

Bill Medical

AESTHETIC SURGERY
ANTI AGING
DENTAL IMPLANTOLOGY

Bill Medical

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Aesthetic Surgery
Aesthetic Dentistry
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Dear patient,

Are you considering or planning cosmetic surgery? This brochure contains important background information about the various options in terms of procedures and the state-of-the-art techniques which we employ. It also points out some major factors which you should take into consideration before undergoing surgery and provides helpful tips for the time during and after your treatment. Indeed, a cosmetic surgery procedure is and always will be an operation, which is why it should be carefully considered from all angles in the light of excellent professional advice and carried out by the very best specialists.

The brochure details the aesthetic surgical procedures that we offer and our individually coordinated anti-aging therapies. If you opt to go ahead with treatment, we will sit down with you and come to a joint decision as to your surgical procedures or your therapy plan. Indeed, it is very important for us to know exactly what outcomes you have in mind in order for us to have a realistic chance of meeting your expectations and satisfying your wishes as we follow through with the planned procedures. We also use computer simulations to talk through the expected outcomes.

Not only do the patients whom we have treated feel better afterwards, they are also altogether happier with their appearance. This increases their sense of well-being and also boosts their self-confidence. Since the mid-1990s we have been specialising in aesthetic facial surgery, aesthetic medicine, anti-aging treatments and dental implantology - areas which are perfectly intertwined and maintain a complementary focus on the overall appearance of the face.

It would be our pleasure to talk to you in person in the very near future in order to advise you about your options in terms of treatment and to discuss the relevant procedures at length. Please contact our receptionists to make an appointment (+49-931-4524213). For further information visit www.bill-medical.com.

Kind regards,

Josip S. Bill, MD, DDS, PhD
Bill Medical

Würzburg - Munich - Beijing - Bangkok – Dubai

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HEALTH
BEAUTY
WELL-BEING

Josip S. Bill
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Bill Medical Private Hospital

Bill Medical Private Hospital is situated in the centre of Würzburg and treats our international patients.

Set in stylish and contemporary surroundings more reminiscent of a luxury hotel than a hospital, Bill Medical Private Hospital offers a wide choice of individually coordinated services, ranging from aesthetic facial surgery, aesthetic medicine and aesthetic implantology, including anti-aging treatments and advice on nutrition and fitness, right through to the latest anti-wrinkle and cellulite treatments.

Bill Medical operates exclusive partnerships in Munich, Moscow, Dubai, Riyadh, Bangkok, Phuket, Beijing and Singapore.

Josip S. Bill MD, DDS, PhD

AESTHETIC AXIS®

Dr. Bill is an oral and maxillofacial surgeon with additional training in aesthetic facial surgery and boasts extensive experience and credentials in his specialist areas of aesthetic facial surgery, orthognathic surgery and dental implantology. This broad base of knowledge enables Dr. Bill to remain focused at all times on the overall appearance of the face, especially the Aesthetic Axis ® of the nose, mouth, jaw and chin, when performing corrective procedures. Only by taking a holistic view of these important contours can treatment be guaranteed to yield optimum results. The combination of aesthetic surgery, operative dentistry and oral surgery is called the "Würzburg Concept". The therapy concept has a wider remit beyond the rigid pursuit of functional goals, such as achieving a satisfactory meeting of the upper and lower jaw for the correct bite or sculpting the perfect nose.

Indeed, the changes to the appearance of the face and teeth are of vital importance to the majority of patients. If, for example, a person seeks treatment for a hump on the nose, an overbite or a receding chin which has been bothering that person for years, then the patient's self-awareness increases and this often prompts further steps to improve the aesthetics and function of the face and body.

This is why our team of experts includes dermatologists, surgeons, dentists, gynaecologists, specialists in internal medicine, endocrinologists and cosmetics experts who have years of experience in this field.

CONTENTS

This brochure is provided as a supplement to the preoperative briefing with your physician. It is not a substitute for the medical consultation. Please also take note of additional information regarding risks and complications included on the form which we go through together during the preoperative consultation and sign. This brochure is intended as a summary of the main points in connection with aesthetic surgery procedures. All the information has been compiled to the best of our medical knowledge and checked with the utmost professional care. No guarantees can be given, however, that the information is up to date, correct or exhaustive.

NON-SURGICAL PROCEDURES

Anti-aging and medical cosmetics

Anti-aging is a term used today to denote all treatments and procedures which have a positive impact on the physical and mental aging process. These procedures deserve to be advocated in the medical world on the basis of numerous observations of individual therapeutic outcomes. There is as yet no scientific proof of their efficacy, but this is also true of many successful treatment methods in medicine and does not lessen their therapeutic value.

In the field of anti-aging medicine there is general consensus that it is advisable to start as early as possible and to follow through with all procedures consistently.

The aging process cannot be reversed, but it can be slowed down with various treatments and therapies in the interests of sustaining a high quality of life to a ripe old age.

A healthy, balanced diet and regular exercise are the most important factors in any anti-aging regime. Specially trained nutritionists and sports therapists are on hand to devise anti-aging programmes tailored to your individual needs and constraints. Nevertheless, you should as far as possible avoid two things which are harmful to health, namely alcohol - except in small quantities - and smoking.

After a thorough assessment of your physical condition and state of health (physical examination, fitness tests, blood tests), we will devise a treatment plan for you which is geared to your personal needs. This includes specific dietary advice, your own personal exercise and fitness programme, and a therapy plan indicating the anti-aging procedures which would be suitable for you.

Anti-aging procedures can include the following treatments:

- Aesthetic dermatology
- Medical cosmetics including individual professional consultation
- Permanent make-up
- Ultrasound cellulite therapy (ultrasonic lipocavitation)
- Autologous stem cell therapy (connective tissue grafting, bone augmentation)
- Plasmapheresis for the removal of harmful antigens and antibodies from the bloodstream
- Infusion and/or oral administration of mineral nutrients, trace elements and high-dose vitamin supplements
- Ozone autohaemotherapy and autotransfusion
- Individualised hormone therapy
- Hyperbaric oxygen therapy (HBO)
- Controlled cryotherapy (Hilothermie®)
- Acupuncture
- Personal dietary supplement plan
- Osteopathy, physiotherapy

Individual anti-aging procedures can be applied at your own convenience in the comfort of your own home following a personal treatment plan. In the interests of an all-encompassing and holistic approach to anti-aging therapy, we recommend plenty of physical rest. We can offer you appropriate courses of treatment followed by a time of recovery and recuperation in the exclusive surroundings in one of our health spas worldwide.

NON-SURGICAL PROCEDURES

A plethora of commercially-made anti-wrinkle treatments have come onto the market over the years. Only three therapies have actually managed to establish a foothold as viable options, namely botulinum toxin, polylactic acid and hyaluronic acid.

Botulinum toxin (e.g. Botox®)

Botulinum toxin A is a protein produced by the anaerobic bacterium Clostridium botulinum. It is one of the strongest known neurotoxins and causes temporary muscle paralysis. A highly diluted form of the substance has been in use in medicine since the beginning of the 1980s.

The main areas to which this treatment is applied in aesthetic medicine are the forehead and the root of the nose (the so-called "frown lines") as the wrinkle formation in these areas is highly dependent on the underlying muscle. As a general principle, however, no guarantees can be given that wrinkles will disappear after a course of botulinum toxin treatment because the formation of skin folds is mainly connected with the anatomy and physiology of the skin.

The botulinum toxin is injected in single doses to the relevant muscle group and takes four to seven days to act on the muscles. This muscle-weakening effect tightens and smoothes the skin above and the effect lasts for about three to six months.

Antibodies may develop after several courses of the treatment, causing resistance to the therapy (neutralisation). This will be made clear to you by way of a separate explanation. If this happens to you, we advise you to wait at least six months before resuming therapy.

Polylactic acid

Lactic acid is found naturally in the human body. Synthetically made lactic acid has been used in surgery for many years and tolerance levels to the substance are very high. It is typically used on very pronounced wrinkles on the lower half of the face, on deep nasolabial folds and on wrinkles at the corners of the mouth. Lost volume and facial contours can also be restored on faces with sunken cheeks or with sagging and puckering in the areas mentioned ("liquid facelift").

The injection stimulates the generation of new connective tissue in the skin. The face looks fuller immediately after the treatment, with wrinkles smoothed and volume added. A few days later, however, the wrinkles can return to their pretreatment state for a short time as the water contained in the polylactic acid is reabsorbed by the body. The treated area needs to be massaged several times a day in order to distribute the product evenly and minimise the formation of nodules.

It will take six to eight weeks for the final effect to take shape. A joint decision is then made as to whether further treatments are required. As a general rule, it makes sense to have two to three sessions two to six weeks apart. The end result can last for one to two years. The injection is normally painless, although there may be a temporary stinging or burning sensation at the injection site.

Hyaluronic acid

Hyaluronic acid occurs naturally in human connective tissue. Synthetically made versions of the substance are used to smooth shallow folds in all areas of the face, especially on the forehead, eyes, and mouth and in the nasolabial folds, possibly in combination with botulinum toxin.

Depending on which part of the face is treated and the type of skin, the effect of a hyaluronic acid treatment can last for six to 12 months (about six months for lips), and in isolated cases it may be shorter or even longer. The desired result can be maintained by top-up and follow-up treatments.

Botulinum toxin, polylactic acid or hyaluronic acid treatments cannot replace corrective surgery in advanced cases of cutaneous slackening. These matters will be covered in detail in any pretreatment sessions.

BASIC INFORMATION ON SURGICAL PROCEDURES

Pretreatment and preoperative matters

The surgeries covered in this section are elective procedures. In preparation for any surgery, therefore, you are given detailed information about the procedure and the risks involved. The explanatory process generally encompasses several stages with step-by-step information passed on in verbal and written form. This gives you the opportunity to have all your questions answered and it gives us the assurance that you have thought through surgery in detail with all the attendant risks and possible consequences.

In most cases the planned surgery will be an elective procedure with no medical imperative, so there must be no known pre-existing risks which could have an adverse effect on your health. Such risks might include cardiovascular diseases, blood disorders, blood coagulation disorders, diabetes, tumours and various other diseases and the associated use of medication.

It is therefore in your own interests to tell us your medical history when you first come to the practice, mentioning illnesses, surgeries and any medication which you have taken previously or are taking at the present time. This ensures that you will not put your health at risk or jeopardise the intended result of surgery.

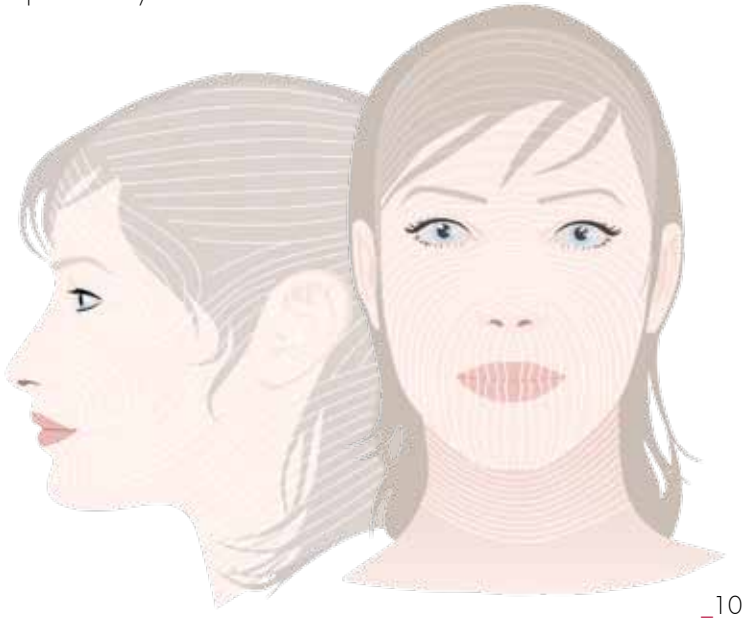
If you have an illness which could be a risk factor, it may be necessary to consult your general practitioner or a medical specialist in advance of any procedure. If your surgery is to be carried out under general anaesthesia, your general practitioner and/or the anaesthesiologist will examine you before surgery.

Incision and suturing techniques

In all aesthetic surgical procedures on the face, it is imperative to keep focusing on the direction of the facial skin tension lines. The incision should, wherever possible, be made parallel to these natural contours. The post-operative scars will thus be better integrated in the natural skin structure, allowing the best possible results in terms of reducing their visibility. No guarantees can be given in this regard, however, as the formation of a scar depends on many unforeseeable factors.

The incision is closed with fine nylon suture. Depending on the area of the face, the sutures are placed and tied individually (simple interrupted suture) or there is a continuous suture within the dermis (running intracutaneous suture). In certain cases it is also possible to close the wound without suture using acrylic adhesive (tissue adhesive) with reliable and aesthetically pleasing results.

The suture should be removed from the face five to seven days after surgery in order to secure the wound closure and to prevent epithelial layer formation in the puncture channels. Suture in the eyelid area can be removed as early as the fourth day after surgery. In areas with higher skin tension such as the scalp, however, it may be necessary to leave the suture in the skin for up to 14 days.



Direction of skin tension lines on the face and neck along which any incision should ideally be made.

General post-operative care and follow-up treatment

Post-operative care

A special cooling device (Hilotherm®) can be used to cool your face after surgery. The cooling sensation is generally very pleasant and can significantly reduce swelling. For more information on Hilotherapy® visit www.hilotherm.com. You will be given highly effective pain relief to numb the pain after the operation. The dosage can be adjusted according to your requirements. You may also be given antibiotics which you should take as prescribed. Please tell us if you have any allergies or intolerances at your introductory session.

Follow-up treatment

Post-operative follow-up checks are carried out in the practice. If you have travelled to the area for surgery and cannot attend the practice for a follow-up examination for this reason, you will be given all documents in your final session with all the necessary information about your follow-up treatment.

In order not to jeopardise the result of surgery, you should refrain from sport and physical exercise for three to six weeks after the operation, depending on the procedure. Light exercise like jogging, cycling or swimming is allowed from the fourth week onwards. Participation in ball games, martial arts and competitive sports will not be possible again until at least six weeks after surgery, and then with caution.

The procedures listed below are described in detail on the following pages so that you know exactly how any given operation will proceed in your case:

Aesthetic Axis®
The procedures set out on the following pages are based on the principle of balancing and perfecting the alignment of the face, nose, jaw and chin. We have coined the term "Aesthetic Axis®" to refer to this alignment.

(These notes cannot and should not replace one-to-one time with the patient.)

Corrective nose surgery (Rhinoplasty)

Rhinoplasty is one of the most challenging procedures in aesthetic surgery.

There are several reasons for this:

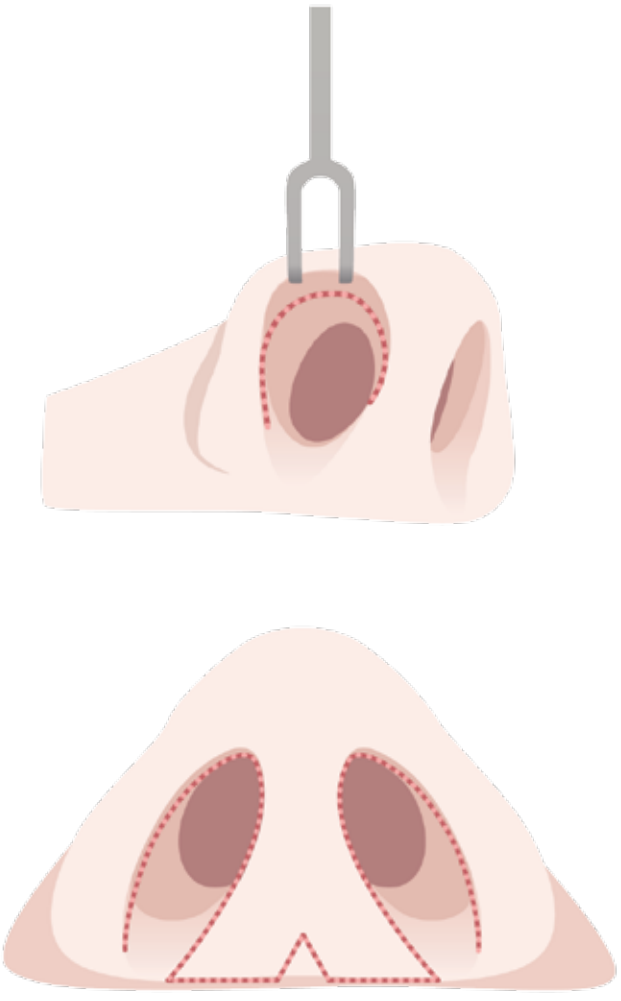
- Very complex anatomy in a very small space
- Interaction of different anatomical structures (bone/cartilage/soft tissue) and their varying responses to surgery

This is why corrective nose surgery should only ever be performed by an experienced specialist.

Preparing for surgery

A full and thorough examination of the nose is important, as are photographic records. The photographs are enlarged, printed and used as a basis when planning the operation with you.

Corrective nose surgery is of major importance for the Aesthetic Axis® of the nose, jaw and chin. It may also be necessary in connection with corrective jaw surgery in order to bring the facial features into proportion and restore normal breathing action through the nose.



Top Method of access in closed rhinoplasty: the incision is inside the nose.

Bottom Method of access in open rhinoplasty: the scar on the columella is virtually invisible.

Surgery

Surgery is performed under general anaesthesia. It may be performed as a day case. You can therefore be discharged after a few hours.

In addition to general anaesthesia, a local injection is given to numb the entire nose area and to minimise bleeding during surgery.

There are two basic types of rhinoplasty depending on the scale of the operation: closed rhinoplasty and open rhinoplasty.

1. In closed rhinoplasty the incision is entirely inside the nose. The procedure leaves no visible scars but the operating area is very restricted. This procedure is therefore only suitable for certain operations on the tip of the nose, the alar lobules and the bridge of the nose.

2. In open rhinoplasty the incisions in the skin of both nostrils are connected by an incision across the columella between the nostrils. The entire operating area can be accessed in this way. The scar in the skin under the nose is practically invisible after it has healed. This technique is therefore used in large-scale operations.

It is normally possible to say before the operation whether closed or open rhinoplasty will be required. A decision may be taken during closed rhinoplasty, however, that it is necessary to vary the initial plan and proceed to open rhinoplasty.

Occasionally a second operation may be required. This should not be performed until at least six months after the first operation.

Special post-operative care

The nostrils are packed with tulle gras dressing after stitching. This stems any bleeding, provides internal support for the nose and prevents swelling on the inside of the nose. A swelling of this kind can lead to permanent problems with breathing. The packing should therefore be removed after a week and not before, unless specified otherwise.

Depending on the extent of the operation, an external splint is applied to the nose in the form of a metal plate or plaster cast in order to stabilise the nose. This helps to maintain the shape and position of the newly modelled nose. To begin with, this splint will remain in place day and night for up to two weeks. For the next two to three weeks thereafter the splint should be worn in private and at night to protect the nose.

Facelift surgery (Rhytidoplasty)

Facelift surgery aimed at tautening sagging facial skin is one of the most challenging procedures in aesthetic facial surgery.

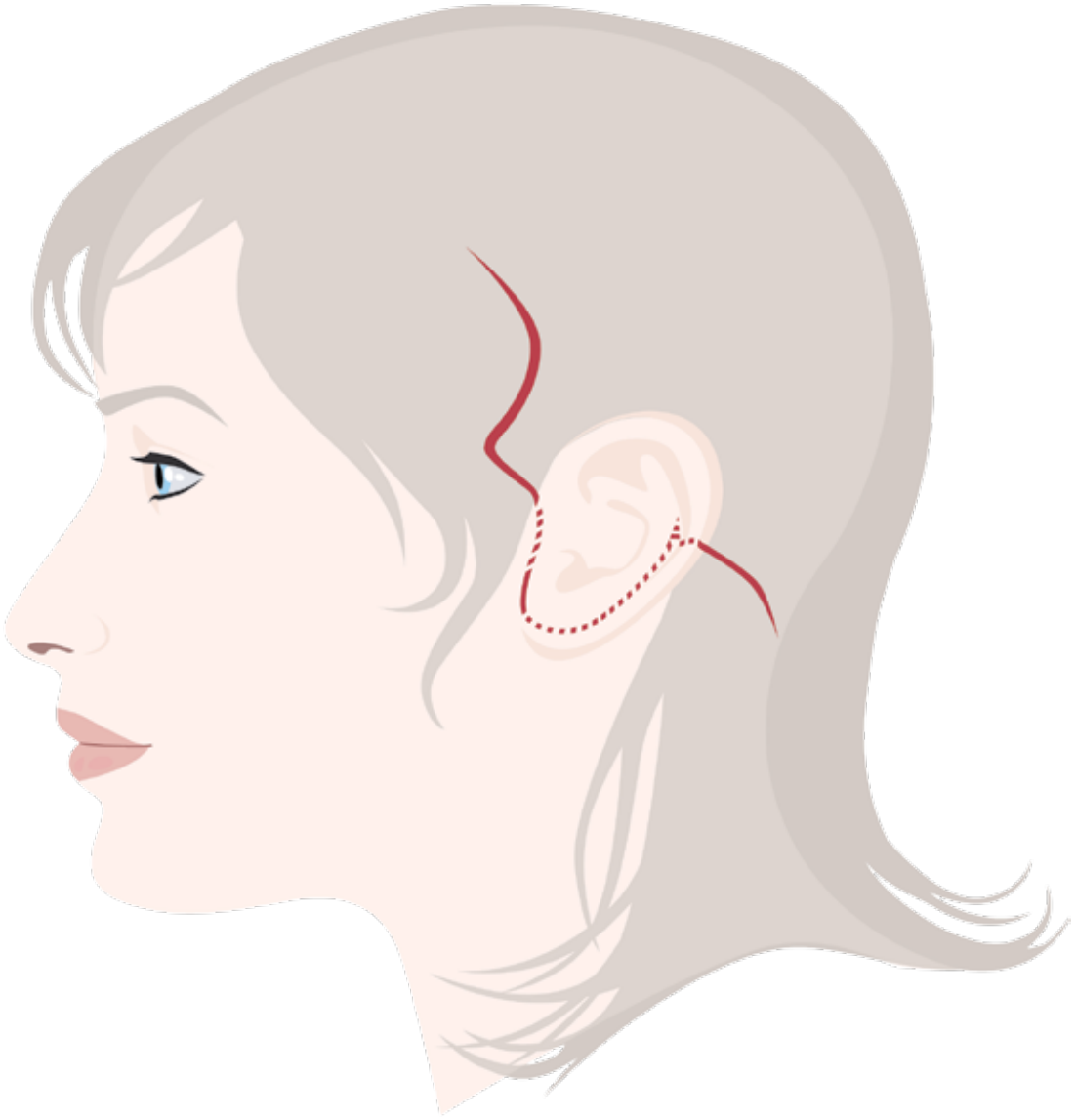
There are different procedures available:

- Facelift covering the midface and lower face including the mandibular, chin and neck area
- Forehead lift
- Full facelift covering the midface and lower face including the mandibular, chin and neck area and the forehead

Surgery

Surgery is carried out under general anaesthesia as an inpatient procedure in our hospital.

The modern standard facelift procedure is the SMAS facelift (superficial musculoaponeurotic system facelift) which is not limited to the skin as used to be the case with earlier surgical techniques. It extends to the subcutaneous connective tissue, the facial muscles and the aponeurosis, which is a sheet of fibrous tissue that binds the muscles together.



Line of incision in facial skin tightening: The incision runs around the ear, stopping at the hairline in front of and behind the ear, thus even allowing the hair to be worn up.

The incision for the superextended facelift runs around the ear and ends at the hairline in front of and behind the ear. There is no visible scar from this type of incision which would look unsightly with updo hairstyles. However, no guarantee can be given that this will be the case. The incision for the brow lift or full facelift does not run to the temple hairline, but instead runs directly from the top of the ear to the forehead hairline.

The tightening of the facial skin is a two-layer process, starting with tautening and suturing the interconnected facial muscles and subcutaneous connective tissue (SMAS). The covering layer of skin is then tautened and also carefully sutured.

Only with this technique it is possible to achieve a largely wrinkle-free post-operative appearance or a natural reduced-wrinkle look. The face does not look like a mask after the operation. The SMAS is mainly responsible for firming up the tissue in this operative technique. The skin lays flat and looks smooth on the tightened tissue.

Special post-operative care

A thin silicone drain is inserted under the skin in the suture area behind both ears in order to aid the discharge from the wound. These drains are taken out again one or two days after surgery.

You will also be required to wear a tight facial support dressing after the operation. The dressing is to be worn for two days in order to reduce swelling and bruising.

Upper and lower eyelid surgery (Blepharoplasty)

The skin and connective tissue around the eyelids are very thin and delicate. This makes the area particularly susceptible to sagging and the early onset of wrinkle formation. Drooping eyelids can impede a person's range of vision. Sagging skin around the lower eyelids can make a person look tired, a feature commonly referred to as "bags" under the eyes. Cosmetic eyelid surgery can yield very good results.

Surgery

Cosmetic eyelid surgery is generally performed under local anaesthesia as an outpatient procedure. Very extensive operations are also performed under combination of sedation and local anaesthesia or under general anaesthesia as day cases. You can therefore be discharged after a few hours.

Line of incision in upper eyelid surgery: the scar is normally invisible.

Upper eyelid surgery involves the removal of excess skin tissue which can hang in folds over the top eyelid in extreme cases. The extent to which fatty tissue is reduced and the upper eyelid muscle is corrected is decided individually.

In *lower eyelid surgery* the work is performed after making an incision directly below the lashes on the lower eyelid or through the lower conjunctiva. After having removed the excess subcutaneous connective tissue and fatty tissue, however, and having corrected the eyelid muscle, it is often necessary to scale back the surplus skin. This excision can be planned with the incision in the skin of the lower eyelid.

Long-term success can vary with individual factors - such as the complexion, skincare, pre-existing damage to the skin, exposure to the sun, smoking or alcohol consumption, playing a major role.

A special form of eyelid surgery is a reduction in the so-called "Mongolian fold" on the medial canthus by a special flap graft at the angular junction of the eyelids. This procedure is mainly performed on patients from Asia.

Incision in lower eyelid surgery directly below the lashes on the lower eyelids or through the lower conjunctiva: the scar is invisible.

Ear pinning surgery (Otoplasty)

This corrective surgery is mostly performed on children and adolescents.

Surgery

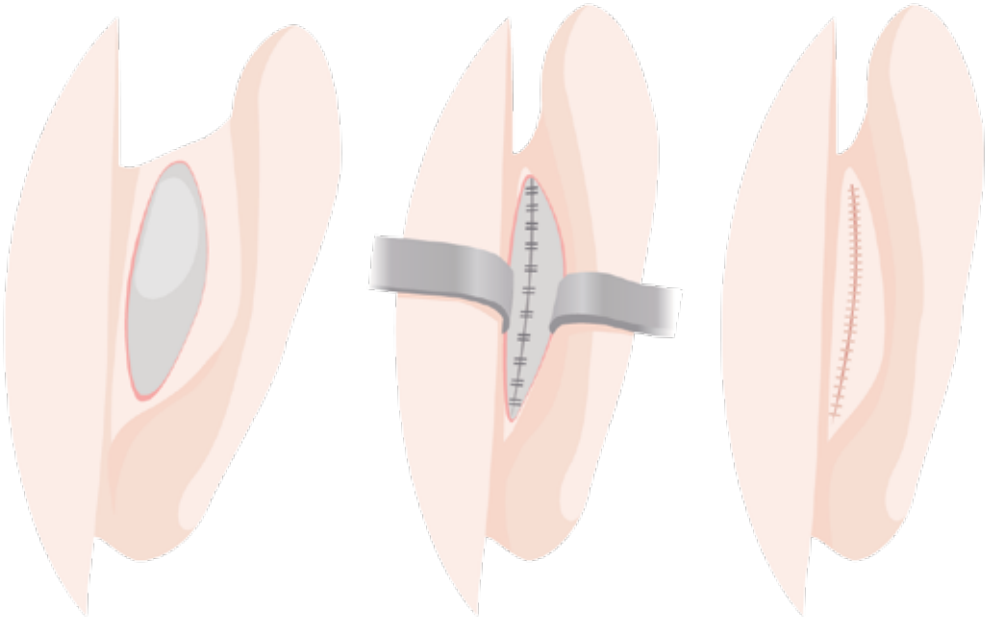
The procedure is generally performed under local anaesthesia as an outpatient procedure. Very extensive surgeries are also performed under combination of sedation and local anaesthesia or under general anaesthesia as day cases. You can therefore be discharged after a few hours.

There are various techniques in ear pinning surgery, depending on the degree of apposition and the amount of plastic surgery involved in fixing the auricles in their new position:

- In very pronounced cases an otoplasty technique can be used which involves cutting through the ear cartilage and reshaping it.
- In less pronounced cases the most common procedure is a combined technique of weakening and remoulding the auricle by suture fixation.
- In rare cases where the protrusion is not so severe, it can suffice to make a falciform excision of the skin and subcutaneous tissue from behind the ear and fix in place with a suture.

Special post-operative care

A tight head bandage is applied after surgery and must be worn for one week. We also recommend wearing a tight headbands which presses on the ears for a further two to three week. This is an effective way of stabilising the operated area.



Incision behind the ear: a strip of skin is removed and then a strip of cartilage of similar width is taken out. The auricle and the skin are sewn up. The result is immediately visible.

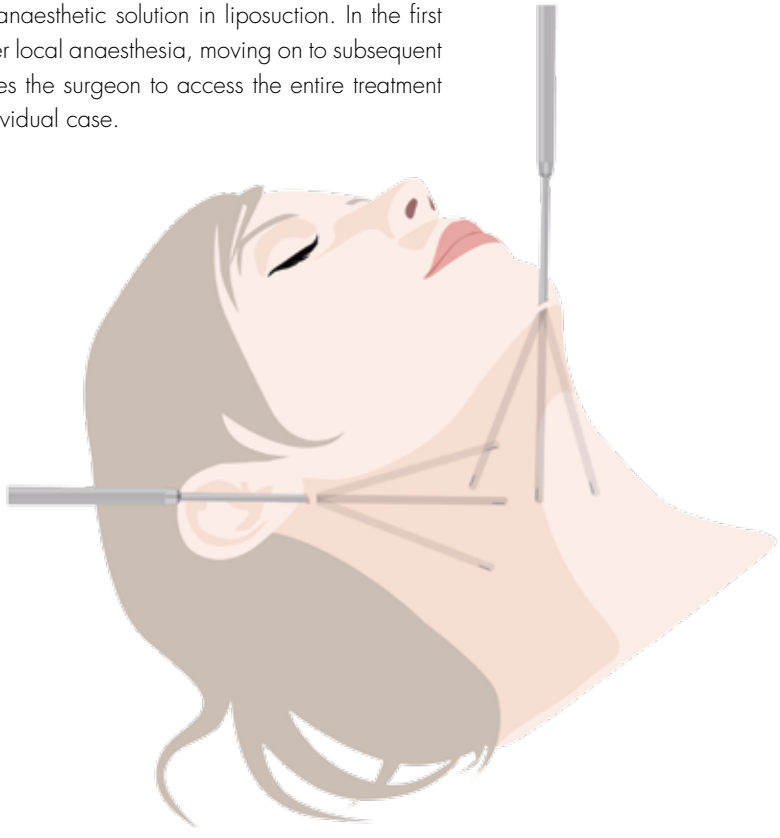
Body contouring (Liposuction/Liposculpturing)

Liposuction and liposculpturing (suction-assisted removal of fat) have largely replaced more extensive corrective surgery on drooping skin on the chin, lower jaw and neck as well as on the trunk and extremities, or are used to supplement these procedures.

Surgery

The procedure is generally performed under local anaesthesia as an outpatient procedure. Very extensive surgeries are also performed under combination of sedation and local anaesthesia or under general anaesthesia as day cases. You can therefore be discharged after a few hours.

The tumescent technique has become the standard local anaesthetic solution in liposuction. In the first instance, small incisions are made in the relevant area under local anaesthesia, moving on to subsequent incisions which are virtually or totally invisible. This enables the surgeon to access the entire treatment area with the liposuction cannula, as required in each individual case.



Liposculpture on the chin and neck: the cannula is inserted through three tiny incisions behind the ears and under the chin for the tissue modelling process. The incisions are normally invisible after the procedure.

Using a pump and a fine needle, a liquid anaesthetic solution is administered to numb the relevant area. Once the anaesthetic has taken effect, the excess fatty tissue is extracted with the liposuction cannula, which is connected by a hose to a vacuum pump, until the contouring result is satisfactory (liposculpturing).

Special post-operative care

Some of the incisions are sewn up and some are left open as a means of draining any residual tumescent solution and any fatty tissue which has been dissolved or loosened but not removed.

After surgery you will be required to wear a tight, elastic facial support dressing or an elastic compression garment, which you should wear as instructed to aid the modelling process on the relevant area of the body as the wound heals. This will optimise the end result in terms of body shape and will reduce swelling and bruising.

Cheekbone (Malar) augmentation (Zygomaplasty)

Plastic surgery can be carried out to emphasise the aesthetic beauty of the cheekbone using bone augmentation or reduction techniques.

Surgery

Surgery is carried out under general anaesthesia as an inpatient procedure in our hospital. Depending on the scale of surgery it may also be performed as a day case. You can therefore be discharged after a few hours.

Surgery takes place inside the mouth, so the incision leaves no visible scars. There are various options depending on the individual requirements and the intended surgery. Bone augmentation procedures can involve transplanting the patient's own bones, for example, or implanting donated bones or bone substitute material. The cheekbone can also be cut through and relocated. Titanium miniplates and screws are used to fix the bone or implant in its new position.

Augmentation techniques using artificial materials (such as silicone) are inferior to the procedures described above due to the high rate of complications associated with such methods and are therefore not practised.

The wound in the mouth is stitched together with fine silk suture. The stitches are removed after about 10 days. There is no need to eat special types of food after surgery.

Removing the screws and plates

The titanium plates and screws are removed about six to 12 months later under short-acting general anesthesia. This procedure can be carried out as a day case. You can be discharged after a few hours.

Surgery is performed along the old scar in the mucous membrane fold of the upper jaw. Therefore, the incision leaves no visible scars. After display and removal of the titanium plates and screws, the wound in the mouth is stitched together with fine silk suture. The stitches are removed after about 10 days. There is no need to eat special types of food after this surgery either.

Modelling the cheek-bone: the incision in the upper jaw is inside the mouth, which means there are no visible scars.

Chin surgery (Genioplasty)

Corrective chin surgery is of major importance for the Aesthetic Axis® of the nose, jaw and chin. It can also be a requirement in corrective jaw surgery and may be necessary to restore normal muscle function and to improve the closure of the mouth.

Surgery

The surgery is carried out under general anaesthesia as an inpatient procedure in our hospital. Depending on the scale of surgery it may also be performed as a day case. You can therefore be discharged after a few hours.

Surgery is performed in the reflection of the mucous membrane in the mandible. This means that the incision leaves no visible scars. The front part of the mandible and the sensory nerves in the lower lip are displayed on both sides. An incision is then made across the bottom edge of the lower jaw underneath the roots of the teeth in the lower jaw. This makes it possible to move the bottom edge of the lower jaw in the desired direction. Titanium miniplates and screws are then used to fix it in its new position.

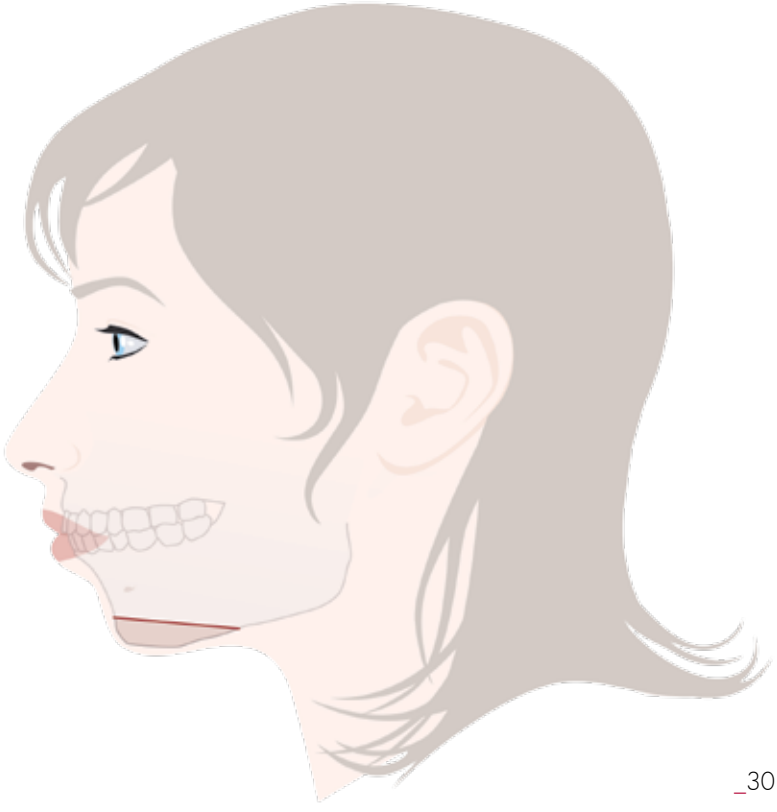
Augmentation techniques using artificial materials (such as silicone) are inferior to the procedure described above due to the high rate of complications and are therefore not practised.

The wound in the mouth is stitched together with fine silk suture. The stitches are removed after about 10 days. There is no need to eat special types of food after the operation.

Removing the screws and plates

The titanium plates and screws are removed about six to 12 months later under short-acting anaesthetic. This procedure can be carried out as a day case. You can be discharged after a few hours.

The operation is performed along the old scar in the mucous membrane fold of the lower jaw. Once again, therefore, the incision leaves no visible scars. After display and removal of the screws and plates, the wound in the mouth is stitched together with fine silk suture. The stitches are removed after about 10 days. There is no need to eat special types of food after this operation either.



Chin surgery involving the relocation of a slice of bone from the edge of the lower jaw: the incision in the lower jaw is inside the mouth, which means there are no visible scars.

Corrective jaw surgery (Orthognathic surgery)

Corrective jaw surgery falls within the scope of orthognathic surgery.

Orthognathic surgery is of major importance for the Aesthetic Axis® of the nose, jaw and chin. It is often combined with corrective nose and chin surgery.

The combined form of the treatment can be subdivided into three sections:

- Pre-operative orthodontic treatment
- Orthognathic surgery
- Post-operative orthodontic treatment

The different orthognathic surgery procedures can be categorised as follows:

- Maxillary (upper jaw) repositioning surgeries
- Mandibular (lower jaw) repositioning surgeries
- Combined maxillary and mandibular repositioning surgeries
- Chin surgery (genioplasty)

These procedures cover corrective surgery on virtually any misalignment of the jaw.

The method which is applied when performing the surgery is called the "Würzburg Concept".

There are some special features which are unique to the "Würzburg Concept":

> The surgery is performed in combination with orthodontic treatment.

> The temporomandibular joints are precisely positioned during surgery. Consequently, statistics prove better results after this surgical procedure.

> Mouth opening is possible after surgery as there is no wiring of the jaws.

We decide exactly which procedure to take in consultation with you and with your orthodontist and discuss your treatment options at length.

Orthodontic surgery is a highly specialised field of medicine in its own right, which is why we have compiled a separate brochure which covers the subject in great detail and which can be supplied on request. Alternatively, you can download the brochure from our website at www.bill-medical.com.

Scar revision

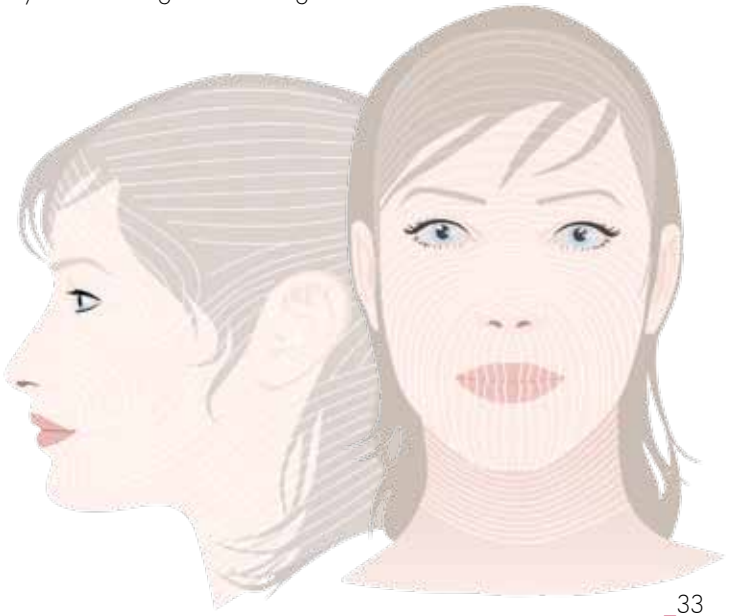
When revising scars on the face it is important, depending on their size and shape, to follow the direction of the skin tension lines and the natural creases on the face. The scars will ideally be integrated in these natural lines after revision, but this is not always possible. Several procedures may be required when revising large-scale scars.

Surgery

Scar revision treatment is generally performed as an outpatient procedure. Local anaesthesia is used to numb the area of the skin involved in the operation. However, very extensive keloplasty procedures are also performed under combination of sedation and local anaesthesia or under general anaesthesia as day cases. You can therefore be discharged after a few hours.

Special post-operative care

After surgery a tight adhesive bandage is applied to protect the treated area of the skin and must be worn for about one week. You will be supplied with extra plasters so that you can change the dressing.



Skin tension lines on the face and neck: ideally the incision should follow these lines.

Other treatments

In addition to the surgical and non-surgical procedures which have been explained in detail, the range of treatments in aesthetic surgery also includes other procedures which are part of the process and therefore need to be covered briefly.

1. Reconstructive surgery and treatment of malformations

Plastic and reconstructive surgery on congenital malformations and following accidents, injuries or tumour treatment constitutes a major branch of surgery in its own right. Due to the complexity of this field, it is only possible to discuss and explain the corrective surgery options in a one-to-one consultation which includes a thorough examination.

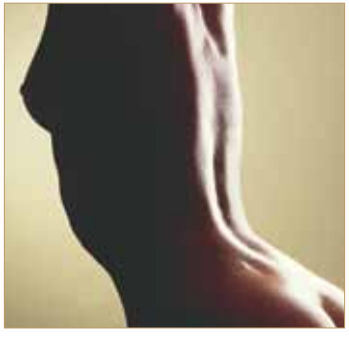
In very complicated cases it may be necessary to perform a cranial computed tomography (CT) scan. The data can be used to make a model of the skull (stereolithography, selective laser sintering). This model enables an exact analysis of individual requirements in terms of surgery.

2. Hair transplantation

Microsurgery can be performed in developing or advanced cases of hair loss (alopecia) in which the person's own hair is transplanted in small bundles from a donor site on the head to the affected areas of the scalp. This procedure has a good track record of excellent reliability and long-term success.

3. Other procedures in aesthetic surgery

We can also provide you with information about procedures which have not been covered insofar as these procedures are carried out by us or by highly-qualified associates and colleagues. In addition to giving advice in these matters, we will be happy to arrange an appointment for you.



Tooth implants (Dental implantology)

An implant is the best option to replace a lost tooth if aesthetic and functional perfection is a particular priority. Dental implants ("artificial tooth roots") have developed over recent years to become part of the standard package of high-quality health care.

Pretreatment and preoperative matters

The information gleaned from the one-to-one consultation, the detailed examination and latest diagnostic X-ray of your jaw is taken as a basis for drawing up the best possible treatment plan with you and for a step-by-step explanation and discussion of the operative procedure.

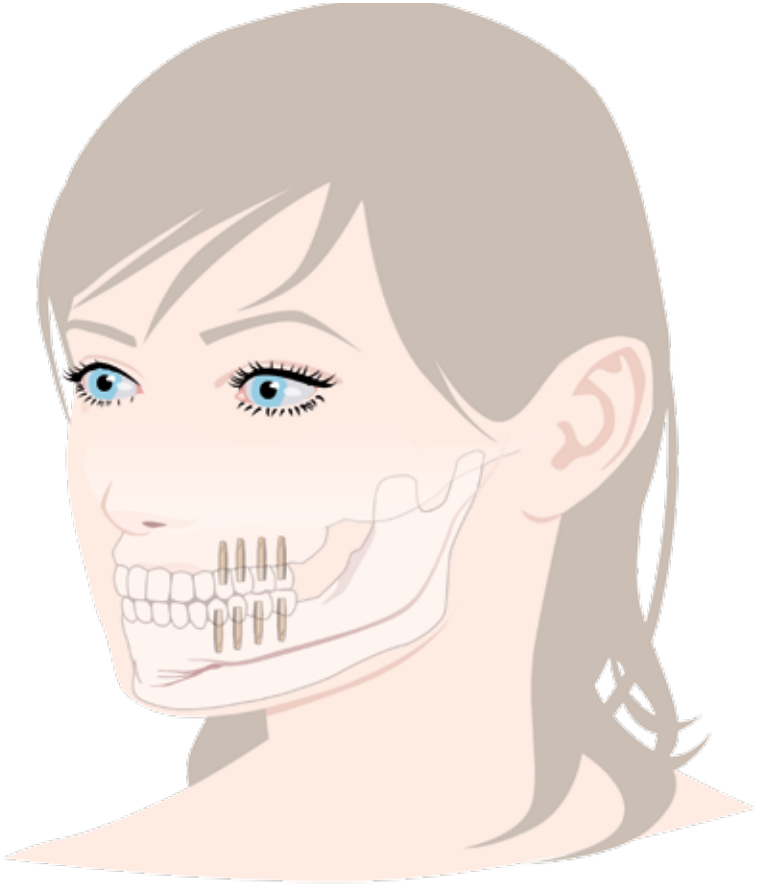
The standard care package today includes computer simulation using computed tomography or digital volume tomography images of your jaw. Computer-aided systems are used for image-guided implant planning, producing individual impressions which provide maximum reliability and precision in implantology procedures.

It is even possible to go one step further these days and to make implant-supported dentures in the dental laboratory before the operation using the impression prepared for the operation. This means, in the best-case scenario, that you will leave the practice after the operation with your teeth in!

Image-guided implantology is at the cutting edge of modern-day dental implantology. We are among the pioneers using this state-of-the-art system.

Surgery

The procedure is generally performed under local anaesthesia as an outpatient procedure. However, very extensive surgeries can also be performed under combination of sedation and local anaesthesia or under general anaesthesia as day cases. You can therefore be discharged after a few hours.



SURGICAL PROCEDURES

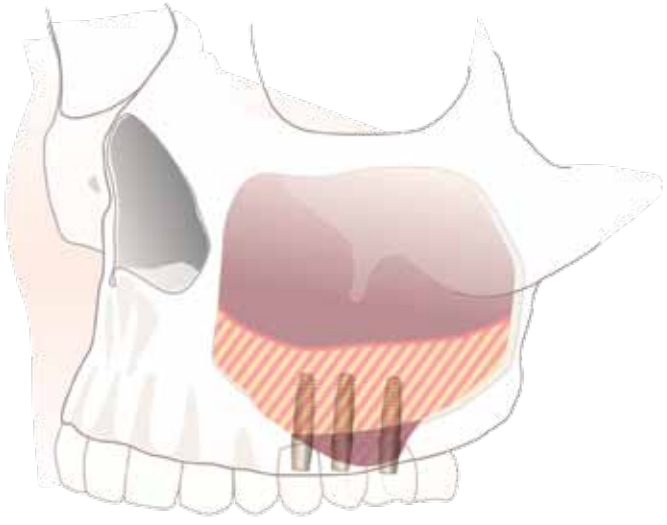
It may be necessary for individual teeth to be extracted. It may also be necessary in the case of jawbone deficiency to undergo osteoplasty (bone graft) before implantation can proceed. The grafting technique used on the lower jaw is bone spreading or distraction while the process on the upper jaw involves elevating the maxillary sinus floor.

The bone grafting process on the upper jaw in the maxillary sinus floor is known as a sinus lift because the mucous membrane in the maxillary sinus is raised and the space thereby created is filled with bone graft material. There are three different operation techniques:

- *External sinus lift:*
  Display of the mucous membrane of the maxillary sinus from opening in the side of the upper jaw.

- *Internal sinus lift:*
  Displacing the mucous membrane of the maxillary sinus from below through the prepared implant bed using special instruments.

- *Balloon sinus lift:*
  Displacing the mucous membrane of the maxillary sinus from below through the prepared implant bed using a special ballc



Various materials are used for bone augmentation:

- *Autologous stem cells:*
  Taken from the patient's own pelvic bone via a small incision and specially prepared. There is a separate brochure about this, which is available on request.

- *Autologous bone:*
  This can be taken from various areas. In most cases the bones are taken from the lower jaw, upper jaw or the pelvis.

- *Donated bone:*
  Specially prepared donated bone. The major advantage of this bone is that there is no need to harvest bone from the patient. This shortens the time required for the surgery and for the healing process. It is the most efficient bone augmentation method in combination with autologous stem cells.

- *Bone substitute material:*
  There is a wide choice available. These materials can be used in minor osteoplastic procedures.

The best material is decided on a case-by-case basis depending on the diagnosis.

State-of-the-art techniques and methods are used to the greatest possible extent, including ultrasound instruments for minimally invasive bone preparation (piezosurgery). After displaying the implant site, special drills and thread milling attachments are used to create the implant bed in the jaw bone. The implants are then screwed into the bone.

If possible and if requested in addition to the implants, provisional implants are screwed in and can hold a temporary prosthesis during the healing period while the implants are fusing. These provisional implants are removed again after several months at the end of the healing period when the final prosthesis is put in place.

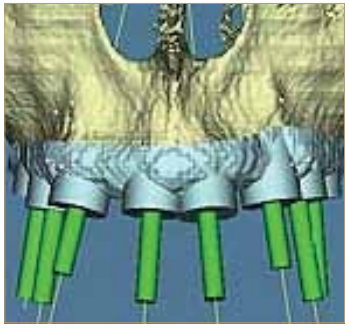
SURGICAL PROCEDURES

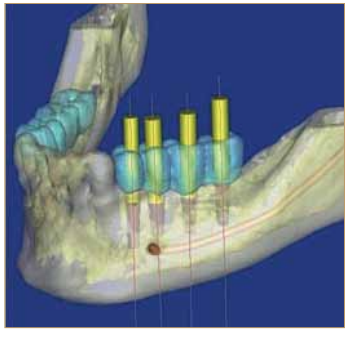
There are two different surgical procedures in implantology:

> The two-stage procedure where the gums completely cover the implants in the first instance after the implantation. After a healing and settling phase lasting about three months in the lower jaw, or six to nine months in the upper jaw, a short second operation is performed under local anaesthetic in which the covers are removed from the implants and replaced with the gingiva formers. About two weeks later the final prosthetic procedure can be undertaken. The two-stage surgery is mostly performed in the upper jaw, but it can also be used in the lower jaw if there is uncertainty as to the stability of the implants.

> The one-stage procedure where the gingiva formers are inserted in the mucosa in the first instance. It is generally possible in this case to fit the temporary prosthesis immediately. The final implant placement then follows after three to six months. The one-stage surgery is mostly performed in the lower jaw, but can also be used in the upper jaw if the bone is strong enough.

The decision as to whether the procedure will involve one or two stages can only be taken during the first operation. The fundamental aim, however, is to manage the procedure in one stage in the interests of the comfort and convenience of the patient.





What are the risks involved with implantology?

The risks are the same as those associated with surgery in general, as set out in the section entitled "General information on risks" (p. 40/41).

The main risk is the failure of one or more implants. No guarantees can be given in this respect! According to general statistics, there is a two per cent risk that an implant will fail. This is low. It is important for you to be aware, however, that the risk can increase if there are complications. This is most likely to be the case with implants in the upper jaw and implants involving bone augmentation. The specific risks will be explained to you in detail when we examine you and plan your implantation procedure.

The practitioner may not be able to have a direct influence on how the implant takes and heals, but there are three main risk factors which can be held accountable for implant failure and which need to be flagged up:

1. Poor oral hygiene: Excellent standards of oral hygiene are therefore very important for the successful healing of the implants!

2. Diabetes: If you are a diabetic, it is essential to mention this before undergoing any treatment! As a general principle, well-managed diabetes is not an obstacle to successful implantation in many cases. Despite all precautions, careful regulation of your blood sugar levels and good standards of oral hygiene, however, you must be prepared to accept a higher risk of implant failure! This particularly applies to people who already suffer from other diabetes-related symptoms.

3. Smoking: Smoking is the biggest risk factor for implant failure! The smoke from one single cigarette can constrict the blood vessels in the operated area, resulting in restricted blood flow to the tissue and rejection of the implant.

Please tell us before starting treatment whether you are in one of the above risk groups. The extent to which an implantation would be a viable procedure in your case can then be discussed in the one-to-one consultation.

GENERAL INFORMATION ON RISKS

What are the risks involved with the procedures?

All the procedures covered in this brochure are said to be elective procedures. This means that the procedures are not potentially life-saving operations, as would be the case with emergency surgery.

It is therefore necessary to go into as much detail as possible when explaining the risks involved. As the patient, it is up to you whether you choose to undergo surgery. You can only make this decision after being given a precise explanation of all the possible risks carried by the relevant procedure. Please note that specific risks applicable to certain procedures may already have been pointed out!

Post-operative result As a general principle, no guarantees can be given that the expected or desired result will be achieved after aesthetic surgery or implantology procedures! As professional physicians with responsibility for your treatment, we are anxious to meet or come close to meeting your expectations. It is entirely conceivable, however, that follow-up or corrective surgery may be needed after procedures of this kind. This means that you may incur additional costs.

Haemorrhage As with any surgical procedure, there is a risk of haemorrhage which, in the worst-case scenario, may necessitate the reopening of the wound to stem the flow of blood or the administration of a blood transfusion. However, this is extremely rare. If you are awaiting a very complicated operation with an increased risk of relatively high blood loss, you may opt for a preoperative autologous blood donation.

Infection A wound can become infected after an operation despite sterile conditions of the highest standards. That is why antibiotics are usually given during the surgical procedure. If you have any allergies, it is essential to say so in advance. Despite the administration of antibiotics, the wound may become infected due to a build-up of resistance (resistance of bacteria to the antibiotics given), which may necessitate opening the wound and fitting a drainage system (to drain the discharge secreted from the infected wound). If the wound is opened in this way a swab is also taken to identify the type of bacterial infestation and to prescribe an effective antibiotic.

Damage to sensory and motor nerves There is a risk with all operations that individual nerves or groups of nerves may be displayed, irritated or even severed, and this is the subject of a separate explanation before any procedure. This applies to the nerves in the operated area. You need to be made aware that no guarantees can be given and that, despite optimum levels of care, anatomical differences and the sheer breadth of their variation mean that nerve damage cannot be ruled out. Indeed, extensive procedures on the facial skin (especially facelifts) can result in display, irritation or severance of branches of the cranial nerves which supply the facial muscles (nervus facialis) with the attendant paralysis of the relevant groups of facial muscles. Instances of paralysis of this kind can be temporary but, in rare cases, they can be permanent! This may make it difficult or impossible to move certain muscle groups in the face and neck. This can be a source of particular distress around the eyelids (inability to close the eyes), the cheeks (loss of expression) and the mouth (paralysis of the lip muscles). These nerve disorders normally recede after several weeks or months. Permanent damage cannot be ruled out, however, despite proceeding with the utmost care, and cannot be foreseen due to the peculiarities of the anatomy of each individual patient! This will be made clear to you by way of a separate explanation.