



Anaesthesia at the Bronovo Hospital

What you need to know before your operation





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In this brochure, you can read everything about the anaesthesia that you will be given during your surgery or diagnostic procedure. The information is intended to supplement your conversation with the anaesthesiologist.

If you still have questions, you may phone the pre-operative outpatient clinic, telephone number 070 - 312 44 56 on weekdays from 09:00 - 17:00 hours.



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ANAESTHESIA

Anaesthesia is the collective name for all types of anaesthetics for surgery or diagnostic procedures. It means 'numbness.' In practice, however, anaesthesia is more than just numbing. The objective of the anaesthesia is to keep you in the best possible condition during and after surgery.

An anaesthesiologist is a medical doctor who has specialized in the various types of anaesthesia, pain control and other medical care associated with the operation.

TYPES OF ANAESTHESIA

There are two types of anaesthesia that are used in surgery, namely:

- *General anaesthesia (unconsciousness)*
- *Regional anaesthesia (extensive localized numbness).*

A combination of both types of anaesthesia is also often used, specifically for major surgery. Which type of anaesthesia is the most suitable for you will be determined by your anaesthesiologist in consultation with you. This depends on various factors such as your age, your physical condition and the kind of surgery that you are having.

General anaesthesia

With general anaesthesia, your entire body becomes numb. Because you are temporarily unconscious, you will not be aware of anything during the surgery and thus will also not remember anything about the operation after it is over.

The drugs are generally administered via an intravenous injection. In some cases, you will be given the medication by a mask with oxygen over your nose and mouth. This is generally done with children.

If necessary, a tube will be inserted via your mouth for breathing as soon as you are under general anaesthesia.



Regional anaesthesia

With regional anaesthesia, the anaesthesiologist will only numb that area of the body that is to be operated on. As long as the medication is working, you will not be able to move that part of your body. For an operation on, for example your knee, only the lower part of the body will be anaesthetized. It is sometimes also possible to anaesthetize only the leg that is being operated on. This is determined by the anaesthesiologist who will be taking care of your anaesthesia during the operation.

With this type of anaesthesia you will, in principle, remain awake. The surgical area will be screened off so that you will not be able to see the operation taking place. If you are worried about consciously experiencing the surgery, it is possible to administer a short-lasting sleeping medication so that you will notice little or nothing of what is happening. You may also ask the anaesthesiologist for this during the procedure.

Some types of regional anaesthesia have the advantage that after surgery a good painrelief can be given with localized pain medication. This is administered via a catheter (a tube).

THE ANAESTHESIOLOGIST

Your body must keep functioning well during the surgery. The anaesthesiologist makes sure that the body functions remain stable, so that you can come through the operation as well as possible. With the aid of special equipment, the anaesthesiologist monitors and regulates such functions as your blood pressure, heart rate and breathing. If necessary, he* can instantly adjust the anaesthesia at any moment.

The pre-operative outpatient clinic

The specialist who is going to perform the surgery will give you a questionnaire that you must fill in before your appointment at the pre-operative outpatient clinic. You will have a consultation with a nurse at the pre-operative outpatient clinic of the Anaesthesiology Department.

During this consultation, the nurse will measure your blood pressure, determine your height and weight and make, depending on your age and the state of your health, an ECG (heart film). Also, the nurse will give you information about the procedures before and during your admission.

* *read he or she*




The waiting room of the pre-operative outpatient clinic



Anaesthesiologist Team Bronovo.

*Standing from left to right: F. Kamerling, W.J. Engelbrecht,
R.A.F. de Lind van Wijngaarden, N. van der Wilk
and R.L. van Leersum.*

*Sitting from left to right: Mrs. S.M. Mulder, Mrs. K. Groenewoud-Muderlak
and Mrs. C.E. Kam-Endtz.*



After this, you will have a consultation with the anaesthesiologist. He will assess your physical condition and make a risk-assessment for the operation. As a result of your answers to the questionnaire, the anaesthesiologist may ask you for more information. Depending upon your personal situation, the anaesthesiologist may decide to request additional testing, such as an X-ray or a blood test. If necessary, he/she will refer you to an internist, cardiologist or lung specialist. All this is to ensure that you are in an optimal condition before the surgery. Together with the anaesthesiologist, it will be decided what type of anaesthesia (general, regional or a combination) you will receive.

There are eight specialists working in the Anaesthesiology Department. The chance that you will actually receive your anaesthesia from the doctor that you saw at the outpatient clinic is small. On the day of the surgery, you will meet the anaesthesiologist who will be responsible for your anaesthesia. The anaesthesiologist will adhere to the agreements that were made concerning the anaesthetic technique that is to be followed, unless there have been changes in your health situation, the proposed operation has been changed or the anaesthesiologist is convinced that a different anaesthetic technique will be safer for you. The consulting anaesthesiologist will first discuss this with you.


In principle, the visit to the pre-operative outpatient clinic is valid for six months. If the waiting list for your specialist is longer, you will be contacted by the pre-operative outpatient clinic before your admission. Depending upon your physical condition, it will be determined whether or not you must visit the outpatient clinic again or whether a few questions over the telephone are sufficient.

CHANGES IN YOUR HEALTH

There will probably be some time between your visit to the outpatient clinic and the moment that you are called in for your surgery. If, during this time, there have been any changes in your health condition, you must report this to the consulting anaesthesiologist in the pre-operative outpatient clinic so that this can be taken into account (telephone: 070 - 312 44 56).

This could be any or all of the following:

- If you have been treated by another medical specialist;
- If changes have been made in your medication;

- 
- If your blood pressure has risen;
 - If you have any wounds or infections on your skin in the area that is to be operated on;
 - For women: if you are pregnant or think that you might be.

If, on the day preceding or the day of your surgery, you develop a fever or a serious cold, it is important to pass on this information immediately, by phone to the specialist who is going to do the surgery. In that case, it will be decided, in consultation with the anaesthesiologist, whether or not the surgery can take place.

PREPARATION FOR THE SURGERY OR THE EXAMINATION

A good night's sleep

It is important that you are well rested on the day of the surgery. Perhaps you are a bit nervous or the strange hospital environment (if you have already been admitted) is keeping you awake. In that case, you may ask the nursing staff for a sleeping pill.

PREPARATION AT HOME


Time of admission

If you are being admitted to the hospital on the day of the surgery, you must call the Admissions Office telephone number: 070 - 312 46 82 between 14:00 and 16:00 hours on the weekday before the planned surgery in order to inquire about the time that you are expected at the hospital. The actual time of the operation itself cannot be given. You will hear about this when you are admitted.

Patients who are admitted one or more days before the surgery will receive a phone call about this from the relevant outpatient clinic or via the Admissions Office.

An empty stomach

The operation can only be done if you have fasted in the hours beforehand, this is to prevent complications.



In general, this means that you may not eat anything starting at midnight before the operation. Unless you have been informed otherwise, you may only drink clear liquids up to two hours before the agreed admittance time. These include:

- water;
- tea without milk;
- fruit cordial diluted with water;
- apple juice.

These may be drunk in unlimited quantities.

Medication use

In most cases, you should continue to take your own medication up until the surgery. The anaesthesiologist will determine what you may or may not take. If you are taking diuretics, you may not take them on the morning of the operation.


The use of aspirin and bloodthinning medication (Sintrommitis, Fenprocoumon, Acenocoumarol, Marcoumar, Ascal, Plavix or Persantin) must be stopped at least 5 days -- but generally 10 days -- before the operation, unless the anaesthesiologist or your specialist has decided differently in your case. This is in connection with the effect of these medicines on the clotting of the blood. The use of painkillers such as Brufen, Voltaren and others must be stopped 1 day before the surgery. If you are in pain, you may use paracetamol up until the day of the procedure. You may also continue to use the painkillers Arcoxia, Celebrex and COX-II inhibitors.

Women who are taking birth control pills may continue to take them. After the surgery, complete protection can, however, not be guaranteed for the remainder of the cycle.

Jewellery, make-up etc.

Before the procedure, you must remove all your jewellery. This also applies to piercings in all body parts.

Make-up must be removed. This also applies to nail (finger/toe)varnish: the anaesthesiologist will want to be able to see the natural colour of your skin and nails.



If your procedure is going to be done under general anaesthesia, you must also leave your glasses, contact lenses and dentures – if applicable – behind in the ward. This is not necessary with regional anaesthesia.

A hearing aid may generally be taken into the operating room if, for example, you wouldn't be able to hear the anaesthesiologist without it and he would not be able to communicate with you.

ADMISSION TO THE NURSING WARD

On the day of your procedure, you must report at the agreed time to the nursing ward. This is generally two hours before the procedure and never before 07:00 hours.

The patient's room

On the ward, you will be given a bed and a bedside cupboard. There is also a lockable wardrobe available for storing your possessions. You can lock this wardrobe after depositing a 2 euro coin. When you return the key, you will get your coin back.

In our hospital, it is possible that men and women share a room and there is 'mixed nursing'. If you have fundamental objections to mixed nursing, you should make this known to the Admissions Office.

What to bring with you?


Do not forget to bring the following things with you:

- This brochure with the filled in questionnaire;
- Your registration card with the bar code and appointment card;
- The medication that you use at home and/or a list of the medication and the dosages that you take;
- Toilet articles, underwear, nightclothes, a bathrobe and slippers;
- Dietary regulations, if applicable;
- If desired, magazines, a book or other reading material;
- Bring some small change with you.

We advise you to leave jewellery and other valuables at home.

Contact person

Make sure that there is a contact person who can be reached by phone during the time that you are in our hospital. Together with the nursing staff, it will be



decided when the contact person can call to ask about your condition and when you can be taken home again. It is not possible for your contact person/companion to stay in the nursing department during your hospitalization.

Visiting hours

The visiting hours are daily from 15:30 – 16:30 hours and from 18:30 – 19:30 hours. On Saturdays, there is an extra visiting hour from 11:00 - 12:00 hours. There are different visiting hours for the Paediatric Department and the Intensive Care Unit.

Shaving and clothing

It is sometimes necessary to shave the area where you will have the surgery. Depending upon the procedure that you will have, this will be done either on the ward or in the operating room. You will be given a surgical gown to wear instead of your pyjamas or underwear.

Premedication


Before you are taken to the operating room, you will generally be given the premedication by the nurse as instructed by the anaesthesiologist. This is medication that will sedate you and can make you sleepy. You will also be given one or two analgesic tablets that are intended to act as painkillers immediately after the operation.

THE OPERATING COMPLEX

The operating complex consists of three parts: the holding area where you are received, the operating room where your procedure will be performed and the recovery room where you will be intensively monitored after the surgery.

The holding area

You will be brought to the operating complex in your bed. Here, you will be welcomed in the holding area by an anesthesiology assistant or a nurse. In this area, there will be other patients who are waiting for surgery. Generally, one of the staff members in the holding area will insert an intravenous



line into your hand or arm and you will be attached to equipment that will measure, among other things, your heart rate and blood pressure. If it has been decided, in consultation with you, that you are to receive a regional anaesthesia, this will be administered in the holding area.

After this, you will move from your bed to a surgical wheeled trolley, on which you will be taken to the operating room by an anesthesiology assistant.

The operating room

If you are being given general anaesthesia (narcosis) you will be put to sleep in a room before the operating room or, sometimes, in the operating room itself. Because it is cold in the operating room, you will be covered with a warm flannel blanket. In the operating room, you will see various kinds of equipment. A large surgical lamp hangs above you. Once you are there, you will again be attached to the monitoring equipment. After the procedure is over, you will be woken up in the operating room. You will then be taken to the recovery room on the surgical stretcher and helped back into your bed.

The recovery room

Here, you will again be attached to the monitoring equipment. You will stay in the recovery room until you have recovered sufficiently from the anaesthesia and can return to the ward safely. You are also taken to the recovery room after a procedure done under regional anaesthesia.

AFTER THE ANAESTHESIA

Side effects

After you wake up from the general anaesthesia, you may still feel somewhat sleepy and doze off now and then. Because of the anaesthesia or as a result of the surgery, you may feel nauseous and perhaps you will vomit. The nurses know exactly what they can give you for this.

You may have a sharp or scratchy feeling in the back of your throat. This can be the case if a breathing tube was inserted during the operation. This irritation will disappear by itself within a few days. Many people are thirsty after an operation. If you are allowed to drink, do it carefully in order to avoid nausea. If you are not allowed to drink, then the nurse can wet your lips to alleviate the worst of the thirst.



The recovery room

If you have been given regional anaesthesia in the form of an epidural or spinal, it may be difficult to urinate the first time after the procedure. In some instances, the patient can get a headache after the operation. These headache symptoms generally occur when you stand up and disappear again when you lie down. The complaints generally disappear by themselves within a few days. However, if the headache symptoms are severe or last longer, you can ask the nurse to contact the Anaesthesiology Department.

The consulting anaesthesiologist will then take measures to treat your pain. If these symptoms occur after you have gone home, you may contact the Anaesthesiology outpatient clinic on weekdays from 09:00 - 17:00 hours: telephone number: 070 - 312 44 56.

Outside these times, you can contact the anaesthesiologist on call via the main hospital telephone number: 070 - 312 41 41.

Pain

Once the anaesthesia has worn off, there can be pain in the surgical area. The anaesthesiologist will, therefore, prescribe painkillers. The nurses in the recovery room – and at a later stage in the nursing ward – will check to see if the pain medication is effective. This occurs by using a pain-scoring method.

The advantage of good pain control

Good pain control has many advantages. If you have less pain after the operation, you will be able to sleep, eat and drink better. Moreover, your heart and lungs work better, you are less tired and have more energy. This helps you to recover more quickly.

Measuring the pain

Many people find it difficult to tell someone else how much pain they have. That is understandable; another person cannot feel your pain. For that reason, a pain measuring ruler is used. On this, you can indicate how much pain you have. A couple of times per day, the nurse will ask you to indicate how much pain you have with the pain ruler.

How do you use this pain ruler?

There is a movable red line on the pain ruler. All the way to the left, that means: no pain; all the way to the right means: the worst possible pain. The nurse can read the pain score on the back of the pain ruler. In this way, the nurse can see if you need pain medication.




Pain control

At fixed times, you will receive paracetamol and generally also Diclofenac (Voltaren). This is the basic pain medication. We advise you to take this medication even if you are not in much pain at that moment. In many cases, medication is given alongside Diclofenac to protect the stomach wall.

The anaesthesiologist will check if you also need extra pain medication. That will generally be an injection of morphine. Morphine is a strong painkiller that may make you become somewhat dizzy or nauseous. You do not have to be afraid that these painkillers are bad for your health because you will not be given too much pain medication. An hour after you have received the injection, the nurse will again ask you how much pain you have. You will indicate this using the pain ruler.

Changes in pain

If you have pain in several places, you must indicate the worst pain using the pain ruler. That is generally the pain that originated after the operation (you can



tell the nurse). If you only have pain at certain moments, for example when you move, breathe deeply, cough or are being washed, you can tell the nurse.

Important

When you are in pain, you do not have to wait until the nurse comes to your bedside for a pain measurement. If you are in pain, it is best to ask for pain medication immediately. The longer you wait, the more difficult it is to combat the pain. It is also important that you report if the pain medication is working – and certainly if it is not. Then, if necessary, the dosage or the type of pain medication can be changed. Finally, it is important that you clearly indicated any possible allergies during the admissions consultation.

BACK TO THE WARD

When you are sufficiently recovered from the anaesthesia, you will be taken back to the ward. If, after the surgery, you need extra monitoring and/or treatment, you will be admitted to the Intensive Care Unit. You will have been told about this beforehand by the anaesthesiologist or the specialist.

It is very normal that you will not feel fit for some time after the operation. This is generally not due to the anaesthesia: that has completely worn off after one day. However, surgery is extremely radical for your body. You therefore need time to recover.

Complications

Through the improvement in monitoring equipment and the availability of modern drugs, anaesthesia is extremely safe nowadays.

In spite of all the precautionary measures and care taken, complications can not always be prevented. The most significant risks with anaesthesia are:

- Allergic reactions to the administered medications;
- Damage to the teeth when the breathing tube is inserted;
- Nerve damage caused by a poor position during the operation so that tingling and loss of strength in an arm or leg can occur.

Serious complications are, fortunately, extremely rare. These are nearly always caused by an extremely rare calamity or are connected to the condition of your health before the operation. Do not be afraid to ask your anaesthesiologist if the anaesthesia has any particular risks for you personally.



INFORMATION FOR PATIENTS WHO ARE RECEIVING SURGERY AS DAY PATIENTS

A DAY-SURGERY admittance means that you will be admitted, operated on and sent home all in the same day.

In addition to the information already presented in this brochure, the following applies to your situation:

Discharge

In the course of the day, it will be decided if you are sufficiently recovered from the procedure. After your consulting physician or the ward doctor has seen you, it will be decided in consultation with the nurse when you may be taken home. The nurse will make an appointment for you for the first check-up at the outpatient clinic.


The specialist will give you a letter for your family doctor (G.P.) and, if necessary, a prescription for medication.

You must not leave the hospital unaccompanied nor may you drive yourself.

Home again

- For the first 24 hours after the operation, you may not drive a vehicle or ride a bicycle. This means that you must organize transportation to go home from the hospital.
- We advise you to make sure that you are not alone at home for the first 24 hours.
- It is also not permitted to operate machinery (drills, electric saws, etc.) for the first 24 hours.
- We advise you not to make any important decisions and/or undertake any (business) transactions during this period.
- You must not use any alcohol or drugs during the first 24 hours after the operation.

If you had an epidural or spinal for your operation and, after you come home, you notice that the muscle weakness in the legs has returned or that parts of your legs have become numb again, you must immediately contact the anaesthetologist.



You can do this by telephoning the Anesthesiology outpatient clinic on weekdays from 09:00 - 17:00 hours: telephone number: 070 - 312 44 56. Outside these times, you can call the anaesthesiologist on duty via the central hospital phone number: 070 - 312 41 41.

If you have had surgery on your arm with regional anaesthesia, you must be extra careful with your arm for the first day because complete feeling in your arm may not yet have returned. It is a good idea to keep your arm in a sling.

For possible pain, it is advisable to have paracetamol pills or suppositories in the house. Your attending doctor will tell you how many and how often you may take them.

IN CONCLUSION

If, after the operation or the examination, you have problems or questions concerning the anaesthesia, including pain control and the occurrence and control of nausea and vomiting, you can contact the Anesthesiology outpatient clinic on weekdays from 09:00 - 17:00 hours on telephone number 070 - 312 44 56.

We hope that, after the operation, you will be satisfied with the treatment that you have received from the doctors of the Anesthesiology Department. If you have any suggestions pertaining to the improvement of care that you received and/or the contents of this brochure, we would be glad to hear them.

Bronovo

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www.bronovo.nl



ARRANGEMENTS FOR THE DAY OF THE OPERATION

Please bring all medication that you are taking with you when you are admitted.

On the day of the operation, you must only take the medication listed below:

Do not take any other medication.

You use as bloodthinning medication

- Marcoumar (Fenprocoumon)
- Sintrom(itis) (Acenocoumarol)
- Ascal
- other

You must stop taking this days before the operation.

Unless your specialist has decided differently in consultation with you, you must stop taking bloodthinning medication one week before the planned operation. These include: Marcoumar (Fenprocoumon), Sintrom(itis) (Acenocoumarol), Ascal, Asprobruis, Aspirin, Diclofenac, Naprosyne, Brufen and Voltaren.



QUESTIONNAIRE

1) Has there been any change in your health since your visit to the pre-operative outpatient clinic?

- Yes, namely: _____
- No

2) Has your medication been changed since your visit to the pre-operative outpatient clinic?

- Yes, namely _____
- No

3) Have you stopped taking bloodthinning medication? (Sintrommitis/Acenocoumarol/Marcoumar/Fenprocoumon/Ascal/Persantin)?

- Yes
- No
- No, I have not stopped in consultation with the doctor

4) Have you read the information in this brochure?

- Yes No

5) Is this information clear?

- Yes No

6) What do you miss?

You are kindly requested to fill in this questionnaire and to hand it in to the nurse upon admittance.



*You are kindly requested to fill in the questionnaire
and to hand it in to the nurse upon admittance.*