

MD-TISSUE MD-MATRIX

Collagen medical devices



MD-TISSUE Collagen and **MD-MATRIX** Collagen are injectable medical devices featuring an innovative formula.

- They support the repair and regeneration processes of tissues damaged by overuse and ageing.
- They induce repair and tissue remodelling processes.
- They stabilise and strengthen the affected structures and tissues.
- They are easy to use: they can be administered by means of commonly used aesthetic medicine injection and infiltration techniques.
- They ensure maximum tolerability and safety.
- They contain collagen (Type I, of porcine origin) and auxiliary substances (minerals and vitamins), which help enhance the antioxidant and anti-ageing effects.
- They are natural and resorbable, and help the body produce its own collagen.

Biostimulation: MD-TISSUE Facial

MD-TISSUE is intended to help limit the physiological deterioration of the skin and subcutaneous connective tissue and to counteract the effects of ageing and light exposure, such as:

- Localised anti-ageing treatment.
- Facial and neck wrinkles.
- Firming treatment for the perivascular and subcutaneous connective tissue layers of the face and neck.
- Impaired trophism of the connective tissue of the face and neck induced by air pollutants / metabolic disorders.

COMPOSITION:

- **Type I Collagen:** promotes, maintains and restores collagen fibres in the extracellular matrix of connective tissue.
- **Natural auxiliary components:**
 - **Vitamin B1 (Thiamine Hydrochloride):** antioxidant and detoxifying action.
 - **Vitamin B2 (Riboflavin):** antioxidant action.
 - **Vitamin B6 (Pyridoxine Hydrochloride):** antioxidant and anti-ageing actions.
 - **Vitamin C:** antioxidant action and stimulation of collagen synthesis.
 - **Magnesium Gluconate:** stimulates collagen synthesis.



10 vials of 2 mL

47-year-old patient before and after the 4th session (treatments every two weeks)



Courtesy of Dr Melinda Illich.

FACIAL BIOSTIMULATION PROTOCOL



INJECTION SITES	FOREHEAD CHEEKS	CHIN NECK	NOSE NOSETRILS EYELIDS
TECHNIQUE	POINT BY POINT o ooooo		Nappage X XXXXXX
FREQUENCY	1 session per week for 4 weeks 1 session every two weeks for 1 month 1 session once a month for 2 months		

- It can be used in patients of any age.
- A superficial dermabrasion may be performed prior to treatment.
- Mesotherapy (microinjections): Use a 27 G, 4 mm needle. Inject 0.2 to 0.3 mL at each point, at a depth of 1 to 3 mm.
- Tunnelling technique: Use a 30 G, 13 mm needle. Inject 0.3 mL into the wrinkle.
- Insert the entire length of the needle beneath the skin, tangentially to the wrinkle. Inject the solution while gently and delicately moving the needle from left to right.
- Nappage (intradermal injection): Perform multiple superficial injections at a depth of 1 to 2 mm, at a 45-degree angle, while applying constant pressure to the syringe plunger. Move along the area to be treated, rapidly injecting a small drop of liquid every 2 to 4 mm.

SCAR TREATMENT



Courtesy of Dr Frasca.

Tunnelling Technique:
Use a 30 G, 13 mm needle. Inject 0.3 mL into the wrinkle. Insert the entire length of the needle beneath the skin, tangentially to the wrinkle, and inject the solution while gently moving the needle from left to right.

Scientific information only. Information intended exclusively for healthcare professionals. Medical devices in compliance with applicable legislation.

Biostimulation: MD-MATRIX Body

MD-MATRIX Collagen helps reduce the appearance of LOCALIZED ADIPOSITY and CELLULITE through its action at different levels. It is indicated for strengthening the subcutaneous and microvascular connective tissue layers affected by localized adiposity and cellulite, particularly in the inner thigh and inner knee areas.

EFFECTS OF COLLAGEN APPLICATION

BODY:

- Reduction in the appearance of cellulite.
- Skin tightening.

COMPOSITION:

- **Type I Collagen:** promotes, maintains and restores collagen fibres in the extracellular matrix of connective tissue.
- **Natural auxiliary components:**
 - **Vitamin B3 (Nicotinamide):** reactivates cellular metabolism, stimulating ATP (energy) production and antioxidant activity.
 - **Citric Acid:** has an antioxidant action by reactivating cellular metabolism and helping to create a protective barrier against free radicals.

*Anti-inflammatory action: strengthens the extracellular matrix, helping to control inflammatory changes in subcutaneous tissue associated with cellulite.



10 vials of 2 mL

TREATMENT OF LOCALIZED ADIPOSITY

Injection Sites:

Abdomen, lower and upper limbs, buttocks, double chin..

Injection Points:

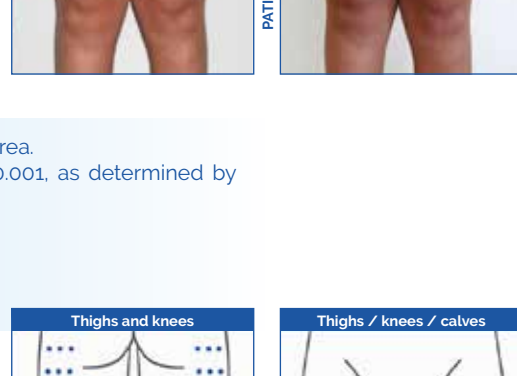
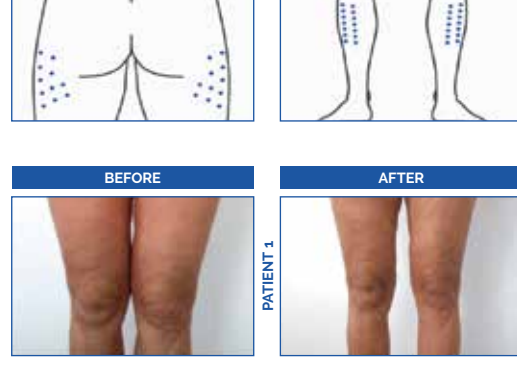
Symptomatic points (mesotherapy).
Use a 27 G, 4 mm needle.
Insert the needle to a depth of 1-3 mm.
Microinjections: 0.2-0.3 mL into the affected tissue.

Simultaneous Application of Two Established Techniques — Acupuncture and Mesotherapy with Injectable Collagen — in the Treatment of Localized Fat Accumulation in the Knees

- 22 women aged 25 to 51 years with excess fat deposits in the knee area.
- From October 2011 to March 2012, ten weekly sessions of Acu-Mesotherapy were performed.
- Circumference measurements were taken at the level of the popliteal fold before starting treatment, at the beginning of each subsequent session, and at the end of the treatment course.
- Subcutaneous injection at a depth of 5-10 mm, using 27 G needles and injecting 0.3 mL of collagen (MD-MATRIX) at the following acupuncture points: St-34, St-36, Sp-9, Sp-10, Liv-8 and BL-40, and 0.2 mL at St-35, St-34, St-36, Sp-9, Sp-10, Liv-8, BL-40 y 0.2 mL en St-35.

RESULTS: All patients achieved an objective reduction in localized fat deposits in the knee area. The reduction in knee circumference was statistically significant: $F(2, 42) = 208.708, p < 0.001$, as determined by repeated-measures analysis.

Repeated-measures analysis:
Before treatment: mean of 42.68 cm
After the fifth session: 41.07 cm
After the tenth session: mean of 39.36 cm



CELLULITE TREATMENT WITH MD-MATRIX

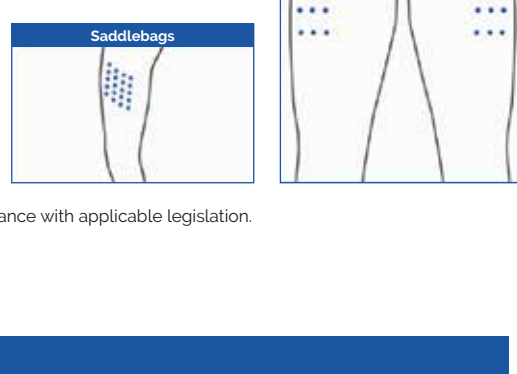
Injection Sites:

Abdomen, lower and upper limbs, buttocks, double chin..

Injection Points:

Symptomatic points (mesotherapy).
Use a 27 G, 4 mm needle.
Insert the needle to a depth of 1-3 mm.
Microinjections: 0.2-0.3 mL into the affected tissue.

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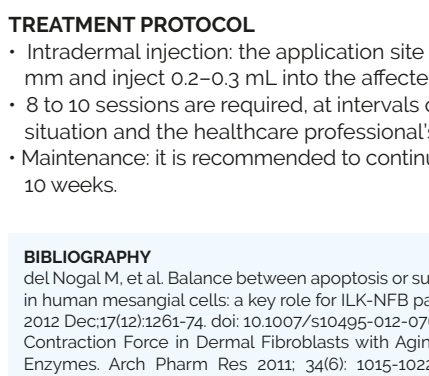
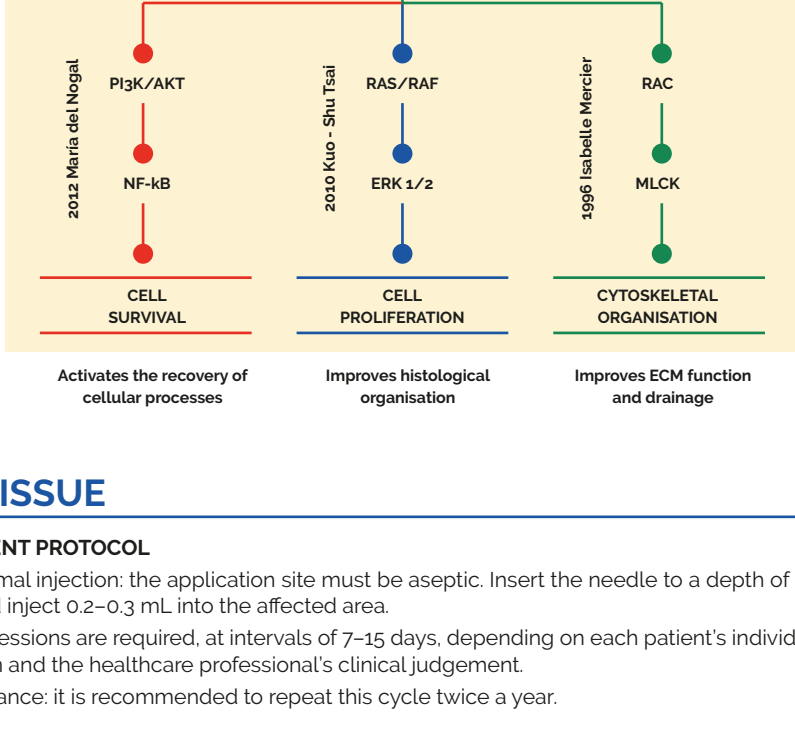


Regenerative Therapy: Mechanism of Action of Collagen in MD Treatments

The application of MD Collagen promotes tissue repair processes by activating fibroblasts through integrin-type adhesion molecules on their surface.

The activity of MD Collagen involves binding to membrane molecules on fibroblasts belonging to the integrin-type adhesion molecule family.

FACIAL BIOSTIMULATION PROTOCOL



MD-MATRIX

TREATMENT PROTOCOL

- Intradermal injection: the application site must be aseptic. Insert the needle to a depth of 1-3 mm and inject 0.2-0.3 mL into the affected area.
- 8 to 10 sessions are required, at intervals of 7-15 days, depending on each patient's individual situation and the healthcare professional's clinical judgement.
- Maintenance: it is recommended to continue with 1 treatment every two weeks, for a maximum of 10 weeks.



BIBLIOGRAPHY
del Nogal M, et al. Balance between apoptosis or survival induced by changes in extracellular-matrix composition in human mesangial cells: a key role for ILK-NF-κB pathway. Apoptosis 2012; 17(12): 1261-74 / Fujimura T, et al. Loss of Contraction Force in Dermal Fibroblasts with Aging Due to Decreases in Myosin Light Chain Phosphorylation Enzymes. Arch Pharmacol Res 2011; 34(6): 1015-1022 / Hynes RO. Integrins: Bidirectional, Allosteric Signaling Machines. Cell 2002; 110: 673-87 / Kook SH, Jang YS, Lee JC. Involvement of JNK-AP-1 and ERK-NF-κB signaling in tension-stimulated expression of type I collagen and MMP-1 in human periodontal ligament fibroblasts. J Appl Physiol 2011; 111: 1575-83 / Mercier I, et al. Interactions of Human Skin Fibroblasts with Monomeric or Fibrillar Collagens Induce Different Organization of the Cytoskeleton. Exp Cell Res 1996; 225(2): 245-56 / Tsai KS, et al. Type I collagen promotes proliferation and osteogenesis of human mesenchymal stem cells via activation of ERK and Akt pathways. J Biomed Mater Res 2010; 94A: 673-682.
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