**DEFINITION, AIMS AND PRINCIPLES**

Endoscopy (key-hole surgery) has been used for several years for many types of operation. It consists in operating without a large incision, but rather by introducing a tiny camera into the patient, this then sends pictures to a screen and the surgeon works with special instruments guided by the images. This technique makes it possible to minimize operative traumatism and particularly to reduce problems related to scars.

This technique has been adapted for use in cosmetic surgery where it has been found to be particularly useful for the upper third of the face, that is the forehead and temples. This is called an endoscopic forehead lift.

This operation has the aim of correcting unsightly aspects of this part of the face, whether hereditary or age-related, by making a few small incisions (1cm) hidden in the hair.

The principle is to detach the entire zone, to weaken the muscles responsible for the wrinkles, then to reposition the tissues and secure them with deep stitches.

In certain cases it can be possible to work on a lower zone of the face; on the cheekbones, the cheeks, and the naso-labial fold around the nose and cheek.

An endoscopic forehead lift can be carried out alone, or if necessary, in association with numerous other facial operations such as; blepharoplasty (eyelid lift), face and neck lift, laserabrasion, chemical peels, botox injections, etc.

An endoscopic forehead lift aims to correct age-related problems of the upper face and to replace a ‘tired’ or ‘severe’ appearance by a refreshed, relaxed aspect.

The unsightly features most commonly found are as follows:
- Lowering of the forehead with horizontal furrows
- Lowering of the eyebrows with lateral hoods of the upper eyelids
- Vertical scowl lines between the eyes
- Crow’s feet at the corners of the eyes

This procedure, for both men and women, can be carried out at the age of 40.

It can however be done much earlier when the problems are hereditary and not age-related, such as eyebrows which are too low, scowl wrinkles caused by muscular hyperactivity.

**BEFORE THE OPERATION**

The motives and wishes of the patient will have been analysed. A careful study of the forehead zone and its proportions compared with the rest of the face will have been made.

A preoperative check up is done as prescribed.

An anesthesiologist will see you in consultation at the latest 48 hours before the operation.

No aspirin-based medication should be taken during the 10 days preceding the operation.

An antiseptic shampoo will be used the evening before, or the morning of the procedure.

It is very important to neither eat nor drink for six hours before the operation.
**HOSPITAL STAY AND TYPE OF ANESTHESIA**

Type of anesthesia:

- **Local anesthesia enhanced by intravenous sedation** (‘twilight anesthesia’).
- **General anesthetic** during which you sleep throughout the procedure.

The type of anesthesia will be chosen after discussion between you, the anesthesiologist and the surgeon.

**Modalités d’hospitalisation**: This procedure can be carried out on an out-patient basis, in an ambulatory facility, the patient leaves on the day of the operation after a few hours under observation.

However, in certain cases, a short hospital stay may be preferable. The patient is hospitalized in the morning (or sometimes the previous afternoon) and leaves the following day.

**THE PROCEDURE**

Each surgeon has adopted his or her own specific technique which he or she adapts in order to obtain the best results in each case.

We can however give you some basic points:

**Skin incisions**:
There are three to five, they are between 5 and 10mm long and are placed in the scalp a few centimetres beyond the hairline.

One of the is for the endoscope which is linked to a tiny camera, the others are for the different instruments specific to this type of surgery.

These incisions will of course form the future scars which will be almost invisible since concealed in the hair and also very small.

**Detachment**:
The entire forehead and temple zone is detached as far as the eyebrows and the bridge of the nose. In some cases this continues as far as the cheekbones and the upper cheeks.

**Muscle weakening**:
The muscles of this zone are then weakened in order to treat the wrinkles for which they are responsible: the frontalis muscle for the horizontal furrows and the corrugator and procerus muscles for brow lines. Other specific problems can be treated according to the requirements of the case.

**Draping**:
The detached tissue will be stretched in order to straighten the laughter lines, lift the eyebrows and thus remove the low forehead effect. The tissue is maintained in the correct position by deep stitches of a type determined by each surgeon.

**Sutures**:
the small incisions are closed, often with easily removed staples.

The procedure lasts between 45 and 90 minutes, depending on the surgeon and the individual corrections required.

**AFTER THE OPERATION**

There is no real pain as such, but a certain tightness around the forehead, the temples and the eyelids.

For the first few days you are advised to rest and avoid physical strain.

During the post-operative period there will be swelling and bruising which vary in extent and duration for each patient.

The dressing will be removed between the first and third day. The clips are removed between the eighth and the fifteenth day.

Visible signs of the operation will diminish little by little, a return to normal social and professional activities will be possible after a few days (between 5 and 20 in general).

Some numbness of the forehead or sometimes itching of the scalp may occur in the first few weeks. This will gradually disappear.

**THE RESULT**

The final aspect will not be visible before 3 to 6 months. This is the time necessary for the tissues to regain their softness.

In general the procedure will have considerably enhanced the appearance of the upper part of the face, giving a younger aspect with raised forehead and eyebrows, tightening of the upper eyelids, removal of crow’s feet, and attenuated wrinkles of the forehead and brow lines.
This result is in general durable and although ageing is not stopped by the operation, the beneficial result is still visible several years later.

**DISAPPOINTING RESULTS**

These can be caused by a misunderstanding concerning what can reasonably be achieved. This is true of wrinkles which may persist in an attenuated form, or excess eyelid skin needing surgical removal for a perfect result.

They can also be caused by unexpected tissue changes or unusual scarring. Persistent swelling can occur over some months, or slight asymmetry of the eyebrows, or the return of frown lines.

These imperfect results, if perceived as unacceptable can be corrected by ‘touch-up’ surgery under local anesthetic from the 6th month after surgery.

**POSSIBLE COMPLICATIONS**

An endoscopic forehead lift, although essentially an aesthetic procedure, is nevertheless an operation, and this implies that the risks inherent to any surgery, however rare they may be, apply here.

A distinction should be made between risks related to the anesthesia and those related to the surgery.

- For the anesthesia, the risks will be explained by the anesthesiologist during the preoperative consultation. You must be aware that anesthesia can cause unpredictable reactions which can be difficult to control: the presence of an experienced anesthesiologist, in a surgical context means that the risks are practically negligible.

In fact techniques, products and monitoring methods have progressed considerably over the last twenty years, giving optimal safety, especially when the operation is not an emergency and the patient is in good general health.

- Concerning the surgical aspect: by choosing a competent, qualified Plastic Surgeon, used to performing this procedure, you limit the risks, without however eliminating them completely.

Fortunately, real complications are rare following an endoscopic forehead lift which has been carried out correctly. In fact practically all the operations go well and the patients are completely satisfied with the result.

In spite of the fact that complications are so rare you must be aware of the following possible problems:

- **Hematoma:** this is not a serious complication but it may be necessary to drain the hematoma if it is large.

- **Infection:** this is extremely rare when the operation is carried out in a sterile environment.

- Complications such as abnormal scarring, skin death (necrosis) or alopecia (localised hair loss) are rarer and also less marked than with a classic forehead lift since the incisions are reduced in size.

All things considered, the risks must not be overestimated, but you must be conscious that an operation, even a minor one, always has some degree of unforeseeable unknown factors.

You can be assured that if you are operated on by a qualified Plastic Surgeon, he will have the experience and skill required to avoid these complications, or to treat them successfully if necessary.

These are the facts which we wish to bring to your attention, to complement what you were told during the consultation.

Our advice is for you to keep this document and to read it and think it over carefully after your consultation.

Once you have done this you will perhaps have further queries, or require additional information.

We are at your disposal should you wish to ask questions during your next consultation, or by telephone, or even on the day of the operation, when we will meet in any case, before the anesthesia.

**PERSONNAL OBSERVATIONS:**