

Lipoedema Treatment (Water-jet assisted liposuction – Body-Jet system)

Mrs.:

Personal ID number (passport number and date of birth for foreigners):

Address:

Tel./e-mail

(hereinafter the "Client")

Dear Patient,

this information leaflet is to prepare you for the information interview. Please read it carefully before the interview.

Lipoedema

Lipoedema, sometimes referred to as saddle bag phenomenon, is characterised by pathological fat accumulation, especially in the lower legs, hips, buttocks and sometimes the upper legs. Lipoedema exclusively affects women, 9-15% of the adult female population. It is often mistaken for lymphatic and venous oedema or obesity. Unfortunately, lipoedema is not only an aesthetic problem but also causes pain, skin tightness and bruising. In the higher stages of the disease, the patient's mobility is limited, and pain persists even at rest. The cause of lipoedema is still unknown but hormonal changes are thought to play the biggest role. It often starts to appear during puberty and gradually worsens. Lipoedema cannot be eliminated by diet, exercise, etc.

Lipoedema treatment

The lipoedema treatment is a multidisciplinary field that includes vascular surgery, lymphology and phlebology. It is essential to rule out venous insufficiency and lymphoedema before any intervention.

If venous insufficiency (chronic venous insufficiency) is present, the vascular surgeon must also treat this venous insufficiency before treating the lipoedema itself, which would be ineffective and risky without removing the venous insufficiency.

The surgical treatment method for lipoedema is high-volume liposuction (**fat suction**).

Lipoedema treatment is **not an aesthetic but medical procedure**, so it is **neither a means to reduce weight nor a method** to treat **obesity**. It is only used for fat distribution disorders and to correct problem areas that cannot be affected by diet or sport.

What are the aims of the surgery?

- The chronic progression of lipoedema disease should be stopped.
- Eliminating pain and bruising while improving mobility.
- Reduced or no further need for compression stockings and lymphatic drainage
- Restoration of a sense of femininity in terms of body shape, clothing and overall improvement in daily life.

The treatment will be carried out on the following site(s):

1. thighs
2. forearms
3. upper limbs

Costs

The patient agrees to pay the clinic/doctor a price for the procedure as agreed by both parties (see private treatment agreement).

The client agrees to pay the **deposit** for the procedure at least 10 days before the treatment.

The remaining amount will be paid on the day of the treatment at the clinic/doctor.

How the procedure is performed

Depending on the extent of the procedure, liposuction is usually performed under **general anaesthesia**. You will be informed separately about the procedure and risks.

Liposuction method with the Body-Jet system

The procedure is usually performed in one area on both limbs (e.g., both thighs). To insert the liposuction cannula, 10 to 20 incisions are made on each limb (0.5 to 1 cm in size). In order to release the fat cells from the surrounding structures and reduce the tendency to bleed, the so-called tumescent solution is injected into the subcutaneous tissue during the procedure. The solution is a larger amount of fluid (saline) with other medicament additions (e.g. adrenaline). The excess adipose tissue is sucked out and the adipose tissue is "modelled".

It is important to know that the amount of adipose tissue removed is limited. It may also be worth noting that a certain amount of fat must be left under the skin. This is necessary for two reasons: it allows the skin and subcutaneous tissues to connect, and it is also necessary to ensure blood circulation in the skin.

If necessary, you will be informed with regard to the method's pros and cons, the risks and the prospects for success during the information session.

Risks and possible complications

Despite all care, complications can occur. Even life-threatening ones that require further treatment measures/operations. The data on their frequency is a general assessment and should help consider the relative risks. They do not correspond to the definitions of side effects in the package leaflets. History of diseases and individual characteristics may substantially influence the frequency of complications.

During the operation, fat suction causes injury to small blood vessels and some loss of blood into the subcutaneous tissues and therefore **bruising** is an inevitable part of the procedure. In order to minimise bruising, we use a tumescent solution that contains substances that prevent minor bleeding. Minor or major **bleeding** usually subside after 2-6 weeks. The **hematoma** must only be surgically treated in very rare circumstances. Permanent tissue hardening or skin discoloration is rare.

Beelding/consequent bleeding may require operative stopping of bleeding and/or blood transfusion. With foreign blood transfusion, the risk of infection (e.g., hepatitis, AIDS) is extremely low. Follow-up testing to rule out a transmitted infection may be advisable

Since tissue reactions cannot be predicted accurately, it is necessary to allow for small **irregularities in skin contour**. They usually subside within a few months. The necessity for additional surgery is rare.

Permanent tissue and skin damage during liposuction is very rare. It is important to know that after the procedure, permanent scars remain in the number of 10-20 per limb, 0.5 - 1 cm in size. **Scarring (keloids)** caused by corresponding predispositions or wound healing disorders are rare. Skin discolouration, pain and mobility limitations may appear as a result. Later corrective procedure is possible.

Wound infections may require medication or surgical treatment (e.g., antibiotic administration, opening stitches). Under adverse circumstances, general, life-threatening blood poisoning (sepsis) may occur and need intensive treatment.

Local infections are rare; they may delay wound healing and require antibiotic treatment or surgery.

Nerve injuries. Two types of nerves are found in the extremities – sensory (responsible for sensation) and motor (responsible for movement). Since the skin's nerves are interrupted, temporary, very rarely permanent, **limitations in sensitivity** must be expected. Damage to the sensory nerves is relatively common (reduced sensitivity, burning, tingling, etc.), but recovery of sensitivity usually occurs within 12 months. A rare complication may be motor nerve damage, where the mobility of the corresponding muscles is restricted. This damage takes several years to repair and can sometimes be permanent.

To prevent unattractive wrinkles in the knees, ankles and elbows after the adipose tissue suction, it is necessary to aspirate with cannulas between the skin and the joint capsule during surgery. This at least creates a theoretical risk of penetration into the joint capsule and subsequent **injury to the bone and joints**. This injury is very rare, but as surgeons we have great respect for such a complication because the subsequent damage to the joint can be significant.

Most patients with lipoedema have had **swelling of the lower and upper extremities** for many years as a sign of lymphatic congestion. This swelling may persist after liposuction because the tissue has already changed over the years due to the disease. It is six to twelve months after surgery when you really notice which condition is the long-term one.

Thrombosis/embolism: If blood clots form or blood vessels become blocked and close the veins, this can have life-threatening consequences (e.g. pulmonary embolism, stroke, heart attack). To prevent this, blood thinners are given. However, these increase the risk of bleeding. The active substance heparin rarely causes life-threatening clots. Therefore, the contraceptive should be discontinued approximately 4 to 6 weeks before the procedure.

Fat embolism may be another very rare complication. This means that loose fatty tissue could travel through a damaged vein into the lungs and disrupt gas exchange. In this case, we would transfer you to a nearby university clinic for observation/therapy.

If large amounts of fat are removed, or if large amounts of tumescent solution are injected, circulatory reactions, **life-threatening circulatory shock**, or **life-threatening pulmonary oedema**, may occur as a result of fluid movement. Therefore, in these cases, more precise, controlled fluid equilibration is necessary.

Allergies/intolerances (e.g., to latex, drugs) can lead to acute circulatory shock requiring intensive medical measures. Severe, permanent damages (e.g., organ failure, brain damage, paralysis) are very rare. Allergic reactions to suture material rarely cause wound healing disorders, etc.

Damage to skin/tissue/nerve caused by measures accompanying the procedure (e.g., injections, disinfection, laser, electric current) are rare. Possible, permanent effects may include pain, inflammation, tissue death, scarring, sensory disturbances, functional impairment, paralysis (e.g., limbs).

Your doctor will inform you at the information session in regard to the specific risks and the possible complications associated with them. Please ask about anything that is unclear and seems important to you.

If you need further information, please don't hesitate to contact us.

Prospects for success

A satisfactory outcome regarding the treatment **cannot be guaranteed**. In individual cases, despite careful and correct execution, the result may not be satisfactory and the existing condition may even worsen. The result of surgery, and its permanence not only depend on the procedure itself, but also on the subsequent treatment and your own behaviour. Among other things, your general condition, skin condition, your age and weight, as well as hormonal influences are important.

Typically, removed fat cells are not consequently formed. However, the remaining fat cells and, above all, the corresponding dietary habits can increase the accumulation of fat and therefore lead to the fat layer's re-growth.

Note! – Unless otherwise prescribed by the doctor!

Before the procedure

Please provide relevant **documents**, such as **documents/passports** (allergies, maternity, X-rays, implants, etc.), **findings and images** – if available.

The attending physician will decide whether and when to discontinue the anti-clotting medication (e.g., Marcumar[®], Aspirin[®], Plavix[®], Pradaxa[®]) under the attending physician's supervision, or whether and when to replace it with different medication.

Do not smoke for 14 days before the procedure and until the wounds have healed!

After the procedure

With sufficient elasticity, the skin shrinks and adapts to the new body shape after the procedure. If the natural shrinkage is not enough for very loose skin, skin overhangs and/or dimpling may occur, which may require additional procedures to remove excess skin (e.g., thigh tightening). You will be informed separately if such a procedure is likely to be appropriate in your case.

On the first day after surgery, we will perform a follow-up blood sampling.

During the first 24 hours after surgery, wounds will usually secrete fluid (mostly residual injected saline). The accumulation of tissue fluid in the wound area may be removed by puncture, even multiple times.

You will be discharged to home care on the first day after surgery, if your general condition permits. You must be picked up by an accompanying adult after the procedure, as your responsiveness may be limited due to anaesthetic, sedation and/or pain medication. We will let you know when you can actively participate in road traffic and work on running machinery. You should not drink alcohol or make any major decisions during this time.

At home, you should move around as normally as possible. You should move around, but of course you can also sit or lay down, whatever you want, and whatever your limbs/legs "allow" you to do. Avoid prolonged standing or sitting with your legs down.

As a rule, you will need to take an anti-thrombosis injection for 5 days. It is best to administer the injection in the evening.

Assume disability for approximately 10 to 14 days after surgery (inform your employer).

It is not necessary to remove the stitches – they will fall out approximately 2-3 weeks after surgery.

From the second day after surgery, you can plan cold room visits, preferably 3 times a week.

From day 10 after the operation (after stitches start disappearing) you can start cycling visits to Acqua, preferably 3x/week (with compression pants in the beginning), daily if possible.

A compression bandage (compression pants or compression corset) will be used to prevent swelling and pain and to simultaneously model the skin. We will tell you how long you need to wear compression bandages – usually for 6 weeks.

Avoid intense **sunbathing** (even tanning salons) and sauna for 3 months.

We will contact you again by phone the evening after your discharge, just to see if you are doing well. After surgery you will receive an additional paper from us including telephone numbers to contact us.

Please inform your doctor immediately in case of persistent bleeding, severe swelling, increasing pain or fever (above 38 °C), even if these problems occur only a few days after the procedure!

Doctor's notes _____ on the information meeting

The main topics in the meeting were: the procedure's aim, the procedure choice and execution, pros and cons compared to alternative methods, possible extensions or modifications of the procedure, risks and possible complications, risk increasing peculiarities, possible additional and subsequent interventions, prospects for success, risk of worsening, issues of cost assumption by the insurance company, recommendations before and after the procedure, as well as (please document here the specific individual content of the interview, e.g., refusal of individual measures, treatment cases, authorisation, and any special notes on the information meeting, such as the length of the interview, etc.).

Estimated date of the surgery: _____

CONSENT

I have read and understand the information protocol. I was able to ask all the questions I was interested in at the information meeting. They were answered fully and clearly. I feel sufficiently informed, and have given my decision due consideration and do not require any further cooling-off period.

I am aware that neither the doctor nor their assistants can assume any guarantee that they will achieve the desired cosmetic result. Especially, if the doctor suggested a different recommendation as part of one of my wishes.

I agree to the above procedure.

I am also aware of anaesthesia, unforeseen changes or extensions that only become medically necessary during the procedure, as well as necessary additional and follow-up procedures.

I have completed the questionnaire (medical history) to the best of my knowledge. I will respect the recommendations.

Date:

Client's signature:

Doctor's signature: