



# ***Regional Anaesthetic***

*Here is some information for you to take home*

## **Introduction**

Many patients and even some physicians automatically assume that surgery requires general anaesthesia, and that the patient should be asleep during surgery. Many procedures can be performed on patients that are awake, using regional anaesthesia. This not only avoids the risks and unpleasantness sometimes associated with general anaesthesia (numbing of an area), but may also provide benefits such as reduced blood loss and better post-operative pain relief.

## **What is Regional Anaesthesia?**

Anaesthesia means the absence of sensation. Regional anaesthesia means blocking the nerve supply to part of the body, so the patient cannot feel pain in that area. It can often be used to prevent pain during surgery and allows the patient to remain awake. When combined with sedative drugs, it will make the patient relaxed or sleepy.

## **Will it Hurt?**

Most regional anaesthetic techniques involve using a syringe and needle to inject drugs in the correct place. Unfortunately, this can often be uncomfortable, and the local anaesthetic may sting during the injection. Most patients consider this discomfort a small price to pay for the pain relief during and after surgery.

During the operation, patients may still be able to feel touch and pressure. Occasionally, (e.g. during delivery of the baby by Caesarean Section) patients may feel tugging. But patients should not feel pain during the operation.

## Will it Work?

When the right amount of the right drug is injected in the right place, it will eventually work and provide good pain relief. Most blocks take 5 – 20 minutes to work.

## What if it doesn't work?

- Depending on the circumstances, there are a variety of options available:
- Add more local anaesthetic, either by repeating the original block, or by doing a different block of the same area.
- Adding sedation, which often makes the patient more relaxed and comfortable.
- Converting to a general anaesthetic.
- Postponing the procedure.

## What are the potential side-effects and/or complications?

In general, regional anaesthesia is very safe and usually safer than a general anaesthetic. The most common side-effect of blocking is a temporary weakness or paralysis of the affected area and wears off after a while. The complications that may arise usually occur when the local anaesthetic is injected in the wrong place. If a large volume of local anaesthetic is injected into vein by mistake, it may cause convulsions and even cardiac arrest. This is why physicians always inject local when performed by physicians trained in the technique, in an area equipped with oxygen, suction, drugs and slowly; sucking back on the syringe to check the local is not going into a vein. Major nerve blocks are safe other essential equipment.

## Why choose a regional anaesthetic?

Regional anaesthetics reduce some of the risks and unpleasantness, such as nausea and vomiting, which sometimes occurs with general anaesthesia. Some patients feel more “in control” when they are awake during surgery.

## Spinal and Epidural Anaesthesia

Spinal anaesthesia involves putting local anaesthetic in the patient's back to “freeze” the lower body. It is usually very safe and effective and is suitable for Caesarian Sections. In general, spinal anaesthesia provides excellent pain relief throughout the procedure, although, patients may feel some stretching or tugging during delivery of the baby.

Spinal anaesthesia involves injecting local anaesthetic into the fluid which surrounds the spinal cord. This produces a very intense nerve block very quickly, with only a small amount (half of a teaspoon) of local anaesthetic. The major disadvantage of a spinal anaesthetic is drop in blood pressure, caused by temporary blockage of the nerves that control blood flow in to the legs, so that blood collects in them. This can be treated with intravenous liquids and drugs, if necessary. Headaches after spinal anaesthesia used to be a major problem. Now, with the use of very small, specially designed needles, headaches are rare. If they occur,

they can be treated with rest, adequate liquids to drink, simple painkillers such as a paracetamol or Tylenol and, if necessary, by a procedure called an “epidural blood patch”.

The major disadvantage of epidural analgesia is that larger amounts of local anaesthetic are used (about 20 ml) which can cause serious complications if they are put in the wrong place. In a vein, the local anaesthetic may cause convulsion of cardiac arrest. In fluid surrounding the spinal cord, it may spread too high, which may stop the patient breathing. Fortunately, all these complications can usually be treated by an anaesthetic, without long lasting problems.

## Conclusion

All medical procedures have risks and benefits. For many operations, the risk/benefit ratio for regional anaesthesia is better than for general anaesthesia. Patients should discuss this issue with their physician.

Bluewater Health provides options to facilitate family-centred Caesarean births, as per national guidelines:

- Choosing regional anaesthesia, where possible, and explaining the differences between regional and general anaesthesia.
- Enabling father/partner/support person to be in the Caesarean birth room in non-emergency situations.
- Providing the opportunity for both parents to interact with the baby in the Caesarean birth room and/or the post-anaesthetic recovery room.

*Author: Dr. John Oyston, Orilla Soldier’s Memorial Hospital. Department of Anaesthesia. Oyston@oyston*

## Questions for Your Doctor / Other Instructions

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**Maternal, Infant, Child Program, Ext. 8440**

**Bluewater Health, Sarnia**

89 Norman Street, Sarnia, Ontario N7T 6S3

Telephone: 519-464-4400