Pain Relief during Labour and Delivery:
What Are My Options?

To help you prepare for the birth of your baby, this booklet answers some of the questions you may have about pain relief options. You should consider taking prenatal classes to learn about good nutrition, preparing for labour and caring for your baby. Prenatal classes will also give you an overview of ways to manage your pain during labour, including some useful relaxation and distraction techniques. Consult your doctor or midwife for information about prenatal classes.

Every woman's labour experience is different. One may feel pain differently than another, even when the cause is the same. Many pain relief methods are available to help you cope with labour. Some involve medication while others do not.

No medication will be given to you without your consent.

This booklet contains general information rather than advice intended for a specific situation or individual. All statements made in this booklet should be explained to you by your doctor or midwife, who is familiar with your personal state of health.

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NON-MEDICATED PAIN RELIEF

Relaxation techniques – These include:

- listening to music
- frequent position changes
- massage
- warm showers or whirlpool baths
- birthing balls
- breathing techniques
- distraction and visualization

More information about these techniques is available through prenatal classes, books, your doctor or your midwife. Your obstetrical nurse is another valuable source of information and support during your labour.

Transcutaneous electrical nerve stimulation (TENS)

Transcutaneous electrical nerve stimulation involves sending a mild electrical current through electrodes taped to the lower back for pain relief. Some women find TENS helpful for labour pain, mostly as a distraction. However, it is not commonly used. If you would like to learn more about TENS before your labour, ask your care provider for details. You must make your own arrangements to obtain the necessary equipment before you come to the hospital.

Acupuncture and hypnosis

For some people, acupuncture and hypnosis are helpful. Although Hôpital Montfort does not provide these services, expectant mothers can make their own arrangements to bring in a therapist. All alternative or complementary medical practitioners must obtain the hospital's permission in advance before administering care.

Sterile water injections

This technique involves injecting a small amount of water into four areas of the lower back for short-term back pain relief (45-90 minutes) during labour. The results vary from one individual to another, and the technique is not used by every health care professional.

MEDICATED PAIN RELIEF METHODS

Narcotics (painkillers)

If your labour pain becomes too intense, your doctor may order a narcotic. This type of pain medication is given by injection. Narcotics sometimes cause drowsiness and nausea. If they are administered within a few hours before the delivery, your baby may be drowsy, have a weaker sucking reflex and breathe more slowly.

Nitronox

Nitronox is a mixture of oxygen and nitrous oxide (laughing gas) inhaled during contractions. Nitrous oxide can be especially helpful for women who have coped well with the pain up to the last phase of labour (transition phase). You can also ask for it if your epidural is delayed.

Epidural analgesia

One common method of pain relief for labour and birth is epidural analgesia. Safe and effective, the epidural lets you remain awake and relatively pain-free during labour and delivery. Hôpital Montfort's Anesthesiology Department provides epidural service 24 hours a day. Epidurals are usually administered within 30 minutes after being requested. It is important to note that anesthesiologists are also responsible for many other hospital activities. So, keep in mind that the anesthesiologist may sometimes be detained by emergencies elsewhere in the hospital.

What is an epidural?

An epidural involves inserting a needle into the epidural space (a small space outside the spinal column) of your lower back. The anesthesiologist threads a small plastic tube (catheter) through the needle into the epidural space. The anesthesiologist then removes the needle, leaving the catheter in your back so that you can be given medication during labour until your baby is born.

Is the epidural injection painful?

A brief stinging feeling occurs when the skin is injected with local anesthetic to freeze it. You may feel a great deal of pressure when the needle is inserted into your back, but it should not be painful.

Is the epidural not recommended for some patients?

Yes. Epidural analgesia should not be administered to patients with certain medical conditions such as bleeding problems or infections. Pregnant women with back or nerve problems, or lower back tattoos, can discuss their situation with an anesthesiologist a few months before their due date.

How does the epidural work?

The medication used in epidurals is usually a mixture of a dilute local anesthetic (freezing) and a narcotic (painkiller). Your local anesthetic (freezing) will most likely be *Bupivacaine* or *Ropivacaine*, with *Fentanyl* as the narcotic (painkiller). These medications work very well together in the epidural space. They provide effective pain relief but still allow you to move your legs, although they may still feel numb or weak. They are also safe for you and your baby.

The first dose of medication begins to ease pain in about five to ten minutes, with the full effect felt within fifteen to twenty minutes.

An infusion pump is programmed to administer the medication continuously through the epidural catheter to keep you comfortable. If you fall asleep, the epidural will keep working. You can also self-administer small amounts (boluses) of the medication when you feel the need by pushing a button. This is called Patient-Controlled Epidural Analgesia or PCEA (see below).

If the pump fails to control your pain, your nurse or anesthesiologist may give you stronger medication through the epidural catheter (tube). Stronger medication will make your legs feel quite numb and heavy.

When can I have an epidural?

If this is your method of choice for pain relief, epidurals are usually administered when requested by the patient and once labour has started. In other words, when your contractions are regular, and your cervix is dilated to 3 cm or more you can ask for an epidural. In some circumstances, your obstetrical health care providers may offer you an epidural for medical reasons. If so, they will discuss your individual situation with you. Even if you initially planned for a non-medicated birth, an epidural is still available if you change your mind.

Is it ever too late to have an epidural?

The anesthesiologist needs a certain amount of time to assess your medical condition before administering an epidural. It takes about 15 minutes to insert the catheter, and another 15 minutes for the medication to take effect. If your delivery is imminent an epidural may not ease your pain in time before the birth.

Patient-controlled epidural analgesia (PCEA)

Hôpital Montfort offers this epidural medication administration method. The amount of medication required to make a woman comfortable during her delivery varies from one person to another. Women who receive lower doses are more likely to be able to move more freely without assistance or use different birthing positions. For women who receive higher doses, their legs are more likely to be too weak to allow them to move or change position, and they will need assistance to empty their bladder.

Combined Spinal Epidural (CSE)
This type of epidural involves sliding a very fine needle through the epidural needle after it has been inserted in the epidural space in your back. Using the fine needle, a small dose of medication is injected directly into your cerebrospinal fluid. This medication works very quickly, within one to two minutes; it will control your pain very effectively and cause only minor weakness in your legs. The fine needle is then removed, and the epidural catheter is then placed as usual.

The effects of spinal anesthesia last only 60-90 minutes, after which the epidural catheter is used as described above. CSE may cause more itching than a standard epidural. The baby's heart rate may temporarily slow immediately after insertion, due to a drop in mom's blood pressure, but then usually returns to normal quite quickly.

Are there any risks associated with epidural analgesia?
All medications and all procedures involve some risk, and epidurals during labour are no exception.

Common problems:

- ***Failure or incomplete pain relief*****.** 5-10% of epidurals do not work well or stop working. The anesthesiologist will usually try a stronger medication to get the epidural to work, but sometimes the epidural needs to be changed.
- ***Difficulty urinating.*** It can sometimes be necessary to pass a small tube into your bladder every few hours to empty it.
- ***Longer labour.*** The increase in length of the first stage and second stage (pushing phase) labour is usually not significant. This is not a problem as long as you are comfortable, and your baby is tolerating labour.
- ***More frequent use of Oxytocin.*** Medication may be necessary if your contractions become too infrequent or weak.
- ***Malpositioned baby.*** Your baby may become malpositioned due to relaxation of the pelvic floor muscles with an epidural.
- ***Backache.*** Temporary tenderness and bruising at the spot where the epidural was inserted is common, mild, and usually resolves within 2-3 days. Pregnancy and delivery may lead to backache whether or not you have an epidural.
- ***Itchiness.*** This is a side effect of the narcotic (painkiller) in the epidural. Itching is more likely following a CSE. It can be treated with medication if severe.
- ***Temporary leg weakness*****.** This is a side effect of the freezing (local anesthetic) medication in the epidural, and should wear off after the epidural is stopped.

Uncommon problems:

- ***Headache (1 in 100 patients).*** The epidural needle can make a small hole in the membrane covering the spinal nerves causing fluid to leak out. If this happens,

you may get a headache. An anesthesiologist will speak with you to discuss ways to help if this happens.

- ***A drop in blood pressure (1 in 50 patients).*** The epidural may cause nausea, vomiting and dizziness. Starting an intravenous (IV – a small plastic catheter inserted into a vein) to give you fluids before the epidural reduces this problem. In some instances, the anesthesiologist will administer medication to return your blood pressure to normal.
- ***Forceps or a vacuum may be used more frequent for delivery*.**
- ***Women who receive epidurals do NOT have cesarean births more often than women who go without epidurals.***
- ***Intravenous local anesthetic.*** *This anesthetic can cause side* effects such as ringing in the ears, blurred vision, or tingling around the mouth.

Rare risks:

- ***Temporary nerve damage*** **(1 in 1,000 patients).** This can include leg weakness or a numb patch on your leg. This may result from the epidural, positioning, or to nerve pressure from the baby's head.
- ***High spread of the freezing medication*** **(1 in 13,000 patients)**. This condition can result in breathing difficulty.

(Comparison: The risk of death from motor vehicle collision is 1 in 10,000)

Extremely rare risks (too rare to quote accurate statistics)**:**

- ***Intravenous local anesthetic overdose*.** If this occurs, symptoms (listed above under "intravenous local anesthetic") will indicate the problem long before it becomes dangerous. However, if left untreated, seizures or death could result.
- ***Meningitis***
- ***Paralysis***

Hôpital Montfort anesthesiologists have extensive experience with epidural analgesia, and they administer thousands of epidurals every year in the family birthing center, in pain clinics and in the operating room.

If I need a cesarean birth, what type of anesthetic will I receive?

The choice of anesthetic depends on the reason for the cesarean and the concerns of both the anesthesiologist and obstetrician. At Hôpital Montfort, cesarean births usually involve epidural or spinal anesthesia. This means that you are frozen (numbed) from the chest down such that you feel no pain, but you remain awake during the birth. We encourage your partner to be present for your cesarean birth once your anesthesia takes effect.

Spinal anesthetic
A spinal anesthetic is like an epidural. The anesthesiologist inserts a very fine needle into the fluid space around the spinal nerves and injects medication which causes rapid numbing of the lower body. The anesthesiologist often uses spinal anesthesia for elective (planned) cesarean births because only one injection is required. The combined spinal/epidural (CSE) technique for labour pain relief also involves a spinal anesthetic, but different medications are administered by the anesthesiologist to freeze you more heavily during a cesarean birth.

Epidural anesthesia
This method is most commonly used if the decision to perform a cesarean birth is made after a woman is already in labour and has an epidural in place for labour pain control. Stronger medication is given through the existing epidural catheter to increase pain relief during the surgery. This will usually make the legs feel heavier and numb. In a few women, epidural anesthetics do not provide sufficient pain relief during surgery. In this case, either a spinal or a general anesthetic is used.

General anesthesia
A general anesthetic means that the mother is asleep during the delivery. A general anesthetic is sometimes necessary when an epidural or spinal cannot be given for medical reasons, or if the baby must be delivered very quickly. Partners are not permitted in the operating room if the mother is under general anesthesia, and visits by the partner in the recovery room after the cesarean will be delayed until the mother is awake and stable. If you require a cesarean birth, we usually recommend an epidural or spinal anesthetic.

CONCLUSION

After reading the information in this booklet, we encourage you to think about the pain relief options that you would prefer for your labour and delivery. Please discuss them with your nurse and doctor or midwife during your pregnancy and once you arrive at the hospital.

If you have concerns, questions or would like more information, please contact your doctor, midwife, or nurse**.**

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