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Plexx®
Made in Italy Plus

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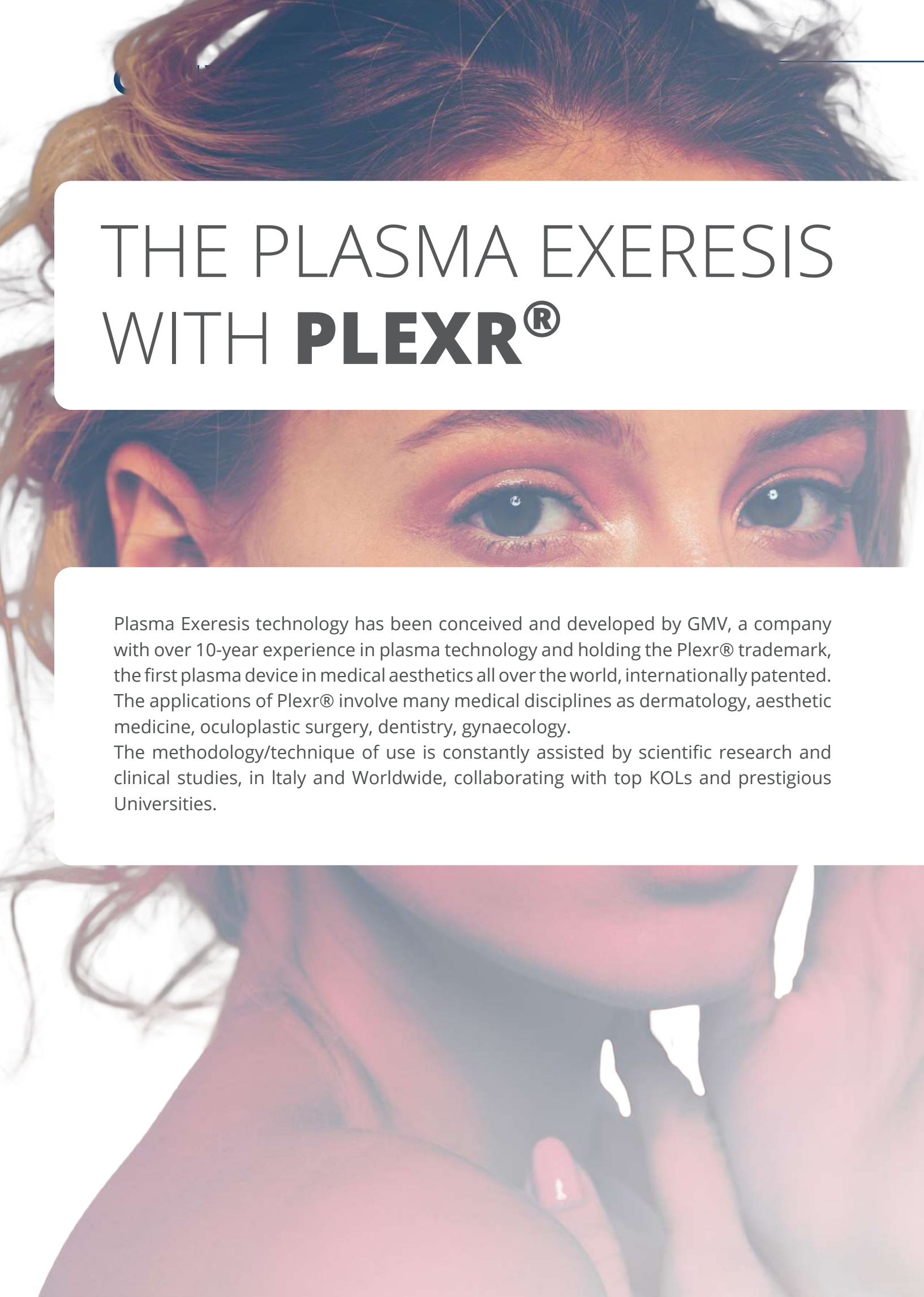
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**THE
GOLD STANDARD**
IN PLASMA
TECHNOLOGY

by

G|M|V

A close-up photograph of a woman's face, focusing on her eyes and hair. The image is partially obscured by white text boxes. The woman has dark hair and is looking directly at the camera.

THE PLASMA EXERESIS WITH **PLEXR**®

Plasma Exeresis technology has been conceived and developed by GMV, a company with over 10-year experience in plasma technology and holding the Plexr® trademark, the first plasma device in medical aesthetics all over the world, internationally patented. The applications of Plexr® involve many medical disciplines as dermatology, aesthetic medicine, oculoplastic surgery, dentistry, gynaecology.

The methodology/technique of use is constantly assisted by scientific research and clinical studies, in Italy and Worldwide, collaborating with top KOLs and prestigious Universities.



NEW **PLEXR PLUS**

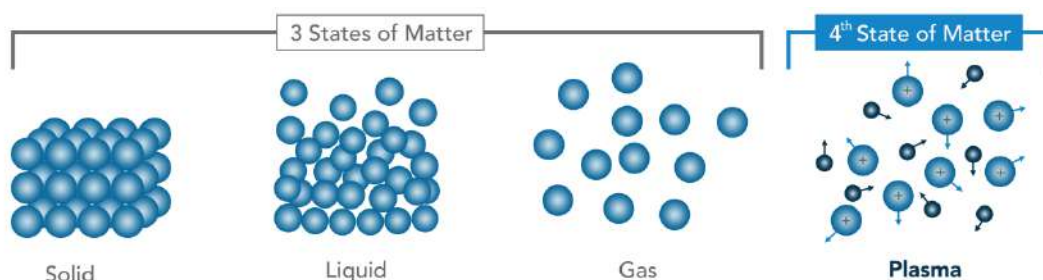
Plasma

A term derived from the Greek for 'entity' or 'form', is the fourth state of matter and it is constituted by negatively charged electrons and positively charged ions with an overall neutral net charge. It can be created when a difference in voltage matches the dielectric breakdown of the gas included into the field.

Atoms are the elements of molecules; when the interaction among molecules is high, they result in a solid, able to maintain shape a volume until an extremely high strength can break such interaction. **When the interaction is weak among molecules, this can result respectively in a liquid, maintaining volume but losing shape, or in a gas, which maintains no shape or volume, but occupies all the available space.**

When an external energy can split the molecules of the gas in positive and negative parts, we reached the fourth state of the matter: plasma.

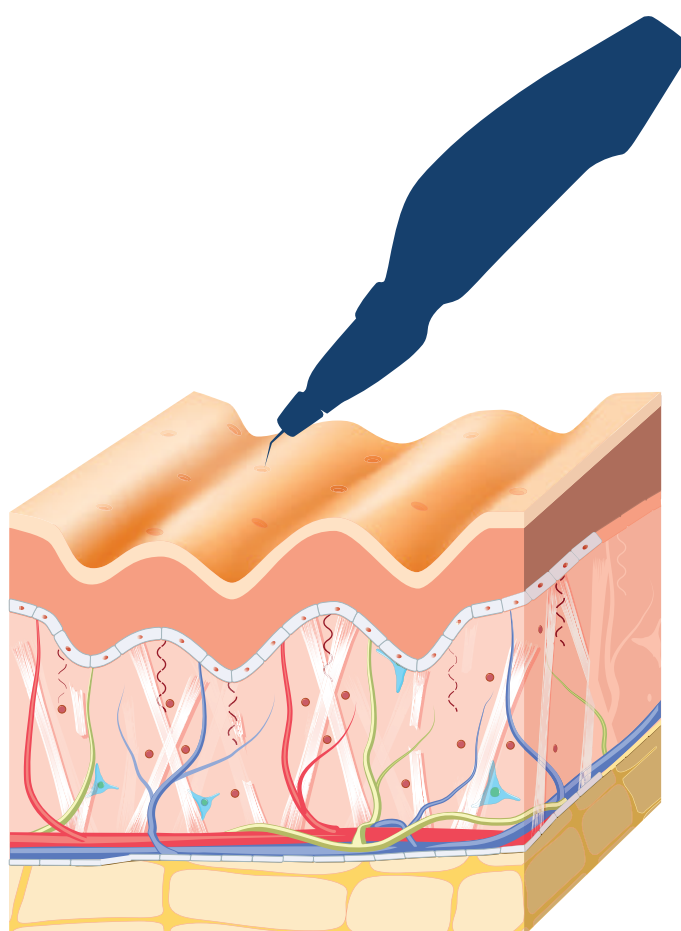
When activated, Plexr ionizes the air between the tip of the device and the human body by generating an appropriate potential difference.



The electric breakdown of the air is around 3000 V per mm, depending from some factors such as humidity and bodies the physical phenomenon is generated by.

Using the Plexr® signal parameters, around half millimetre is the needed distance for the ionization of the air atoms.

No plasma is generated when the probe is in direct contact with the tissue or too distant from it.



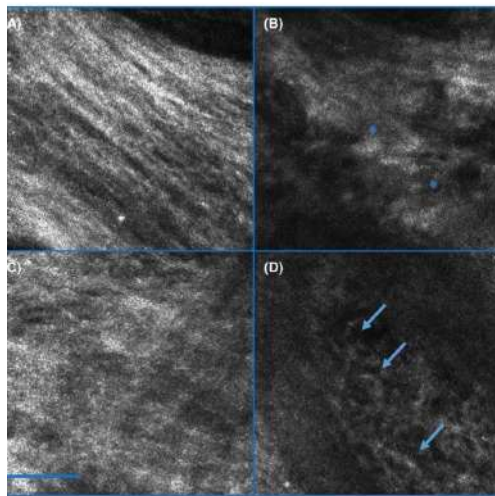
The plasma generation is similar to a micro lightning bolt that acts directly only on the epidermis. Before sublimating, the corneocytes transmit a selective estimated quantity of energy that reaches the right deepness of dermis, without irradiation (laser/light) or electric shock (radianscalpel/current).

No any form of energy is delivered directly from the device to the deeper tissue, no eddy currents are generated.

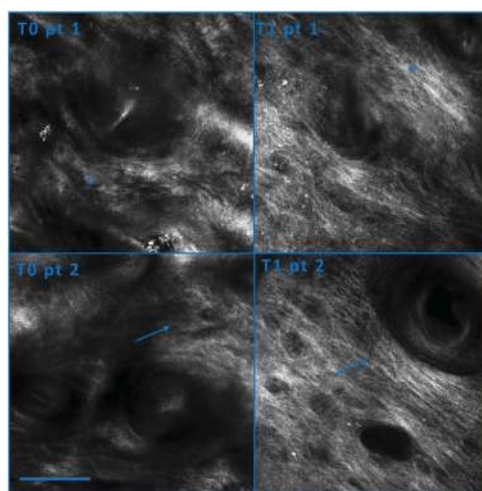
The action of Plexr on tissues allows:

- 1- immediate contraction of the collagen fibers
- 2- collagen reorganization
- 3- formation of new collagen (type III)
- 4- renewal the epidermal tissue.

This mechanism has been proved through several scientific studies (see literature section).



Dermal matrix architecture at reflectance confocal microscopy (RCM): reticulated collagen (A), huddled collagen (B) with the large hyporefractive blotches of amorphous and hyporefractive material in evidence (asterisks). Coarse collagen (C) and curled collagen (D) with the highly refractive thick and wavy fibers, which sometimes form compact masses in evidence (arrows). Scale bar = 50 mm.



Dermal matrix architecture by reflectance confocal microscopy (RCM) of Patients 1 and 2: at baseline (T0), signs of skin aging characterized by a collagen with variable degrees of degeneration: in Patient 1 (T0 pt1) it was classified as huddled (asterisk) and in Patient 2 (T0 pt2) as coarse (arrow). At T1, a strong collagen remodeling process was detected in both patients: bright and long fibers with a parallel alignment are detected in Patient 1 (T1 pt1) and in Patient 2 (T1 pt2). Scale bar = 50 mm.

Technology and Applications

Plexr Plus is conceived with three different handpieces: the output of each handpiece is in fact optimized so that an ad-hoc signal can be performed in function of the specific treatment. The choice of the handpiece is strictly dependent by the treatment the Dr. is going to perform.

WHITE HANDPIECE Blepharoplasty, lentigo solaris, moderate active acne, small wrinkles, umbilical lifting, small benign skin neoformations, coadjuvant for small keloids, moderate cutaneous renewal and skin rejuvenation, vaginal rejuvenation and vulvoplasty.

GREEN HANDPIECE Active acne, medium benign skin neoformations, seborrheic keratosis, elastosis, dyschromia, small ruby angiomas, face lifting, xantelasmas, small fibromas, small scars.

RED HANDPIECE Voluminous benign skin neoformations, big fibromas coadjuvant for keloids, big ruby angiomas, deep scars, acne scars, resurfacing, warts, seborrheic warts, hyperkeratosis, gingival whitening and so on.

However, there are factors that can furtherly influence the handpiece choice:

- **Experience** of the doctor: as initial approach it is suggested to use the white handpiece, in order to better achieve and understand functionality of the device. With constant attendance to training courses and acquisitions of experience you will gather the necessary skills to treat different types of skin pathologies.

- **Entity** of the skin pathology.

- **Skin type** of the patient.

GMV strongly recommends to use only official Plexr Tips.

These kinds of needles, made with medical-grade stainless steel, are conceived to work combined with Plexr's handpieces: they have been studied and designed to generate the correct quantity of Plasma. The Plexr Tips are single use to optimize the result



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Why Plexr is different from other Plasma devices

Plexr is the unique device able to recreate the precise and stable phenomenon of Plasma intended for medical use, allowing the Doctor to work safely and successfully.

Plexr is designed to reproduce correctly the necessary physical dimensions observed in several scientific studies (see literature).

Producing a general and incorrect signal to generate plasma is definitely not sufficient and/or dangerous.

To do that, specific parameters and specific electronic design are mandatory. This property avoids deep thermic damage, electric shock and allows to reach the desired result with minimal downtime. The focused micro-plasma beam due to the ionization of the gases contained in the air, sublimates the stratum corneum of the epidermal tissue where the spot is performed, but the ionic flow doesn't spread out to deeper tissue. The basal lamina is preserved and there is no dermal or electrical damage (see literature). A device designed with different parameters and composed by different electrical components causes different or even unpredictable/dangerous effects:

- **Lower working frequency:** too high penetration, thermic damage, high skin-tip distance (less accuracy).
- **Higher working frequency** (electrosurgical unit): reduced skin-tip distance, current flow, high superficial energy (skin cut).
- **Higher working voltage:** too high penetration, thermic damage, high skin-tip distance (less accuracy).
- **Lower working voltage:** no effect.

Therefore, possible consequences in using different devices are:

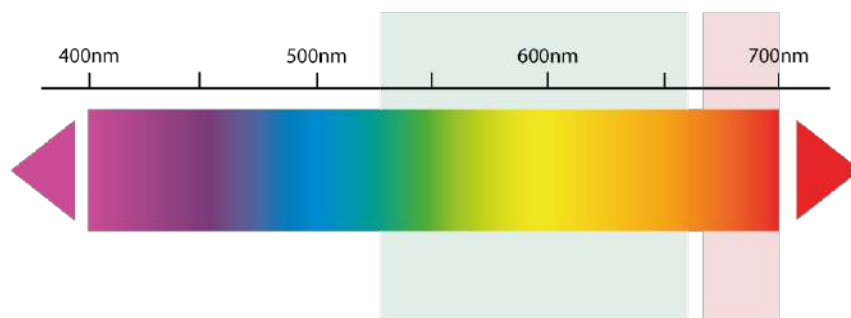
- more pain for the patient
- no same results
- scarring
- expertise of the operator: the space between good result and side effect (scars) is minimal. Trying to get better results means to risk scarring. Plexr does not produce scarring at all.
- Not estimable or long-lasting prominent side effects: redness (erythema), oedema and Post Inflammatory Hyperpigmentation (PIH).
- The stable plasma generated by Plexr opens to other protocol.

Why Plexr is different from LASERs

The target tissue of the coherent, monochromatic and unidirectional radiation turns out a new heat source, increasing temperature in the surrounding tissue.

Furthermore, LASER:

- Is skin colour and pathology depending
- Produces a not uniform effect
- Is more expensive
- Causes a longer downtime
- Implies more difficult treatment
- Is less versatile -cumbersome, no wireless, no portable



Why Plexr is different from electrosurgical units (radiofrequency)

Electrosurgical units / Radio scalpel delivers currents with higher intensity (X10) and frequency. This makes the device more aggressive to the skin.

- Return electrode pad (current diffused all over the body)
- Uncontrolled current flow
- More invasiveness (Cut)
- Diffused thermal damage
- Less versatility (no wireless, no portable)
- Not uniform effect
- Longer downtime

The upgrade many people were looking for



- Microprocessor checking online the output signal -assuring the output is respecting the scientific literature parameters-
- Patented design by GMV
- Touch screen display
- Video tutorials
- Extractable lithium polymers battery pack (12h recharge)
- Software updates for new functions -fractional mode-
- High quality packaging
- The handpieces ion lithium battery (5h high performance)
- Portable charging-base for car lighter and power plug
- Quality of the components

Effective Literature

Scientific research proves the effectiveness and safety of Plexr. Doctors and researchers from all over the world have made studies using Plexr, and they published their results on different journals. Most of these journals also have the Impact Factor index, which is one of the most widely used research assessment indexes recognized at international level.

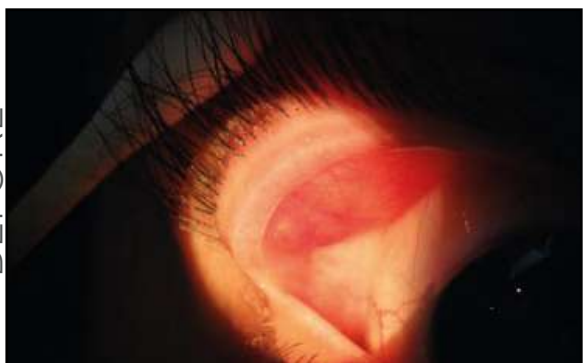
List of most important and recent publications:

- Tsioumas G, Sotiris, et al. A descriptive Study on the Applications of Plasma Exeresis in Dermatology. Journal of Clinical and Aesthetic Dermatology. 2021- Nejat F, et al. The assessment of the concentration of candidate cytokines in response to conjunctival-exposure of atmospheric low-temperature plasma in an animal model. BMC Ophthalmol. 2021
- Nejat F, et al. Safety evaluation of low-temperature plasma (ALTP) on the conjunctiva: an animal study and histopathological findings; 6-month follow-up. BMC Ophthalmol. 2021
- Rubins S, Ritina I, Jakus J, Rubins A. Plasma sublimation for the treatment of xanthelasma palpebrarum. Acta Dermatovenerol Alp Pannonica Adriat. 2020
- Sotiris TG, CASE REPORT: The impact of Plasma Exeresis after fillers complication on the lips. Symbiosis. 2020
- Nejat F, et al. A Novel Approach to Treatment of Conjunctival Cyst Ablation Using Atmospheric Low-Temperature Plasma. Clin Ophthalmol. 2020
- Nipshagen MD, Velthuis PJ, Mosmuller DGM. Periorbital postinflammatory hyperpigmentation after plasma exeresis. Dermatol Ther. 2020
- Paganelli A, Mandel VD, Kaleci S, Pellacani G, Rossi E. Favre-Racouchot disease: systematic review and possible therapeutic strategies. J Eur Acad Dermatol Venereol. 2019
- Nalewczyńska A, Tsioumas S et al. The use of a Plasma Generator (Plexr) to treat the Symptoms of Vulvar and Vaginal Atrophy (VVA). Journal of Dermatology and Cosmetic Treatment. 2019
- Nejat F, et al. Safety evaluation of the plasma on ocular surface tissue: an Animal Study and Histopathological Findings. Clinical Plasma Medicine. 2019
- Rota MT. Plasma Exeresis: a novel approach to treat Gummy Smile. Prime Journal. 2019
- Surgical Full Face Lift. Journal of Clinical & Experimental Dermatology Research, 2017
- TG Sotiris, G Nikolaos, G Irini The Gas Ionization by Plasma Technology for Noninvasive Techniques in Oculoplastic. JOJ Ophthalmology, 2017

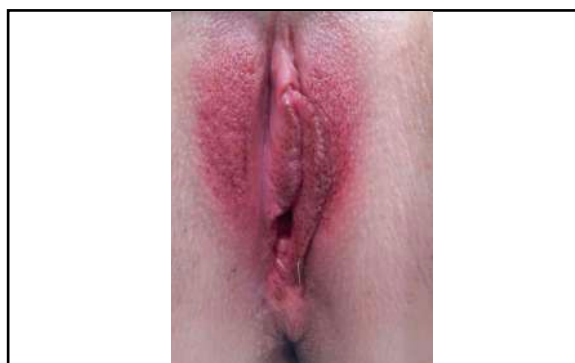
- Sotirios TG, Nantia S. Non-Invasive Blepharoplasty with Plasma Exeresis (Plexr) Pre/Post Treatments. J Aesthet Reconstr Surg. 2018
- Rossi E, Paganelli A, Mandel VD, Pellacani G. Plasma Exeresis Treatment for Epidermoid Cysts: A Minimal Scarring Technique. Dermatol Surg. 2018
- Rossi E, Paganelli A, Mandel VD, Pellacani G. Favre-Racouchot syndrome: report of a case treated by plasma exeresis. J Eur Acad Dermatol Venereol. 2018
- Rossi E, Farnetani F, Trakatelli M, Ciardo S, Pellacani G. Clinical and Confocal Microscopy Study of Plasma Exeresis for Nonsurgical Blepharoplasty of the Upper Eyelid: A Pilot Study. Dermatol Surg. 2018
- Rossi E, Mandel VD, Paganelli A, Farnetani F, Pellacani G. Plasma exeresis for active acne vulgaris: Clinical and in vivo microscopic documentation of treatment efficacy by means of reflectance confocal microscopy. Skin Res Technol. 2018



BEFORE



AFTER



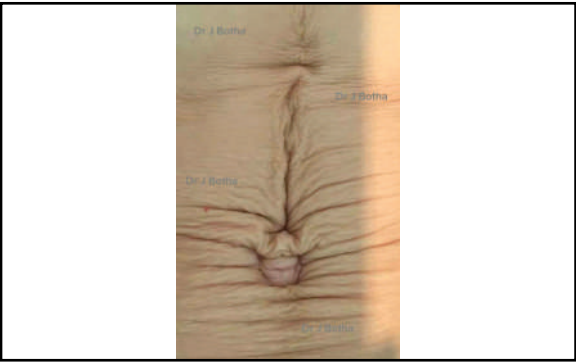
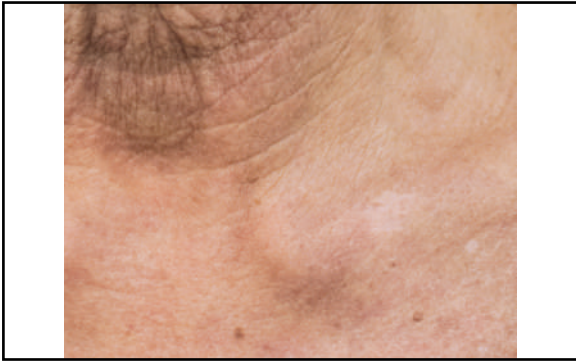
Results

Results

BEFORE



AFTER



Plexr® & GMV Certificates

Plexr, like all GMV medical devices, has been approved by the European Community and from notified bodies and government entities around the world.

List of most important international certificates:

ISO 9001

IQNET: International certification network

ISO 13485

EC CERTIFICATE: Full Quality Assurance System Approval Certificate

ALWAYS WITH YOU



Immediate technical support
Responsive communication with our staff
Online and on-site support



Awards

Aesthetics awards

My face my body awards

Pearls of Aesthetic
Dermatology

Azerbaijan Aesthetic &
Anti-Age Medicine
Congress

Safety in Beauty
Diamond Awards



About

GMV is based in Rome, where the most advanced technologies are developed, following the rules of Made in Italy and in compliance with European standards in terms of safety, quality and reliability. The ISO 9001 and EN ISO 13485 quality management certifications confirm the professionalism of our company.

Our devices, certified according to the Directive 93/42 / EEC for medical devices, are made entirely within our company, from the generation of ideas and prototypes to production and sales.

GMV first introduced plasma technology in 2006 leading to a development in plasma medicine for aesthetic medicine. The Plexr plasma medical device was the first device to be used for minimally-invasive interventions. With over 9 years of scientific research, Plexr plasma medical device has been proven to be safe for clinical use.

Designed and manufactured in Italy, the Plexr technology is the most completely studied medical plasma device in the world today.

Technical and educational support

Our Company supports doctors from the first time they have the device. The assistance is both technical and educational.

GMV is committed to supporting healthcare providers and clinicians with its support network and resources ensuring a high-level of customer satisfaction from design, delivery, installation to enduring product performance.

We periodically organize training courses: the aim is to guide each doctor through a training process which exalts to the max a practical approach, which allows to begin immediately with the techniques acquired providing latest technologies in the field of aesthetic medicine and beyond.

Numbers



Choose the safety for your body. Choose the best efficacy treatments. Choose Plexr:
The Original One

GIMV

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ISO 9001:2015
ISO 13485:2016