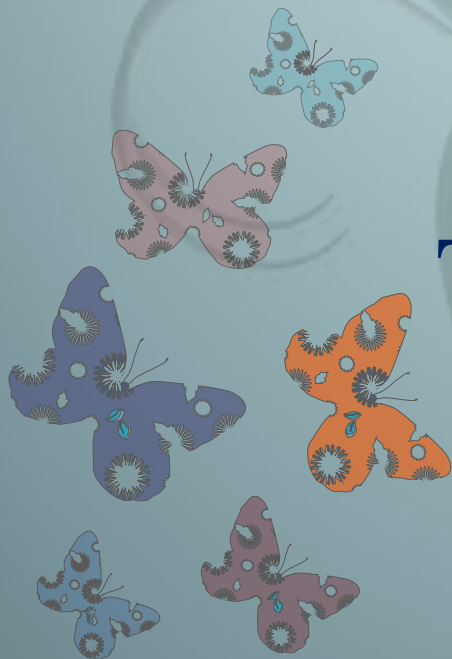


# Aesthetic surgical procedures

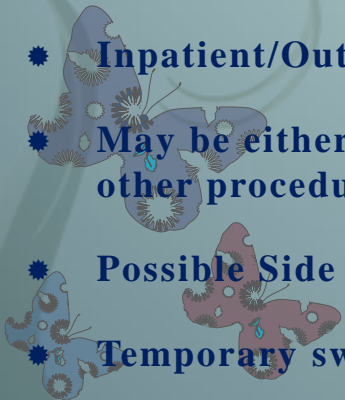
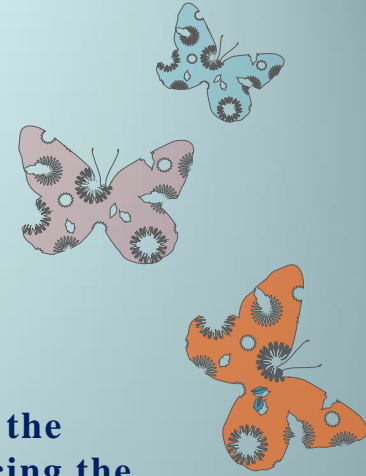
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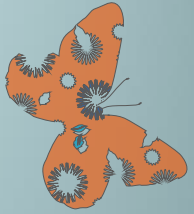
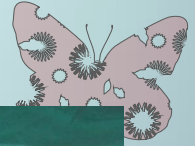
Prof.Dr.Smilja  
Tudjarova Gjorgova



## Facelift – Mini/Midface

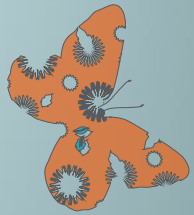
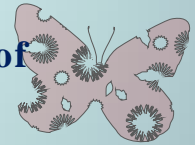
- **Rejuvenates the central section of the face**
- **Procedure**
  - **The mini or mid-facelift rejuvenates the central section of the face, from the lower eyelid to the upper lip, by repositioning sagging tissues and enhancing the volume of soft tissue that is lost in the midface with age, sun exposure and gravity.**
- **Length**
  - **The procedure takes approximately one to two hours.**
- **Anesthesia**
  - **General anesthesia or intravenous sedation and local anesthesia are used.**
- **Inpatient/Outpatient**
  - **May be either an inpatient or outpatient procedure depending upon whether other procedures are being performed at the same time.**
- **Possible Side Effects**
  - **Temporary swelling, numbness, weakness of facial muscles or dry eyes.**





## Perioral Rejuvenation

- **Improves the appearance of the lips by restoring volume and/or reduction of wrinkles around the mouth**
- **Procedure**
- **Perioral rejuvenation restores the volume of the lips with injectable fillers or with fat transfer (lipofilling). Techniques to reduce or eliminate wrinkles include laser facial resurfacing and chemical peels. One can distinguish between ablative (removing a thin layer of wrinkled skin) and non-ablative procedures. Ablative procedures include CO2 laser, Erbium-YAG laser and chemical or mechanical peels and some non-ablative procedures are intense pulsed light (IPL) and radio frequency techniques which typically require several sessions to achieve the desired result.**
- **Length**
- **Approximately thirty minutes to one hour.**
- **Anesthesia**
- **The surgeon will decide what type of anesthesia is best according to the chosen procedure. It will vary from topical to local, local plus sedation, or general anesthesia.**
- **Inpatient/Outpatient**
- **These are outpatient procedures.**



## ✿ Possible Side Effects

- ✿ Most procedures on the lips will cause a varying degree of temporary swelling. Mild temporary discomfort is normal, rarely mild bruising. When ablative techniques are used, one often sees skin peeling and/or redness according to the chosen technique.

## ✿ Risks

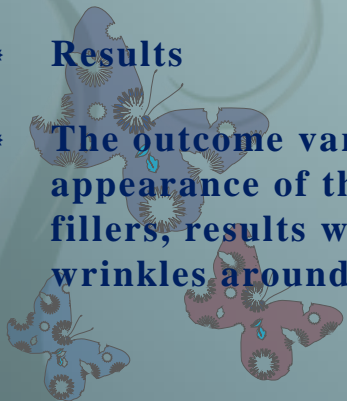
- ✿ Infection, overcorrection in size, irregularities and/or asymmetry with fillers, changes in skin pigmentation, or fever blisters (herpes simplex) with resurfacing techniques.

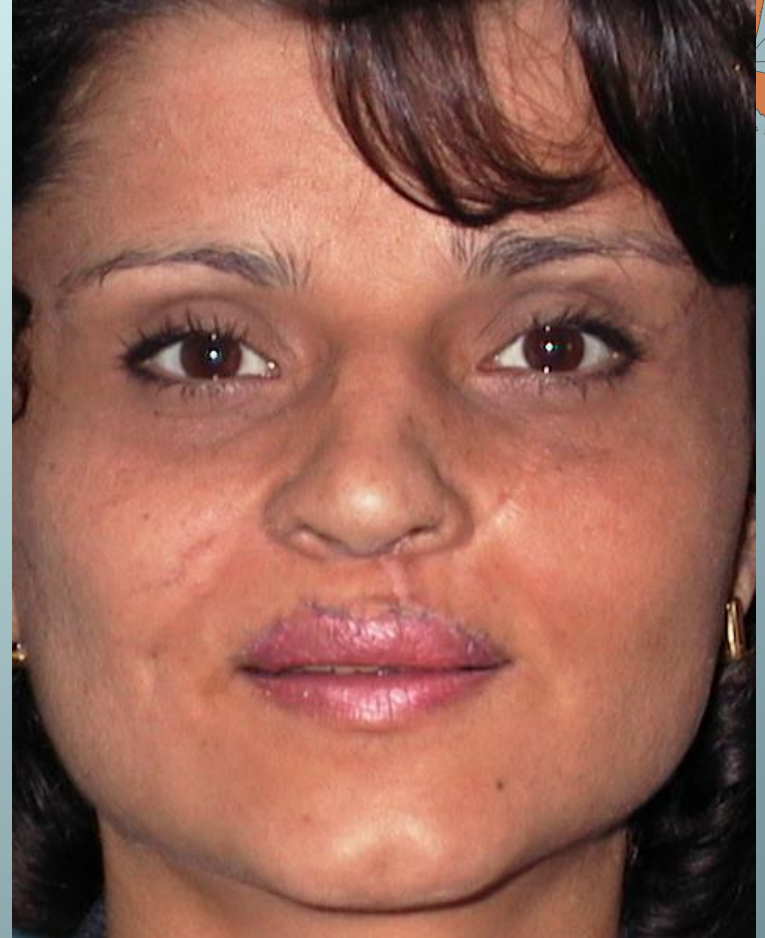
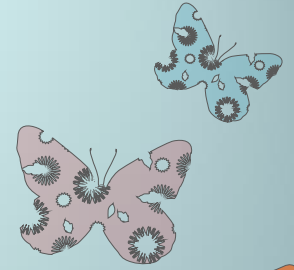
## ✿ Recovery

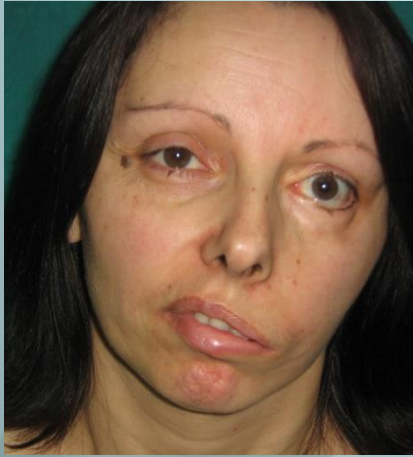
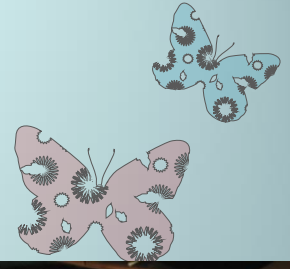
- ✿ In most cases, the patient can return to work and normal activities the same day. Bruising and swelling should have resolved after several days. When an ablative procedure is used, the recovery time can be several days. Changes in color of the skin can be present for several days or weeks, but can be camouflaged with makeup. When using ablative procedures, it is recommended to use sun screen for several weeks.

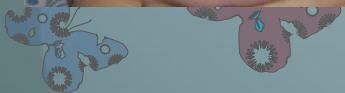
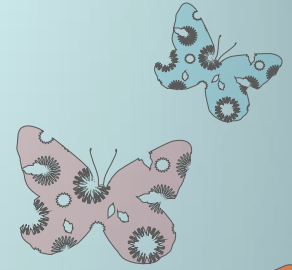
## ✿ Results

- ✿ The outcome varies from patient to patient. One can expect a restoration of a youthful appearance of the mouth area and an enhancement of lip shape. When using non-permanent fillers, results will be lost after several months. Reduction to complete disappearance of wrinkles around the mouth after resurfacing varies by patient.





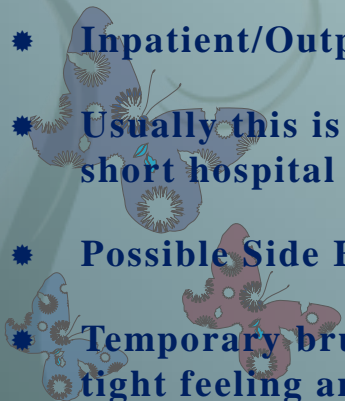
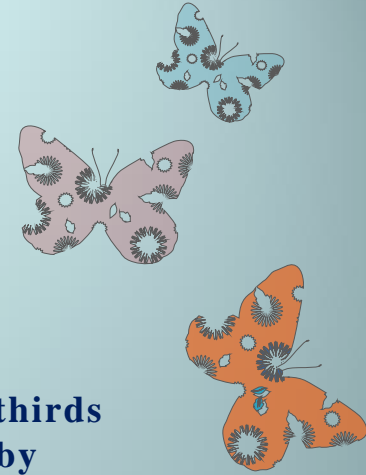






## Face Lift – Full

- ✿ **Improves sagging facial skin, jowls and loose neck skin**
- ✿ **Procedure**
- ✿ **A full or complete facelift improves the skin and tissues of the lower two-thirds of the face, from the ears, across to the cheeks, and down to the jaw line, by removing excess fat, tightening muscles and re-draping skin.**
- ✿ **Length**
- ✿ **Approximately four hours.**
- ✿ **Anesthesia**
- ✿ **Usually general anesthesia is used or the patient may elect to have sedation and local anesthesia.**
- ✿ **Inpatient/Outpatient**
- ✿ **Usually this is an outpatient procedure, although some patients may require a short hospital stay.**
- ✿ **Possible Side Effects**
- ✿ **Temporary bruising, swelling, numbness and tenderness of the skin, as well as a tight feeling and dry skin. For men, permanent need to shave behind ears, where beard growing skin is repositioned**



- ✿ **Risks**

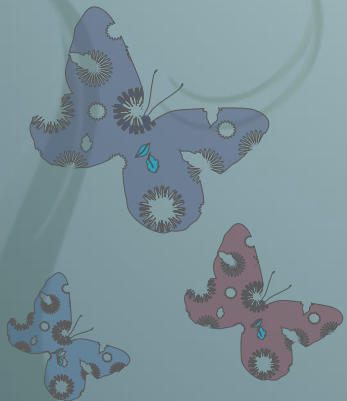
- ✿ **Injury to the nerves that control facial muscles or feeling (which is usually temporary but in rare cases may be permanent), infection, bleeding, poor healing, excessive scarring, asymmetry and a change in the hairline.**

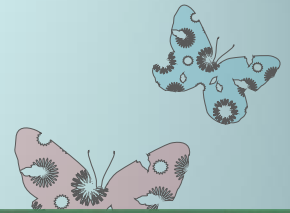
- ✿ **Recovery**

- ✿ **The patient may return to work after ten to fourteen days. More strenuous activity may be resumed after two weeks or more. Bruising should begin to disappear after seven to ten days. Sun exposure must be limited for several months after surgery. The use of a sun block that provides both UVA and UVB (ultraviolet) protection is recommended.**

- ✿ **Results**

- ✿ **Most facelifts can be expected to maintain optimum appearance for five to ten years.**

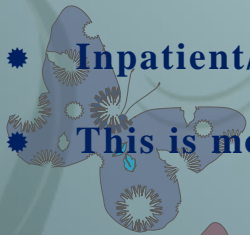
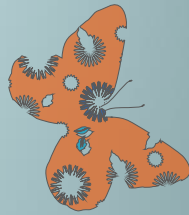
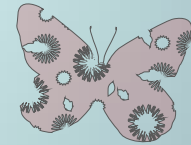






## Forehead Lift

- **Minimizes forehead creases, drooping eyebrows, hooding over the eyes, a furrowed forehead and frown lines**
- **A forehead lift, also called a brow lift, is a procedure that removes excess tissue, alters muscles and tightens the forehead skin. This procedure may be performed using the traditional technique, with an incision across the top of the head just behind the hairline, or with the use of an endoscope, which requires three to five short incisions, but allows access to the relevant areas to be treated incorporating a camera and a monitor to visualize the dissected areas.**
- **Length**
- **One to two hours.**
- **Anesthesia**
- **General anesthesia or intravenous sedation and local anesthesia are options.**
- **Inpatient/Outpatient**
- **This is most often an outpatient procedure.**



## • Possible Side Effects

• When an endoscope is used the patient may experience temporary swelling, numbness, headaches and bruising.

• When the traditional method is used there is the possibility of itching and hair loss.

## • Risks

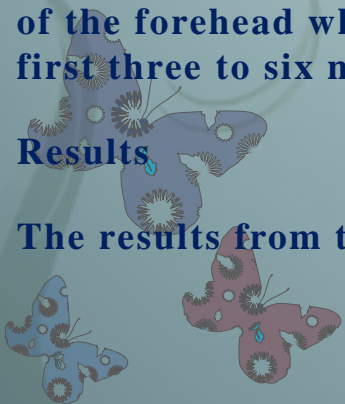
• Injury to facial nerves causing loss of motion, muscle weakness, or an asymmetrical look, persistent areas of numbness and broad and occasionally excessive scarring

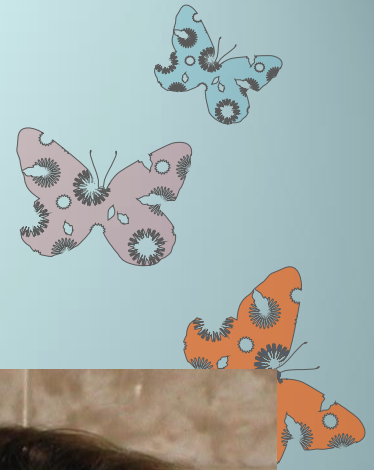
## • Recovery

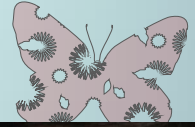
• The patient usually returns to work in seven to ten days and even sooner with an endoscopic forehead lift. The patient must limit more strenuous activities for several weeks. Full recovery from bruising takes from two to three weeks. One should limit sun exposure for several months to avoid hyperpigmentation of the forehead which can occur as a result of sunlight exposure during the first three to six months after the procedure has been performed.

## • Results

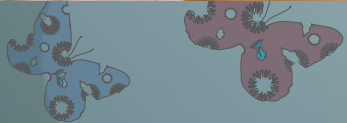
• The results from this procedure usually last five to ten years.

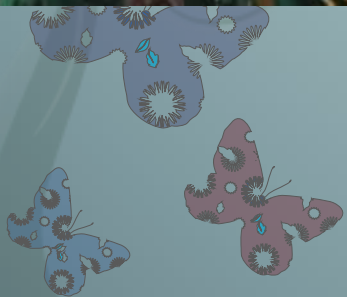








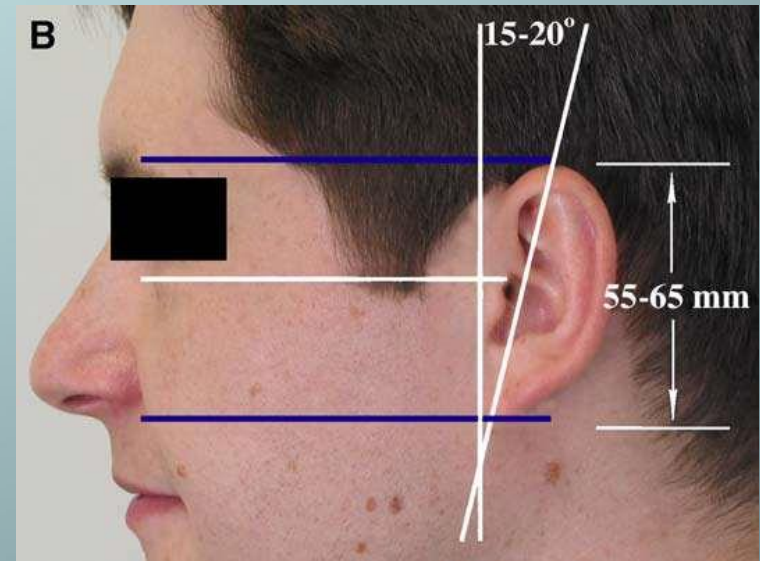
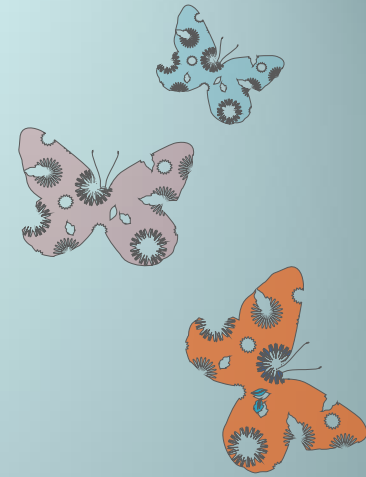






# Otoplasty

- Aesthetic Evaluation of the Ear
- The average ear is 65mm long and 35mm wide.
- wide.
- 4. The ear width is 50-60% of the height.
- 5. On the lateral view:
  - 1. superior aspect of the helix lies at the level of the lateral eyebrow (superior orbital rim).
  - 2. The inferior aspect lies at the level of the base of the nasal alae (nasal spine).
  - 3. The ear is situated roughly 6 cm from the lateral orbital rim
  - 4. slopes 15-20° posteriorly from the vertical axis to approximate the nasal dorsum within 15°.



## Otoplasty

- Aesthetic Evaluation of the Ear

*Frontal view:*

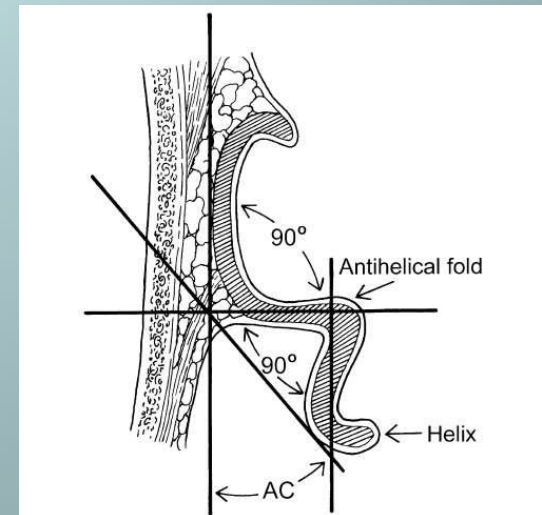
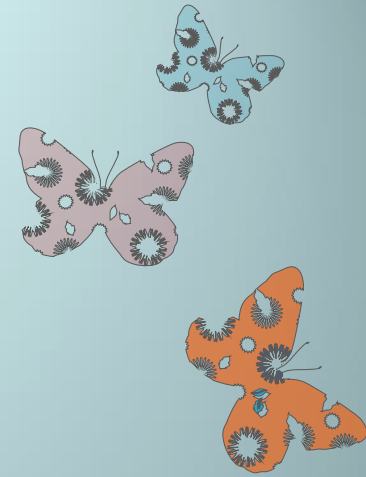
*The helical rim*

should be seen lateral to the lateral most exposure of the antihelix.

*Auriculocephalic angle: Seen*

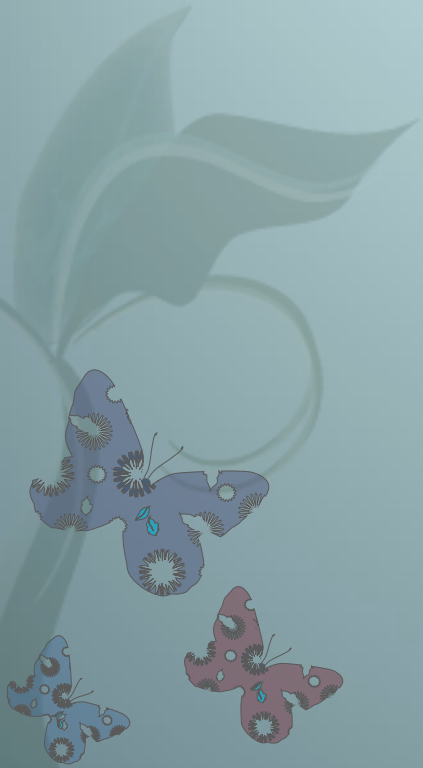
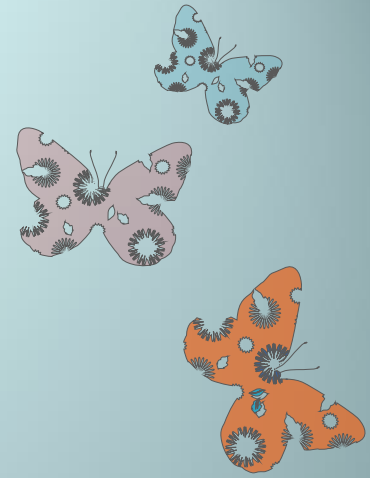
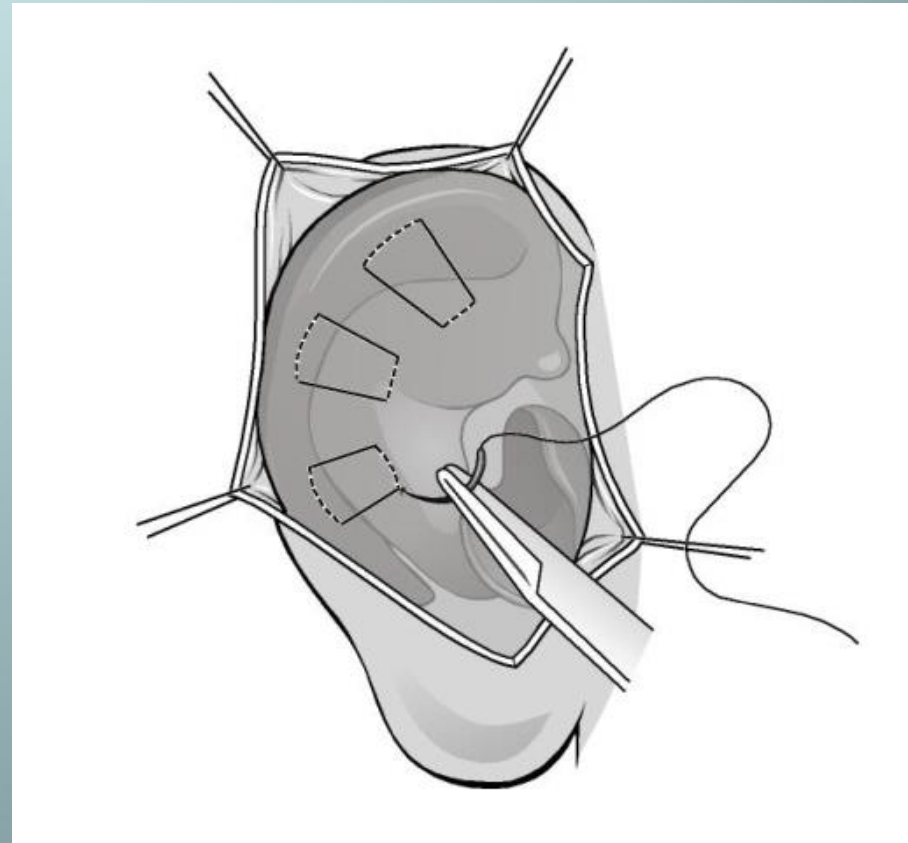
on posterior view; angle between the auricle and the scalp set by a combination of the angle of the posterior wall of the conchal bowl (90) and scapha-conchal angle formed by the antihelical fold (90); should be 20-30 in measurement.

The distance between the helical rim and the scalp should be slightly less than 2cm with this angle.



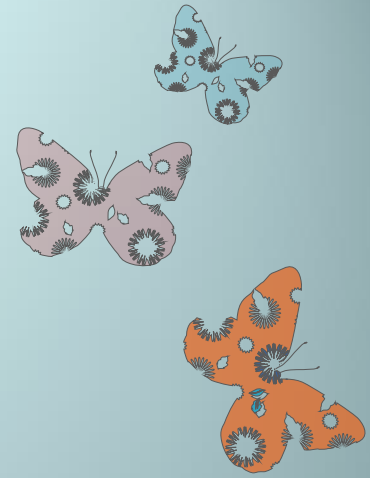
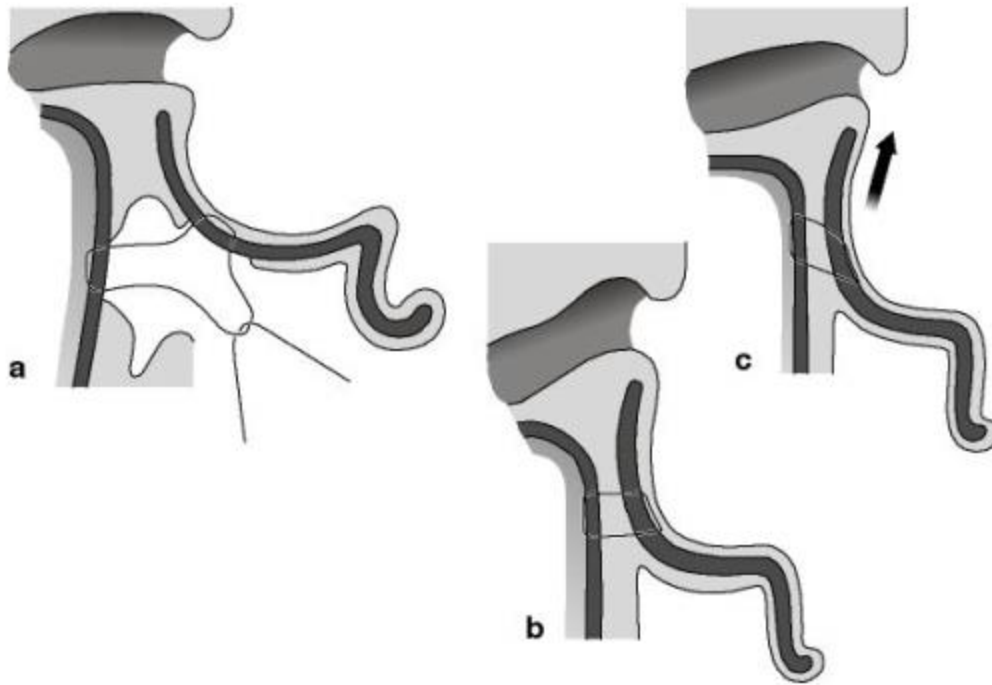
# Otoplasty

- ✦ Suture technique by Mustardé



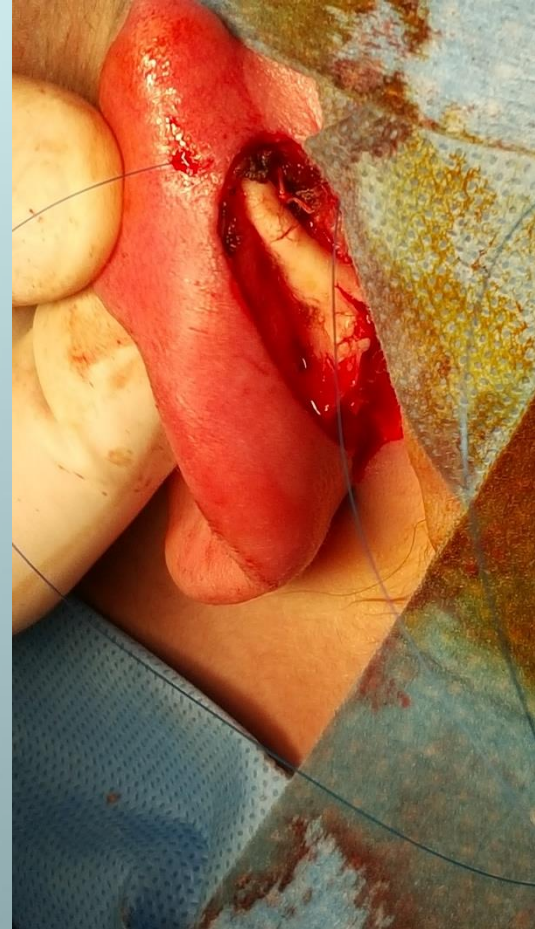
# Otoplasty

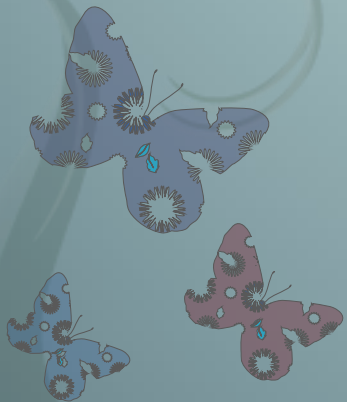
## ✱ Cavum rotation and fixation

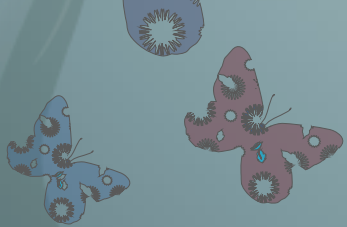
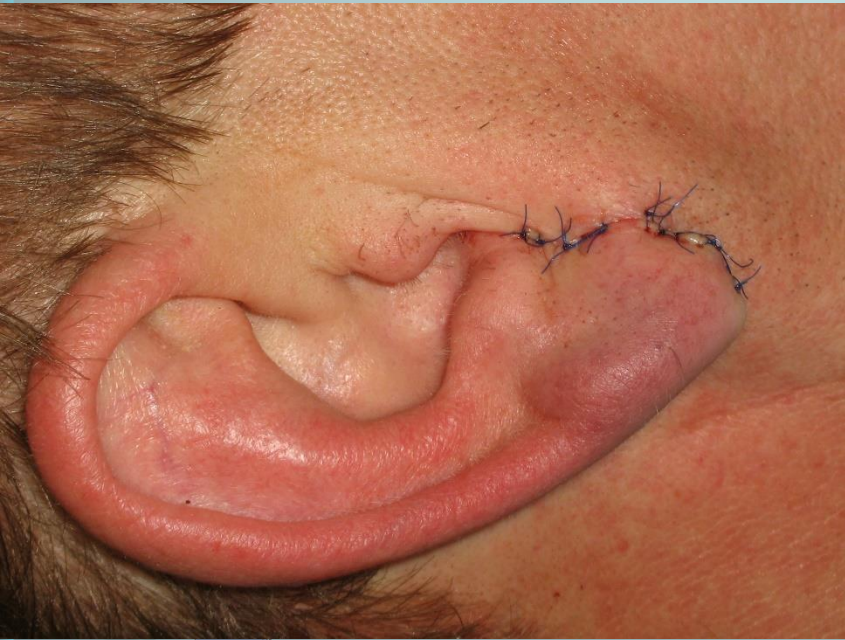












## Barbed Suture Lift

- ✱ **Provides a non-surgical, temporary facelift.**
- ✱ **Procedure**
- ✱ **For a facelift without surgery, barbed sutures are inserted into the face to create a lifting effect or a tightening and firming of the soft facial tissues. This non-surgical procedure is useful for those with flabby faces or aging of the mid-face, jowls, brow and neck. Selective regional lifting is possible. Threads come in various configurations: short, bi-directional threads (APTOS, Feather lift); or long bi-directional slings (barbed suture lift), or long uni-directional threads (contour threads). Different threads create different effects (such as firming or lifting). These threads can be used in conjunction with traditional open facelift surgery or endoscopic techniques.**
- ✱ **Length**
- ✱ **Approximately 30 to 40 minutes.**
- ✱ **Anesthesia**
- ✱ **Local anesthesia with or without light sedation.**
- ✱ **Inpatient/Outpatient**
- ✱ **This is a simple outpatient procedure. The patient can leave immediately after completion.**



- ✿ **Possible Side Effects**

- ✿ **Temporary discomfort and pain in the temples or behind the ear. Post-operative swelling and bruising is minimal. Some patients experience difficulty in opening their mouth widely. Puckering or dimpling of skin and pleating usually fades within two to three weeks.**

- ✿ **Risks**

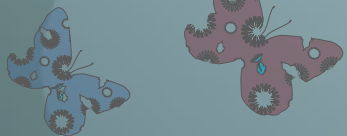
- ✿ **Bleeding at the time of the procedure causing a hematoma (accumulation of blood) in the temple, infection of the threads, granuloma (suture reaction), snapping of threads, migration, extrusion, localized pain when thread end abuts against underside of the skin (which is easy to locate, shorten ,or remove completely). Collective risk of complications is 15 to 20%, but all are minor and easily corrected.**

- ✿ **Recovery**

- ✿ **Patients look presentable after 24 to 48 hours. Occasionally, puckering and pleating may persist for several weeks.**

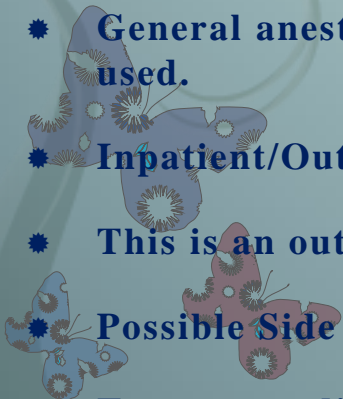
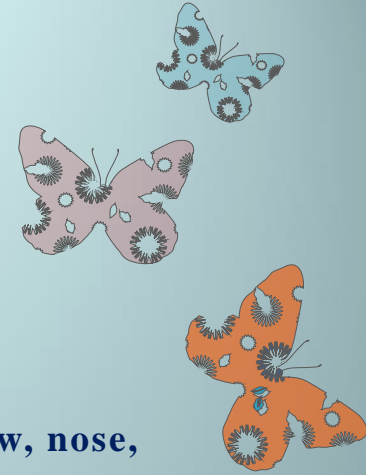
- ✿ **Results**

- ✿ **These are excellent techniques for achieving a temporary facelift effect. The results last one to two years after which new threads need to be inserted to maintain or enhance results. These threads should be viewed in the same way as other temporary procedures such as BOTOX® or temporary dermal fillers where loss of result after a period of time is not considered a failure. Together with other non-surgical techniques such as BOTOX injections, hyaluronic acid soft tissue fillers, IPL (intense pulsed light) treatments, laser therapy, or Thermage® (radiofrequency skin tightening), the rejuvenation can be powerful but is temporary.**



## Facial Implants

- Provides a more harmonious appearance to the face.
- Procedure
- Facial implants are solid, pre-shaped, three-dimensional objects used to improve the size and appearance of different areas including the chin, jaw, nose, cheeks and beside the nose (paranasal). Facial implant surgery provides a more harmonious appearance to the face. There are different types of implant material used to achieve these contour changes. There are also different shapes of implants according to the area to be enhanced.
- Length
- Approximately one and a half hours.
- Anesthesia
- General anesthesia or intravenous sedation and local anesthesia are commonly used.
- Inpatient/Outpatient
- This is an outpatient procedure.
- Possible Side Effects
- Temporary discomfort and swelling, mild bruising.



- ✿ **Risks**

- ✿ **The implant may need to be removed and/or replaced to treat problems including: implant rupture, infection and implant misplacement. Implant rejection is a risk but is extremely rare.**

- ✿ **Recovery**

- ✿ **The patient can return to work and normal activities within in few days. The patient should not consume alcohol after surgery. Bruising and swelling should have disappeared after several weeks.**

- ✿ **Results**

- ✿ **The outcome varies from patient to patient, but results are essentially permanent. The overall effect is an enhancement of the deficient contours of the face with an improved appearance.**



## Facial Liposuction

- ✱ **Removes areas of excess fat from the face and neck**
- ✱ **Procedure**
- ✱ **Facial liposuction has become a common cosmetic procedure, either on its own or in conjunction with facelift or other facial procedures. It consists of the removal of unwanted fatty tissue with a cannula and vacuum device promoting and improving facial shape like jaw line or even using laser lipolysis approach.**
- ✱ **Length**
- ✱ **Half an hour to one hour approximately.**
- ✱ **Anesthesia**
- ✱ **Depending on the patient, intravenous sedation, local or general anesthesia can be used.**
- ✱ **Inpatient/Outpatient**
- ✱ **Outpatient procedure.**
- ✱ **Possible Side Effects**
- ✱ **Swelling, soreness, and a temporary burning sensation are usually experienced in worked areas. Perfectly controllable with outpatient treatment.**



- ✿ **Risks**

- ✿ **Infection, asymmetry of the face, pigmentation changes (hyper or hypo) and decreased sensibility of the areas.**

- ✿ **Recovery**

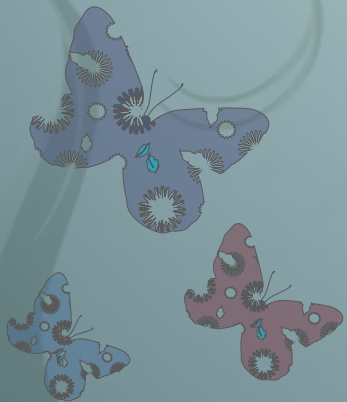
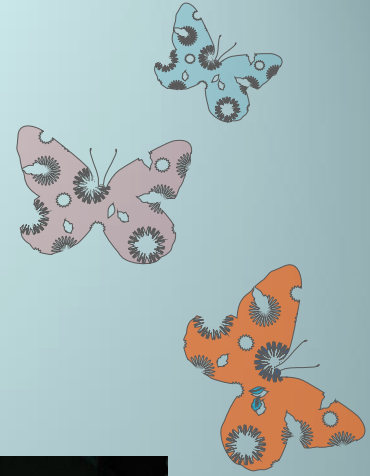
- ✿ **Full recovery time is between twenty to twenty-eight days, during which the patient will be asked to wear a compression garment.**

- ✿ **Results**

- ✿ **The procedure achieves good results in patients with excess fat along the jowl and in the neck, good skin elasticity, and minimal platysmal banding.**

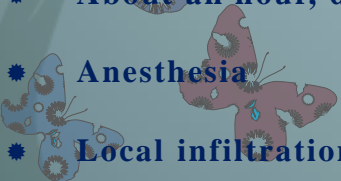
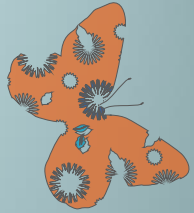
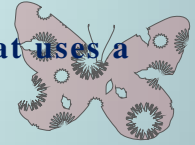


# Liposuctio



## Fat Transfer

- Enhances the face and body using fat collected from another area of the body
- Fat transfer, also called fat grafting, fat injections and lipofilling, is a procedure that uses a person's own fat to fill in irregularities and grooves. This is now a well-established technique that was perfected in the early nineties to a predictable procedure.
- Procedure
  - Aesthetic indications for undergoing lipofilling include sunken cheeks, the disappearance of fat from the cheekbones, deep grooves running from the nose to the corners of the mouth, and in some instances of lines between the lower eyelids and the cheek. It is also one of the most common methods used for lip enhancement. In addition, lipofilling can be used to smooth out all types of irregularities such as those resulting from poorly performed liposuction or injuries.
  - The necessary fat is obtained by a limited liposculpture through one or several 3 to 5 mm incisions. It is normally taken from the abdomen or inner thigh. The aspirated fat is processed by centrifuging, filtering or rinsing. Pure liquid fatty tissue ready for injection is the result.
  - The fat is then injected where needed. The fat is evenly distributed into the area by injecting minute amounts in the tissues so that the injected fat is well surrounded by healthy tissue. This ensures that the transplanted fat remains in contact with the surrounding tissues that must supply it with oxygen and nutrients.
- Length
  - About an hour, depending on the size of the areas to be treated.
- Anesthesia
  - Local infiltration anaesthesia of the donor area and the area to be treated.



- ✿ **Inpatient/Outpatient**

- ✿ **Either.**

- ✿ **Possible Side Effects**

- ✿ **Donor area: bruising, swelling, tenderness, up to 24 hours drainage of anaesthetic liquid.**

- ✿ **Treated area: bruising, swelling (especially the lips if treated), tenderness.**

- ✿ **The areas that have been treated will be rather swollen immediately after the operation, especially the lips if they have been treated. It is therefore important to use a cold pack and a compress in the first few hours to minimize the swelling. A cold pack is a freezer bag filled with ice cubes and water.**

- ✿ **The swelling will increase until about the third day, but will then gradually subside. After about a week to ten days patients feel confident about going out and resuming a normal social life. If any bruises have developed, they might remain visible for a little longer but can be hidden reasonably well with makeup.**

- ✿ **Patients should have a check-up with the surgeon after five to seven days and again three weeks later. By then most of the swelling will have subsided, but the correction may still look rather exaggerated. Surgeons usually over-correct, which means injecting more fat than is actually needed because 25 to 30% of the transplanted fat cells do not survive. The final result is assessed after three months. The surgeon will then take photographs to be compared with those taken before the procedure. A second session may be scheduled to top up any shortfall in volume.**

## ✿ Risks

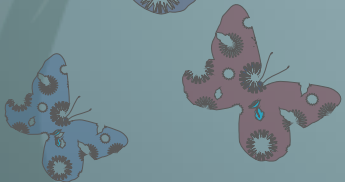
✿ Asymmetry, irregularities, overcorrection, and infection.

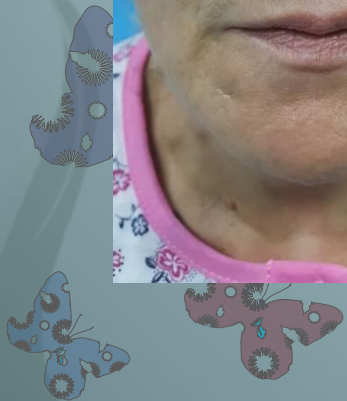
## ✿ Recovery

✿ Swelling usually diminishes from the third day on, and social activities can be restarted after about one week, sometimes with the help of some make-up.

## ✿ Results

✿ Correction of deep wrinkles and folds. Correction of the treated irregularities and dents. Volume augmentation of the treated areas such as cheekbones, cheeks, and the chin. Improved quality of the overlying skin can be a positive side effect. After the body absorbs a percentage of the fat (between 20 and 50%) the correction can be considered permanent.



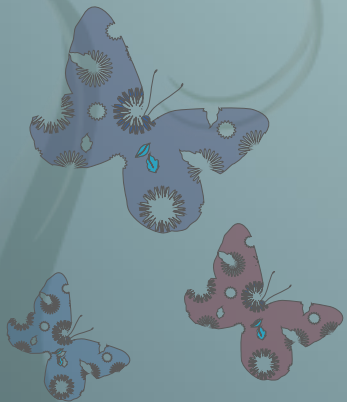




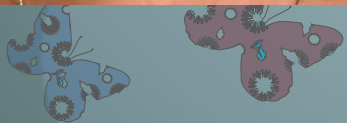




# Cheiloplasty

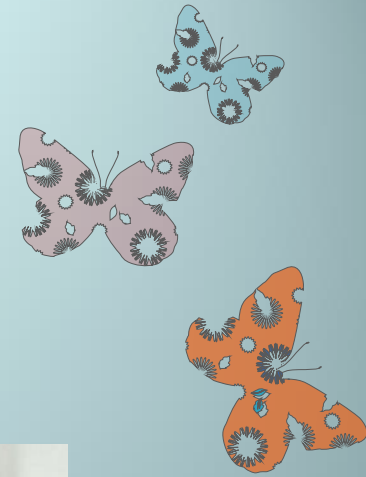
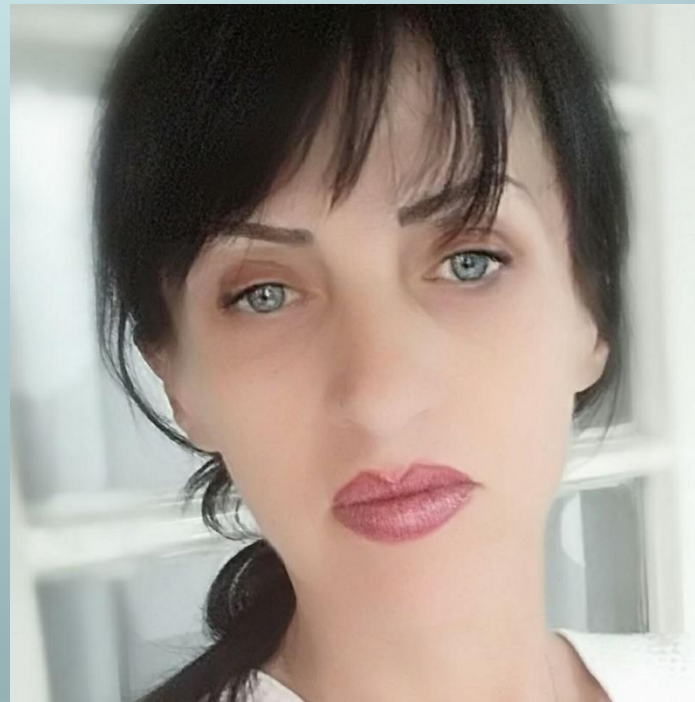


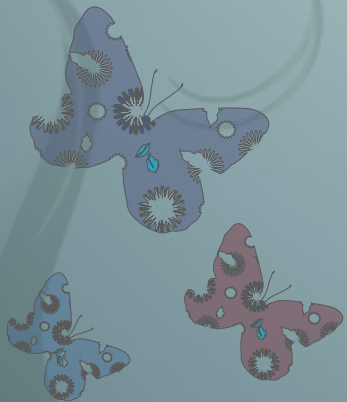
# Lipofiling faciei



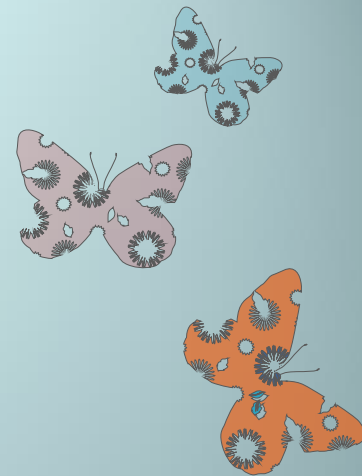


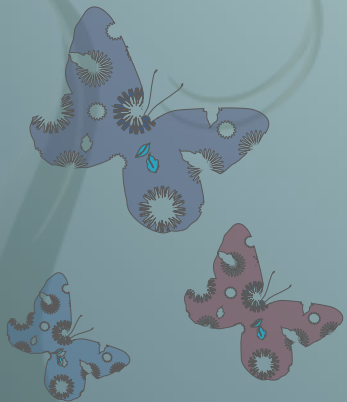
# Lipofiling, Blepharoplasty, Cheiloplasty

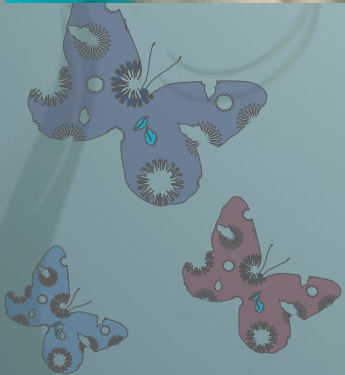
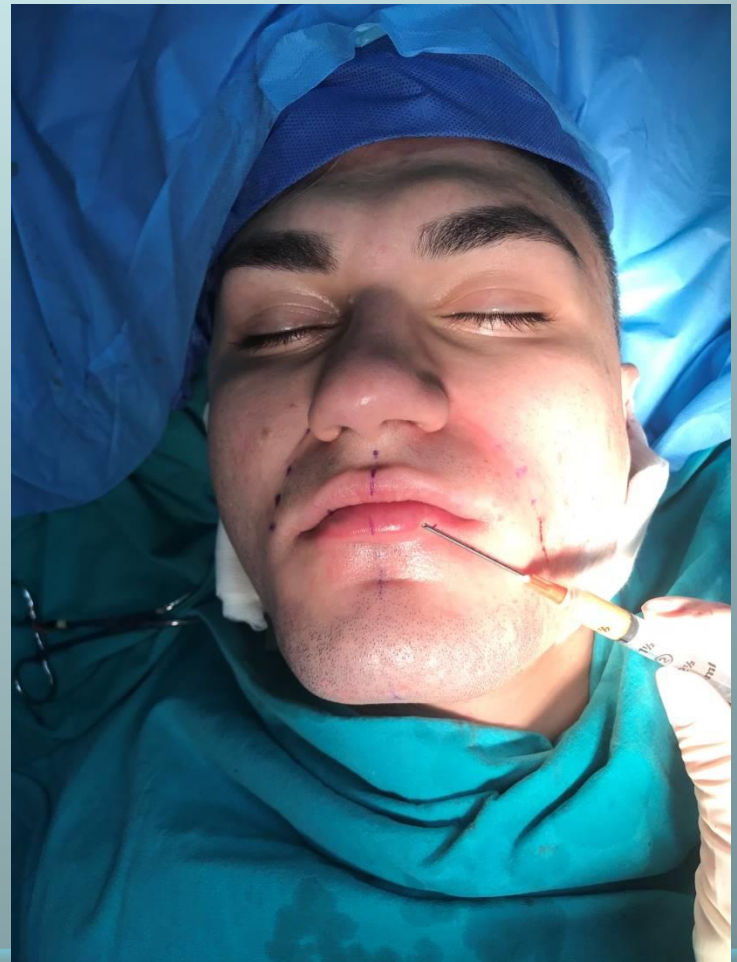




# PRP



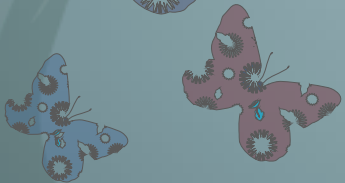






## Hair Restoration

- ✱ **Restores natural hair to areas of hair loss Procedure**
- ✱ **Also called hair transplant surgery, hair restoration surgery involves surgically removing hair follicles from one area (usually the back of the head) and transferring them to bald or thinning areas of the head. Because hair grows in groups of one to three follicles, it can be transplanted in these small increments and placed close together for natural looking results. Follicular unit extraction (FUE) devices are typically used to perform this process. A strip graft is another surgical method. Because the patient's own hair is used, the grafts are not rejected by the body.**
- ✱ **Length**
- ✱ **The length of the surgery depends on the amount of hair being transferred. Several transplant sessions are typically required, but will depend on patient needs and the surgeon's preference.**
- ✱ **Anesthesia**
- ✱ **This procedure is performed with injections of local anesthetic.**
- ✱ **Inpatient/Outpatient**
- ✱ **This is an outpatient procedure.**



- ✿ **Risks**

- ✿ **Risks include infection, excessive bleeding, and noticeable scars. The transplanted plugs of follicles may die. The donor area may feel numb initially, but usually returns to normal within two months.**
- ✿ **If natural hair loss continues after transplant surgery, areas around the grafted follicles may look unnatural and unattractive. The appearance of these areas may be improved with additional surgery.**

- ✿ **Recovery**

- ✿ **The patient can return to work within a few days, but should avoid strenuous activity for approximately five to ten days. Small scabs will form around the grafted follicles and will fall off within a week. Hair in the grafted follicles will shed in approximately two to four weeks, and will begin to grow back within approximately three months. Final results are typically achieved in eight to ten months.**

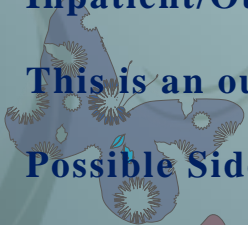
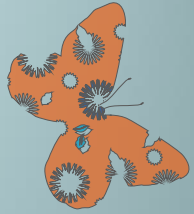
- ✿ **Results**

- ✿ **Hair in the restored areas is permanent and will grow like the original hair in terms of color and texture. When performed by a skilled surgeon this procedure is typically rewarding and improves self-confidence.**



## Laser Facial Resurfacing

- ✿ Provides facial rejuvenation by improving the appearance and texture of the skin
- ✿ Procedure
- ✿ Laser facial resurfacing treatments reduce the appearance of fine lines and wrinkles using a carbon dioxide (CO2) Erbium laser, or another laser device, that resurfaces several layers of damaged skin. This procedure also helps to soften lines around the eyes and mouth, minimize facial scars and provides even skin coloring.
- ✿ Length
- ✿ The procedure takes approximately one hour, depending on the area to be treated. Some cases may require more than one session – six at most.
- ✿ Anesthesia
- ✿ General anesthesia or intravenous sedation with local anesthesia.
- ✿ Inpatient/Outpatient
- ✿ This is an outpatient procedure.
- ✿ Possible Side Effects
- ✿ Temporary swelling of the resurfaced area along with mild discomfort, lightening or darkening of treated skin (hypo or hyperpigmentation), acute sun sensitivity and/or increased sensitivity to make-up and skin care products. A pinkness or redness of the skin may persist for up to six months.



## ✿ Possible Side Effects

- ✿ Temporary swelling of the resurfaced area along with mild discomfort, lightening or darkening of treated skin (hypo or hyperpigmentation), acute sun sensitivity and/or increased sensitivity to make-up and skin care products. A pinkness or redness of the skin may persist for up to six months.

## ✿ Risks

- ✿ Burns or injuries caused by the laser's heat, scarring, abnormal changes in skin color, flare-up of viral infections (cold sores) and rarely, other infections.

## ✿ Recovery

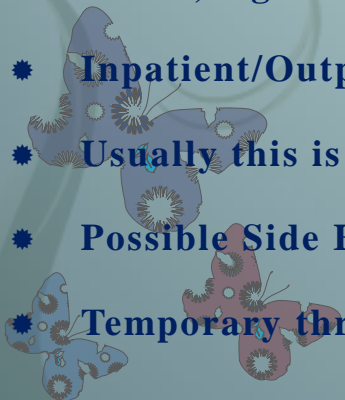
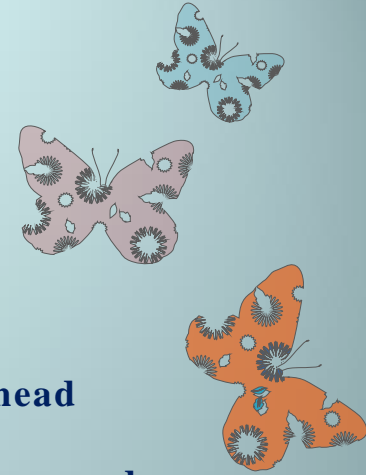
- ✿ The patient may return to work after approximately two weeks. Activities that are more strenuous may be resumed after four to six weeks. Complete fading of redness can take up to six months. The patient should avoid ultraviolet light exposure for three to six months. The use of sun blocks that contain UVA and UVB protection is very helpful and strongly recommended.

## ✿ Results

- ✿ Long lasting, but this procedure does not stop the aging process. New wrinkles and expression lines may form as the skin continues to age.

## Otoplasty

- ✿ **Improves the appearance of the ears**
- ✿ **Procedure**
- ✿ **Otoplasty, also called ear surgery, sets prominent ears back closer to the head and/or reduces the size of large ears. Cosmetic ear surgery is most often performed on children between the ages of four and fourteen and may be covered by insurance.**
- ✿ **Length**
- ✿ **Approximately two hours.**
- ✿ **Anesthesia**
- ✿ **Young children are usually given general anesthesia. For older children or adults, a general or local anesthesia can be used along with sedation.**
- ✿ **Inpatient/Outpatient**
- ✿ **Usually this is an outpatient procedure.**
- ✿ **Possible Side Effects**
- ✿ **Temporary throbbing, aching, swelling, redness and/or numbness.**



- ✿ **Risks**

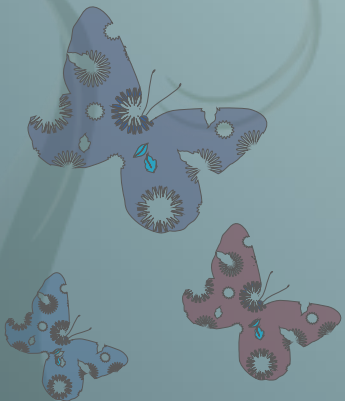
- ✿ **Infection of cartilage, excessive scarring, blood clots that may need to be drained, mismatched or artificial-looking ears, or the recurrence of the protrusion, which requires repeat surgery.**

- ✿ **Recovery**

- ✿ **The patient may return to school or work within five to seven days, and resume strenuous activity, such as contact sports in one to two months. A compression garment is required to use for 4 weeks.**

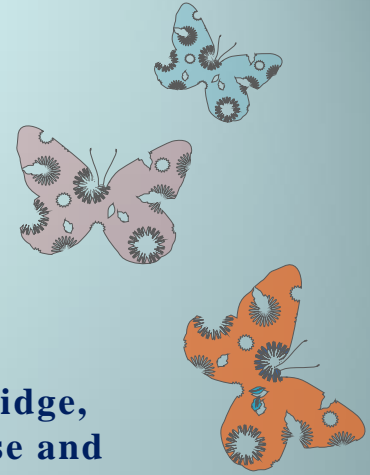
- ✿ **Results**

- ✿ **Usually permanent.**



## Rhinoplasty

- **Improves the external shape of the nose** Procedure
- **Rhinoplasty, also called nose surgery, reshapes the nose by reducing or increasing the size, removing a hump, changing the shape of the tip or bridge, narrowing the span of the nostrils, or changing the angle between the nose and upper lip. This procedure may also relieve some breathing difficulties when combined with surgery performed on the nasal septum.**
- **Length**
- **Surgery takes approximately one hour or more.**
- **Anesthesia**
- **General or intravenous sedation and local anesthesia are used.**
- **Inpatient/Outpatient**
- **This is an outpatient procedure.**



- ✿ **Possible Side Effects**

- ✿ **Temporary swelling, bruising around the eyes and/or nose, and some bleeding and nasal stuffiness.**

- ✿ **Risks**

- ✿ **Infection, asymmetry, unsatisfactory nasal shape and incomplete improvement (which would require additional surgery) are possible.**

- ✿ **Recovery**

- ✿ **The patient may go back to work after one week. Activities that are more strenuous may be resumed after two to three weeks. The patient should avoid any activity that could impact on the nose or allow it to become sunburned for at least eight weeks. The use of a sunblock that provides both UVA and UVB protection is useful. The final results may take one year and sometimes longer to achieve.**

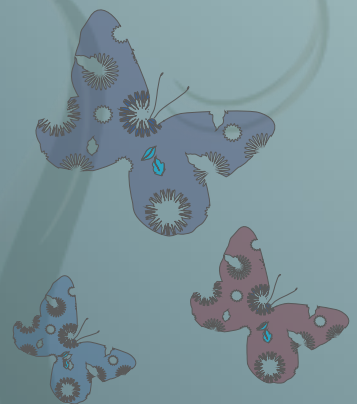
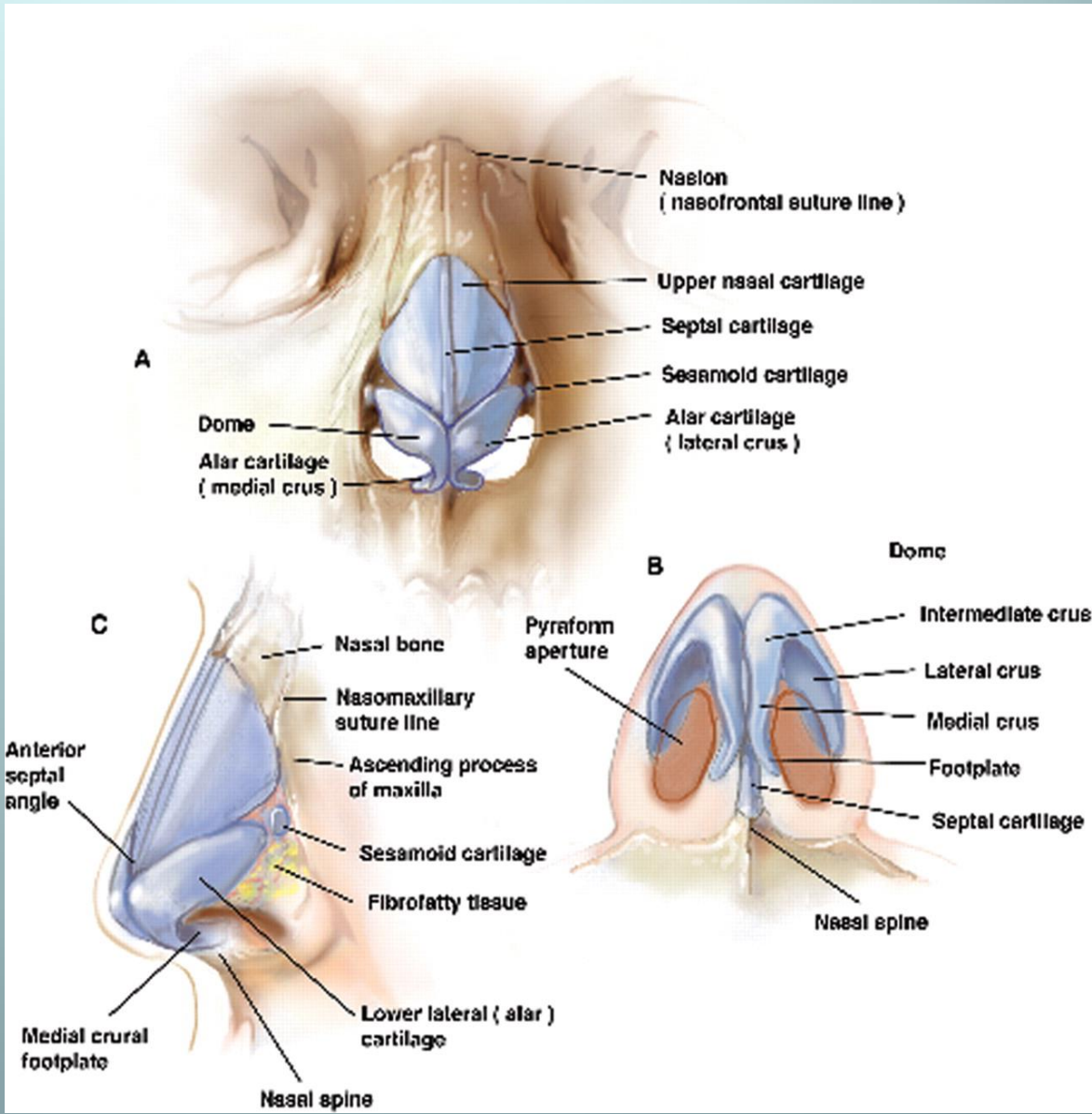
- ✿ **Results**

- ✿ **Permanent.**

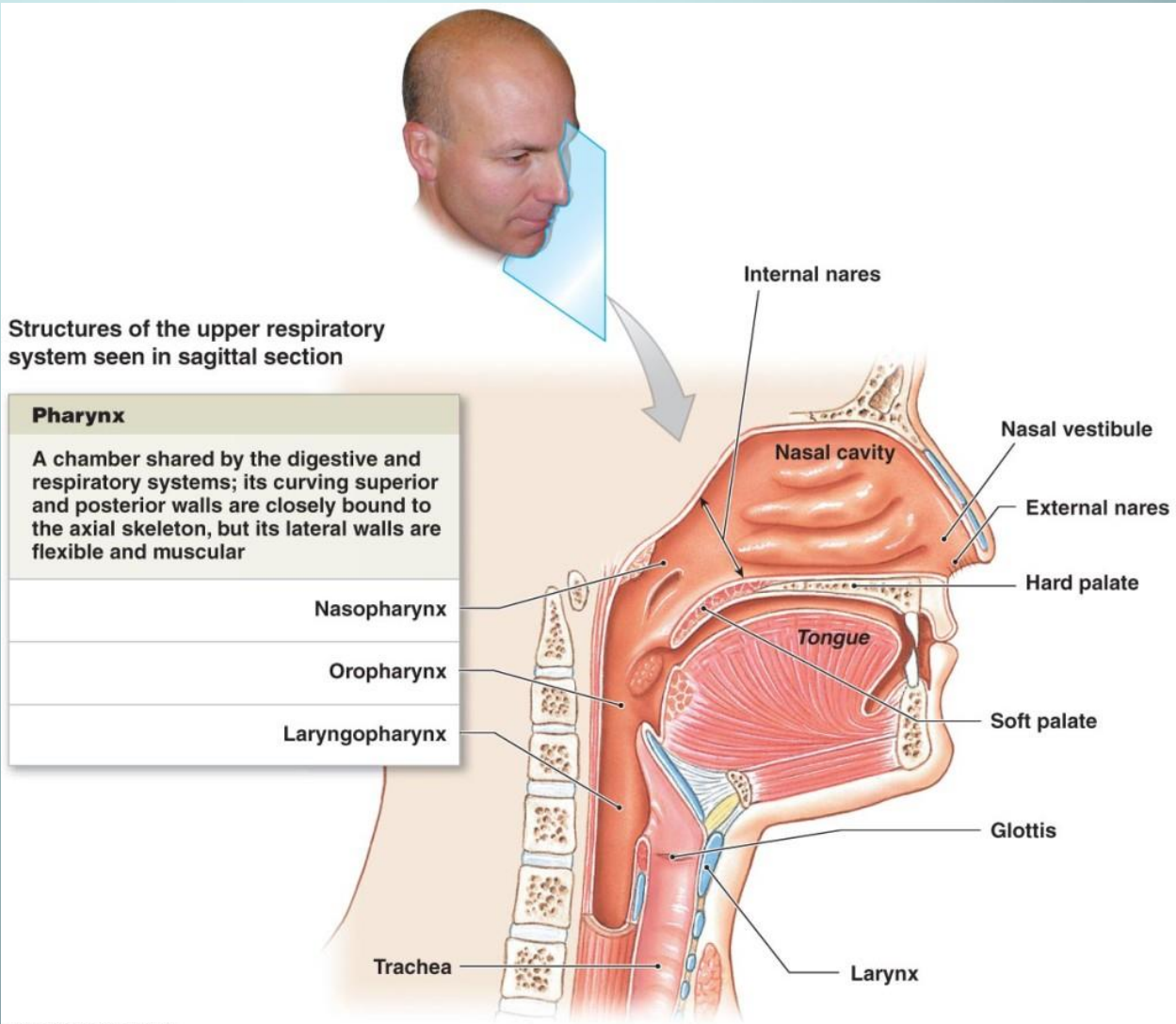




# Rhinoplasty

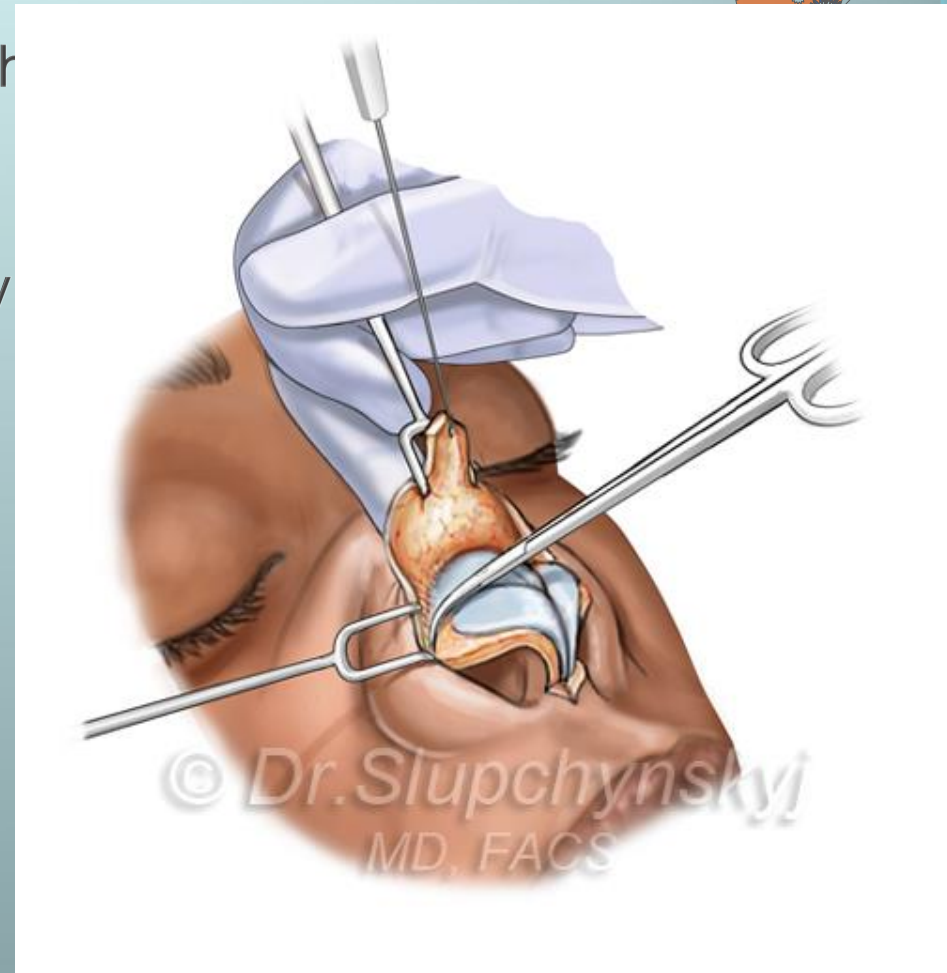
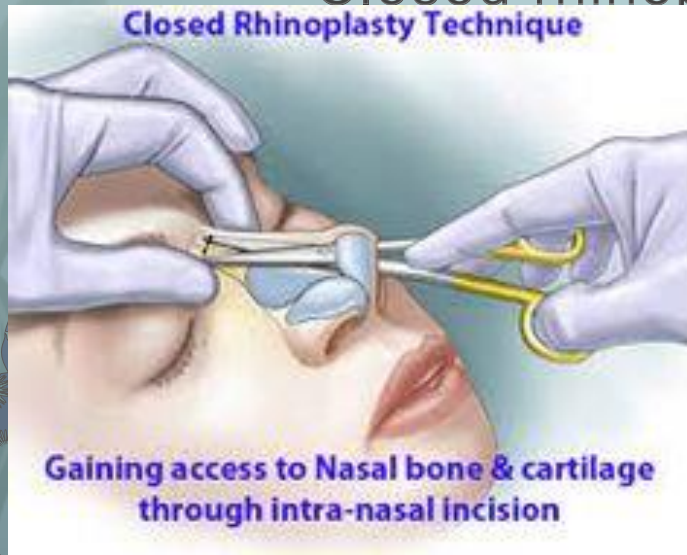


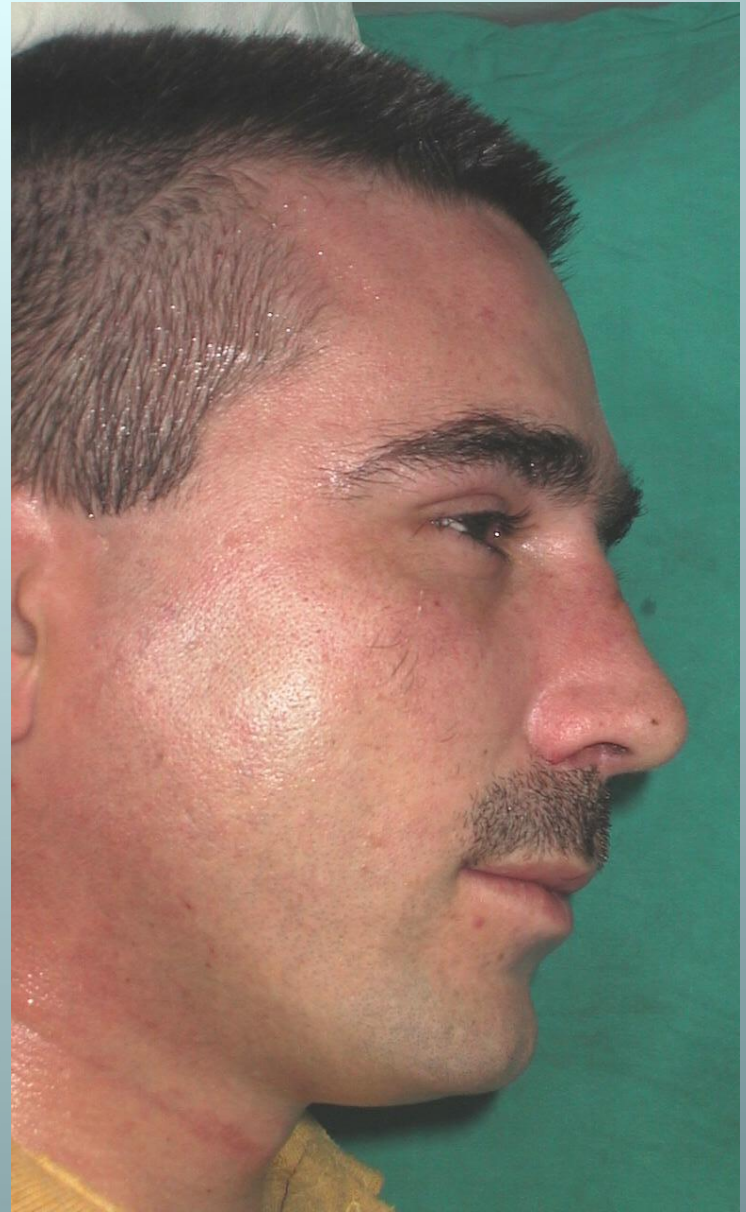
# Rhinoplasty

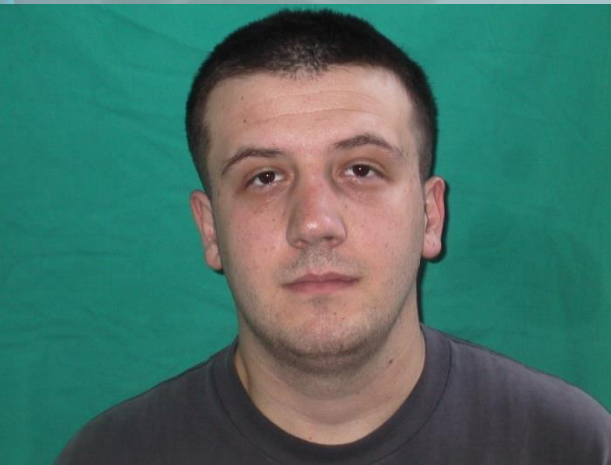


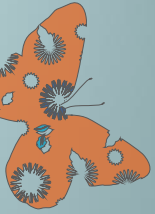
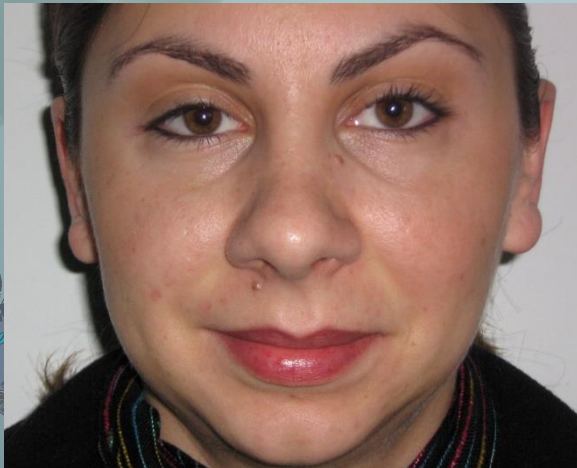
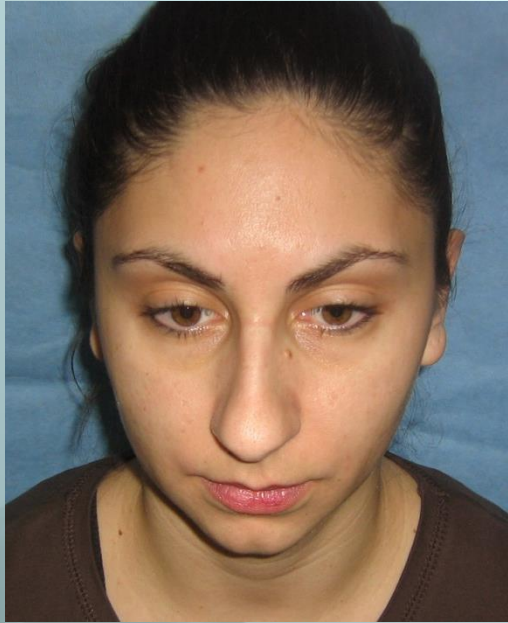
# Rhinoplasty

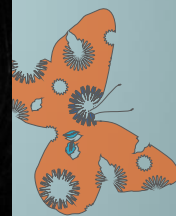
- ✦ Rhinoplasty techniques
  - Open rhinoplasty
  - Closed rhinoplasty

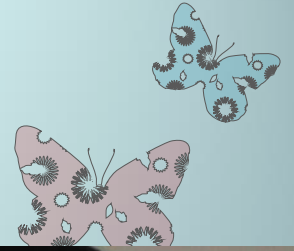




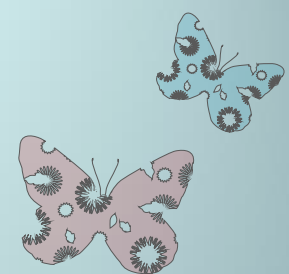






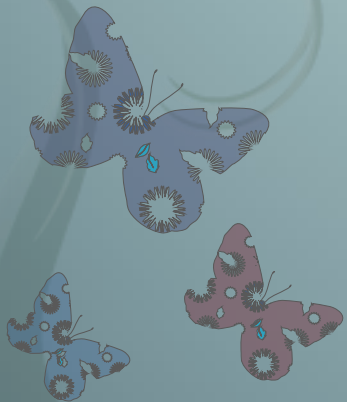






# Transgender

Sex reassignment surgery for male-to-female involves reshaping the male genitals into a form with the appearance of, and, as far as possible, the function of female genitalia. Before any surgery, patients usually undergo hormone replacement therapy (HRT), and, depending on the age at which HRT begins, facial hair removal. There are associated surgeries patients may elect to, including facial feminization surgery, breast augmentation, and various other procedures.



**Sex reassignment surgery for female-to-male transgender people includes a variety of surgical procedures that alter female anatomical traits to provide physical traits more appropriate to the trans man's male identity and functioning.**



In the US in 1917, Dr Alan L. Hart, an American TB specialist, becomes one of the first female-to-male transsexuals to undergo hysterectomy and gonadectomy for the relief of gender dysphoria.<sup>[5]</sup>

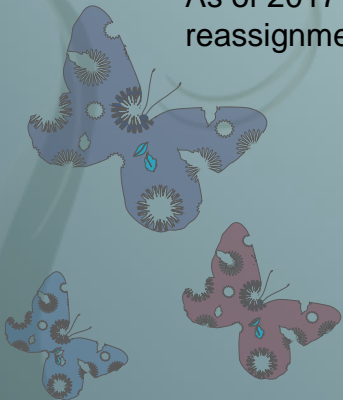
In Berlin in 1931, [Dora Richter](#), became the first known transgender woman to undergo the [vaginoplasty](#)<sup>[6]</sup> surgical approach.

This was followed by [Lili Elbe](#) in Dresden during 1930–1931. She started with the removal of her original sex organs, the operation supervised by Dr. [Magnus Hirschfeld](#). Lili went on to have four more subsequent operations that included an unsuccessful [uterine transplant](#), the rejection of which resulted in death. An earlier known recipient of this was [Magnus Hirschfeld's housekeeper](#),<sup>[7]</sup> but their identity is unclear at this time.

On 12 June 2003, the [European Court of Human Rights](#) ruled in favor of Van Kück, a German trans woman whose insurance company denied her reimbursement for sex reassignment surgery as well as [hormone replacement therapy](#). The legal arguments related to the [Article 6 of the European Convention on Human Rights](#) as well as the [Article 8](#). This affair is referred to as *Van Kück vs Germany*.<sup>[8]</sup>

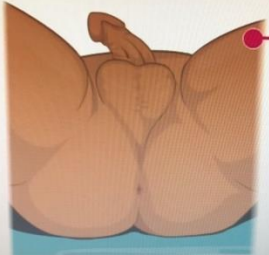
In 2011, [Christiane Völling](#) won the first successful case brought by an [intersex](#) person against a surgeon for non-consensual surgical intervention described by the [International Commission of Jurists](#) as "an example of an individual who was subjected to sex reassignment surgery without full knowledge or consent".<sup>[9]</sup>

As of 2017 some European countries require forced sterilisation for the legal recognition of sex reassignment.<sup>[10]</sup>



to Female Surgery

**+ Step 1: Removal of the testicles**



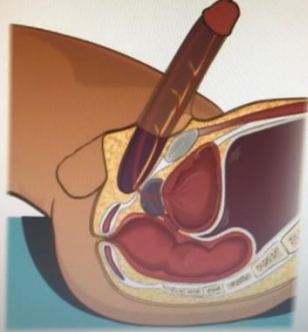
Surgery begins with the patient on her back, with her legs spread wide for good surgical access.

The first cut exposes the two testicles and spermatic cord, allowing the surgeon to remove the testicles and cut the cord as close to the body as possible. (black lines signify cuts made)

+ press play to watch animation

BACK PLAY

**+ Step 2: Separation of penile skin from penis**




After the testicles are removed, the surgeon needs to remove the parts of the penis that aren't needed. To do this the penis needs to be separated into its different parts.

The penile skin is separated from the erectile tissue, glans, blood vessel and nerve bundle, and the urethra.

+ press play to watch animation

BACK PLAY

**+ Step 1: Removal of the testicles**



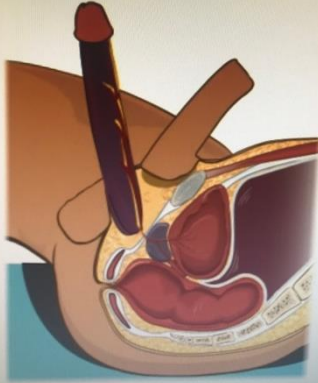
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+ press play to watch animation

BACK PLAY

**+ Step 2: Separation of penile skin from penis**

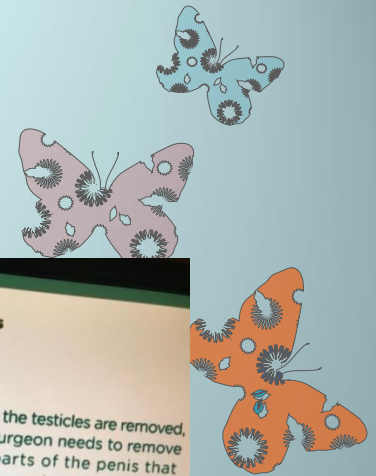


After the testicles are removed, the surgeon needs to remove the parts of the penis that aren't needed. To do this the penis needs to be separated into its different parts.

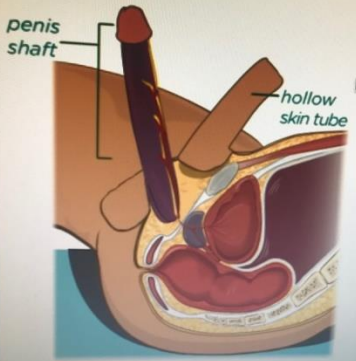
The penile skin is separated from the erectile tissue, glans, blood vessel and nerve bundle, and the urethra.

+ press play to watch animation

BACK PLAY



**+ Step 2: Separation of penile skin from penis**



penis shaft

hollow skin tube

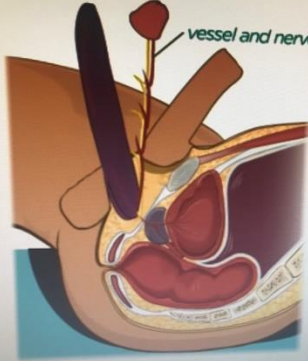
After the testicles are removed the surgeon needs to remove the parts of the penis that aren't needed. To do this the penis needs to be separated into its different parts.

The penile skin is separated from the erectile tissue, glans, blood vessel and nerve bundle, and the urethra.

+ press play to watch animation

BACK PLAY GO TO STEP 3

**+ Step 3: Isolation of the nerve and vessel bundle, and glans**



vessel and nerve bundle with glans

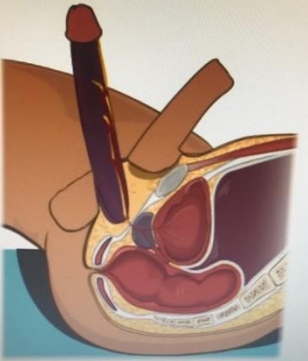
In order to make the glans, or head, of the penis into a functional clitoris, the surgeon needs to keep it attached to its nerve and blood supply. Then it can be shaped into a clitoris and maintain its sensory function.

The glans, nerve and blood supply are separated from the penile shaft.

+ press play to watch animation

BACK PLAY

**+ Step 3: Isolation of the nerve and vessel bundle, and glans**



vessel and nerve bundle with glans

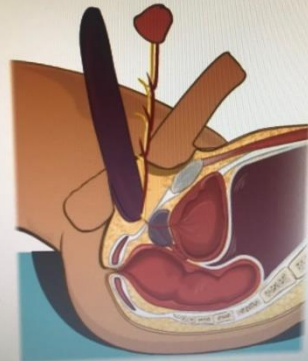
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The glans, nerve and blood supply are separated from the penile shaft.

+ press play to watch animation

BACK PLAY

**+ Step 4: Shortening of the urethra and erectile tissue**



vessel and nerve bundle with glans

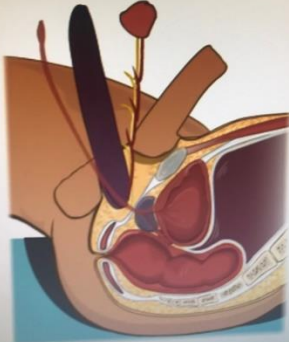
Next, the urethra needs to be separated from the penile shaft. It is located inside the shaft, and once freed, it is shortened and positioned like it would be in the female.

Then, the corpus cavernosum, or erectile tissue of the penis, needs to be removed as close to the body as possible.

+ press play to watch animation

BACK PLAY

**+ Step 4: Shortening of the urethra and erectile tissue**



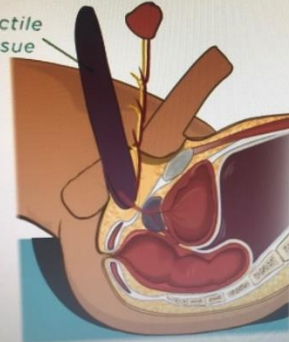
Next, the urethra needs to be separated from the penile shaft. It is located inside the shaft, and once freed, it is shortened and positioned like it would be in the female.

Then, the corpus cavernosum, or erectile tissue of the penis, needs to be removed as close to the body as possible.

*+ press play to watch animation*

BACK PLAY

**+ Step 4: Shortening of the urethra and erectile tissue**



erectile tissue

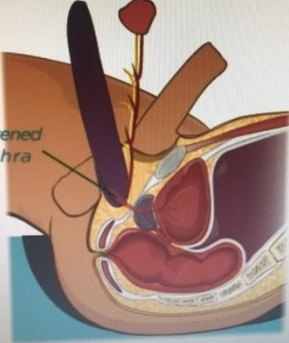
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Then, the corpus cavernosum, or erectile tissue of the penis, needs to be removed as close to the body as possible.

*+ press play to watch animation*

BACK PLAY

**+ Step 4: Shortening of the urethra and erectile tissue**



shortened urethra

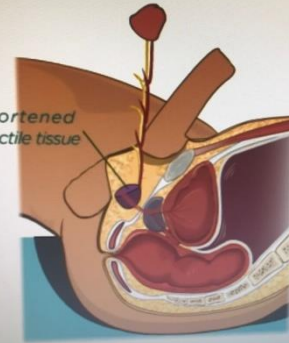
Next, the urethra needs to be separated from the penile shaft. It is located inside the shaft, and once freed, it is shortened and positioned like it would be in the female.

Then, the corpus cavernosum, or erectile tissue of the penis, needs to be removed as close to the body as possible.

*+ press play to watch animation*

BACK PLAY

**+ Step 4: Shortening of the urethra and erectile tissue**



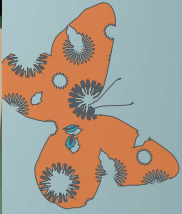
shortened erectile tissue

Next, the urethra needs to be separated from the penile shaft. It is located inside the shaft, and once freed, it is shortened and positioned like it would be in the female.

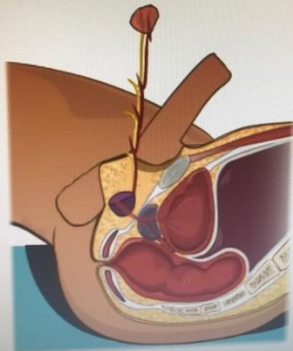
Then, the corpus cavernosum, or erectile tissue of the penis, needs to be removed as close to the body as possible.

*+ press play to watch animation*

BACK PLAY GO TO STEP 5



+ Step 5: Creation and placement of the clitoris

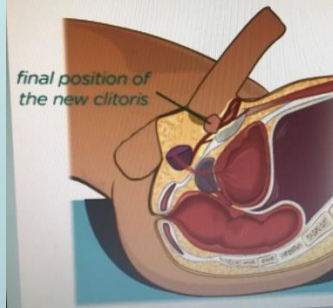


The clitoris is formed next, using the glans of the penis. It is made smaller by the surgeon, and then placed in the correct position and angle. It maintains its attachment to its nerve and blood supply.

+ press play to watch animation

BACK PLAY

+ Step 5: Creation and placement of the clitoris



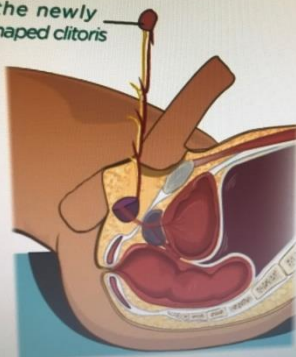
The clitoris is formed next, using the glans of the penis. It is made smaller by the surgeon, and then placed in the correct position and angle. It maintains its attachment to its nerve and blood supply.

+ press play to watch animation

BACK PLAY GO TO STEP 6

+ Step 5: Creation and placement of the clitoris

the newly shaped clitoris

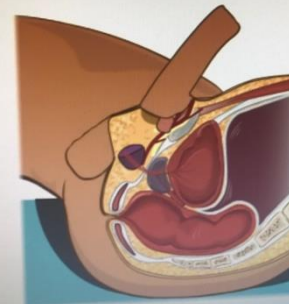


The clitoris is formed next, using the glans of the penis. It is made smaller by the surgeon, and then placed in the correct position and angle. It maintains its attachment to its nerve and blood supply.

+ press play to watch animation

BACK PLAY

+ Step 6: Inversion of the penis skin tube



Finally, the vagina is made by flipping the penis skin inside out, so that the external skin becomes the internal lining of the vagina. The end of the tube is sewn shut, then a stent is used to reverse the skin tube.

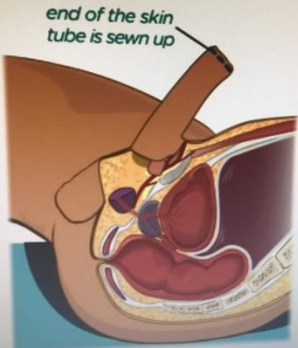
The vagina is inserted into the space between the bladder and rectum, and cuts are made to expose the clitoris and urethra in their correct positions.

+ press play to watch animation

BACK PLAY



+ Step 6: Inversion of the penis skin tube



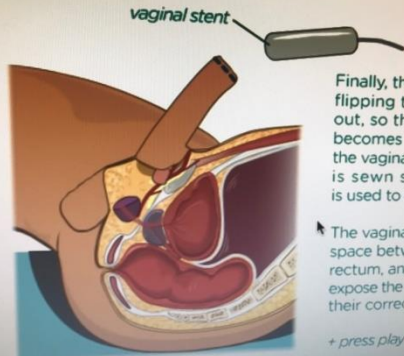
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BACK PLAY

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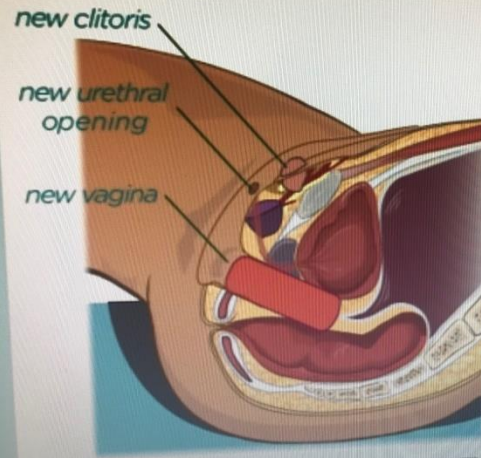
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BACK PLAY GO TO START

# Transgender

