







Pediatric Anesthesia for dental procedures



Dear parent,

This general information further explains anesthesia and how to proceed on the day of your child's dental treatment.

The anesthesiologist

This is the doctor who specializes in the various forms of anesthesia and pain control around the procedure. The anesthesiologist continuously monitors vital functions such as breathing, heart rate and blood pressure during and after treatment. Also, the anesthesiologist provides adequate pain control caused by the procedure. The anesthesiologist works together with a nurse anesthetist, and they keep your child under continuous control so that the dentist can do his or her best work.

In Athoma Clinic the anesthesiologist is doctor Veronique Van Reeth.

She studies medicins in Antwerp and became doctor-specalist in anesthesia in 2009. She has over 15 years of experience in the Antwerp University Hospital (UZA) and has been involved in many surgeries for children.

General anesthesia



At Athoma Clinic, dental treatments are performed under general anesthesia. This means that your child does not experience anything from the treatment or procedure. Anesthesia is maintained for the necessary time by anesthesia vapor (or sleep vapor) or a drug injected in the bloodstream. Throughout the procedure, we monitor heart rhythm through stickers on the chest (an electrocardiogram or heart film) and monitor blood oxygen levels through a sensor on a finger or toe. Blood pressure is measured on the upper arm during the treatment.

Nasal intubation

When your child is fully asleep, a tube is inserted through the nose to assist breathing. This way the dentist does not have to deal with a breathing tube in the mouth and against the teeth during treatment. This nasal tube may cause some irritation in the nose and back of the throat or nosebleeds. Sometimes this may persist for several days after treatment and is not otherwise harmful.

Why does my child need to abstain from food?

For general anesthesia, it is crucial that your child has not eaten or drunk anything beforehand. If this is not the case, the stomach contents can enter the lungs, leading to a life-threatening situation. Therefore, we strictly adhere to your child being fasting, both for the safety of your child and to carry out the treatment under anesthesia.

How long in advance should my child abstain from all food?

On the day of your appointment, we ask that you consider the following:

 your child may eat up to 6 hours before the hour you arrive at Athoma Clinic. After that, no eating anymore!

 Give your child water with some sugar or grenadine to drink up to 1 hour before the treatment, with a maximum of 2 glasses! Do not give anything else to drink!

If your child does not follow these rules, thus preventing the treatment from proceeding, we will charge you the full cost of anesthesia. We follow the **fasting policy** in accordance with the guidelines of the European Society for Anesthesia and Resuscitation (ESAIC 2022).



The day of the treatment

The exact time you are expected at Athoma Clinic will be communicated to you at least one week in advance. You will receive a phone call. You will also be notified of the time until which your child may eat and drink. In case you are unable to come on the day itself due to an unplanned event or illness, please let us know by phone on 03 369 24 81 (from 9 a.m. to 12 a.m. and from 1 p.m. to 4 p.m.) or by mail to secretariaat@athoma.be.

To make it more comfortable for your child, he/she may wear his/her own clothes during the procedure. Please do put on loose comfortable clothing such as a jogging or a nice pair of two-piece pajamas. Also keep in mind that clothing can get a little dirty.

Do not forget to bring the following:

- Blanket or fleece
- Favorite cuddly stuffed toy if needed
- Tablet or smartphone or game to keep your child occupied while waiting
- Identification of your child (KidsID)

General anesthesia is started

As a parent, you can stay with your child until your child falls asleep. During the treatment we ask you to wait in the waiting room. Anesthesia in children usually starts through a mask with sleep vapor. This may temporarily cause a little irritation because the vapor has a strange, not so pleasant smell. Older children (7 years and older approximately) may also choose to receive anesthesia through an IV. To make the placement of the infusion through the skin less sensitive, a numbing ointment (Emla®) can be applied to the skin one hour beforehand. After insertion of this infusion (this is also done in the children after they fall asleep with a mask), the sleeping drug propofol and the painkiller remifentanil are injected. During injection, the sleeping drug propofol can sometimes cause a warm to slightly burning sensation in the hand, arm and/or shoulder for a short time.

These drugs are dosed precisely for age and weight so that your child receives the right amount of medication. General anesthesia is then maintained by continuous administration of these medications.

After the treatment

The sleep medicine we use works quickly. Because the sleep medicine is also broken down quickly by the body, your child will be awake again soon after the treatment. When the dentist is finished, your child will be taken to the recovery room still sleepy. We will then pick you up in the waiting room and take you to your child in the recovery room.



The anesthesiologist and nurse anesthetist will see to it that your child recovers calmly from the treatment. Your child may still feel sleepy shortly after the treatment and may nod off occasionally. You should be aware of any pain or discomfort after the treatment.

Your child will be given something to drink and possibly an ice cream in the recovery room. You may also bring something that your child likes (e.g. a cookie or a bottle of milk).

Postoperative management

Because we use short-acting drugs, a long sleep period is not necessary. Generally, waking up and being able to go home can be accomplished within the hour. You will be given explanations and instructions on pain medication for home if necessary.

Going home

At Athoma Clinic, patients cannot stay overnight and must go home the same day. Therefore, it is important to continue care at home.



The procedure may cause discomfort or pain at the level of the teeth, jaw or throat. Headaches may also occur. If the dentist deems it necessary, he will give prescriptions for painkillers in advance. Pick these up from the pharmacy before the day of the procedure. Give them to your child during the first 24 hours after the procedure. The basic painkiller is paracetamol syrup. For more painful procedures or when swelling is expected, an anti-inflammatory may be added like ibuprofen syrup.

If a very painful procedure is performed, on the day itself the anesthesiologist will make a prescription for a powerful painkiller.

In addition to pain, nausea or vomiting may also occur. It is best to use Primperan syrup for this. Your child's other complaints may include drowsiness, not being hungry or being more unpleasant than usual. These symptoms will go away by themselves and do not require treatment unless they last longer than 24 hours.

Issues?

If there is unstoppable bleeding in the mouth, or you are seriously concerned about your child, contact the nearest emergency room. You may also need to visit there with your child for a check up and possibly additional medication. If this should occur, be sure to let us know afterwards. You can always find advice online or by phone via www.wachtposten.be. If there is a medical urgency, cal 112.

Is general anesthesia safe?

With improvements in monitoring equipment, the availability of modern drugs and proper training of the anesthesiologist and his staff, anesthesia today is very safe. Despite all due care, complications cannot always be avoided.

The occurrence of complications due to anesthesia is often related to the patient's state of health before treatment and to the severity of the procedure. Therefore, it is important to fully and correctly answer all questions about your child's health condition. Dental treatment is certainly not considered a serious procedure and anesthesia for it is not considered severe.



Side effects of general anesthesia

At home, your child may still feel a little sleepy and may experience pain. An awkward, painful or itchy feeling at the back of the throat is due to the tube that was in the throat during treatment. This irritation disappears on its own within a few days. Your child can take a children's throat lozenge, ice cream or tea with honey for this.

Frequent complications (10 to 30 cases out of 100)

Nausea and vomiting

Several factors can cause nausea and vomiting. Surgeries in which blood may enter the stomach, such as dentistry, are more likely to cause vomiting. If your child is prone to motion sickness or had nausea after a previous anesthesia, please notify us before he/she is put under anesthesia. We have effective medication to prevent this nausea.

• Sore throat and hoarseness

Because of the tube placed in the throat to help breathing during surgery, some sore throat or hoarseness can be experienced. These symptoms disappear spontaneously after a few days.

Involuntary shivering

During the awakening phase, your child may begin to shiver involuntarily. This may be caused by chilling, stress or the medications used. This will go away on its own after fully waking up and possibly warming up.



Headache and dizziness

Headaches can be caused by stress, anxiety, hunger or lack of fluids. This is easily treatable. Blood loss during surgery, combined with some medications, can cause lower blood pressure and dizziness. Extra fluids can quickly remedy this.

Itching

Itching is a known side effect of powerful morphine-based painkillers. Medication also exists for this if needed.

• Back pain and joint pain.

After surgery, this can be caused by prolonged lying on an operating table or chair and often in the same position. Muscle pain can also occur due to anesthesia and the use of muscle relaxant medication. These symptoms disappear on their own after a while.



• Pain upon injection of medication

Some medications irritate the blood vessels when injected. This causes a burning sensation. This side effect is harmless and disappears spontaneously.

Bruising and pain at the injection site

These may occur at the injection site of the infusion. Possible causes include an inflammatory reaction of the blood vessel or the vessel popping when punctured. In this case, the infusion is reinserted at a different site.

Confusion and memory disorders

People often still feel sleepy, drowsy, weak, dizzy or tired after a general anesthesia. One may also have difficulty concentrating or having problems with coordination. However, there are no long-term memory problems associated with general anesthesia. Confusion is possible after general anesthesia. This is more common in older people and after prolonged and heavy procedures.



Less frequent complications (1 to 2 cases in 1,000)

Lung infection

In rare cases, a lung infection can be caused by reflux of gastric fluid into the lungs. These infections are often serious and difficult to treat. This is why we ask you to stop the intake of solid food at least 6 hours before the procedure.

Disturbed breathing pattern

During most procedures under general anesthesia, muscle relaxants are used. When these muscle relaxants have not fully worn off, one may experience a feeling of general muscle weakness that makes breathing more difficult. This can be completely remedied with appropriate medication. Heavy painkillers can also disrupt breathing patterns. These cause one to breathe more slowly or snore. Therefore, after an operation, the patient is briefly observed in a recovery room. If necessary, some oxygen is administered there.

• Damage to lips, tongue and teeth

It is often necessary during general anesthesia to insert a tube into the throat to assist breathing (intubation). This is not always straightforward, which in rare cases can cause damage to the teeth. People with a small mouth opening and receding chin are often more difficult to intubate. Today we have modern video equipment, making this complication very rare. Patients with poorly cared teeth and loose teeth have a higher risk of dental damage, despite all the precautions we can take.

During the awakening phase, it happens that patients clench teeth hard together. This can also cause damage to teeth, lips and tongue.

Waking up during anesthesia

Patients are unlikely to wake up during surgery. Some patients confuse the experience during the awakening phase with the experience of waking up during surgery. Often the patient then hears all kinds of sounds or makes strange impressions that one cannot place. This is because the patient is not sufficiently awake. If your child had a bad experience in the past with anesthesia, you should mention this to the anesthesiologist.



Rare complications (less than 1 case in 100,000)

Damage to the eyes

In rare cases, you may have a sore or red eye. This may be caused by very minor damage to the cornea which, despite protecting the eyes, occurred during the procedure or while waking up. This can be easily treated with eye ointment that can be prescribed in consultation with an ophthalmologist.



Nerve loss

Great care is always taken to ensure that the patient is in a comfortable position during the procedure. Despite all precautions, some nerves may become pinched or damaged during the duration of the procedure. Upon awakening, this causes a tingling sensation in the affected nerve area. This usually recovers spontaneously after a few weeks or months.



• Allergic reaction

An allergic reaction during anesthesia is fortunately noticed fairly quickly. It usually occurs after the administration of anesthesia medication or antibiotics. In some cases, the patient reacts to disinfectant fluid or latex in gloves. The allergic reaction can be mild (skin rash, slight drop in blood pressure), but in rare cases it can be life-threatening (anaphylactic shock).

A severe reaction will be adequately managed but help from an MUG team will always be sought. It is therefore very important to mention all known allergies on your questionnaire.

In any unexpected life-threatening situation or when deemed necessary by the anesthesiologist, an MUG team will be called and a transfer to the nearest hospital will be made.

Finally

Are you particularly worried about your child's anesthesia and would like to speak to the anesthesiologist about it? You can let us know on the medical questionnaire that you would like a conversation with the anesthesiologist. This conversation can be made by phone or video conference.

One of our staff members will then contact you to make an appointment.

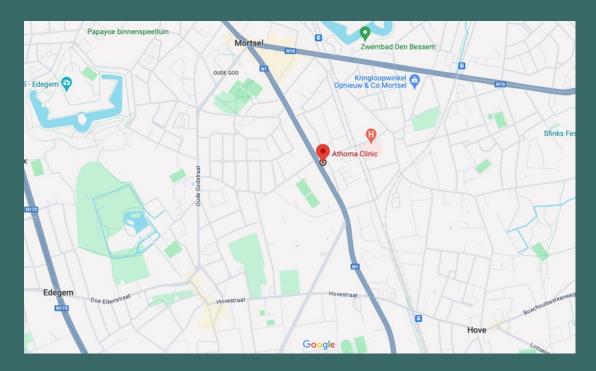
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