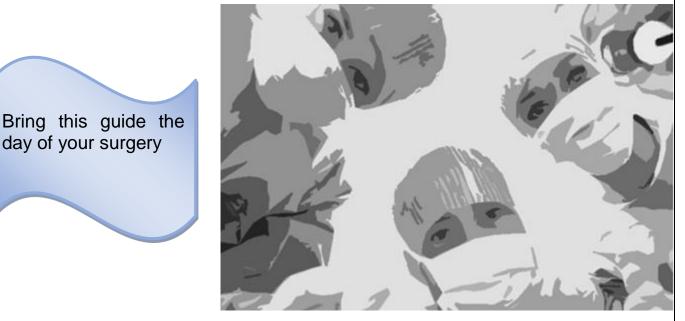
Centre intégré de santé et de services sociaux de Laval

PREPARATION GUIDE FOR A SURGERY



Role of anesthesia – Information guide

This guide will help you understand your surgery and get ready for it. Read it with your family.



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Dear Patient,

This guide is an introduction to the Anesthesiology Department at the Hôpital de la Cité-de-la-Santé of the Centre intégré de santé et de services sociaux de Laval. Your anesthesiologist will provide you with a specific type of anesthesia depending on your surgery and your medical condition. Please read this document carefully to understand the anesthesia that will be administered on the day of your surgery. Our goal is to reassure you by explaining the important aspects of anesthesia and answering any questions you may have.

This guide is not exhaustive and is for information purposes only. It is not a substitute for a discussion with your anesthesiologist about consent to anesthesia on the day of your surgery.

Our nurses in the Preadmission Clinic and our medical team hope that this guide gives you useful information for your health needs and wishes you a pleasant stay.

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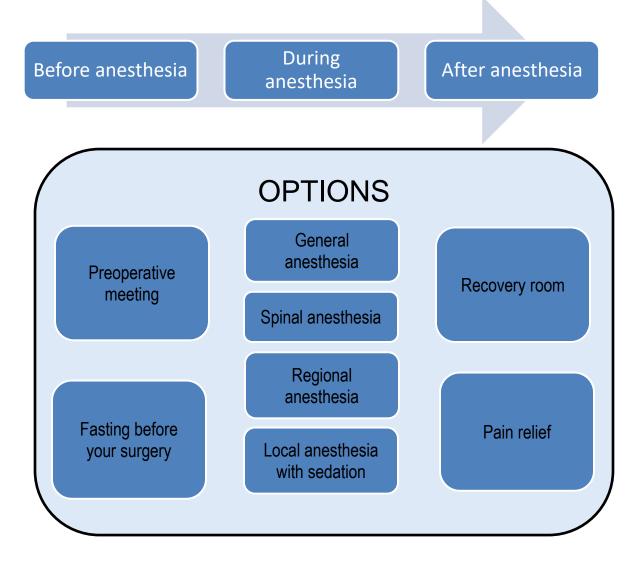


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GENERAL INFORMATION

1. WHAT IS THE ROLE OF YOUR ANESTHESIOLOGIST?

Before your surgery, you will meet with the anesthesiologist who will care for you during your operation. This professional is a vital member of the surgical team who keeps you safe and comfortable during and after your surgery. Anesthesiologists are familiar with a number of different health conditions and their impact on how a wide variety of surgical procedures are performed. They are specialists in anesthesia, resuscitation, intensive care, and pain control.

2. WHAT ARE THE RISKS OF ANESTHESIA?

Serious complications from anesthesia are very rare, but they can occur. The risks related to surgery and anesthesia mainly depend on your initial health condition and how complicated your surgery is. In Canada, the risks of a healthy person dying from anesthesia are probably 1 in 200,000 to 1 in 400,000. The risk of anesthesia is therefore similar to that of air travel and less than that of driving a car.

3. CAN YOU BE ALLERGIC TO ANESTHESIA?

Patients may think that they are "allergic to anesthesia" because they had an unpleasant experience in the past that included symptoms such as nausea and vomiting. These are not allergies but side effects. A true allergic reaction to a medication usually presents as skin redness or hives; wheezing in the lungs; swelling in the mouth, throat or eyes; and sometimes a drop in blood pressure. You may have an allergic reaction to a medication during anesthesia, but this complication is rare. If you do have this type of reaction, the risk of permanent damage is very low since anesthesiologists are experts at quickly recognizing and treating allergic reactions. If you think you may have an allergy to latex or a specific drug, tell the nurse when you visit the Preadmission Clinic and your surgeon and anesthesiologist so that they can take precautions before the day of your operation.

4. **RECOMMENDATIONS**

If you are discharged on the day of your surgery, you must have someone accompany you and spend the night at your home. It is strongly recommended that you do not drive, drink alcohol or make important decisions (such as signing a contract) until the day after your surgery or longer if you need to take pain medication after your surgery.

BEFORE YOUR ANESTHESIA

5. PREOPERATIVE ASSESSMENT

To prepare for your procedure, the anesthesiologist will go over many aspects of your medical record and review the many factors that may influence how your body will react to the anesthesia medications:

o age

o weight

- tobacco or alcohol use
- o prescribed or non-prescribed substances
- pregnancy
 liver or kidney diseases

Some medical conditions that increase risks:

- heart disease
 blood problems
- o lung disease
 o malignant hyperthermia (a rare disease)

Anesthesia and surgery can affect all of your vital functions; this means that the anesthesiologist must know about all of your medical problems to provide you with the safest and most appropriate anesthesia for your condition.

Patients usually meet with the anesthesiologist on the day of their surgery. However, depending on the type of surgery and your health condition, you may have to meet with the anesthesiologist one to a few weeks before your procedure. This meeting will be scheduled by the Preadmission Clinic nurse. The anesthesiologist will meet with you and explain the different types of anesthesia that are appropriate for your health condition and answer your questions. They may consult with another specialist (e.g. cardiologist) if required by your condition. The anesthesiologist assigned to your case on the day of your surgery will verify all the information in your record and determine the best anesthesia method for you.

6. WHY CAN'T I EAT BEFORE SURGERY?

Your body has a mechanism that prevents vomit from entering your lungs; however, this mechanism doesn't work normally when you are under anesthesia. You must therefore fast before a procedure that involves anesthesia to reduce the risk of vomit entering your lungs and causing serious complications.

7. MEDICATION

If you regularly take any medications, your preadmission nurse or doctors (surgeon and anesthesiologist) will tell you which ones you may need to stop before the operation.

8. SMOKING

Reduce your smoking or quit as soon as possible before your operation. Don't smoke starting from midnight the night before your procedure. These precautions are to prevent respiratory complications.

DURING THE ANESTHESIA

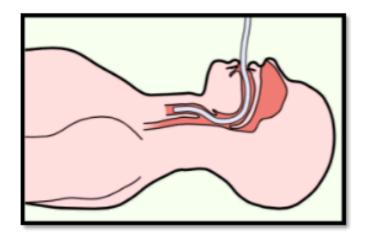
9. WHAT KIND OF ANESTHESIA WILL I GET?

Anesthesia is a technique to eliminate or reduce pain during a procedure. The chosen anesthesia depends on factors such as the type of surgery and your health condition.

9.1 GENERAL ANESTHESIA

During general anesthesia, your anesthesiologist will use powerful agents to keep you unconscious so that the operation is painless. This "artificial sleep" lasts until the end of the surgery.

You will first get a sedative that will make you unconscious, followed by pain medication and a combination of drugs to keep you asleep. You will continuously receive oxygen through a face mask and then, while you are unconscious, through a tube in your airway (throat). A ventilator will help you breathe at this point. All of your vital functions will be carefully monitored and controlled. At the end of the procedure, the anesthesiologist will reverse the effect of the medications to wake you back up. Once you wake up and start breathing on your own, the ventilator will be turned off and the tube in your airway will be removed. Your anesthesiologist will continue to administer the appropriate medications to keep you unconscious during the operation and help you recover quickly and painlessly.



9.1.1 ADVANTAGES OF GENERAL ANESTHESIA

- You are completely unconscious during the surgery.
- General anesthesia is mandatory for many surgeries so that the surgery can be performed safely.

9.1.2 DISADVANTAGES OF GENERAL ANESTHESIA

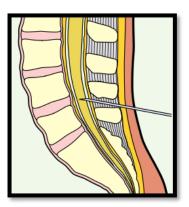
- Nausea and vomiting when you wake up.
- A sore throat or temporary hoarseness from the tube inserted down your throat during the operation.
- Dental injuries are possible but very rare (less than one in 10,000). It is important to let your doctor know whether you have a dental appliance or particular dental issue.

9.1.3 CAN I "WAKE-UP" WHILE UNDER ANESTHESIA?

Becoming conscious during general anesthesia, i.e. becoming aware of what is going on during some of your procedure, is very infrequent and occurs in fewer than 1 in 7,000 patients put under general anesthesia. If patients do have memories, these are generally of events around the time they lose consciousness when the anesthesia is administered. This is not the same thing as being awake during surgery. Patients usually do not feel pain but may remember a conversation or other event after being woken up. Your anesthesiologist pays special attention to your state of consciousness while you are under anesthesia.

9.2 INTRA-SPINAL ANESTHESIA

Intra-spinal anesthesia is used for operations conducted on the lower abdomen and legs. A very fine needle is inserted into the back between the bones of the lumbar spine and through a membrane in the fluid that surrounds your spinal cord. A small amount of anesthetic is injected to block sensations and movement in the lower part of your body. Depending on your health condition, your anesthesiologist may sedate you to help you relax and even fall asleep during surgery. This is a useful and safe method. Spinal anesthesia is a way to



intensely block the nerves in this area much more quickly. This block is temporary, and the effect of the anesthetic will gradually go away. Your doctor will monitor your limbs to see how they regain sensation and motor activity.

After your operation, you will be observed for about 3 hours depending on how your sensation returns. Your bladder may need to be emptied depending on the type of surgery.

9.2.1 ADVANTAGES OF INTRA-SPINAL ANESTHESIA

- You don't need to be unconscious, which eliminates some of the risks of general anesthesia
- Nausea and vomiting are rare
- Any pain may take longer to appear
- You can go back to eating normally more quickly

9.2.2 DISADVANTAGES OF INTRA-SPINAL ANESTHESIA

- Headaches (1% of cases)
- Urinary retention (inability to urinate) while the lower body is anesthetized
- Risk of paralysis (extremely rare)
- Risk of infection (extremely rare)

9.3 TRUNCAL NERVE BLOCK

This technique blocks the major nerves to a specific area of your body and is generally used for shoulder, forearm, hand, knee or foot surgery. Local anesthetics temporarily block nerve transmission in order to stop painful sensations and/or movement in the parts of the body that will be operated on. The medication is injected in the area around the nerves. You may feel some tingling before your limb loses all sensation, which generally takes about 20 minutes. You will regain sensation and motor activity in 6 to 18 hours depending on the agent used.

9.3.1 Advantages of the truncal nerve block

- Longer pain relief.
- Better pain relief.
- Prevents you from taking large amounts of narcotic drugs (e.g. morphine), which can cause breathing problems and other side effects such as nausea, vomiting and drowsiness.

9.3.2 DISADVANTAGES OF THE TRUNCAL NERVE BLOCK

- Risk of hematoma (bruising when blood accumulates at the injection site).
- Risk of infection.
- Risk of numbness due to nerve damage: permanent (very rare) or temporary.

9.4 LOCAL ANESTHESIA WITH SEDATION

Local anesthesia with sedation involves injecting a small amount of anesthetic agent to numb a small area to perform a minor procedure, such as stitching a wound. You may also receive sedation to relax you. Adverse reactions are very rare.

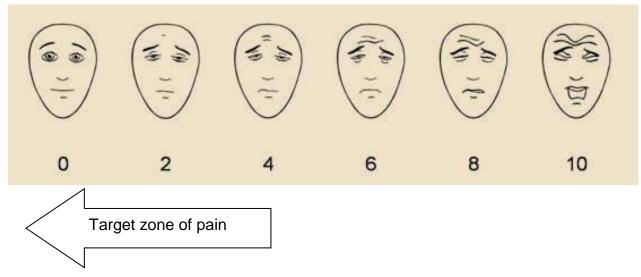
AFTER THE ANESTHESIA

10. WHAT HAPPENS AFTER I RECEIVE ANESTHESIA?

After your surgery, you will be transferred to the recovery room, where you will recover from the immediate effects of the anesthesia and surgery. You will be constantly monitored by a nurse and supervised by your anesthesiologist throughout your stay in the recovery room. Your surgeon will also check in on how you are doing and will be called if there are any surgical problems. How long you stay in the recovery room will depend on your health condition, the anesthesia you received, and the type of operation you had. The anesthesiologist will authorize your discharge.

11. CONTROLLING YOUR PAIN

It is normal to have pain after an operation. The amount of pain is different for everyone. However, you can control your pain with the medication prescribed by your surgeon. You will be asked to assess your pain on a scale of 0 to 10



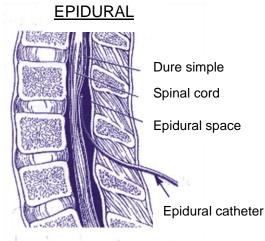
Effective analgesia will reduce how long you have to stay in the hospital as well as any complications related to immobility. Your breathing, mobility or coughing exercises will all be easier when your pain is under control. The chances that you develop a dependency on your pain medication (drug addiction) are very low, as you will only get small doses for a short amount of time. Different types of analgesia (pain medication) may be given to you after your surgery.

DIFFERENT TYPES OF ANALGESIA

11.1 EPIDURAL ANALGESIA

An epidural analgesia is used to control acute pain after major surgery. A catheter (a small plastic tube) is inserted between the bones of the spine into the epidural space (without touching the spinal cord). A clear dressing holds the catheter in place. The outer tube is connected to the liquid containing the pain medication, which will "freeze" the operated area. This medicine allows you to move your legs, but it may cause lower-limb weakness and mild numbness along with itching.

Do not rub your back hard against anything, as the dressing that holds the catheter in place may come off.



The nurse will adjust your medication depending on the intensity of your pain and your anesthesiologist's instructions. The nurse will also check in on you every day to see how comfortable you are. The anesthesiologist will authorize the removal of the catheter after determining that you will not experience pain once it is removed. Epidural analgesia is a very useful, effective and safe procedure that lets you recover faster and avoid further complications.

11.2 SINGLE DOSE INTRA-SPINAL ANALGESIA

Single-dose spinal analgesia is used for prolonged pain relief during spinal anesthesia. The anesthesiologist will inject a single dose of a drug, which has an analgesic effect, into the catheter already inserted between the bones of the lumbar spine. This relieves pain from the lower abdomen and legs for the first 18 to 24 hours after your procedure. You may develop itching depending on the medication used.

* NOT CURRENTLY AVAILABLE

11.3 PATIENT-CONTROLLED ANALGESIA (PCA)

- Your anesthesiologist may prescribe a PCA pump after your surgery. This pump is programmed with a specific **dose** at a specific **frequency** and a **maximum** number of doses that can be given within a certain amount of time.
- **Dose**: Your anesthesiologist will consider everything when prescribing a dose of IV analgesia, such as your age, weight, height and health condition.
- You will activate the pump yourself to administer your pain medication. Simply push the button to start the pump. The pump is very precise and will give you the exact dose prescribed by your anesthesiologist and no more, no less. Your anesthesiologist and nurse will make sure the pump gives you the exact dose that will relieve you but won't make you too drowsy. You are the best judge of how you feel: if you are in pain and want to relieve it, simply press and release the button. The medication will start working very quickly and usually within a few minutes. Give it some time to take effect.
- <u>Frequency</u>: **How often should I press the button?** Whenever your pain gets too intense. It's up to you. If you think you need an extra dose, press and release the button again. A "clock" inside the PCA pump limits the time between doses and the number of doses that can be administered so that you safely receive only the amount of medication you need.
- <u>Maximum</u>: **Can I get too much medication?** No. The PCA pump is a precision medical device specifically designed and manufactured to protect your health. You cannot receive more medication than your anesthesiologist thinks is necessary. The small doses you are given when you press the button are enough to relieve the pain and keep you awake. You can get relief at your own pace without having to wait or ask for permission. You are the one who decides.
- Can I give myself extra medication by mistake? The push button is designed to protect you. Even if you hit the button while sleeping, you won't set off the PCA pump. To get a dose of medicine, you have to press the button and then release it.
- What if I feel drowsy? If you feel sleepy or drowsy, try to wait until you really feel pain before pressing the button again.
- Remember, you need to find the balance between "lack of pain" and "being alert." You will know this balance once you feel it. Then, you can try to maintain that balance.
- What if I get sleepy? Simply relax. Analgesics have this effect on many people. It's about balancing pain relief with the drowsiness. The right amount will eliminate your pain while letting you stay awake.
- How long can I use the PCA pump? That is up to your doctor. Remember that everyone wants you to feel as well as possible and to get back to your old self quickly and safely.

11.4 OTHER TYPES OF PAIN MEDICATION

Other types of pain medication include oral analgesia (tablets) as soon as you can tolerate these or start eating again. Pain medication can also be injected through the buttocks or the skin for procedures with moderate to low pain or when the other forms mentioned above have been stopped.

We hope that this guide has helped reduce your anxiety and prepared you for your operation.

We care about your well-being and recovery.

Don't forget to bring this guide to the hospital so that you have a handy reference. If you have any questions, ask your nurse or anesthesiologist.

We hope you have a pleasant stay at our hospital.

Centre intégré de santé et de services sociaux de Laval



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