



# Miracu



Manufacture of PDO type



## DongBang Medical Group

Nasce a Chung Nam, Korea nel 1987. E' il maggiore produttore mondiale di aghi per agopuntura. Gli aghi di alta qualità DongBang sono universalmente conosciuti per la loro punta acuminata, detta ago di pino, che permette un inserimento sottocutaneo indolore.

Il processo produttivo di questi aghi si basa su una fusione a freddo con doppia affilatura della punta dell'ago che permette di raggiungere una acuminazione altrimenti impensabile.



 DONGBANG  
Acupuncture INC. 1987

 2004

 DONGBANG  
medi-care 2006

 2011

## Il razionale

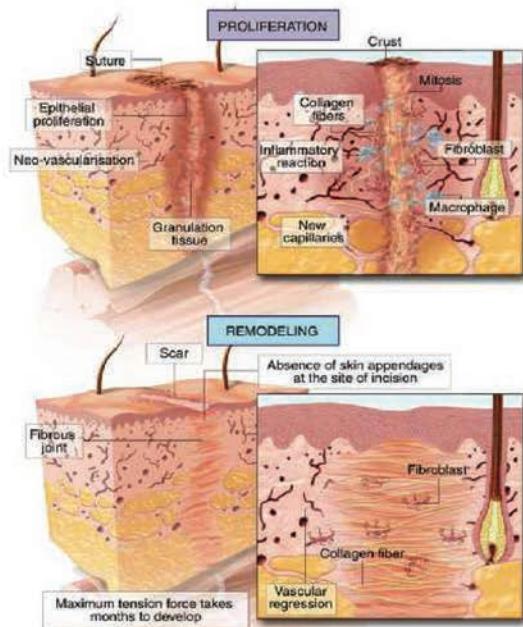
E' un nuovo approccio per il trattamento bio-stimolante con effetto lifting per viso, collo e corpo. Si basa sull'inserimento di fili di sutura in PDO (polidioxanone), una fibra sintetica potente, costituita da un monofilamento che viene idrolizzato dopo un certo tempo nel tessuto.

Osservazioni cliniche hanno dimostrato che il polidioxanone stimola la produzione di nuovo collagene - la proteina responsabile della compattanza ed elasticità della pelle - aumentando la sintesi dell'acido ialuronico endogeno e migliorando il microcircolo locale.

E' per questo che il tessuto nel quale si introduce il PDO diventa più sodo, elastico ed idratato.

## La metodica

Miracu si basa sull'utilizzo delle linee di tensione naturali della pelle, provocando un effetto simile al lifting chirurgico. I fili Miracu limitano la forza dei muscoli mimici simulando l'effetto della tossina botulinica, con il grande vantaggio di avere un aspetto più naturale perché non paralizza i muscoli.



## Gli effetti

Con l'utilizzo dei fili Miracu si ottiene un miglioramento immediato dell'aspetto della pelle. Dopo circa una o due settimane inizia la sintesi delle proteine naturali del corpo (collagene ed elastina). Questo processo continua fino al riassorbimento dei fili - che avviene mediante azione idrolitica - dopo circa 6-8 mesi. Gli effetti estetici invece durano 12-18 mesi, avendo in precedenza generato una importante stimolazione endogena. La rapidità di riassorbimento del filo in PDO ed il suo piccolo diametro escludono rischi di ispessimenti e di cicatrici che invece avvengono utilizzando altri materiali biocompatibili. Gli effetti del trattamento sono: ringiovanimento, effetto lifting, luminosità, sostegno e tonificazione dei tessuti, aumento di volume, attenuazione di rughe, linee e solchi.

## La sicurezza

Il PDO (polidioxanone) è un materiale utilizzato da sempre in chirurgia generale, vascolare e cardiochirurgica per i fili di sutura, si tratta quindi di un dispositivo medico assolutamente sicuro, completamente riassorbibile e ipoallergenico.

Miracu non richiede anestesia, non contiene metalli pesanti, non è allergizzante, non scatena meccanismi immunogenici, non ha importanti effetti collaterali (la reazione infiammatoria è molto bassa). Tutti i prodotti sono marcati CE 1293 e rispondono ai requisiti del decreto legislativo sui dispositivi medici 93/42 EC. Sono inoltre iscritti nel repertorio nazionale dei dispositivi medici del Ministero della Salute italiano.

Whitening  
Effect

Immediate  
Lifting Effect

Long Time  
Synthesizing Collagen



 Miracu

## THE EFFECT OF NEEDLE-EMBEDDING THERAPY ON THE IMPROVEMENT AGAINST FACIAL WRINKLES : A CASE SERIES

### [ ABSTRACT ]

**Objectives:** The purpose of this study was to examine the effect of needle-embedding therapy against facial wrinkle

**Methods:** Ten patients with facial wrinkles were treated with needle-embedding therapy. Pictures and satisfaction questionnaire were compared before and after the treatment. And all patients were examined for adverse side effect after needle-embedding therapy.

**Results:** After treatment, facial wrinkles were visibly improved after needle-embedding therapy. There were no adverse side effect except bruise.

**Conclusions:** This study suggests that needle-embedding therapy can improve facial wrinkles.

**Key words:** Facial Wrinkle, Needle-embedding Therapy.

-The journal of Korean Acupuncture & Moxibustion Society / v.4 no.3, 2008,pp.143-147

## SAFETY AND EFFICACY OF PDO AS ANTI-INFLAMMATORY AGENTS

### [ ABSTRACT ]

The aim of the present study was therefore to determine the effect of PDO on immune and inflammatory responses in vitro in human cells and in vivo in mice.

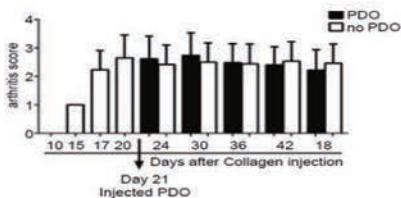
This research was supported by a grant from Dong Bang Acupuncture, Korea.

Short term in vitro exposure of human blood to PDO did not perturb the phagocytic function of human monocytes and neutrophils. In contrast lymphocytes exhibited an increased proliferative function in response to polyclonal T cell mitogen, PHA.

Injection of PDO into mice with rheumatoid arthritis suggested PDO to be anti-inflammatory as an increase in T regulatory cells as well as IL-10 was observed in the PDO treated groups.

Long term, in vivo, exposure to PDO suggests that it is anti-inflammatory. It may therefore prove beneficial to use PDO fibers in treatment of inflammatory diseases in conjunction with other treatments.

- Journal of Nanomedicine & Biotherapeutic Discovery. ISSN : 2155-983X



Miracu

## THE SUGGESTION FOR CLINICAL TRIAL OF FACE REJUVENATION USING KOREAN MEDICINE'S EMBEDDED NEEDLE (MAESUN) BASED ON LITERATURE REVIEW.

### [ ABSTRACT ]

**Objectives:** This work aimed to review clinical trial trend of Korean medicine's face rejuvenation and suggest future trial using embedded needle(Maesun) based on Evidence-based medicine's PICO Model.

**Methods:** 46 papers were searched from Oasis and DBPia, then 8 papers were engaged in review of clinical trial trend. Based on PICO model, clinical trial's patient, intervention, and outcome measurement were suggested.

**Results:** Evidence level of clinical trials is relatively low, because their study designs are almost case report or case series. No study has comparison groups. Outcome measurement is varied, however, 3D face scanner were used to measure before-after changes of face.

- The journal of Korean Acupuncture & Moxibustion Society / v.25 no.3, 2008,pp.229-236

## THE PDO THREAD IMPLANTATION TECHNIQUE FOR FACE REJUVENATION

### [ ABSTRACT ]

PDO thread implantation technique is popular in South Korea in recent years. We know empirically that this tech-nique is effective on tightening, reducing wrinkles, face contouring and lifting. But the basic mechanism being poorly understood, there is little reasonable guideline for indication, prognosis and precautions. This obstacle make many physician hesitate to accept the PDO thread implantation technique.

Therefore, the author propose reasonable hypothesis about this mechanism focusing on the tissue damage and mechanotransduction. Mechanotransduction is the ability of the cell to change mechanical stimuli to chemical signal. It plays important role in regulating gene expression and protein synthesis, changing the target tissue in the end.

Reviewing a few related articles, it is thought that mechanical stimuli and tissue damage derive unique effect on each layer from dermis to subcutaneous layer. In the dermis, collagen synthesis is main reaction. In subcutaneous layer, loose connective tissue facilitate fibroblasts spreading and cytoskeletal remodeling.

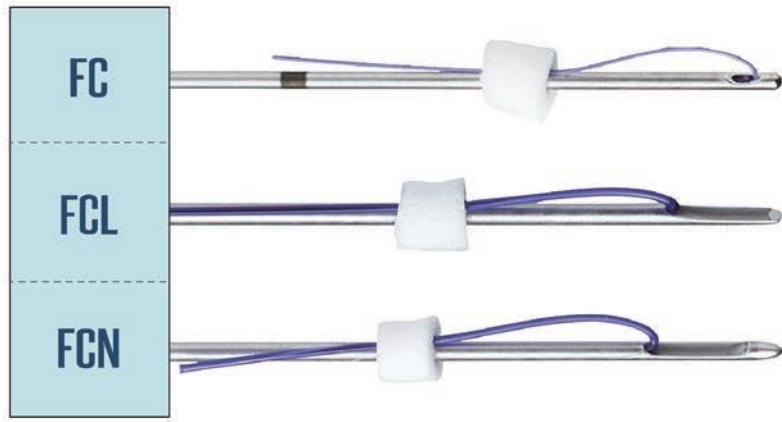
Using the unique response on each layer, we implanting thread to proper layer in a part of face or body, the known effect of this procedure is correctly achieved.

And to conclude, dermal and sub dermal layer uniquely responding to tissue damage and mechanical stimuli. Such reactions explain reasonably the known effect of PDO thread implantation technique. And, based on the understanding of mechanism, we can propose guidance about indication, precautions after procedure and the key point of this tech-nique

- Japan Socioy of Aesthetic Plastic surgery Journal / v.48 no.2, pp146-152

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## CANNULA TYPE



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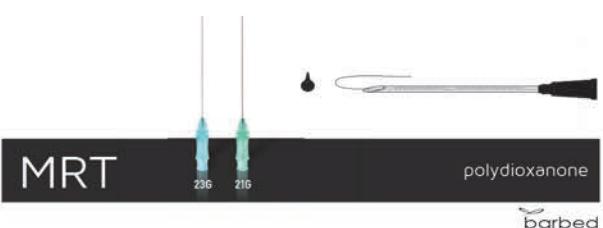
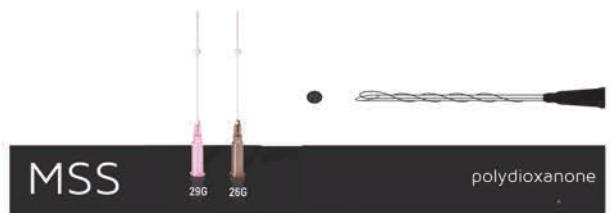
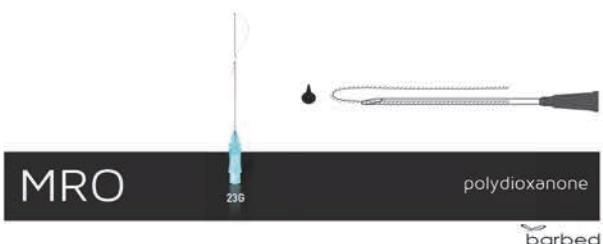
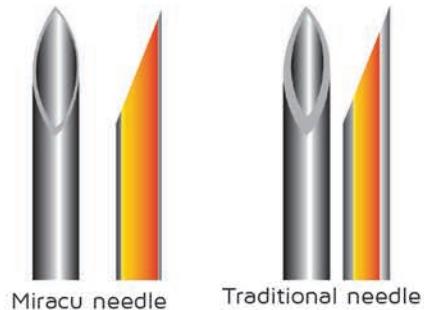
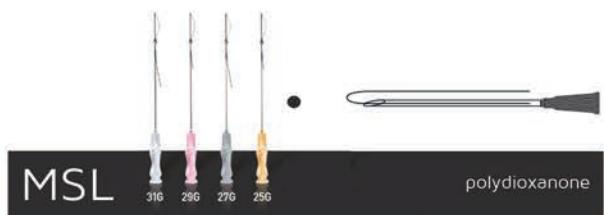
The Miracu logo consists of a stylized, wavy purple line above the word "Miracu" in a bold, purple, sans-serif font.

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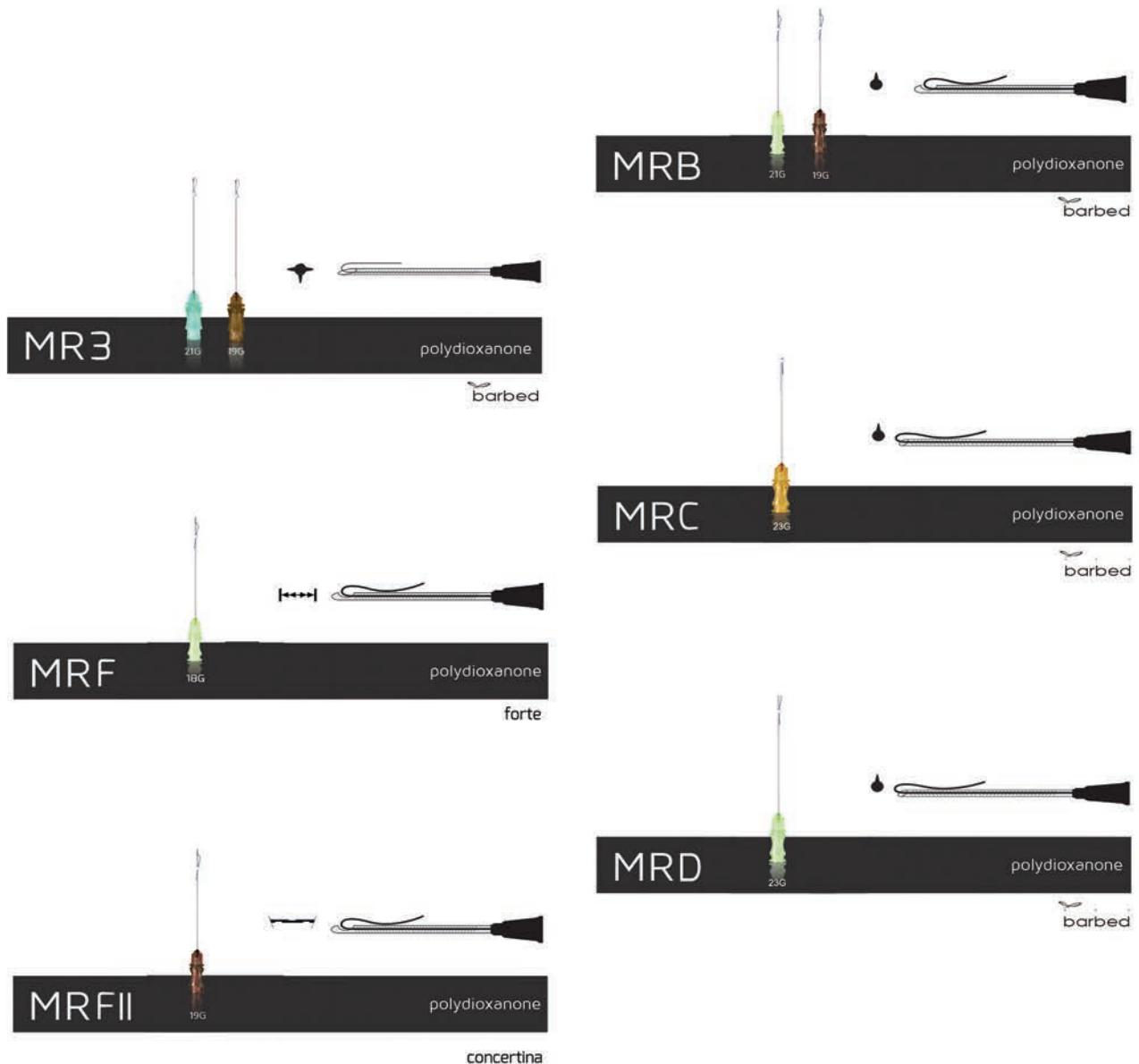
## Miracu collection

L'ago Miracu ha lo stesso diametro esterno di un ago tradizionale, ma ha un diametro interno maggiore che a parità di portata consente al paziente di provare meno dolore.



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## Miracu mono



Mono



CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MSL31025	31G	25	30	7-0	0.05
MSL29030	29G	30	30	6-0	0.07
MSL29040	29G	40	50	6-0	0.07
MSL29060	29G	60	90	6-0	0.07
MSL27040	27G	40	50	5-0	0.10
MSL27060	27G	60	90	5-0	0.10
MSL25090	25G	90	150	5-0	0.10
MSL25120	25G	120	200	5-0	0.10

1 BUSTA CONTIENTE 25 PEZZI BLISTERATI A 5

STERILE EO

## Miracu SCREW



Screw



CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MSS29040	29G	40	53	6-0	0.07
MSS26060	26G	60	90	5-0	0.10

1 BUSTA CONTIENTE 25 PEZZI BLISTERATI A 5

STERILE EO

## THREAD Power

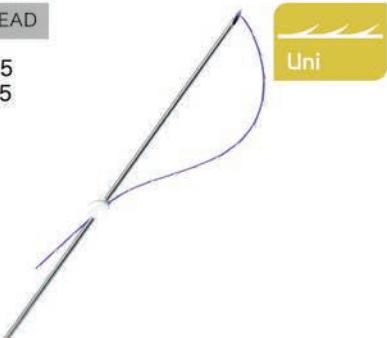
Anti-Aging PDO Lifting System

  
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## Miracu **BARB** UNI.

CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MRO23060	23G	60	90	4-0	0.15
MRO23090	23G	90	150	4-0	0.15

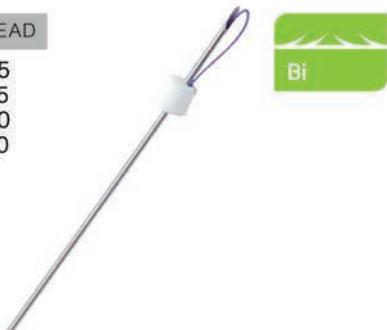


1 BUSTA CONTIENTE 12 PEZZI BLISTERATI SINGOLARMENTE

STERILE EO

## Miracu **BARB** BI.

CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MRT23060	23G	60	90	4-0	0.15
MRT23090	23G	90	150	4-0	0.15
MRT21060	21G	60	90	3-0	0.20
MRT21090	21G	90	150	3-0	0.20

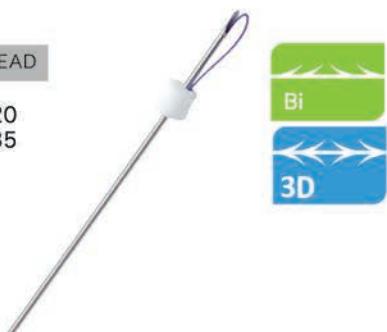


1 BUSTA CONTIENTE 12 PEZZI BLISTERATI SINGOLARMENTE

STERILE EO

## Miracu **BARB** 3D.

CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MR321090	21G	90	148	3-0	0.20
MR319090	19G	90	148	0-0	0.35



1 BUSTA CONTIENTE 12 PEZZI BLISTERATI SINGOLARMENTE

STERILE EO



Manufacture of PDO type

Miracu

**CANNULA**

CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MRD23060	23G	60	108	4-0	0.20

**Miracu BARB FC.**

STERILE EO

1 BUSTA CONTIENTE 12 PEZZI BLISTERATI SINGOLARMENTE

**CANNULA**

CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MRB21090	21G	90	148	3-0	0.20
MRB19090	19G	90	148	0-0	0.35

**Miracu BARB FCN.**

STERILE EO

1 BUSTA CONTIENTE 12 PEZZI BLISTERATI SINGOLARMENTE

**CANNULA**

CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MRC23090	23G	90	148	4-0	0.20

**Miracu BARB FCL.**

STERILE EO

1 BUSTA CONTIENTE 12 PEZZI BLISTERATI SINGOLARMENTE

*Manufacture of PDO type*

## Miracu FORTE

CODE	GAUGE	NEEDLE [mm]	THREAD [mm]	USP THREAD	Ø THREAD
MRF18100	18G	100	185	0-0	0.35

CANNULA

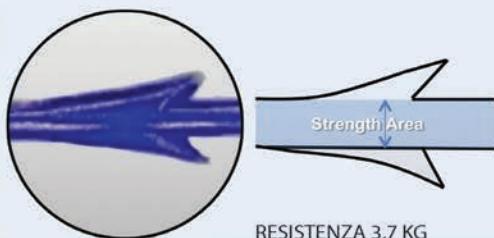


1 BUSTA CONTIENTE 8 PEZZI BLISTERATI SINGOLARMENTE STERILE EO



### MAGGIORE TRAZIONE

**FORTE**



RESISTENZA 3,7 KG

## Indicazioni



Rughe nasogeniene

Labbra

Palpebre

Zampe di gallina

Codice a barre

Glabella

Arco sopracciliare

Profilo del viso (V)

Area peri-auricolare

Addome

Avambraccio

Seno

Anche

Fianchi

Mani

Collo e décolleté

Glutei

Interno cosce

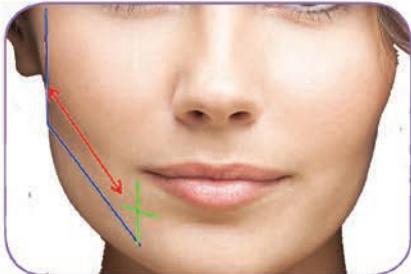
Ascelle

Ginocchia

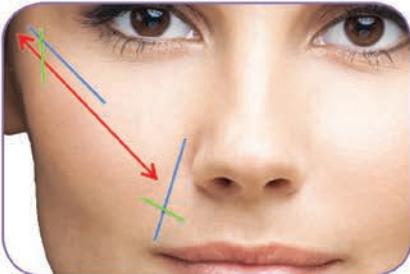
- Ottimizzazione della texture
- Aumento del metabolismo della pelle
- Attivazione della circolazione linfatica
- Aumento della circolazione dei tessuti circostanti
- Stimolazione della fascia e dei tessuti molli di lungo periodo
- Creazione di collagene e normalizzazione di quello alterato
- Ritardo dell'invecchiamento cutaneo
- Rimodellamento della silhouette
- Elasticità tissutale e lifting
- Luminosità della cute.

## Schemi di impianto

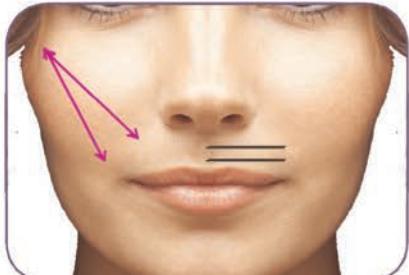
Viso A



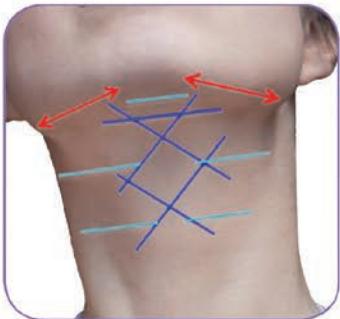
Viso B



Viso C



Collo



Décolleté

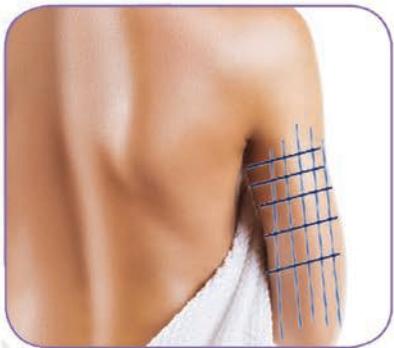


Viso D



## Schemi di impianto

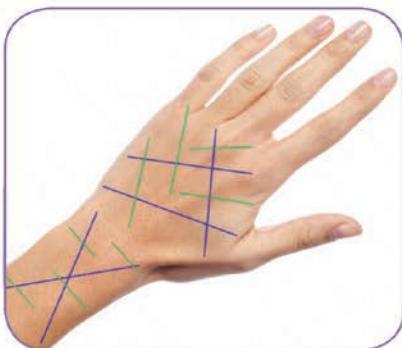
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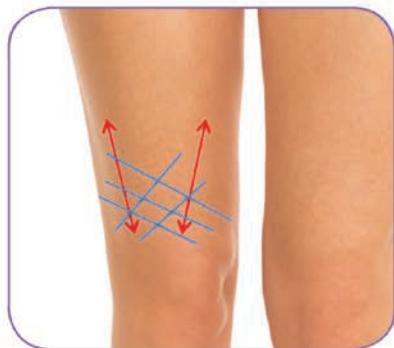
Tricipite B



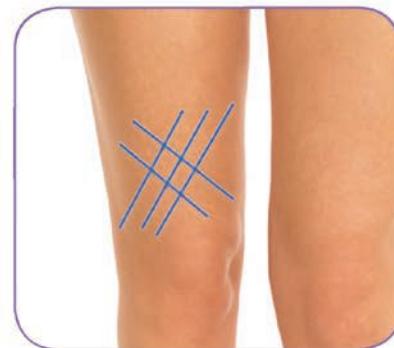
Mano



Ginocchio A

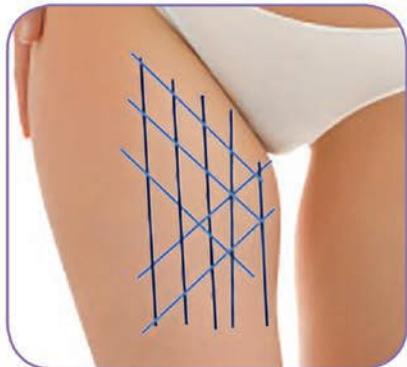


Ginocchio B

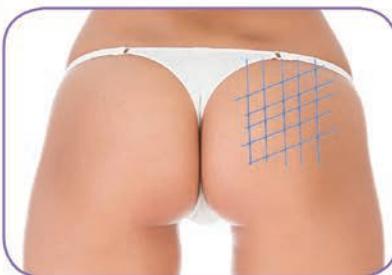


## Schemi di impianto

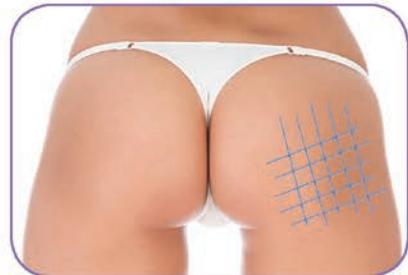
Interno coscia



Glutei A



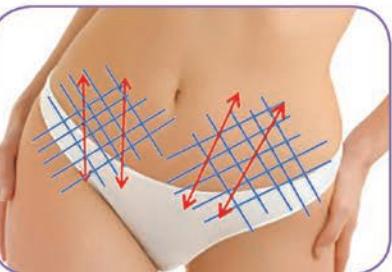
Glutei B



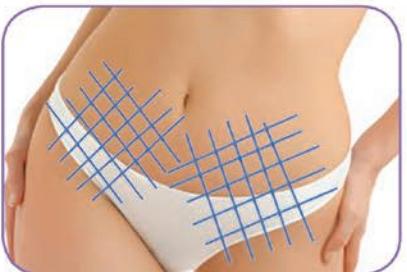
Addome A



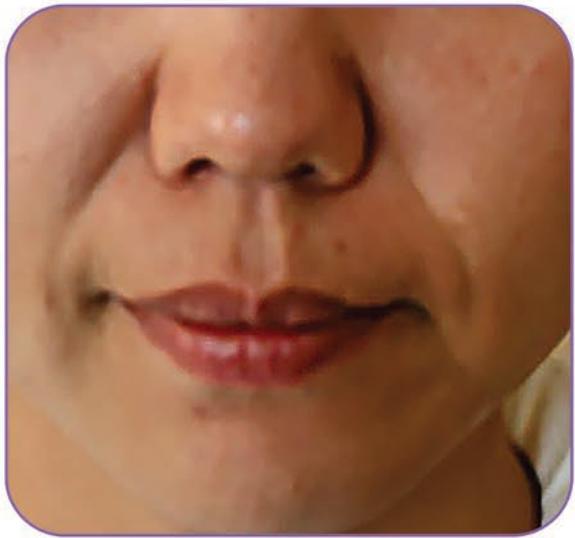
Addome B



Addome C



Before & After



Before & After

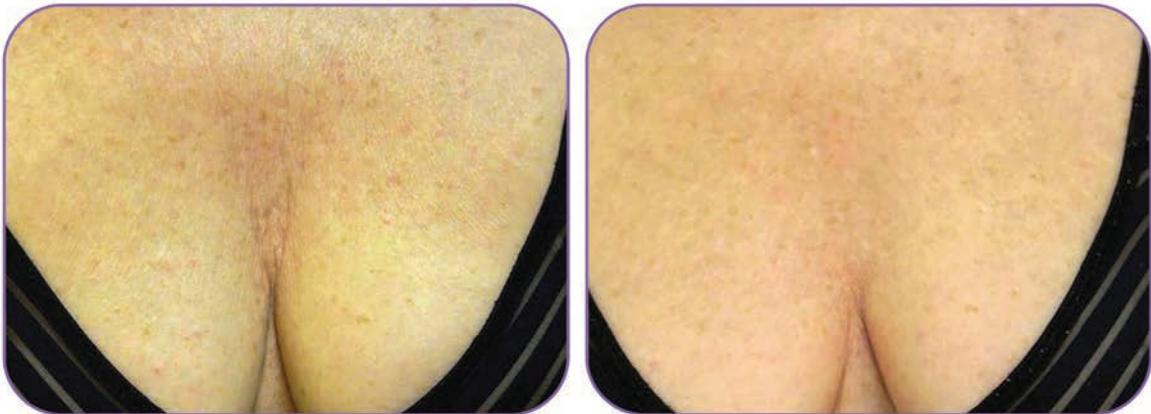


Miracu

Before & After



Before & After



Miracu

Before & After



Before & After



Miracu

Before & After



Before & After



Miracu

ALTRI PRODOTTI

**carbomed<sup>CO<sub>2</sub></sup>**  
carboxytherapy

**LIN e RASE**  
SKIN REGENERATION

**REVOLAX**  
DERMAL FILLER

**HANDY**  
Plasma Excellence

Miracu

ALTRI PRODOTTI



Miracu



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