

Occasionally patients feel tingling sensations or pain moving into their back, legs or hips (paresthesia). It is important to tell your anesthesiologist if this occurs. It is very important to stay as still as possible during this procedure. A small catheter tube is passed into the epidural space through the needle, the needle is removed and the tube is taped to your back. Putting in an epidural usually takes about 20 minutes. In larger women or those who have had previous back surgery, it may take longer and be more painful. Once in place, the epidural is often connected to a Patient Controlled Epidural Analgesia Pump (PCEA).

The PCEA pump infuses medication continuously while allowing you to administer extra doses as required. It is normal to experience some numbness and weakness in the legs while an epidural is infusing. Medications used in the epidural space are a mixture of local anesthetics and a small amount of narcotic. Epidurals provide excellent pain relief in labour. If there is a need to deliver the baby with forceps or by cesarean section, the epidural may be used for anesthesia for these procedures.

2. Spinal Anesthesia

The preparation and positioning are the same as for an epidural. In spinal anesthesia a small amount of local anesthetic and/or narcotic is injected into the fluid surrounding the spinal nerves. Pain relief is very rapid but only lasts a few hours. As there is no catheter inserted in this technique, a continuous infusion of medication is not possible. Spinal anesthesia is usually used when birth is expected within 1 - 2 hours.

3. Combined Spinal and Epidural (CSE)

A CSE is similar to an epidural except a spinal injection is given before the epidural catheter is placed.

Side effects from regional techniques are usually minor and easily treated but very rarely can be serious:

- a) A sudden drop in blood pressure (BP) can occur. Your BP will be checked often and drugs or IV fluids will be given if needed.
- b) If the medication goes into a blood vessel you may become dizzy, have ringing in your ears, and/or a metallic taste in your mouth. A seizure is a very rare side effect.
- c) A specific type of headache called a postdural puncture headache can occur following an epidural or spinal. The chance of this occurring is around one time in a hundred. The headache will resolve on its own over time, or can be treated if it bothers you.
- d) Infection, bleeding, or direct injury to nerves is a very rare complication. The chance of permanent neurological injury (long-term numbness or paralysis) is less than one in 10,000.
- e) Some minor bruising at the site of the epidural or mild backache may occur. This should go away in a few days. However, backache that lasts longer occurs in about one third of all women who give birth whether or not they have an epidural.
- f) About 5% of the time (one in twenty) an epidural doesn't work and has to be done again. On rare occasions, an Anesthesiologist is not able to get an epidural to work even after many tries. Some patients cannot have epidurals because of medical problems.

GENERAL ANESTHESIA

General Anesthesia means being completely asleep or unconscious. This is reserved for emergency situations during vaginal deliveries and for some caesarean sections. It is not used during labour. This technique works very quickly and

allows for quick delivery of the baby. The main risk for the mother with general anesthesia is vomiting. For this reason, during active labour it is important not to eat anything as this increases the risk of vomiting. Ice chips and clear fluids are allowed. Examples of clear liquids include water, clear fruit juices without pulp, carbonated beverages, clear tea, black coffee (no cream or milk) and sports drinks. To protect against vomiting and ensure proper breathing under general anesthesia, the Anesthesiologist places a breathing tube into your windpipe immediately after you are asleep. After general anesthesia for childbirth, some mothers have dreams of the baby crying or recall sensations of delivery afterwards.

DISCUSSING OPTIONS

When your labour is strong enough that you want to ease your labour pain, your Nurse, Doctor, Midwife and Anesthesiologist can help you with making choices. It is okay to use more than one of these methods. If you have ever had a problem with an anesthetic, if you have a medical condition or allergy, or if you have questions about pain management, discuss this with your Doctor or Midwife. Your Doctor may then decide to make a clinic appointment with an Anesthesiologist.

You will also be able to discuss your choices with the Anesthesiologist on the labour unit. Your Anesthesiologist is a medical doctor who has special training in pain control. At Women's Hospital, there is an Anesthesiologist on the labour floor 24 hours a day. This doctor is there to:

- give advice about pain relief
- perform epidural analgesia when needed
- be ready for cesarean deliveries or other emergencies as they arise
- give advice about managing medical problems
- assist with neonatal resuscitation as needed

Pain Management for Labour & Delivery



**Health Sciences Centre
Winnipeg**

**Departments of Anesthesia,
Obstetrics, and Obstetrical Nursing**

This pamphlet has been prepared to provide you, members of your family, and others who will be with you during the birth of your baby with information about the options available for managing pain during labour and delivery.

Many factors are involved in decisions about which method(s) of pain control may be right for your birth experience, including the severity of pain sensations, the speed or progress of labour, the size of your baby, previous experience with pain, and other medical conditions. Pain varies greatly from one woman to another and from one labour to another. Pain relief can be beneficial for both mothers and babies.

Your Doctor, Midwife, Anesthesiologist and Nurse can help you with these decisions. Often a combination of supportive techniques, medications and regional anesthesia is used.

SUPPORTIVE (NONPHARMACOLOGIC) TECHNIQUES

There are many effective and helpful ways of reducing the amount of pain you feel with contractions. The effect varies from woman to woman and often a combination of techniques are used. The advantage of these methods includes the avoidance of medications, they are easy to do, and give personal satisfaction. Some of these techniques are:

- Childbirth preparation classes: learning about childbirth has been proven to decrease anxiety. These courses teach breathing exercises that decrease labour pain.
- Help from a support person: either a partner or coach is very valuable to help with your comfort and emotional support throughout the labour experience.
- Touch and massage including the use of creams and oils, heat and cold, and counter pressure.
- Being active during labour rather than staying in bed. Position changes like walking, squatting, sitting, the hands and knees position and using a birthing ball can all be helpful.
- Pleasing surroundings with the use of music, dim lights and aromatherapy.

- Use of a warm water bath or shower may help reduce labour pain.
- Sterile water injections: involves injecting small amounts of sterile water into the skin in the lower part of the back. This can help women in early labour who have back pain.
- Hypnosis and acupuncture may be helpful in some women during labour.

MEDICATIONS (PHARMACOLOGIC TECHNIQUES)

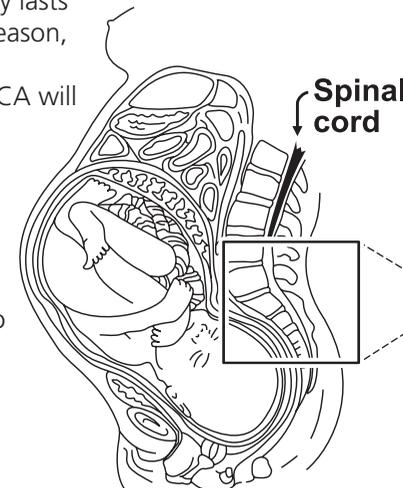
Nitrous Oxide is an anesthetic gas. It is given together with oxygen through a facemask. You hold the mask and start inhaling the gas mixture just before a contraction begins. The nurse will show you how to coordinate your breathing with the contractions. Pain relief occurs within two or three breaths but will disappear 3 to 5 minutes after you stop breathing the gas. Because its effect disappears so rapidly, nitrous oxide is very safe and does not make your baby sleepy.

Narcotics are drugs used to ease the pain associated with labour contractions. They promote sleep, help to reduce the intensity of painful contractions and lessen anxiety. Narcotics can cause side effects such as nausea and vomiting, excessive sleepiness, and slower breathing. In addition, narcotics given during labour can affect the baby's breathing in the

first few hours of life. Although rarely needed, a drug called Narcan can be given to your baby to reverse the effects of narcotics.

Narcotics used for labour:

1. **Morphine** (more-feen) is given through an intravenous (IV) infusion or it can be injected under the skin or into muscle. Pain relief takes effect within 5 - 30 minutes and lasts 4 - 6 hours.
2. **Fentanyl** (fen-ta-nyl) is a shorter acting narcotic, given as a single dose. Pain relief takes effect within 2 - 3 minutes and lasts 30 - 60 minutes.
3. **Remifentanyl** (rem-e-fen-tan-nil) is a very short acting narcotic. It is always given via Patient Controlled Analgesia (PCA) into your IV. This medication is rapidly effective within 1 - 2 minutes but only lasts 5 minutes. For this reason, in addition to self-administration, the PCA will be programmed to provide a continuous background infusion of remifentanyl. Because this drug lasts only a short time, it is less likely to affect the baby's breathing at birth.



LOCAL ANESTHETIC AND NERVE BLOCK TECHNIQUES

During childbirth, injections of local anesthetic are frequently used to numb nerves in the vaginal area.

REGIONAL TECHNIQUES

Regional Anesthesia involves techniques that block pain nerves from the uterus and birth canal with the use of local anesthetics. Options for labour include epidural, spinal, and combined spinal and epidural (CSE) techniques. Regional anesthesia is very effective for pain control during labour. These methods can affect mobility and emptying of the bladder. A Foley Catheter is commonly required when an epidural or spinal anesthesia is used in labour.

1. Epidural (ep-ee-dur-al)

To receive an epidural, you will be asked to sit up or lie on your side with your back curved out. The Anesthesiologist will clean a small area on your back with antiseptic. A small amount of local anesthetic (freezing) will be injected under the skin. This can be uncomfortable (similar to a bee sting). While the epidural needle is being placed it is common to feel pressure in your back.

