1000) and far more likely to be due to nerve injury from the tight fit of the baby's head in the pelvis, or from surgery, than from the epidural. It usually resolves slowly over weeks.

The effects of the epidural have usually worn off within, at most, a few hours from the time the epidural catheter was taken out. You should tell the nurse or doctor if this has not happened, as there may be other causes.

Q. ***Do epidurals slow labour or increase the chance of an instrumental delivery?***

A. Epidurals do not slow the progress of labour until after your cervix is fully dilated. They do then make the length of this "second stage" longer, but during this time you should remain comfortable and the extra time is not harmful to the baby. If you do not use the epidural at this time, you may shorten labour by some minutes, but you will have a return of pain.

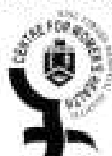
In women having their first labour who use an epidural in late labour, there is an increased chance of needing a straightforward forceps or vacuum delivery. This is not dangerous for the baby. Because many other factors also increase this risk it is hard to estimate, but at King Edward, it is perhaps an increase from a 1 in 12 chance to a 1 in 6 chance. If you are delivered in this way, an epidural or spinal epidural is easily the best way of making you comfortable.

Q. ***Do epidurals increase the chance of needing a Caesarean section?***

A. There are many other more important risk factors for a Caesarean than an epidural (your age, induction, the baby's position and so on). We are not sure if an epidural increases the risk of needing a Caesarean, although if you are having your first labour, have no risk factors and have not been induced, a recent study suggests it may. Most doctors and midwives believe this needs further study.

If you are delivered by Caesarean for whatever reason, and it is appropriate, we strongly encourage you to have the operation under an epidural or spinal-epidural (your Anaesthetist will advise you). It is safer for you and allows you to see your baby, with your partner or support person. You recover more quickly and have better pain relief, because pain killers given through the epidural catheter during your stay in hospital work better than if given through an intravenous cannula or by intramuscular injection. An epidural or spinal-epidural anaesthetic also has less effect on the baby than a general anaesthetic.

Prepared by the Department of Anaesthesia.
KING EDWARD MEMORIAL HOSPITAL FOR WOMEN



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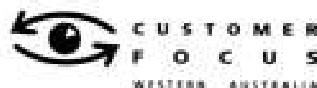

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