



THE NEW FILLER GENERATION

AUGMENTATION + REGENERATION = MATRIX ENGINEERING



MATRIDUR®

WHAT IS MATRIDUR?

MATRIDUR is an injectable filler made from highly concentrated water-based cross-linked non-animal hyaluronic acid copolymer.

MATRIDUR replaces hyaluronic acid lost due to the natural ageing process and instantly removes the line or wrinkle (**augmentation**)

MATRIDUR stimulates the new formation of extracellular matrices (**revitalisation**)

MATRIDUR incorporates the **RHAJ-Technique®**

- By cross-linking sodium hyaluronate a Reticulated Hyaluronic Acid Implant (RHAJ) is created
- In combination with natural hyaluronic acid and hypromellose a viscoelastic co-polymer is created for biomedical matrix engineering.

MATRIDUR is therefore different to other well known hyaluronic acid fillers as it offers **augmentation + revitalisation**.

MATRIDEX®

WHAT IS MATRIDEX?

MATRIDEX is a combination of non-animal hyaluronic acid and dextranomer in order to achieve instant and prolonged results:

- replacement of lost hyaluronic acid (**augmentation**)
- new collagen formation (**regeneration**)

WHAT CAN YOU ACHIEVE WITH MATRIDEX?

Correction of folds and deep lines:

Nasolabial folds, deep frown lines, lip restoration and augmentation (vermillion border and flesh volume), cheek restoration and augmentation of volume.

MATRIDUR & MATRIDEX CONTRAINDICATIONS

Pregnancy, Lactation, allergy to other fillers, Auto immune disease, Current infection, Active disease, Localised skin infection at site of administration, Herpes Simplex virus, (lips only use oral anti viral treatment), Extremes of age.

WHAT CAN YOU ACHIEVE WITH MATRIDUR?

Classical correction of lines, wrinkles and folds.

Nasolabial lines and folds, cheek augmentation, lip restoration and augmentation including lipstick lines, vermillion border and flesh, marionette lines, chin, frown and forehead lines.



THE NEW DIMENSION OF WRINKLE TREATMENT

DEXTRANOMERS

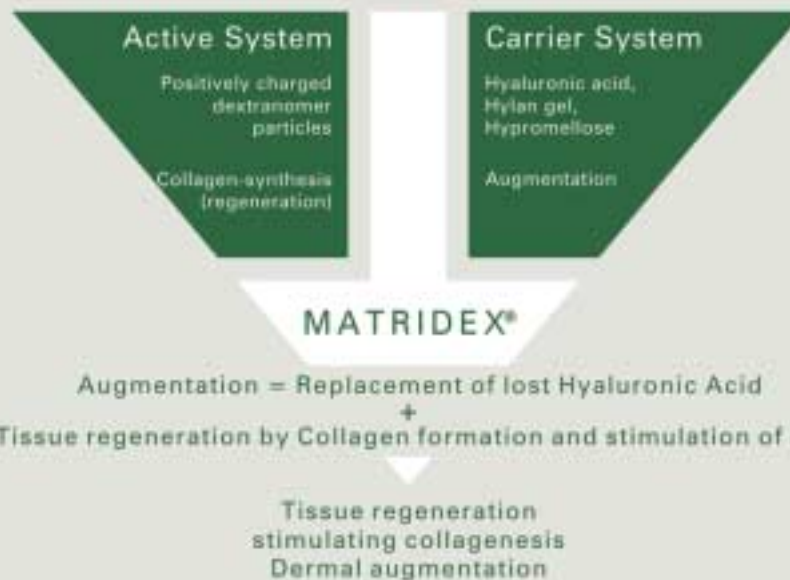
The key ingredient of **MATRIDEX** is dextranomers, cross-linked molecules; microparticles with a positively charged surface and a diameter of approx. 80-120 microns (DEAE Sephadex).

The safety of Sephadex has been proven over time; it is routinely used in many other medical and surgical procedures. Dextranomer implants with a positively charged surface stimulate the formation of soft tissue in the skin and lead to improved wound healing.

The combination of DEAE Sephadex with hyaluronic acid is highly biocompatible. Products consisting of this combination have been used for a long time for wound healing and in particular as a bulking agent in the treatment of incontinence.

Investigations show that there is no migration of microspheres from the implant site. Furthermore there are no long-term inflammation or irritation following treatment with **MATRIDEX**.

INNOVATION BY COMBINATION



HISTOLOGICAL FINDINGS

MATRIDEX was injected subdermally into the skin. Serial biopsies were taken at 1 week, 3 months, 6 months and 2 years.

1 week: A minimal inflammatory reaction was present. The dextranomer microspheres were surrounded by tissue rich in new collagen and fibroblasts. A pronounced hyaluron staining was observed.

3 months: Thickening of the new collagen layer was observed. The collagen fibres were penetrating the dextranomer microspheres. Only a slight hyaluron staining remained.

6 months: No further increase in collagen fibres. No giant cells or granuloma formation. Dextranomer microspheres present but no migration.

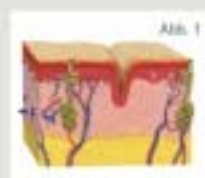
24 months: Dextranomer microspheres still present. No migration observed. A well-defined therapeutic tract remained present in the dermis.

CONCLUSION

At the end of 2 years no significant disappearance or migration of the dextranomer microspheres was observed.

There was no inflammatory reaction associated with the microspheres in the dermis.

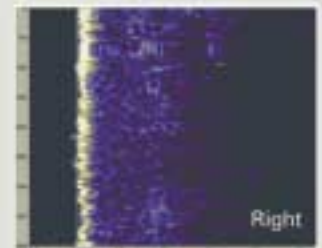
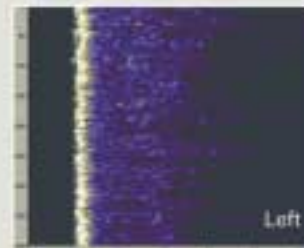
There was a complete absence of a neutrophilic or lymphocytic infiltrate.



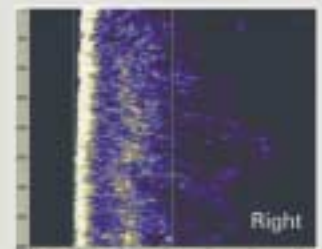
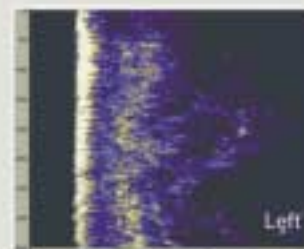
HIGH FREQUENCY ECHO SOUNDER COLLAGENSON DLX

With thanks to Minhorst GmbH, Germany.

Pictures show nasolabial region before treatment with MATRIDEX. Scans show corresponding nasolabial region with limited collagen fibre bundles (white).



Pictures show nasolabial region 17 months after implantation with MATRIDEX with remarkable dermal collagenesis (white area).



MATRIDEX® + MATRIDUR®

AUGMENTATION + REVITALISATION + REGENERATION

The combination of **MATRIDEX** with **MATRIDUR** provides an injectable filler protocol with the best performance:

EXCELLENT IMMEDIATE RESULTS

MATRIDEX and **MATRIDUR** can be injected without overcorrection. When injected appropriately by a trained physician post-treatment redness and swelling can be kept to a minimum. Patients can return to their normal activities directly after treatment (the potential, however, for swelling, redness and bruising must be explained to the client before treatment).

EXCELLENT LONG-TERM RESULTS

The positively charged particles in **MATRIDEX** remain in the injection site for a long time and lead to the creation of new collagen fibres. New collagen formation provides a long term satisfying result.

NON-ANIMAL ORIGIN

Non-allergenic non-pyrogenic product not of animal origin; no risk of transmissible agents. No skin test required.

BIOCOMPATIBLE & BIODEGRADABLE

All ingredients have been used in medicine for a long time and have shown their excellent in vivo tolerability. They are biologically degraded after a long period of time.

SUMMARY

MATRIDUR and **MATRIDEX** fulfil all the requirements of the Guidelines of the German Society for Aesthetic Surgery.

INDICATIONS FOR USE

Please refer to the instructions below and to the data sheet included in each packet. Apply each injection according to the needs of the patient and in conjunction with standard medical aseptic techniques. Ensure that you are competent in the procedure before embarking on any treatment.

STORAGE

Once received, keep in a cool place at a temperature between 2 C and 8 C.

1ML MATRIDEX CONTAINS:

Hyaluronic acid	25mg
Cross-linked hyaluronic acid	25mg
Hypromellose	15mg
Dextranomer	25mg
L (+) lactic acid	3,3mg
Phosphate buffer	6,9mg
Water for injection ad	1ml

1ML MATRIDUR CONTAINS:

Hyaluronic acid	25mg
Cross-linked hyaluronic acid	25mg
Hypromellose	12,25mg
L (+) lactic acid	3,3mg
Phosphate buffer	6,9mg
Water for injection ad	1ml

INDICATIONS AND INSTRUCTIONS FOR USE

INJECTION TECHNIQUE

Always inject using an aseptic technique avoiding areas of infection or inflammation. Adequate anaesthesia, either local or injected block, is always preferable.

MATRIDUR

Temporary filling of lines, augmentation of volume. May (where indicated) be used in conjunction with **MATRIDEX**.

The active ingredient in **MATRIDUR** is cross-linked hyaluronic acid. This must be injected at mid-dermal level using the retrograde tracing technique with the bevel of the needle uppermost. Once at mid-dermal level, the clear outline of the needle should not be perceptible, although the metallic hue may be (of subdermal implantation).

Do not over-correct. Once injected there is no need to massage the area. Flatten the injected **MATRIDUR** gently with your finger to ensure an even distribution of product. Apply a sterile healing or anti-inflammatory cream such as Arnica or Voltaren.

The treated area may swell (rarely for a few days) and the patient must be warned of this.

Linear-Technique



Sandwich-Technique



MATRIDEX

Long-term replacement and augmentation of volume. May be used in conjunction with **MATRIDUR**.

The ingredients include dextranomer microspheres which should be implanted subdermally. Once at subdermal level, neither the outline nor the metallic hue of the needle should be perceptible.

Inject a trace of product evenly using the retrograde tracing technique. Do not over-correct. Once injected there is no need to massage the area. Flatten the injected **MATRIDEX** gently with your finger to ensure an even distribution of product. Apply a sterile healing or anti-inflammatory cream such as Arnica or Voltaren.

Do not inject more than 0,5ml per area at each treatment, the total injected at any treatment should be 1ml (lips) and/or 1ml (other sites).

The treated area may swell (rarely for a few days) and the patient must be warned of this.

Linear-Technique



Sandwich-Technique



INDICATIONS AND INSTRUCTIONS FOR USE

NASOLABIAL FOLDS

The skin defect should be treated with **MATRIDUR**.

Volume loss in general and development of a fold should be treated with **MATRIDEX**, maximum 0,5ml per side.

Aim to build up the volume over three months with **MATRIDEX**, using **MATRIDUR** to treat the skin crease.

Injection timetable:

Day 1, one month, three months, six months if necessary.

MATRIDEX - Before



MATRIDEX - After



MATRIDUR - Before



MATRIDUR - After



FROWN LINE

NB this area has a poor blood supply and treatment should be carried out carefully, never injecting too much at any one treatment.

The skin defect should be treated with **MATRIDUR**.

Subcutaneous volume loss should be treated with 0,25ml **MATRIDEX** subdermally, pressing gently to flatten out the treatment area.



LIPS

Use **MATRIDUR** to treat the vermillion border, the lipstick lines and the flesh volume.

MATRIDEX - Before



MATRIDEX - After



MATRIDUR - Before



MATRIDUR - After



ADVANCED USERS

May use **MATRIDEX** to enhance the vermillion border and the flesh volume, injecting no more than 0,5ml at each site (upper lip border, lower lip border, upper lip flesh and lower lip flesh). Please note that because these injections are subdermal the aesthetic result is different from a mid-dermal injection technique of **MATRIDUR**. Swelling is more frequent and can last for up to three days.

ORAL COMMISURES/MARIONETTE LINES

Use **MATRIDUR** to treat fine lines.

For volume loss and more substantial marionette lines use **MATRIDEX**, injecting 0,5ml subdermally per side. Massage very lightly to disperse the product into the area.

MATRIDUR - Before



MATRIDUR - After



CHEEK VOLUME

For temporary treatment prior to long-term filling use **MATRIDUR**.

For long-term filling use **MATRIDEX** maximum 0,5ml per side.

RESTORATION OF THE OVAL SHAPE (SUBMANDIBULAR LIGAMENT)

For temporary treatment prior to long-term filling use **MATRIDUR**.

For long-term filling use **MATRIDEX** maximum 0,5ml per side

PLEASE NOTE

INSTRUCTIONS FOR TREATMENT WITH MATRIDEX

MATRIDEX is an augmenting medium of the newest generation.

The two main constituents are:

- A base material (copolymer) consisting of hyaluronic acid, cross-linked hytan and hypromellose. It has the effect of immediately filling the wrinkles.
- DEAE SEPHADEX (dextranomer), which consists of spherical, spongy, positively charged particles. The volume is provided by dextran, which becomes cross linked. The positively charged dextranomers initiate an early macrophage / fibroblast reaction in the surrounding tissue which leads to collagen regeneration.

This can sometimes lead to short-term swelling in the area of the treatment. For this reason it is important to respect the total amount recommended for each site.

In order to achieve optimum results, the treatment can be repeated from between two and four weeks, using approximately half of the original volume.



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