Anaesthesia

You are scheduled to undergo an operation or examination under anesthesia. This means you will be given a local or general anaesthetic. This leaflet provides you with more information.

What is an anaesthesiologist?

An anaesthesiologist is a medical specialist responsible for providing sedation, monitoring your vital signs, and managing pain during and after surgery. Before the procedure, the anaesthesiologist assesses your health and determines what needs to be taken into account for the anaesthesia. This assessment is called the preoperative screening (POS).
The anaesthesiologist can partially or fully anaesthetise you using medication. They work closely with specialised nurses, known as nurse anaesthetists.

Types of anaesthesia

The type of anaesthesia that is most suitable for you depends on several factors, such as your age, physical condition, use of medication (for example, blood thinners), and the type of surgery you will undergo. Your preferences will be taken into account as much as possible.

General anaesthesia

You are put to sleep using strong painkillers and a sedative. This ensures that you are completely unaware of the procedure. The sedative is continuously administered throughout the operation. Once the procedure is finished, the medication is stopped and you will wake up.

Local anaesthesia

Local anaesthesia numbs only a specific part of your body. An epidural can be used to temporarily numb the torso, abdomen, or the entire lower body. It is also possible to numb just an arm or a leg using what is called plexus anaesthesia. You will not see the procedure itself, as the surgical area will be covered with sterile drapes. You may also receive light sedation during the procedure to help you feel more relaxed. This is called sedation.
If it is expected that you will need significant pain relief after the surgery, a thin tube (an epidural catheter) may be left in place with the epidural so that the anaesthetic can be continuously administered. As long as this catheter remains in place, you will stay locally anaesthetised and will require little or no additional pain medication.

The information in this leaflet is of a general nature and is meant to give you an idea of the care and information that you can expect. Other advice or procedures may apply depending on your situation. This leaflet is only an addition to the specific information from your specialist or practitioner.

A combination of local and general anaesthesia
Sometimes, different forms of anaesthesia are used together. Epidural anaesthesia is often combined with general anaesthesia.

Preparing for surgery

The following points are important to ensure that your surgery can go ahead as planned:

Fasting
You will be contacted the day before your surgery with the time of your admission. You may also receive a text message informing you that an email with your admission time is available. This information is important because of the fasting period. Fasting ensures that your stomach remains empty. If your stomach is not empty during anaesthesia, there is a risk that stomach contents could enter your lungs, which can have serious consequences. Therefore, please follow these rules:

Instructions about food and drink prior to your operation
Food:
You may eat until **6 hours before** your scheduled arrival time at the hospital. **After this, you must not eat anything.**

Drinks:
You may have **clear drinks** until **2 hours before** your scheduled arrival time at the hospital. **After this, you must not drink anything.**
Examples of clear drinks include: water, squash (a drink made from concentrated syrup), tea or coffee **without milk**, and clear apple juice.

Please note: Dairy products are not allowed.

If you have specific dietary requirements that have been discussed with Máxima Medical Center, please follow those instructions.

Your medication
You will receive a letter explaining which medications you may continue to take and which ones you must stop before your surgery. Please read this carefully. Failure to stop certain medications may result in your surgery being cancelled.
At the hospital, you will be given painkillers before the surgery. This ensures that the pain medication is working optimally at the time of the procedure.

Change in health
If anything has changed regarding your health or medication use between your POS visit and your surgery date, please contact the POS.

Other points when preparing for surgery

Stop smoking

Avoid smoking for as long as possible before your surgery. This improves the condition of your airways and reduces the chance of coughing. It also improves blood flow and lowers the risk of wound infections.

Body temperature

The correct body temperature is important during surgery. Dress warmly when you come to the hospital to ensure your comfort and to prevent unnecessary heat loss.

Makeup, nail polish, artificial nails, dentures, contact lenses and other items

Always remove all makeup before surgery, and do not apply oils or creams. You do not need to remove nail polish or artificial nails.
Dentures and glasses can be worn during certain procedures and with partial anaesthesia. For surgery, you must remove your watch, jewellery, and contact lenses. In most procedures, you may keep your hearing aid in.

Piercings (and earrings)

Due to the increased risk of damage to the skin or infection of the surgical wound, please remove all piercings located close to the area being operated on, as well as any piercings in or near your mouth. If a urinary catheter will be placed during surgery, any piercings around the urethra must also be removed. If necessary, you may replace the piercing with a plastic retainer.
The hospital is not liable for any damage to or loss of your piercings.

Monitoring during surgery

During your surgery, you will be continuously monitored by the anaesthesiologist and the nurse anaesthetist. Your heart rhythm is monitored using stickers placed on your chest. Your blood pressure is measured via a cuff on your arm, and a sensor on your finger measures the oxygen level in your blood. An IV line will be inserted to administer fluids and medication.

We will support your breathing. Sometimes it is necessary to place a breathing tube into your mouth or throat. This is done carefully to protect your teeth. After the surgery, you may experience a sore or hoarse throat; this will resolve on its own.

Waking up from the anaesthetic

After the procedure, you will be taken to the recovery room. You may feel drowsy shortly after surgery and might drift in and out of sleep. This is completely normal.

Side effects and complications from anaesthesia
High-quality monitoring equipment, modern medication, and the excellent training of anaesthesiologists and their staff mean that anaesthesia is now very safe. Despite all the care taken, complications cannot always be prevented, but the anaesthesiologist and the surgical team are fully prepared to manage them if they occur.

Allergic reactions
Before your surgery, you will be asked whether you have any allergies. If an allergic reaction occurs during anaesthesia, medication will be given to reduce the severity of the reaction. After the surgery, an investigation can be carried out to determine which medication caused the reaction, so it can be prevented in the future.

Nerve damage
Special attention is given to your positioning during surgery to prevent nerve damage. If nerve damage does occur, you may experience symptoms such as tingling or loss of strength. Before the anaesthesia is administered, you will be asked whether you are lying comfortably. Please let us know if you feel any pressure points so they can be relieved. This helps reduce the risk of nerve damage.

Fear of anaesthesia
Everyone experiences surgery and anaesthesia differently. We understand that your situation is unique and cannot be compared to anyone else's. However, we can help you with any questions, anxiety, or tension you may have surrounding the procedure. We do this through counselling, by providing clear information, and by administering sedatives when needed.

It can be very reassuring to talk about your questions or fears. No thought or concern is strange or unusual. We give anaesthesia to thousands of patients each year and have a great deal of experience. Please feel free to discuss any worries you may have with us.

Anaesthesia and pregnancy
Little is known about the effects of anaesthesia during pregnancy. Animal studies have shown no harmful effects on the baby, but such studies have not been conducted in pregnant people. We therefore strongly recommend that any surgery that can be postponed be delayed until after the third month of pregnancy, and preferably until after delivery.

Local anaesthesia
Local anaesthesia involves temporarily numbing and immobilising a part of the body, such as an arm or the entire lower body. The nerves that transmit pain signals are temporarily blocked. Sensation does not always disappear completely, and it is normal to still feel touch or pressure.

The nerves that carry pain signals often run together with the nerves that control muscle movement. These motor nerves are also temporarily affected by the anaesthetic. Once the

anaesthetic has fully worn off, you will regain normal strength and control of the affected muscles.

Forms of local anaesthesia
Spinal anaesthesia
Large nerves run from the spinal cord through your back to your lower body and legs. These nerves are numbed by administering anaesthetic near them through your back. For the epidural, you will be asked to sit upright. You can help by fully relaxing your back. The nurse anaesthetist will assist you with this. Relaxing creates enough space to carefully place a thin needle close to the nerves.

Once the anaesthetic is given, you will soon feel warmth, cold, or tingling in the lower part of your body. The numbness that follows is experienced differently by each person. Before the surgery begins, the effectiveness of the anaesthetic will be tested. The nurse anaesthetist will remain with you at all times to guide you and to monitor your condition.
Depending on the medication used, it can take on average between two and six hours for the anaesthetic to fully wear off.

Epidural anaesthesia
Epidural analgesia is best known for its use during childbirth, but it is also a highly effective method of pain relief during surgery. Epidural anaesthesia is usually combined with general anaesthesia.

Before the surgery, a thin tube (epidural catheter) will be inserted into your back. This allows continuous administration of pain medication that numbs the nerves. This method of pain relief can be used for several days after surgery.

In most cases, you will still be able to move your legs. However, because the anaesthetic can sometimes spread to the upper legs, you should not walk while you have epidural anaesthesia.

Side effects and complications of an epidural or spinal anesthesia
Low blood pressure may occur during or after the placement of an epidural or spinal anaesthesia. You may feel unwell for a short time. Please inform a staff member immediately so the anaesthesiologist can give medication to raise your blood pressure. You will feel better shortly afterwards.

Sometimes the anaesthetic spreads further than intended. Many people experience this as an uncomfortable sensation in the stomach area or diaphragm. Your hands may tingle, and you may feel as if your breathing has changed. Please tell the anaesthesiologist what you are experiencing. In most cases, a small change in your position or the administration of extra oxygen quickly resolves the symptoms.

The anaesthetic also affects the bladder, so you will not be able to urinate on your own while the area is still numb.

Before the surgery begins, the anaesthetic is tested by the anaesthesiologist or nurse anaesthetist. If you still feel discomfort, additional anaesthetic will be given.

After an epidural or spinal anaesthesia, you may experience a headache that becomes worse when you sit or stand and improves when you lie flat. These symptoms usually disappear within a few days. You may also have some back pain at the injection site, which will resolve on its own after a few days.

Please contact the anaesthesiology department if your symptoms persist or worsen.

Plexus anaesthesia of the arm or leg
This is a form of local anaesthesia that is given while you are awake, so you can indicate what you feel and where you feel it. This helps increase the success rate of the anaesthesia.

To apply this local anaesthetic to the nerve group (plexus), ultrasound guidance is used to ensure that the medication is injected in exactly the right place. You may feel warmth or tingling as the anaesthetic takes effect. The sensation in the arm or leg will gradually lessen, and you will usually be unable to move the limb.

After receiving plexus anaesthesia for an arm or leg, you do not always need to remain in the hospital until the numbness has completely worn off. This depends on the type of surgery. While the limb is numb, you will need to monitor it carefully and provide extra support, as you will not be able to feel or move it normally.

Depending on the medication used, it may take between four and twenty hours for the anaesthetic to wear off completely and for sensation and strength to return.

Side effects and complications of plexus anaesthesia of the arm or leg
There is a chance that the anaesthesia will not work as effectively as expected. In that case, the surgeon may administer additional anaesthetic at the site of the surgery. Sometimes it may be better to choose a different form of anaesthesia, such as general anaesthesia. The anaesthesiologist will discuss this with you.

After the anaesthetic wears off, you may experience tingling in your hand or foot. This is caused by temporary irritation of the nerves from the injection or the medication used. This tingling usually disappears on its own over the course of several weeks to months.

The nerves that need to be numbed lie close to large blood vessels. If the anaesthetic fluid accidentally enters the bloodstream, it may cause symptoms such as a metallic taste, tingling around the mouth, drowsiness, or an irregular heartbeat. This is very rare and can be treated quickly and effectively.

Sedation
During a spinal anesthesia or local anaesthetic, you will not be able to see the surgery. The surgical area will be covered. If you would like to sleep during the procedure, this is called

sedation. You will receive a continuous dose of sedative medication through an IV line. You will not sleep as deeply as you would under general anaesthesia; you may still hear sounds around you.

Local Infiltration Catheter (LIC)
A LIC may be used for certain operations (including lung and liver surgery). A LIC is a small catheter placed near the wound area, through which anaesthetic medication is administered to numb the nerve endings.
The surgeon inserts the catheter while you are under anaesthesia. It is then connected to a pump that continuously delivers pain medication. The LIC is used in combination with other painkillers.

Postoperative care

After the surgery, the anaesthesiologist and nurse anaesthetist will take you to the recovery room. You will remain connected to monitoring equipment there, and our recovery nurses will keep a close eye on your condition. The minimum stay in the recovery room is about half an hour. You will receive supplemental oxygen if necessary.
Once you are fully awake, you may have an ice lolly.
If you have had a spinal anaesthesia, the nurse will perform an ultrasound of your bladder. This is because you cannot empty a full bladder yourself while the anaesthetic is still working.
It is important that you tell us if you are experiencing any discomfort. Together with you, and in consultation with the anaesthesiologist, we will determine what is needed to ensure you return to the ward comfortably.
If you are allowed to go home the same day, please ensure that you are accompanied by an adult and that you are not alone at home for the first 24 hours.

Postoperative pain relief
Your anaesthesiologist will ensure that you do not feel any pain during the surgery. Pain after surgery is unavoidable and can vary greatly from person to person. We will do everything possible to reduce it to a level that is acceptable for you. Effective pain relief has many benefits. After the surgery, you will be able to sleep better, eat and drink more easily, and your recovery will be more successful with a reduced risk of complications. That is why specialised nurses work with you to tailor the pain relief to your situation.

The most important aspect of good pain management is a solid foundation. This means taking painkillers such as paracetamol at fixed times. You should do this even if you have received a plexus anaesthetic and still do not feel anything. Combined medications enhance each other's effects. Strong painkillers such as morphine or oxycodone may already be started in the recovery room.

Pain score
Many people find it difficult to explain the discomfort they are experiencing to others. This is understandable; another person cannot feel your body or your pain. Rating your pain is a way to tell the nurse how you are doing.

The nurse will ask you several times to indicate your pain (if any) by choosing a number between 0 and 10 on a pain scale. A score of 0 means no pain, and 10 represents the worst pain you can imagine. There is no wrong number—it is about how you experience the pain. It is important that you are able to move and breathe properly.

Going home

- **Do not operate a vehicle** (car, motorcycle, or bicycle) or any dangerous machinery. Arrange transport by taxi or car, but do not drive yourself.
- **Arrange for someone to stay with you** for the first 24 hours after surgery. Otherwise the operation cannot proceed.
- **Take it easy at home** during the first 24 hours after your surgery.
- **Do not make important decisions.**
- **Everyone experiences surgery differently.** Give yourself time to recover physically and to process the experience.

Admission checklist

- Do not eat or drink before your surgery.
- Follow the medication instructions you have been given.
- Follow the instructions regarding blood thinners.
- Inform the thrombosis service about your surgery.
- Bring your daily medication with you on the day of surgery, in the original packaging.
- Buy paracetamol.
- Arrange transport and support at home.

Questions about anaesthesia?

Do you have any questions about the waiting list or hospital admission?
Please contact the planning department: +31 40 888 9465

Do you have any questions about anaesthesia?
Please contact the POS: +31 40 888 5030