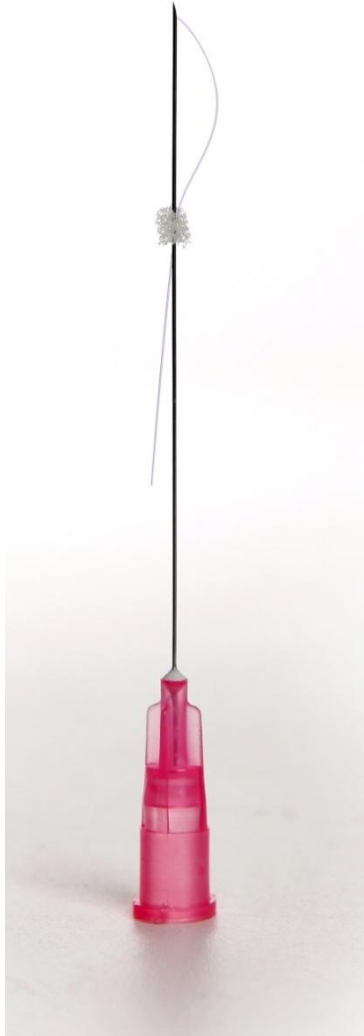


MIRACU Mini Thread

Lifting and Regenerative Therapy
Embedding PDO











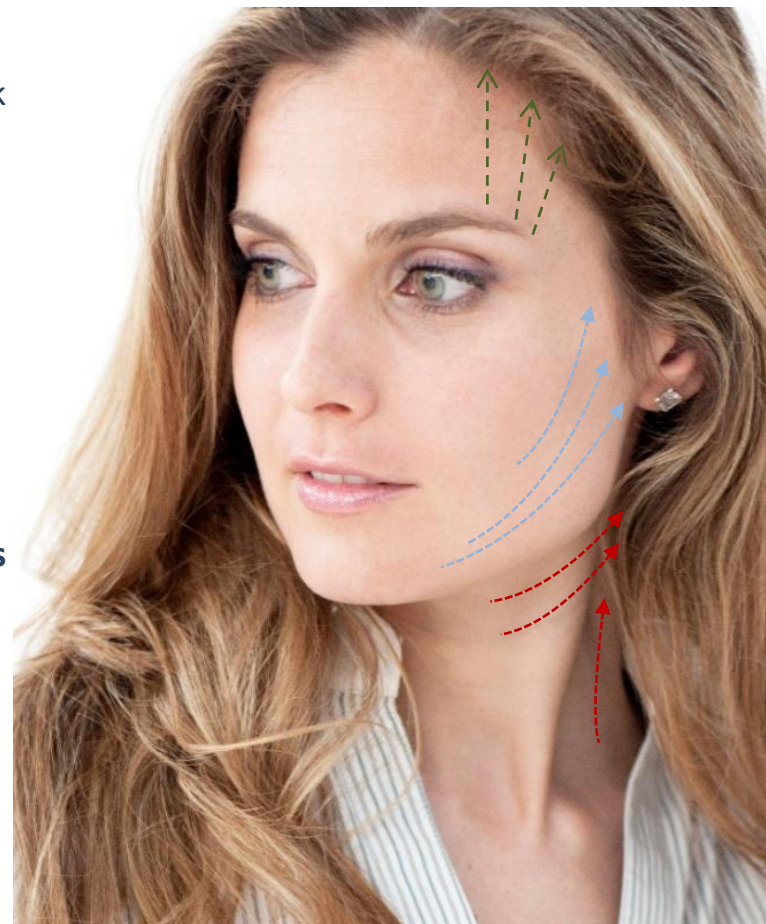
Miracu PDO





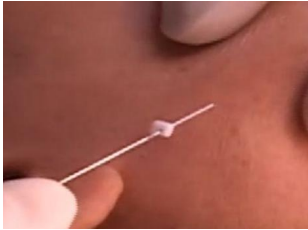
LIFTING using PDO mini thread implants

-  A new lifting method based on the implanting of multiple Polydioxanone (PDO) mini threads, creating a vectorial network that acts as support for the tissue.
-  It provides an immediate visible **lifting effect** while also **favouring natural collagen production**.
-  It stimulates **skin rejuvenation**, bringing **vitality, elasticity and brighter skin tone**.
-  It **improves** the appearance of **minor wrinkles, nasolabial folds and loose skin**.
-  **Highly effective in both facial and body treatments**.
-  **No recovery time**. Patients can continue with their daily routine almost immediately and even apply make-up.





LIFTING using PDO mini thread implants



- 🔪 Treatment is relatively **simple and fast** (15-30 minutes)
- 🔪 **Results are long-lasting.**
- 🔪 Treatment **can be carried out at the Doctor's surgery** with only local anaesthetic required. No hospitalisation required.
- 🔪 **No allergic reactions or rejection.** No side effects.
- 🔪 The availability of **a variety of different needle sizes** facilitates treatment and adaptation to distinct areas and patient characteristics.
- 🔪 Treatment involves the insertion of small needles loaded with Polydioxanone (PDO) mini threads that remain in the skin once the needles are removed.
- 🔪 As well as its cosmetic effects, **it also has therapeutic effects, improving tissue** and enhancing blood and lymph circulation.



LIFTING using PDO mini thread implants

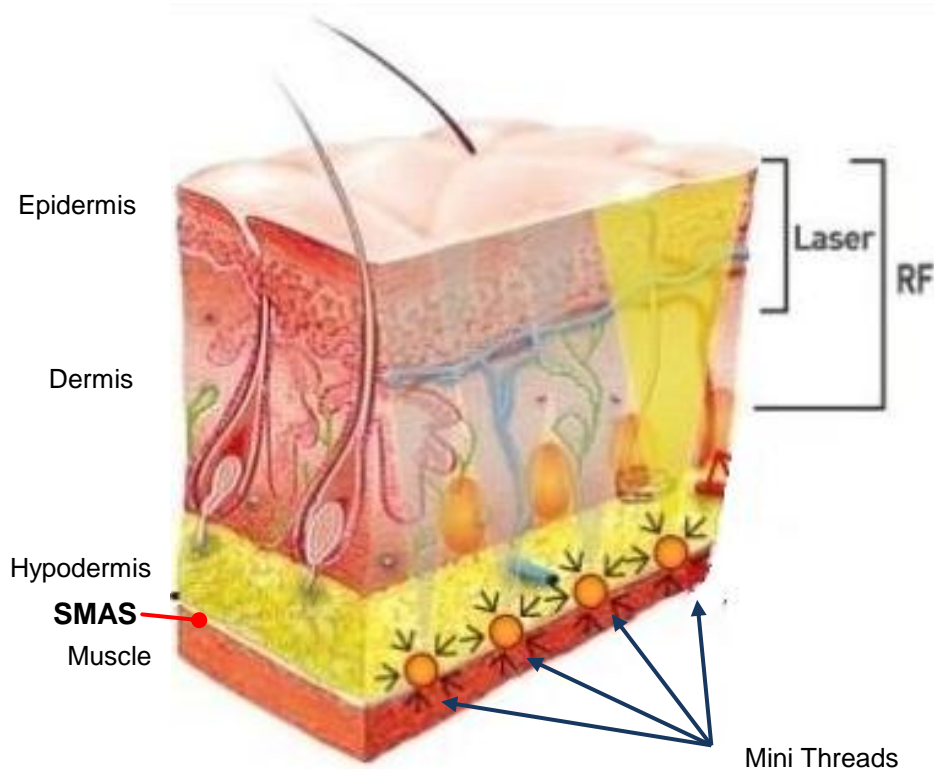
The main area of application is the SMAS

The SMAS (Superficial Muscular Aponeurotic System) is the fascia surrounding the facial muscles. This mesh-like tissue layer connects the dermis and muscle tissue, maintaining facial structure.

Looseness in this area is directly related to the sagging and weakening of the the SMAS.









Treatments based on **the implantation of mini threads in the SMAS enhance and stimulate tissue tone** consequently providing improved support for the skin, producing the desired lifting effect.

They also **enhance the circulation and stimulate the lymph channels**, helping mobilise localised fat.



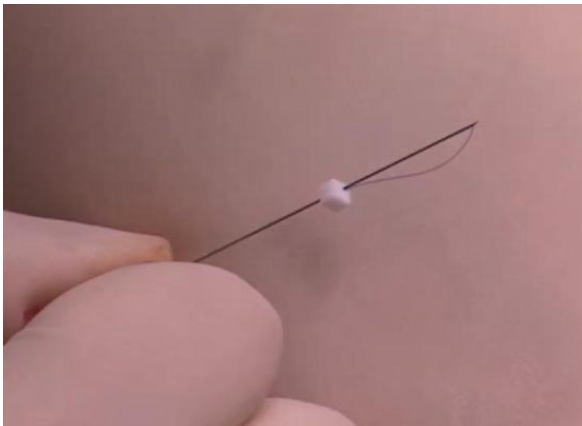


RESULTS

-  Reduces skin stress **and slows down aging, delaying the biological clock.**
-  **Stimulates the hypodermis**, naturally regenerating the production of collagen and elastin, while also accelerating skin metabolism.
-  Collagen regeneration accelerates over time, which helps **improve wrinkles and folds, enhances elasticity and brightens the complexion. Improves sagging skin.**
-  Improves both blood and lymph circulation. The result is **a significant improvement in the complexion and skin texture, proving a more rested appearance.**
-  The embedded threads **stimulate the macrophages**, the cells which are most active in eliminating inflammation. Due to its action on the hypodermis, it has a beneficial effect on a variety of skin conditions **such as eczema, atopic skin conditions, acne**, etc.
-  The activation of the circulation and lymph channels helps mobilise and eliminate fatty deposits.
-  Stimulates the immune system and enhances natural healing.
-  Excellent results in both face and body lifts.






What is Polydioxanone?



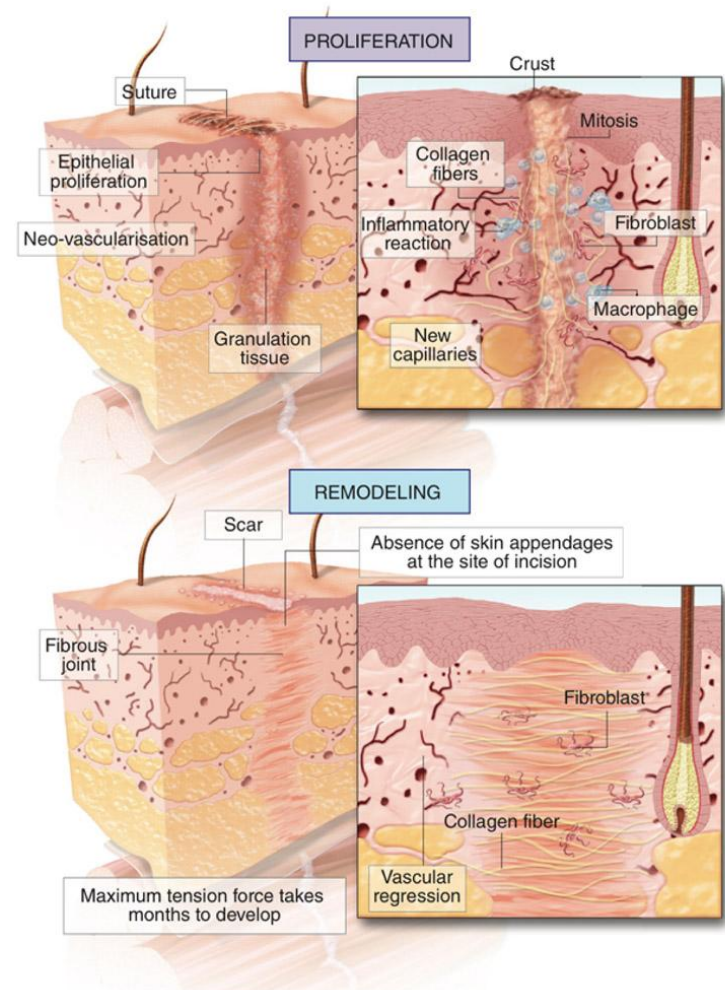
- 🔥 The mini threads are made of **polydioxanone** (PDO), an **extremely safe material** used regularly in heart surgery, which encourages cell cohesion.
- 🔥 PDO is a reabsorbable sterile suture thread, obtained through the polymerization of p-dioxanone $(C_2H_6O_3)_n$.
- 🔥 Completely safe, PDO does not produce allergic reactions or rejection, nor does it have any side effects.
- 🔥 PDO produces fibrosis in the surrounding area, giving rise to the creation of type I and III collagen.



What happens to the embedded threads?






-  The embedded threads **are gradually reabsorbed** over a period of 6 to 8 months via biological (enzymatic) absorption or hydrolysis.
-  PDO threads **produce hardly any tissue inflammation**. They may produce a rash and slight pain due to the surgical impact of the suture in the tissue, which subsides within a few hours.
-  They **produce an increase in collagen around the threads**. Although the effects are immediately apparent, maximum tension is reached some time later (between two to three months).

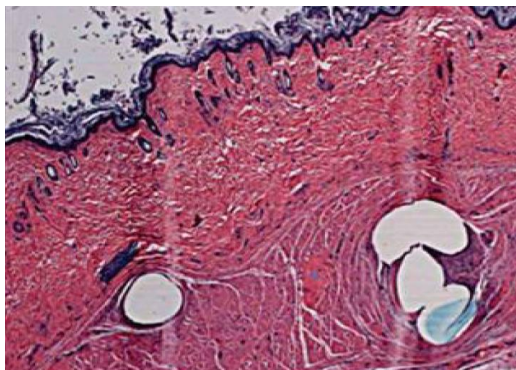
Normal cutaneous healing ■





When and how can the effects be seen?

-  The **tension** created by the embedded threads combined with the fluid retention caused by the procedure itself, produces **a visible lifting effect right from the very first moment.**
-  The threads **start working immediately.** From the third week onwards, the real effects start to appear.
-  **The greatest effect is reached at around 2 to 3 months.**
-  Reabsorption takes between 6 and 8 months. During this period, **their presence continues to stimulate** the action of the fibroblasts, increasing collagen and elastin production. This means that the effects continue even after the threads have disappeared.
-  Patients should be evaluated after a period of two weeks to one month. If necessary, treatment can be repeated, implanting new threads until the desired effect is achieved. Retouching treatments can be carried out at any time.



*Histological image showing the build-up of collagen around the threads.
Source - "Silhouette Lift Sutures Suspension System" Product Presentation by Roberto Pizzamiglio M. D., Marbella-Spain and Franco Perego, M. D., Monza-ItalyTM



How long does it last? Interval between treatments

- 🚑 The results can last **between one and two years**, depending on the characteristics of each patient. However it is advisable to carry out **maintaining treatments** in order to provide continuity to the results.
- 🚑 The result is a long-lasting rejuvenation of the skin and subcutaneous tissue, which **delays the natural aging process**.
- 🚑 Remember that it takes much more time and effort to repair a damaged skin, whereas once the results have been achieved, it requires much less effort to maintain them.












Before



After







Advantages

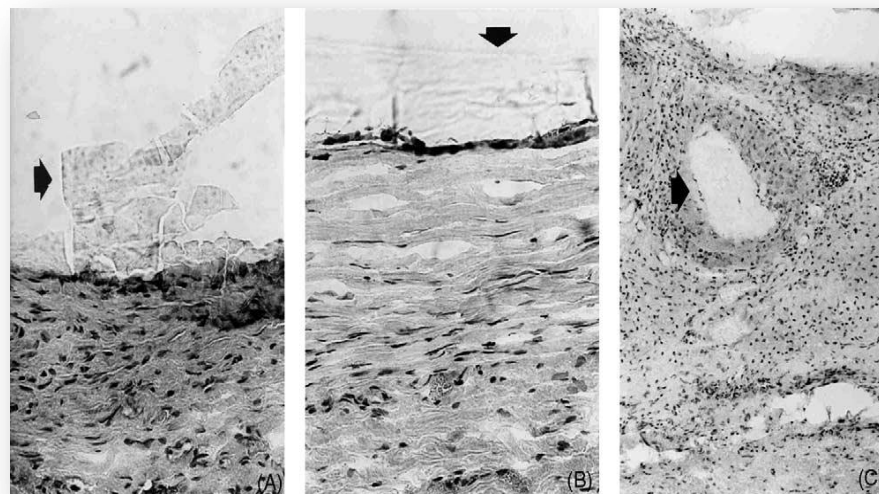
-  NON-SURGICAL Lifting.
-  Carried out at the Doctor's surgery, with no hospitalisation required and just a local anaesthetic.
-  No rejection or significant side effects.
-  Simple and fast procedure.
-  No mechanical traction with the threads. No need to tie or secure the sutures.
-  High levels of patient satisfaction.
-  It can be combined and / or supplemented with other cosmetic medical techniques (PRP, mesotherapy, etc.)
-  A non-aggressive procedure. No adverse reactions.
-  It works by stimulating the action of the fibroblasts and as such its effects are always natural. No risk of deformation or changes to the patient's features.





Therapeutic effects: Dermal stimulation

-  The treatment **stimulates the fibrocytes**, revitalising production of skin proteins such as collagen and elastin.
-  **Stimulation of collagen and elastin creates greater support for sagging skin**, increasing density and firming, producing the desired lifting effect.
-  **Skin becomes smoother, more uniform and brighter.**
-  Embedding the threads in adipose tissue mobilises fat deposits via the stimulation of the lymphatic system. This **“refines” the features** by reducing jowls and double chins, helping restore a V-line.



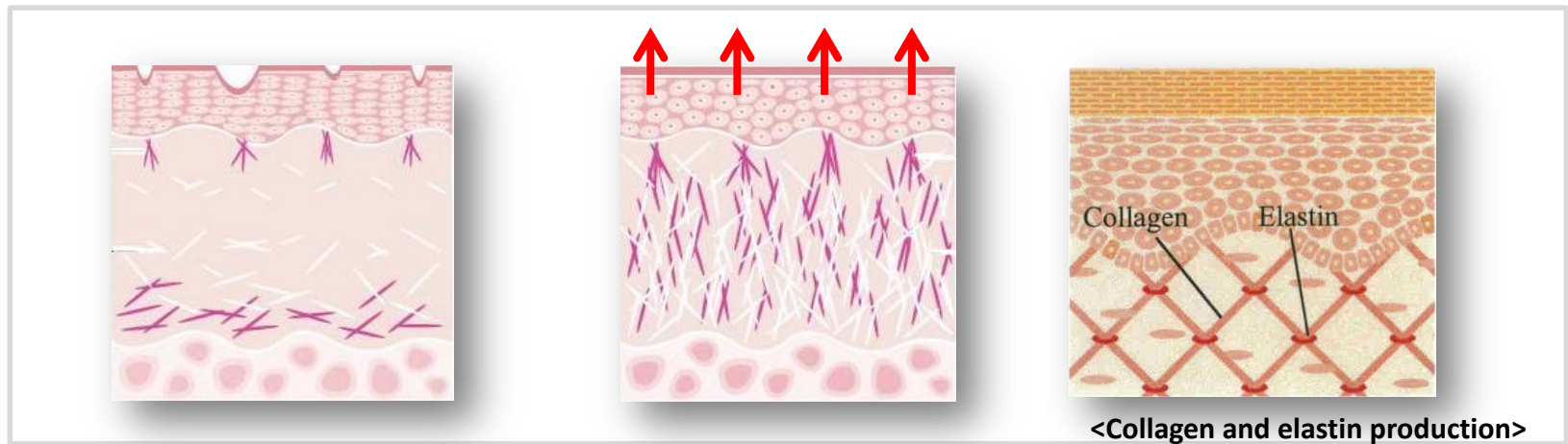
The immune system recognises the embedded threads as a foreign body and tries to eliminate them. During this process, the threads produce an inflammatory reaction in the skin, which activates the fibroblasts, collagen production and improves circulation. Additionally, the tension created by the threads has a lifting effect.

 : PDO suture



Therapeutic effects: Collagen revitalisation through skin stimulation

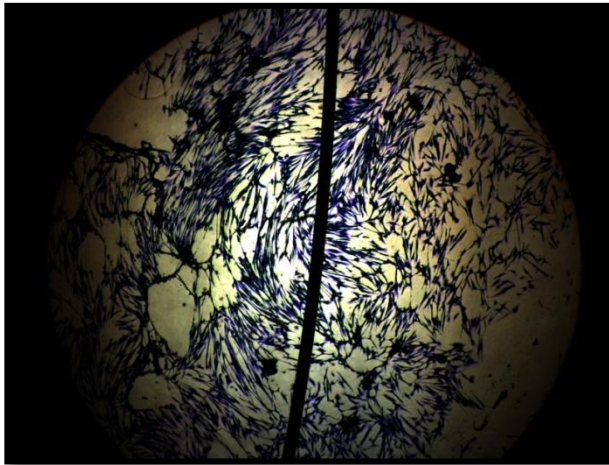
- With age, overly tense or relaxed facial muscles give rise to wrinkles and facial asymmetries.
- Mini thread implantation treatment relaxes tense muscles and tenses slack muscles, improving wrinkles and restoring the patient's facial contour.
- Forehead, head and neck muscles are relaxed, resulting in the lifting of facial muscles.
- Treatment can be tailored to each patient, adapting it to their face type, aesthetic and therapeutic needs.



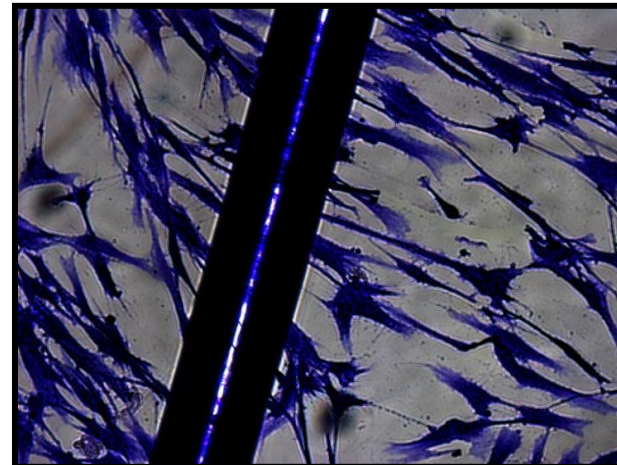


Collagen production around the PDO threads

1.25x








Collagen

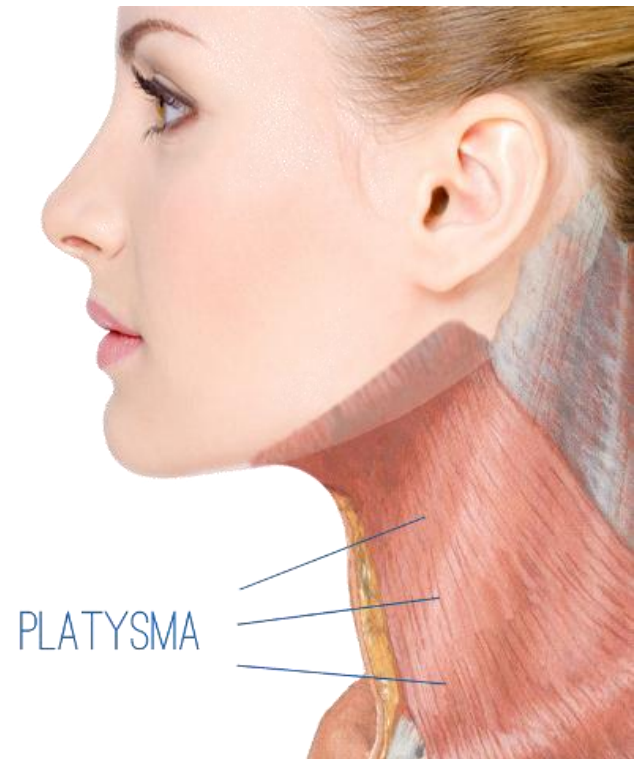


Collagen + single filament thread



Therapeutic effects: Facial LIFTING

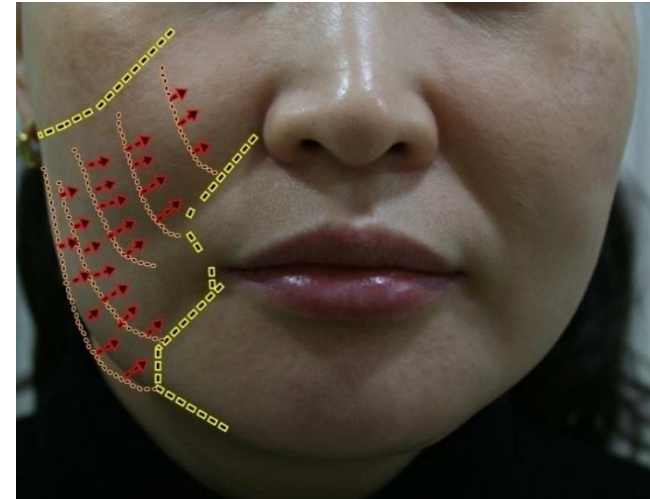
-  The mini threads are embedded in the layer known as the SMAS, in between the skin and the muscle, facilitating a lifting action on both skin and muscle.
-  Precise implantation at the correct depth and at the appropriate points has an immediate lifting effect on the neck and lower part of the face, where the supporting tissue is weaker.
-  The use of shorter, thicker threads on the forehead relaxes the muscles, hindering their use and creating a smooth effect similar to that produced by botulinum toxins.
-  Gentle activation of the blood stream results in the constant stimulation of the dermis and hypodermis. Skin looks healthier and brighter.
-  Through its action on the fatty layers, it helps mobilise adipose tissue, reducing the size of the face and defining features. Wrinkles diminish and skin elasticity increases.





Therapeutic effects: Facial LIFTING

- 🚑 Improves wrinkles and folds. Opens out nasolabial folds, eradicating the "puppet" effect.
- 🚑 Contraction of the zygomatic muscles, which lifts the face.
- 🚑 Lifting effect on skin and facial muscles.
- 🚑 Restoration of the V-line.
- 🚑 Brighter skin due to increased oxygen supply to tissues.
- 🚑 Correction of asymmetric features.
- 🚑 **Redefines features without changing the natural contours of the face.**



Before



After









Embedding Therapy. Procedure and precautions

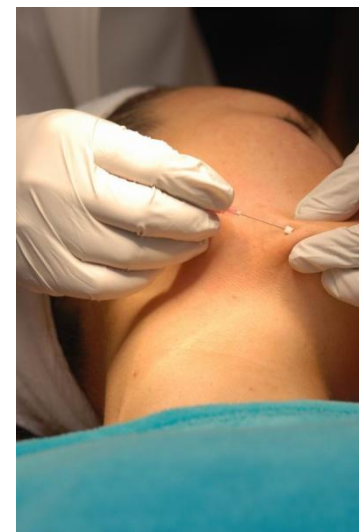
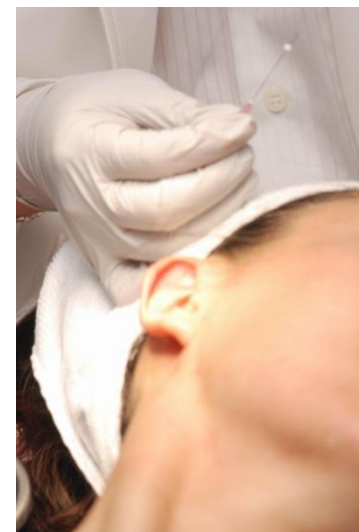
- 🔪 Study each patient's features and mark the areas to be treated.
- 🔪 Apply local anaesthetic and sterilise the area.
- 🔪 Mark the appropriate vectors and tension lines.
- 🔪 **Verify thread length and embedding angle.** Lift the skin slightly in order to insert the needle gently. Proceed slowly to the appropriate layer and then slowly withdraw the needle, **rotating slightly**. Do not rotate the needle in the brow area.
- 🔪 Use longer, thicker needles in tense areas. Use shorter, finer needles to create a network.
- 🔪 When embedding threads in the brow area, ensure that you half-turn the needle to adapt to the curvature of the area.
- 🔪 **Do not force the needle when inserting.** Insert needles slowly and gently.
- 🔪 **Adjust the angle of needle penetration** so that they are inserted in the hypodermis.
- 🔪 Threads may protrude if embedded superficially or in areas with a lot of movement, such as joints and the muscles of mastication. Remove any protruding threads and reapply.





Application

-  The number of threads will vary according to the individual characteristics and needs of each patient.
-  We estimate 12 to 15 threads per area.
-  A complete facial treatment could require between 50 and 80 threads.
-  Initially it may be advisable to treat specific areas at a time. For example, start with the neck, jowl and lower third of the face. Review the patient's progress after 2 weeks to 1 month and, if necessary, increase the number of threads. Once the desired effects have been obtained, continue treatment on other areas of the face.
-  This way, implantation of the maximum number of threads in each area can be ensured, without increasing cost for doctor or patient. If you only want to use a certain number of threads, it is preferable to implant these in a specific area, where results are guaranteed, rather than attempting to cover the entire face, diluting the effects of the embedded threads.
-  Doctor and patient satisfaction with the results obtained will be greater, encouraging the latter to continue treatment in other areas (bags under the eyes, sagging cheeks, crow's feet, lip lines... etc.).





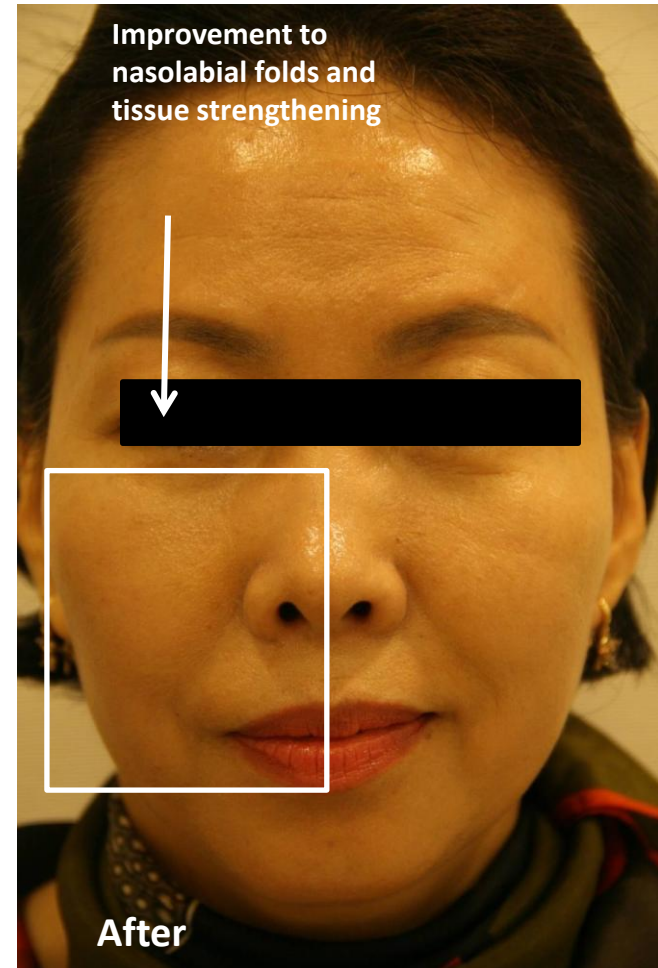
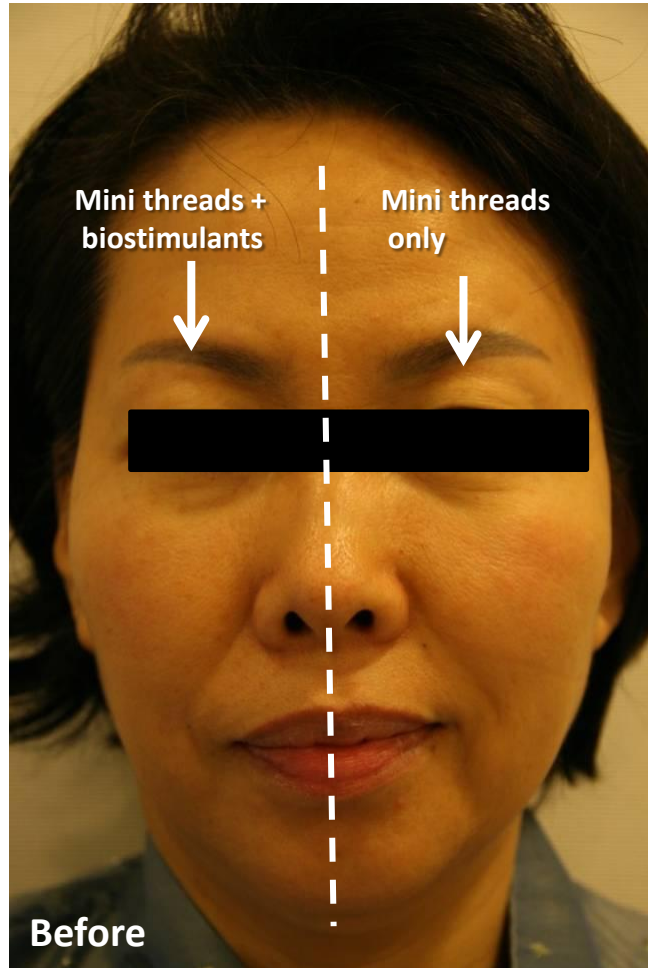
Recommendations. Combined treatments

- 🚑 Combination with other treatments before and after mini thread implants can help achieve the best results.
- 🚑 Prior to implant treatment, an exfoliating treatment can be carried out on the area to be treated. As well as significantly improving the appearance of the skin, this will also help enhance collagen production.
- 🚑 Microneedles. The micro wounds occasioned by the microneedles produce platelet and fibrotic stimulation that will facilitate the implantation of the threads, producing faster results.
- 🚑 Combined treatment with **PRP** or other **growth factors** or **biostimulants** will contribute significantly to obtaining the desired results.
- 🚑 In the months following treatment it is advisable to continue with skin stimulating treatments such as those using microneedles and vitamin cocktails.

















Recommendations. Combined treatments





USES - FACE AND BODY LIFTING

-  Cheek lifting.
-  Recalibration of the cheek area. Jawline.
-  Nasolabial folds, "puppet" lines and lip lines.
-  Brow lifting. Crow's feet.
-  Double chin. Chin narrowing. V-line.
-  Nose. Bridge raising. Narrowing.
-  Neck.
-  Under arms.
-  Inner thighs. Knees.
-  Buttocks.
-  Breast lift.
-  Abdomen.



Application areas - face

- 1 Neck and large areas 29G / 50
 27G / 60

- 2 Forehead, cheeks 29G / 50
Lip line 29G / 40
Nasolabial folds

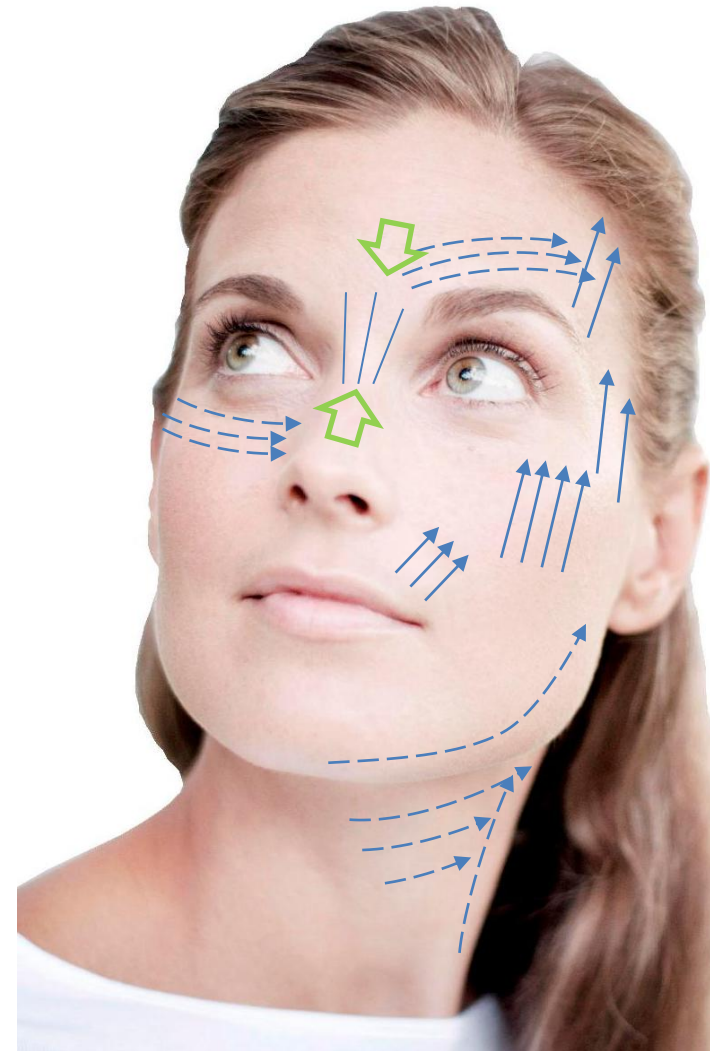
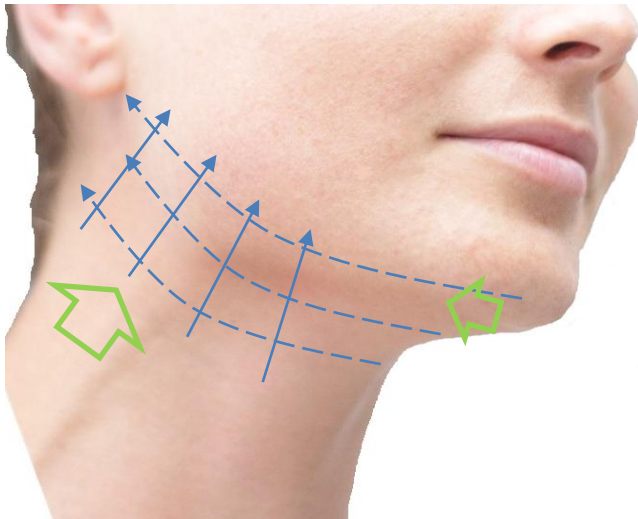
- 3 Eye area 31G / 30





Application areas

- 1 Neck and large areas
29G / 50mm
27G / 60mm
- 2 Forehead, cheeks
Lip line 29G / 40mm
Nasolabial folds
- 3 Eye area 31G / 30mm





Possible side effects







- 🚫 May produce hypodermic bleeding, causing bruising.
- 🚫 May produce persistent pain over the first few days.
- 🚫 Very little risk of infection if basic hygiene standards are met.
- 🚫 Treated areas may become inflamed and painful.
- 🚫 Patients do not require any convalescence time and can continue with their daily routine straight away.

Contraindications

- 🚫 Generalised or local infections in the area to be treated.
- 🚫 Autoimmune diseases.
- 🚫 Pregnancy.
- 🚫 Patients with severe forms of diabetes.
- 🚫 Acute cardiovascular disease.










Pre-treatment recommendations

-  A course of Traumeel or similar is recommended for 3 to 4 days prior to treatment to help prevent bruising.
-  The day before, a Vitamin K cream can be applied as a preventative measure.
-  Vitamin C from 1 week before until at least 3 months afterwards. Vitamin C assists collagen production.
-  Should a pain-killer be required, avoid aspirin, as it encourages the appearance of bruises.
-  Avoid coffee, tobacco and stimulants in general.
-  Treatment must be carried out by a qualified doctor.








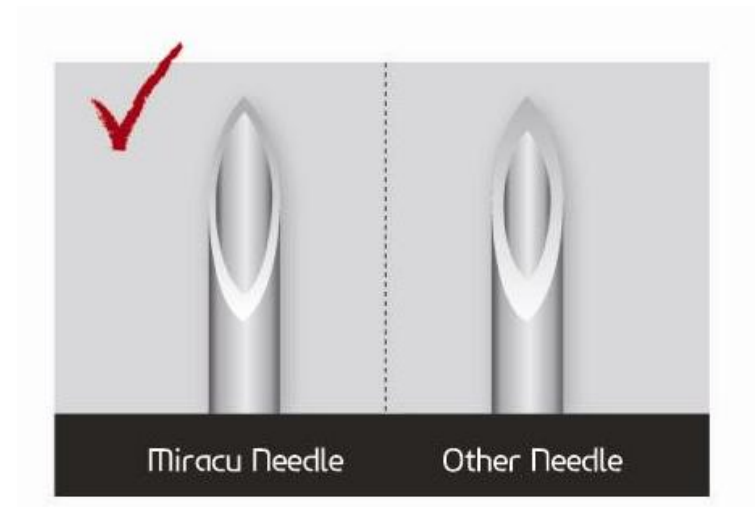
Post-treatment precautions

-  Bruising, swelling and small lumps may occur. These are normal reactions to the treatment, which disappear within two weeks.
-  The application of cold to the area following treatment and for the next few hours is recommended.
-  The treated area can be washed gently after 4 or 5 hours, but sudden movements, opening the mouth too widely, laughing vigorously or any other stimulation of the facial muscles should be avoided over the next few days.
-  Patients should avoid sleeping face up or face down or leaning on the treated area for the next few days.
-  The area should not be massaged for the first month. Saunas and sources of heat should be avoided.
-  Light make-up may be used. The use of excessive make-up on the treated area is not recommended.
-  If necessary, continue treatment with Traumeel in the days following treatment.



Miracu Specifications

-  Fine polishing and thinner walls differentiate Miracu needles from their competitors, allowing a finer gauge to be used.
-  The use of finer gauge needles minimises pain during treatment and facilitates gentler insertion. This avoids the appearance of marks caused by thicker needles.
-  Miracu needles are EU certified (CE registration mark) and have all necessary documentation, guaranteeing their quality and sale.
-  They come in 100-thread packs. Each contains 4 hermetically sealed packets of 25 threads.
-  Each packet contains 5 sterile packs of 5 threads.





Miracu Specifications

Different needle lengths and gauges available, depending on the area to be treated and the needs of each patient.

Nomenclature	Needle gauge	Needle length	Thread length	Thread thickness (USP)	Normal area of use
31G30	31G	30mm	30mm	7-0	Face
29G40	29G	40 mm	50mm	6-0	Face
29G50	29G	50 mm	70mm	6-0	Face
27G60	27G	60 mm	90mm	5-0	Face, Body
25G90	25G	90mm	150mm	5-0	Body





Comparison with other threads

Non reabsorbable threads or APTOS

- 🔪 Material: Polypropylene with blue phtahlocyanine.
- 🔪 Bidirectional barbs.
- 🔪 Procedure: incision, fixation and anchoring of the suture.
- 🔪 Mechanical lifting effect + biological tensing effect.
- 🔪 Requires injected local anaesthetic.
- 🔪 Uses a double-ended 16G guide needle.
- 🔪 Side effects: Edema, pain, bruising.
- 🔪 Possible complications: Thread breakage, protrusion of the end of the thread. Antibiotics, anti-inflammatories, rest.
- 🔪 Each application requires between 60 and 90 minutes.
- 🔪 Recovery time approximately one week.
- 🔪 Effects last around 5 years.





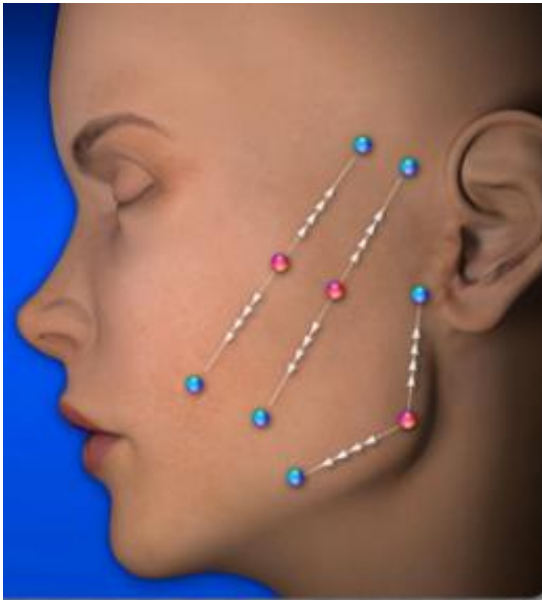
Comparison with other threads

Silhouette Threads

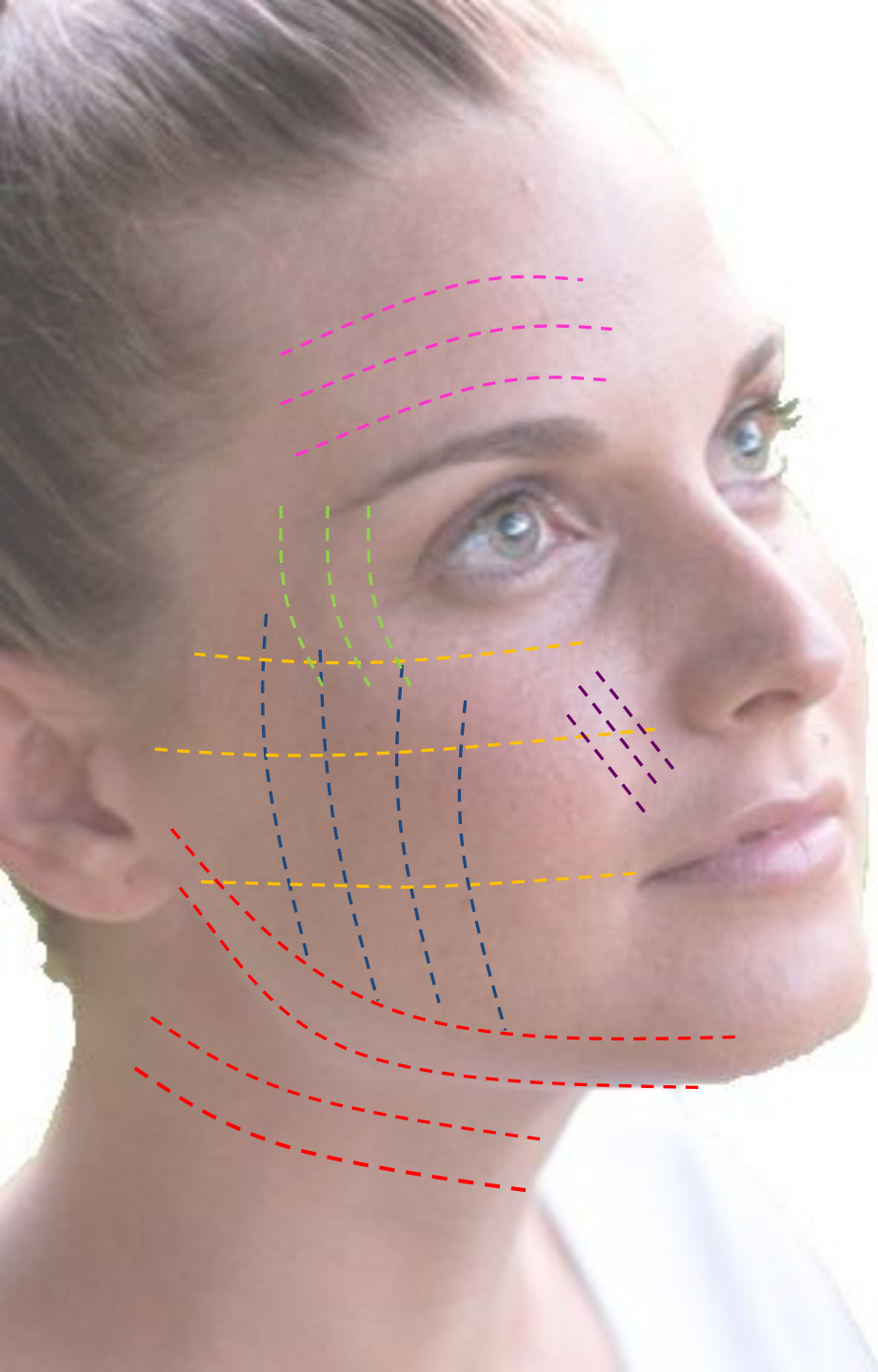
- Similar to APTOS, made from polypropylene.
- Reabsorbable cones.

Happy Lift type reabsorbable threads

- Made from barbed PDO and/or Polylactic-caprolactone.
- Procedure: incision, fixation and anchoring of the suture, similar to non-absorbable threads.
- Mechanical lifting effect + biological tensing effect afterwards.
- Requires injected local anaesthetic.
- Reabsorption time: 1 year.
- Each application requires around 45 minutes.
- Recovery time approximately 2 - 3 days.
- Side effects: Oedema, pain, bruising.
- Effects last around 3 years.

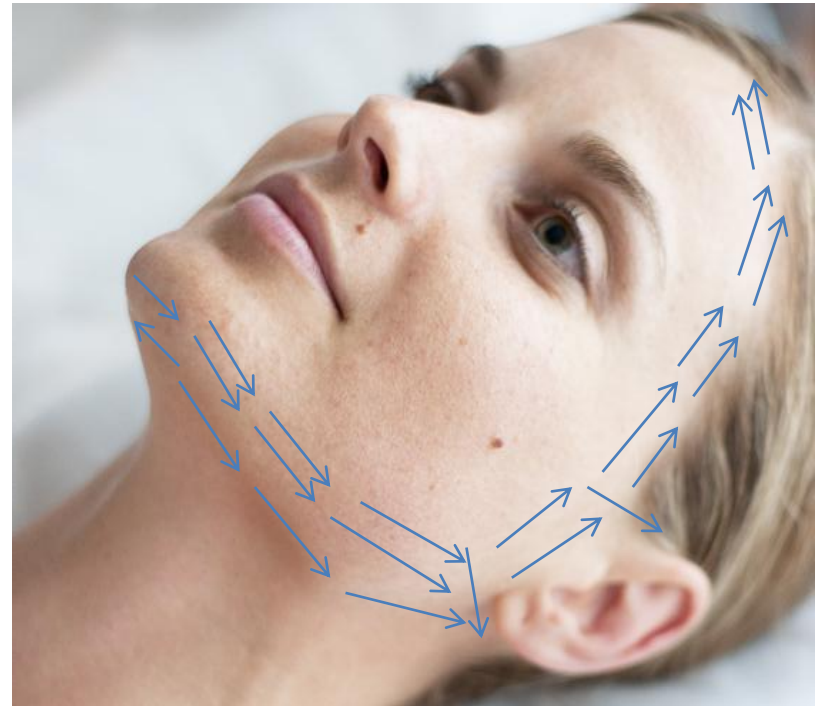
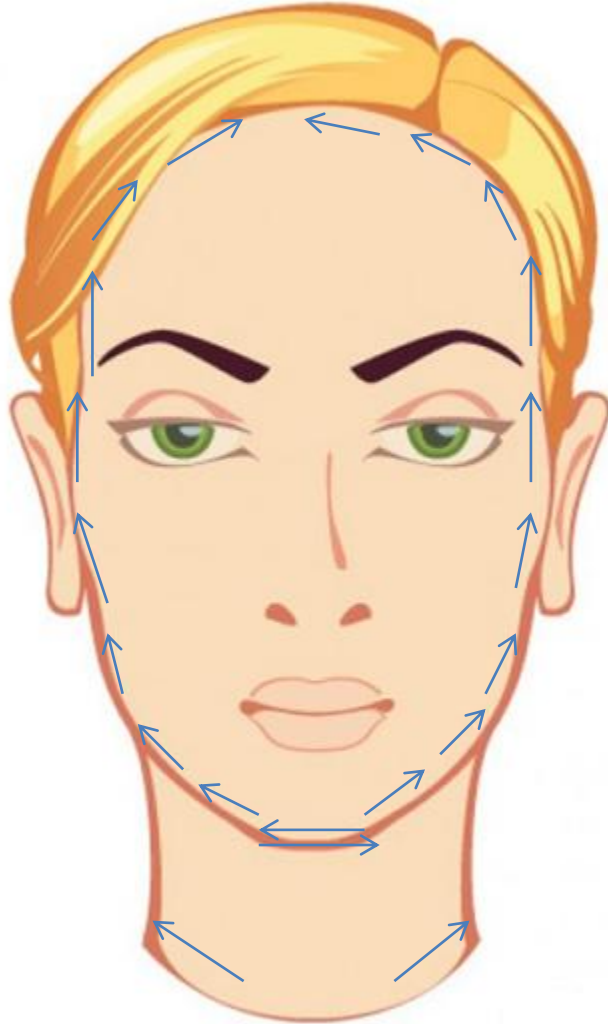


APPLICATION DIAGRAMS



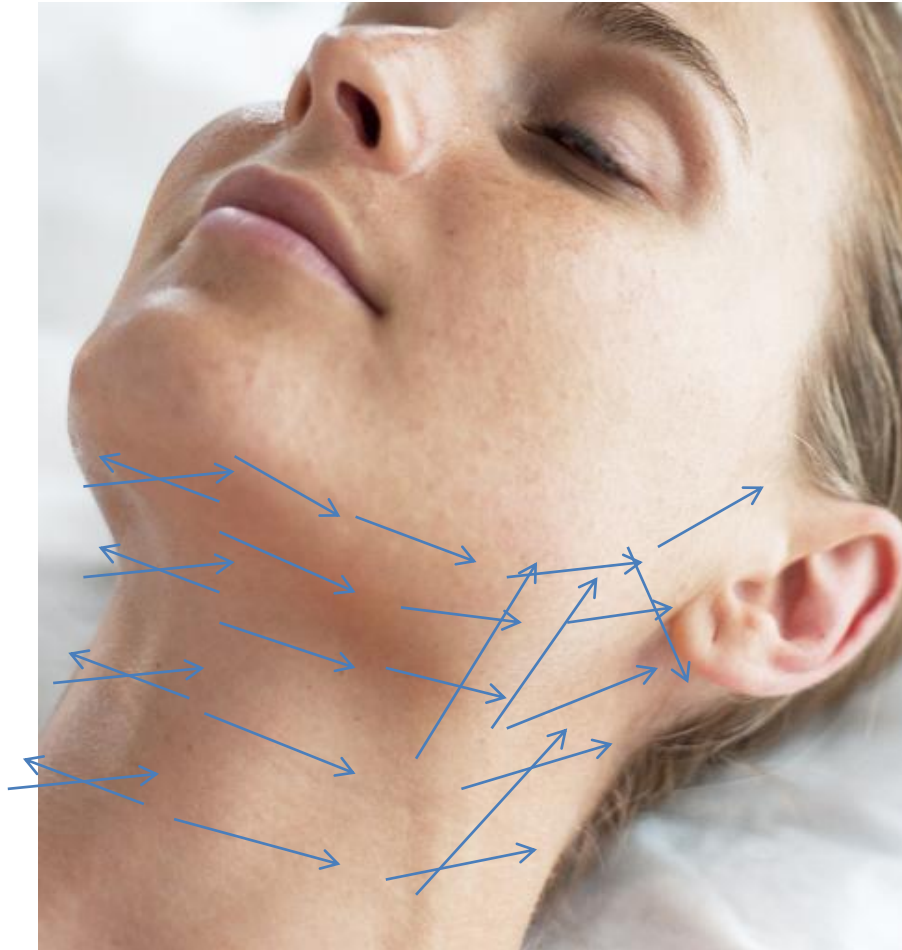


How to reduce the size of the face and obtain a facelift effect



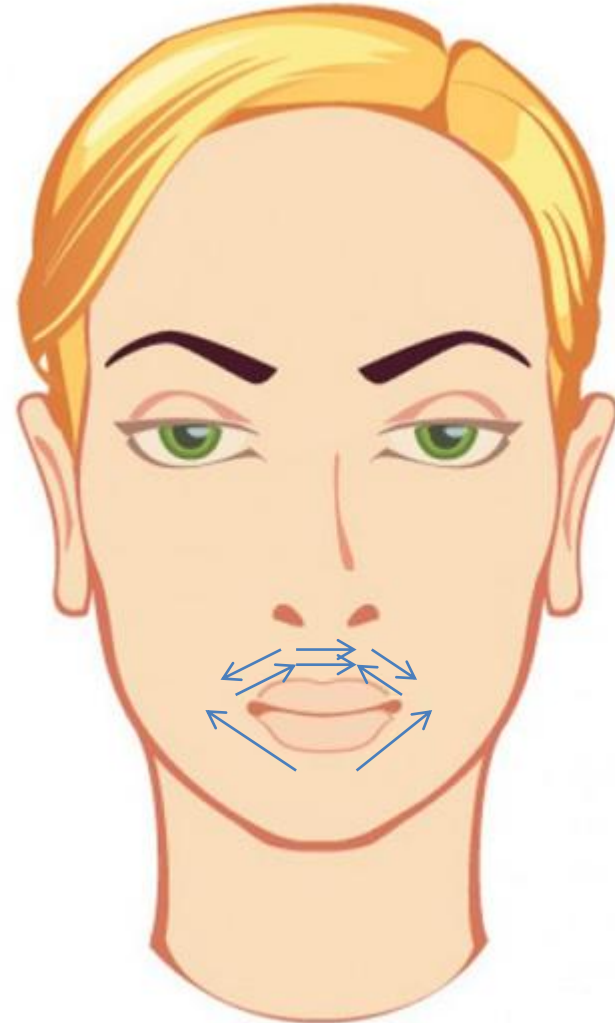
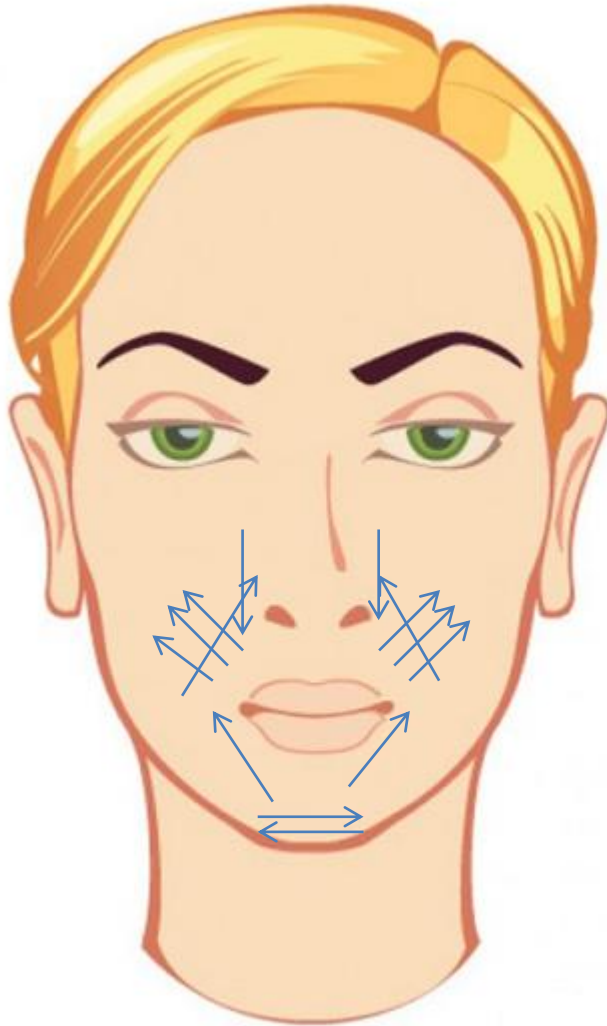


Jowl and neck wrinkles





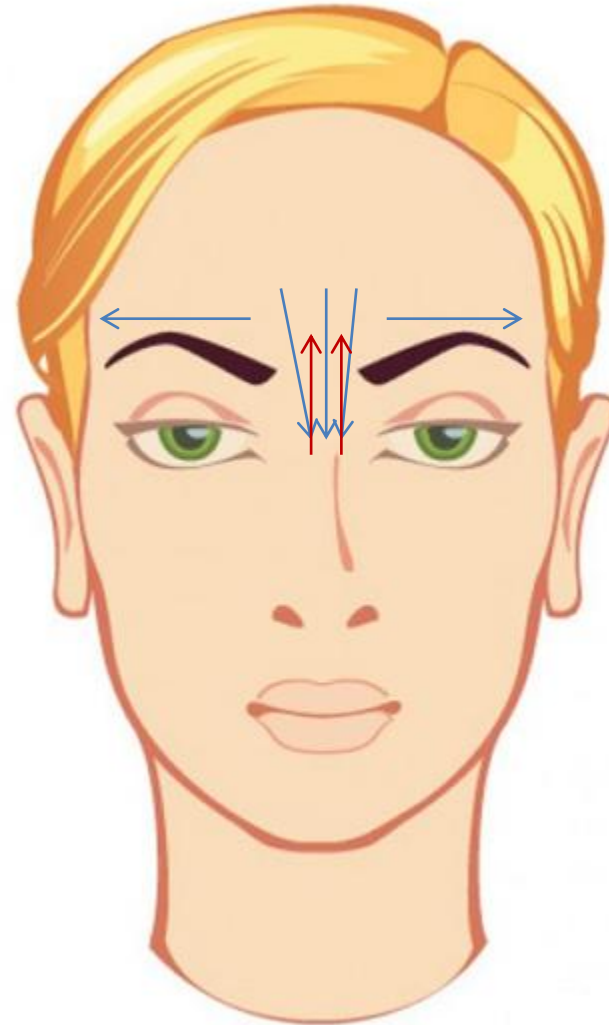
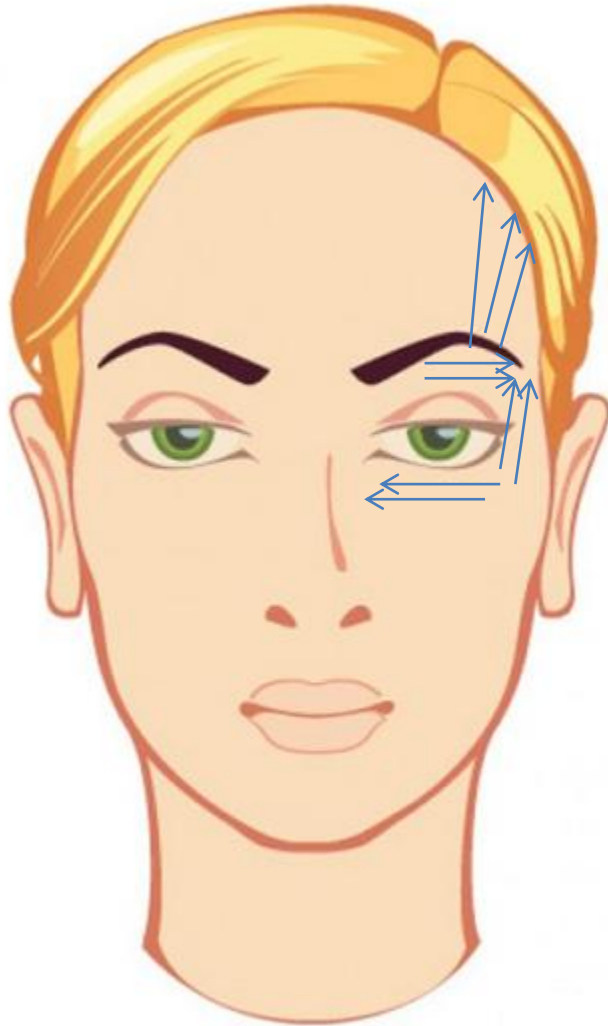
Mouth wrinkles. Nasolabial folds and lip lines





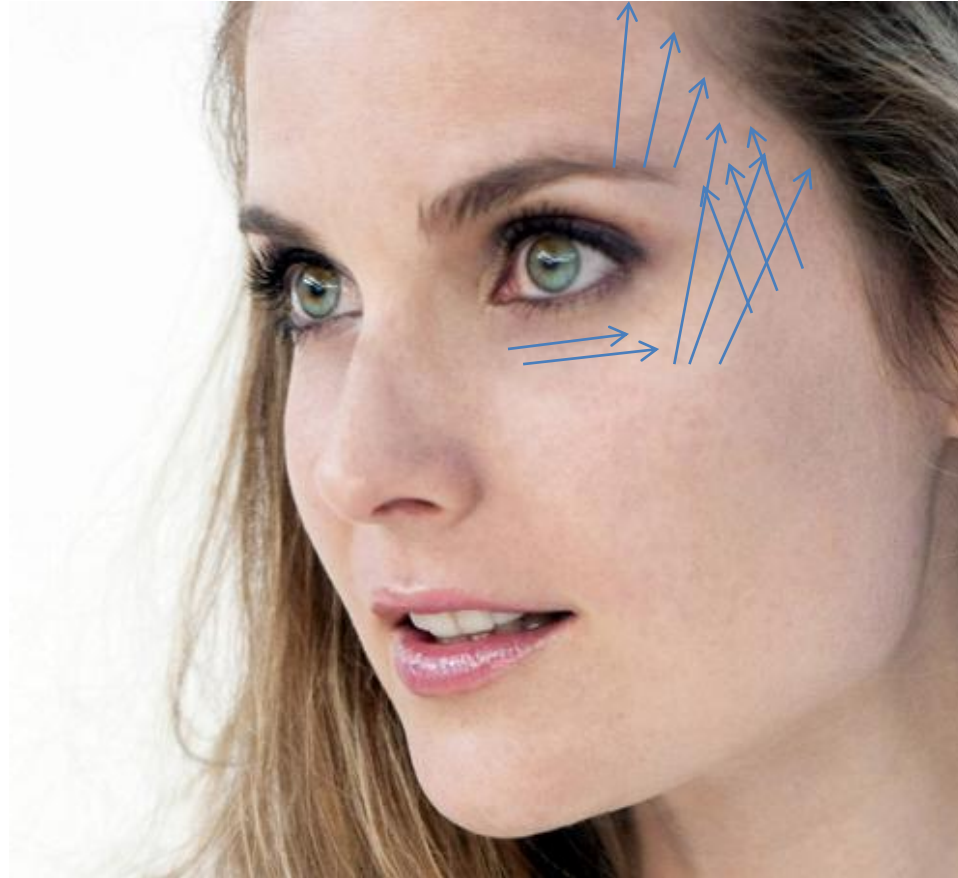
Eyes. Brows and crow's feet

Brow lift. 1, 2





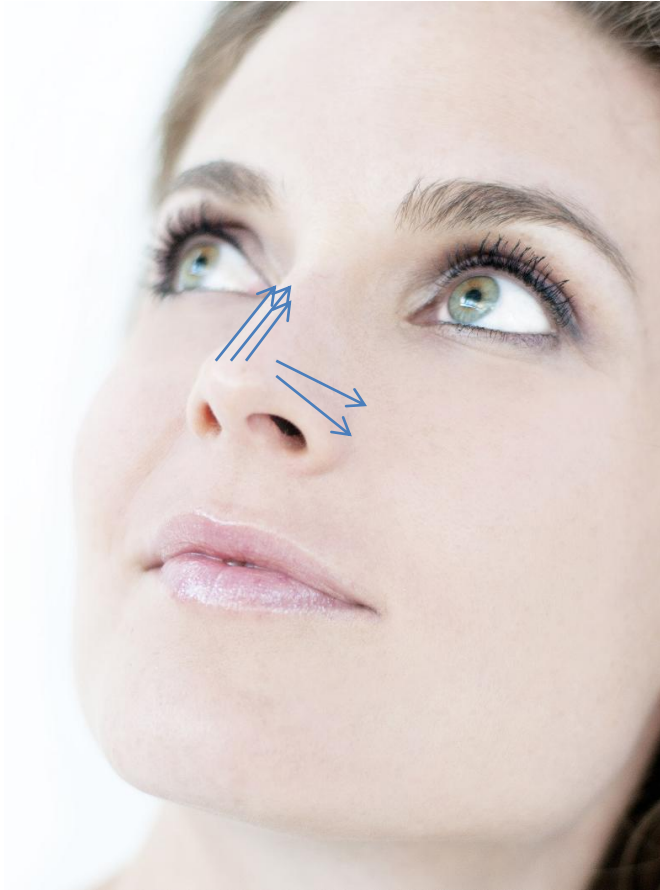
Eye area and crow's feet
Eyebrow tip lift





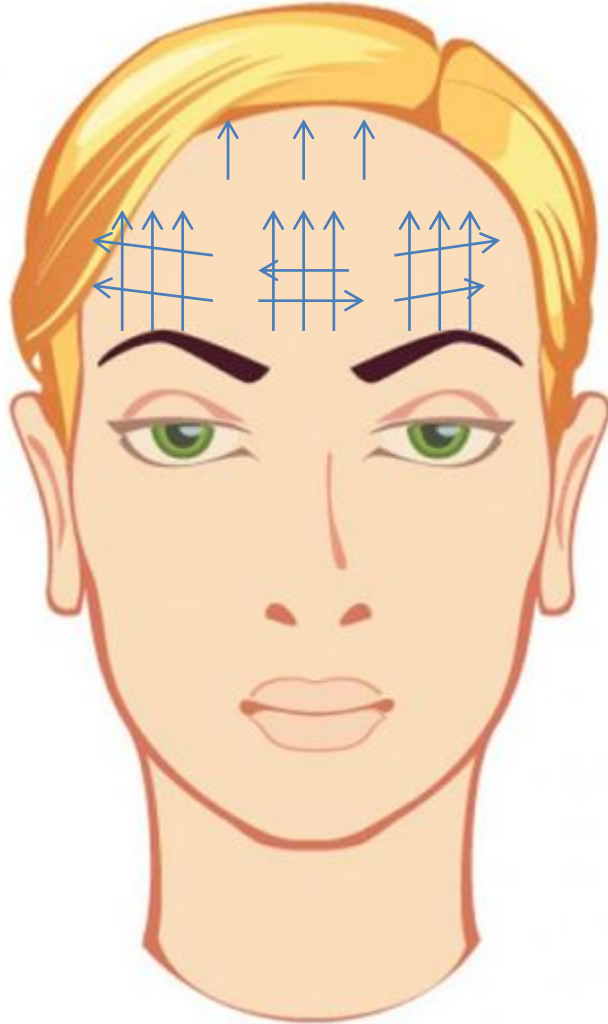
Nose lift - 1

Nose lift - 2

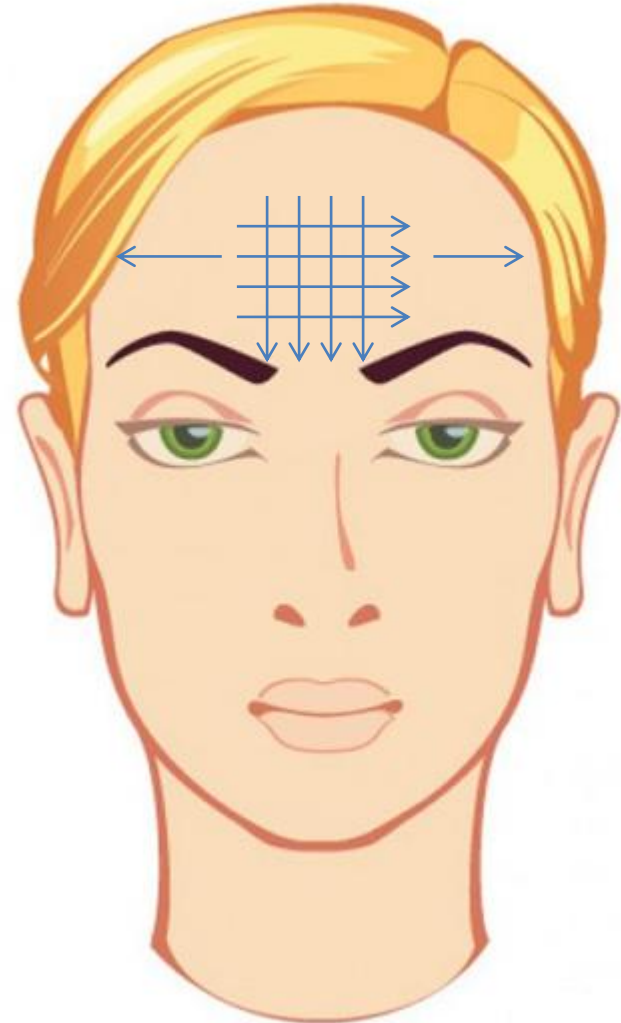




Forehead wrinkles. Lifting



Forehead wrinkles – 2





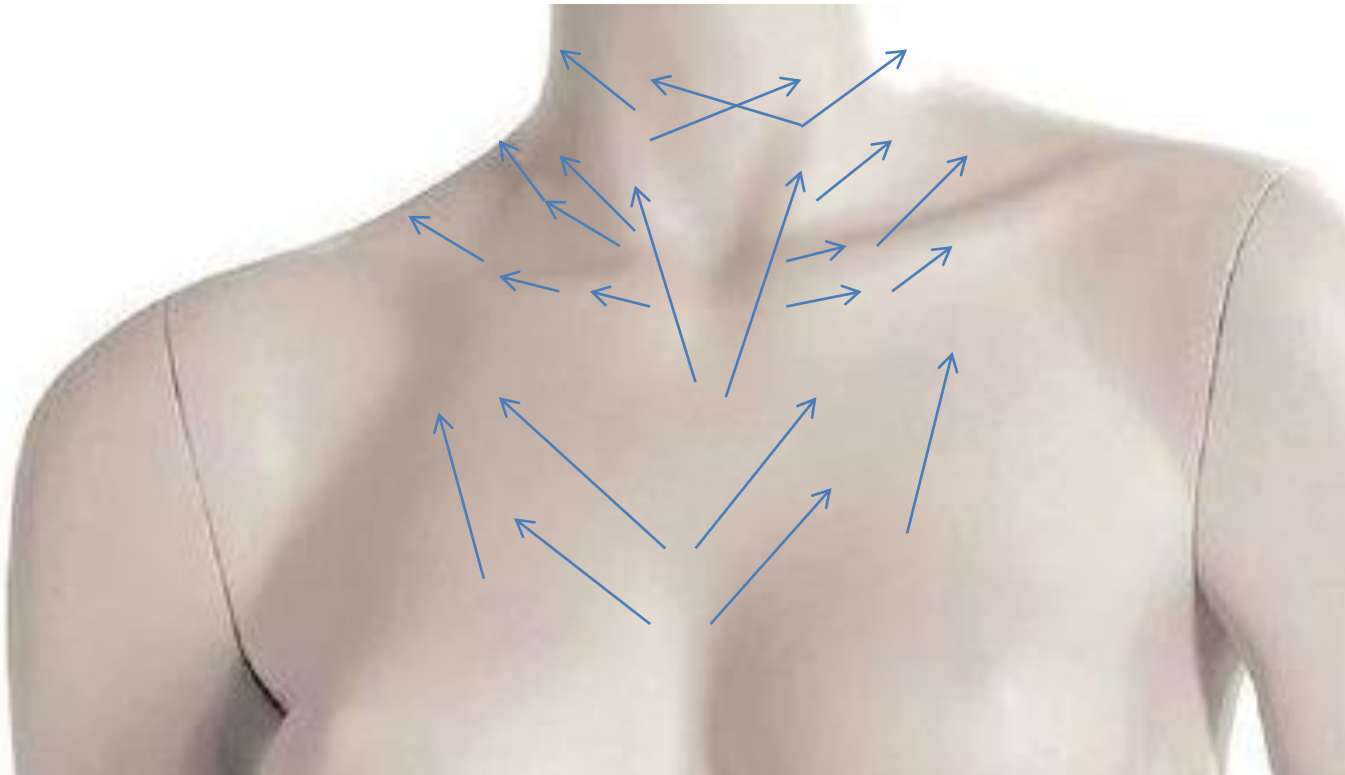
Cheek enhancement

Cheek lowering





Neck and décolletage wrinkles



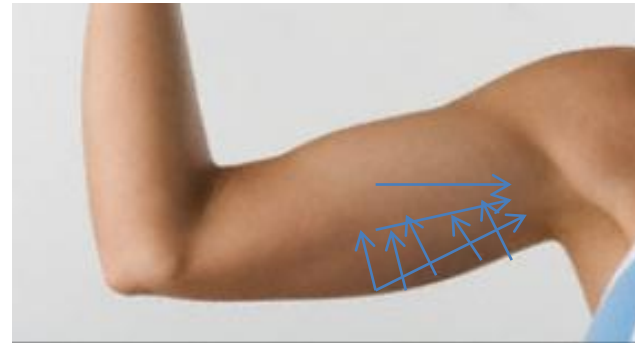
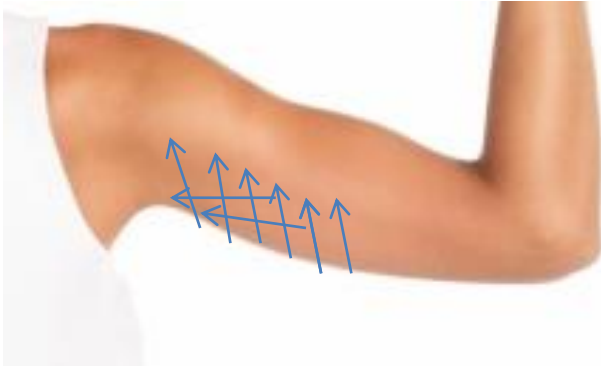


Inner thighs and knees



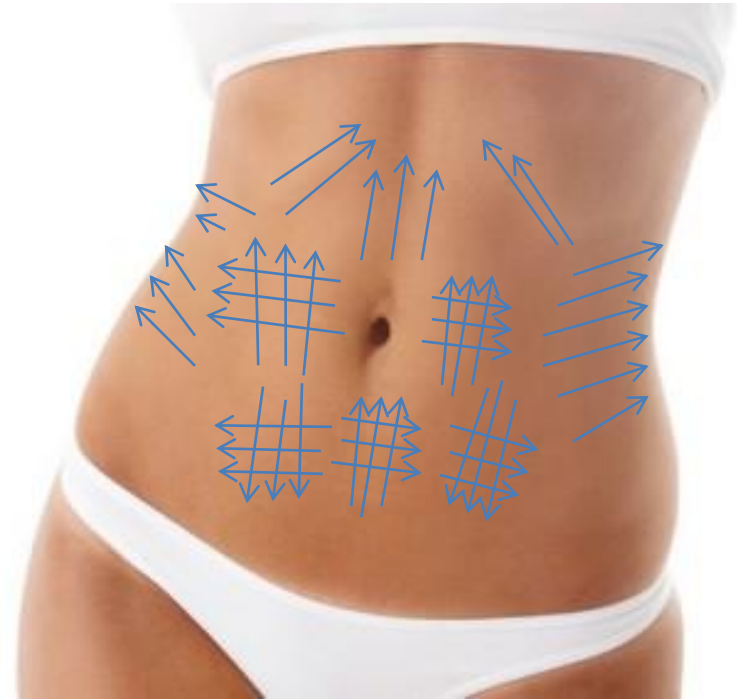
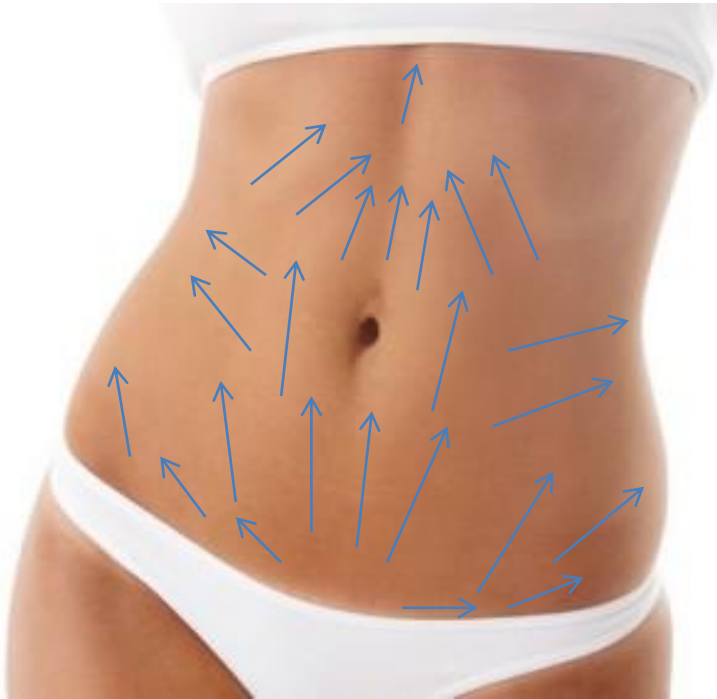


Under arms



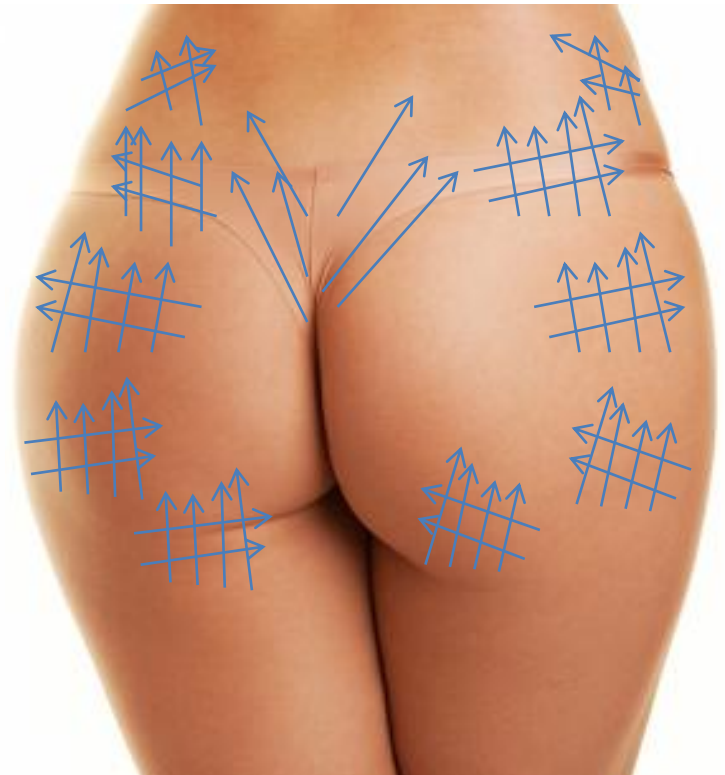
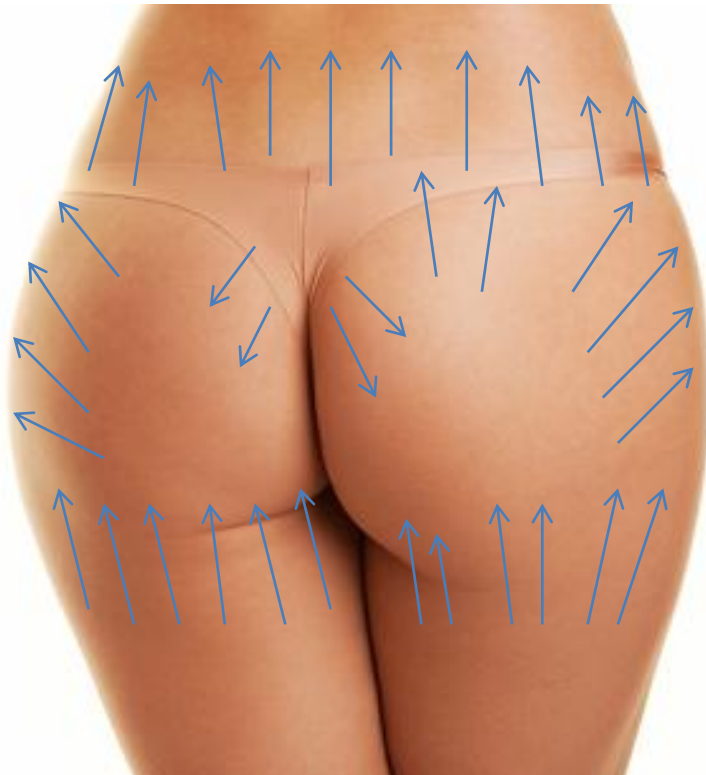


Abdomen.



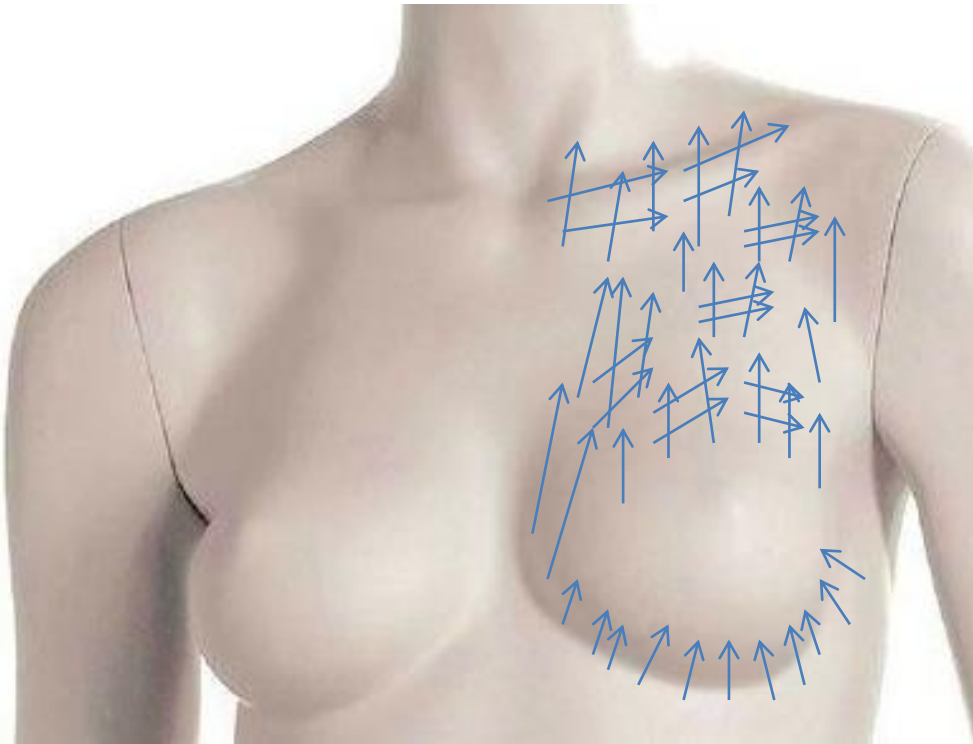


Buttocks



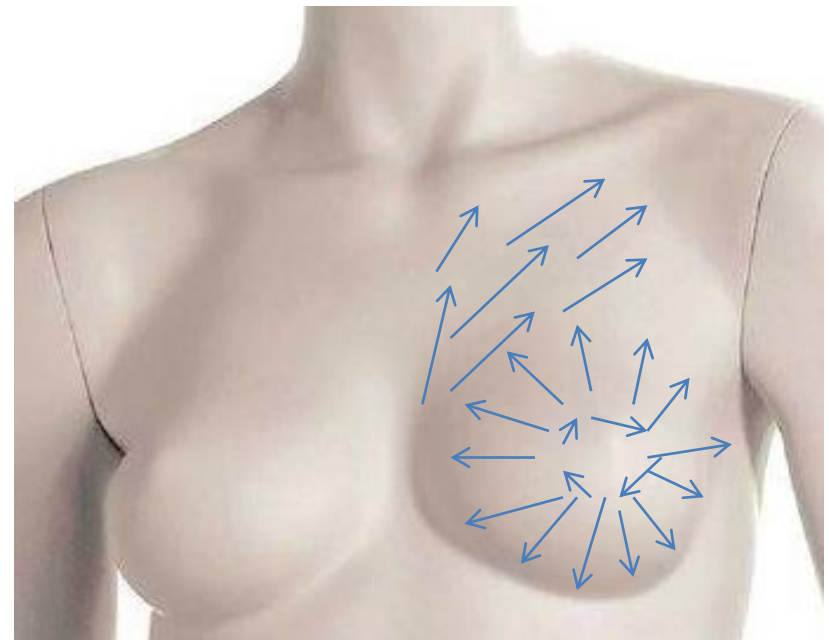
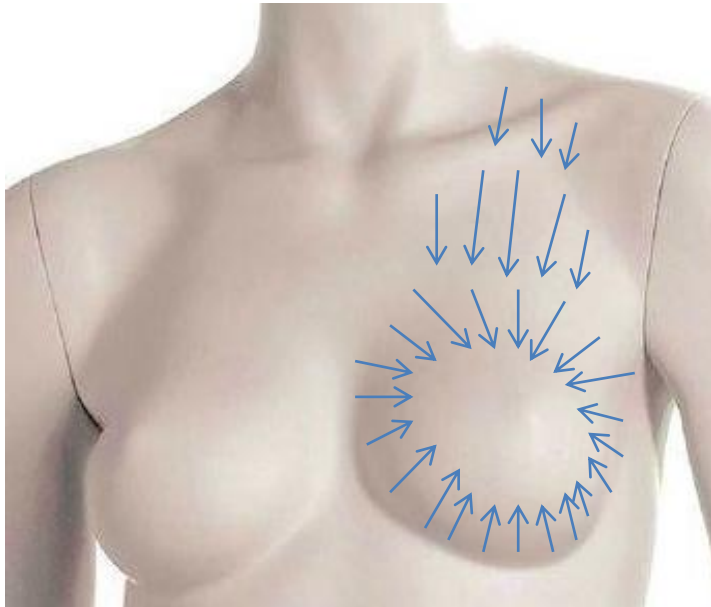


Breast lift



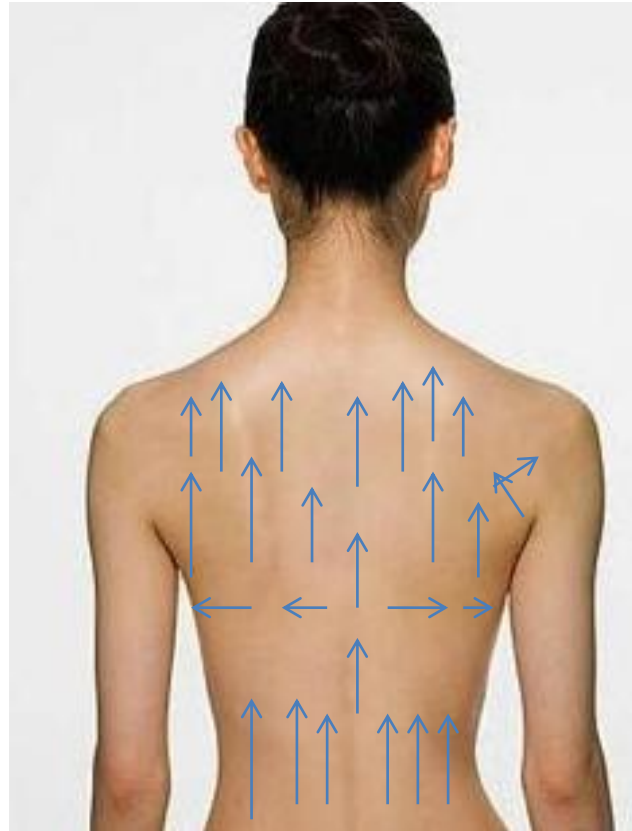


Breast augmentation





Breast augmentation





Before



Immediately after



After five months



5-month retouch treatment



Before



After

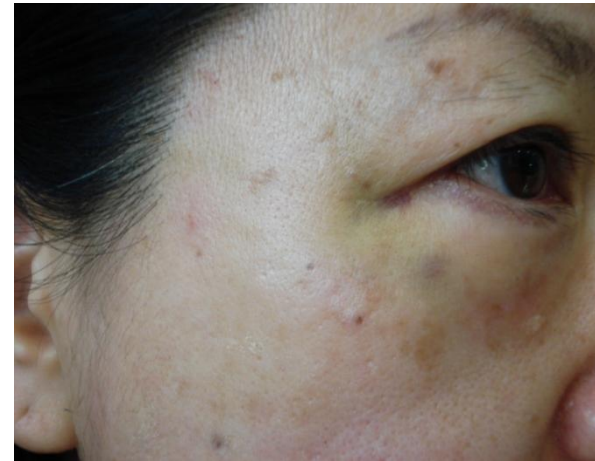




Before



After

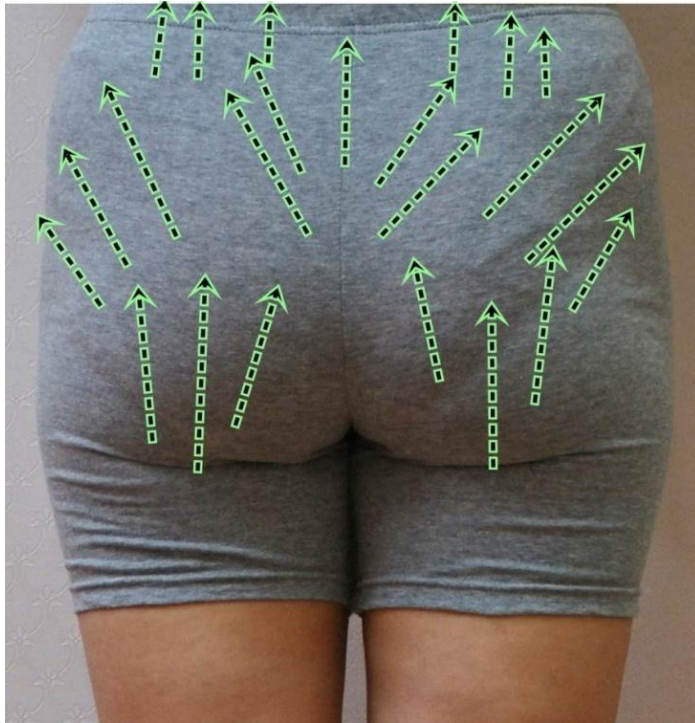




Before



After



Before



After



Before



After





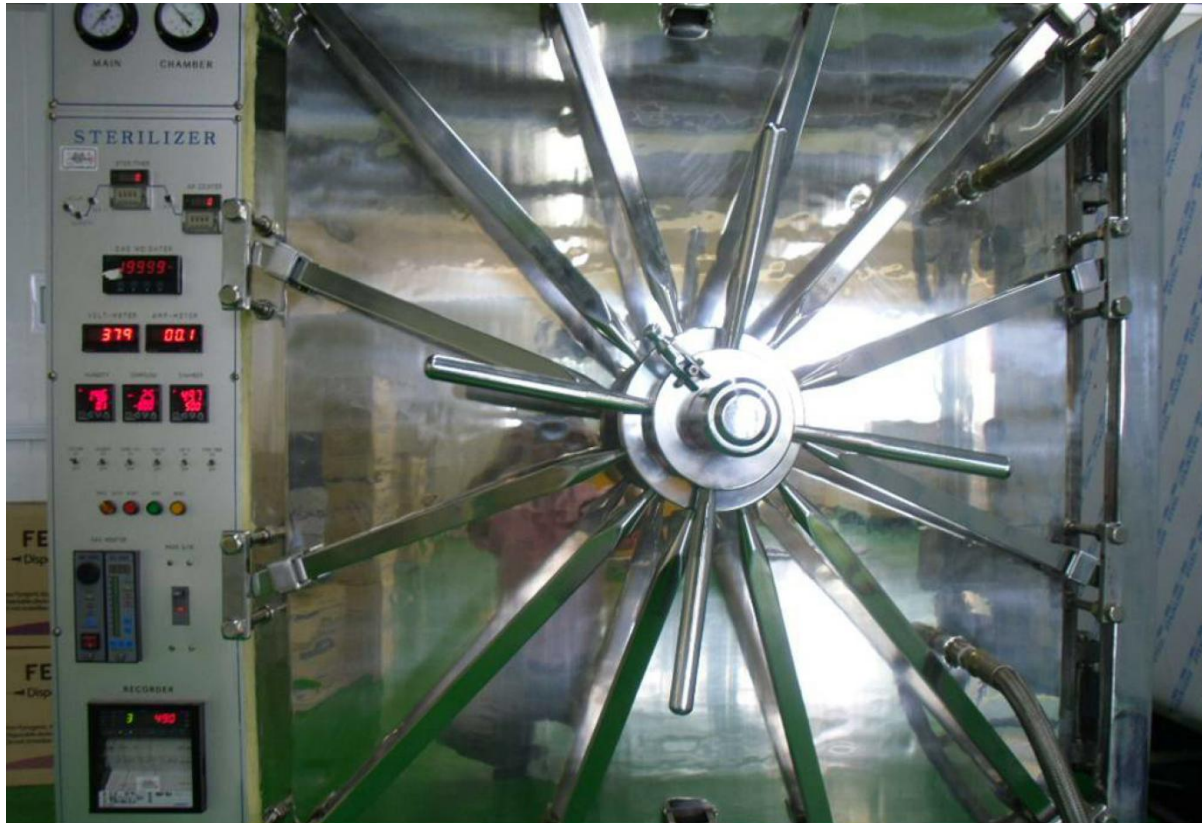
Before



After



Manufacturing is carried out to the highest quality standards



EO gas sterilisation



Packaging process - 99.9999 % purity

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