

THE INTERSTITIAL FLUID TECHNIQUE AND THE EXTRACELLULAR MATRIX

Adele Sparavigna, MD discusses a new technique that combines injection into the mid-dermis and lymphatic drainage to rejuvenate the face, neck and décolleté



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ABSTRACT

IFT is an innovative injection technique that adapts to the various contours of the face and the different causes of skin ageing. It requires the use of a specific product, Sunekos injectable, which is able to reproduce collagen and elastin and with the correct viscosity to be able to utilise the movement of interstitial fluids to distribute the product or to oppose its distribution concentrating it in a specific area. The Technique combines an injection into the medium-deep dermis and light lymphatic drainage to distribute (or to counteract the distribution) the product into the injected area. By injecting and massaging towards or against the flow of the interstitial fluids different effects can be obtained, such as lifting or plumping.



CLINICAL EXPERIENCE SHOWS THAT PATIENTS OF NORMAL WEIGHT or who are relatively overweight, over the age of 35, often with a round face and with a tendency for fluid retention (especially noticeable in the morning) develop greater facial skin laxity. This is linked to traction vectors from the force of gravity. In *Figure 1*, the dynamics can be seen by comparing 3D photos of a mother and daughter in frontal projection, at a 45° angle and in profile; *Figure 2* shows the ageing process of a normal-weight subject.

As can be seen from *Figures 1-2*, it is precisely the stagnation of fluids in the most sloping areas of the face that can cause the skin to stretch downward. In order to treat these patients, the Interstitial Fluid Technique (IFT) has been developed, which combines the action of two fundamental methods in the treatment of the skin's extracellular matrix: injection into the medium-deep dermis and lymphatic drainage.

To perform this technique, an injective product with specific chemical and physical characteristics is required, and which is specifically designed for this purpose (Sunekos 200, Professional Dietetics, Italy). From a chemical point of view, the solution contains substances that are capable of specifically stimulating fibroblasts in the dermis, such as low molecular weight hyaluronic acid (200 Kd), and amino acids of the fibrous proteins of the dermis, such as collagen and elastin. Meanwhile, from a physical point of view, it has a density similar to that of interstitial fluids.

The micro-bolus injection technique follows the opposite direction of the traction vectors exerted by the force of gravity and the sequence of points involved in the injections and their direction enables a lifting effect or, alternatively, a volume filling

KEYWORDS

Micro-bolus injections
lymphatic drainage, Interstitial
Fluid Technique, IFT

IFT
INTERSTITIAL
FLUID TECHNIQUE



Figure 1 Comparison between mother (A) aged 48 and daughter (B) aged 21

effect can be achieved. This begins from the central facial area and continues towards the periphery, in the direction of the temporal and retroauricular lymph nodes.

A series of injections, 0.1 ml each, are performed on the transverse planes of the face, 3-4 per side, injecting into the medium-deep dermis, followed by a light massage using a fingertip, in order to support and stimulate the physiological flow of interstitial fluids, from the centre out towards the periphery (*Figure 3A*). The technique helps to evenly distribute the injected product within the medium-deep dermis, over the entire area of the face and to stimulate the outflow of excess fluids. The data obtained from a comparison study on both sides of the face between the IFT technique and the traditional micro-bolus technique shows that IFT results in an immediate lifting effect on the face compared with the micro-bolus injected side of the face (*Figure 4*). The treatment protocol in these cases consists of a session every 7-10 days for a total of 4 sessions, to be repeated twice a year.

The protocol is established in general terms and can vary according to individual needs and the personalised aesthetic plan. The treatment of the neck and décolleté also follows the centrifugal technique, i.e., from the centre out toward the periphery (*Figure 3B, 3C*). In regards to treating the neck, while the patient is lying down, injections are performed into the medium/deep dermis in succession, with an oblique course, which points towards the mandibular angle, the sub-auricular area >



Figure 3 Ageing process in a normal-weight subject; (A) 51 years old, (B) 57 years old, (C) 59 years old

“ To perform this technique, an injective product with specific chemical and physical characteristics is required, and which is specifically designed for this purpose. ”



Figure 3 IFT technique points with massage direction



▷ and the posterior margin of the sternocleidomastoid muscle. On the décolleté, the orientation of the injections is centrifugal, in a V-shape, starting at various levels from the centre and pointing out towards the shoulders.

However, in depleted, low-volume areas, the technique is performed in the opposite direction to the above, i.e., going in the opposite direction to that of the interstitial fluids. Reverse IFT or RIFT is carried out by the use of micro-bolus injections, while the patient is lying down, from the periphery in towards the centre, always on a horizontal level for the face and at an oblique angle for the neck and décolleté. RIFT is ideal for slender patients, with a sunken face, generally aged over 45. These patients have an elongated or triangular oval face, which often also have a marked roughness and depletion, including at the level of the neck and back of hands.

Occasionally, the skin colour is dull and the patient is a smoker. In these cases, the effect of the injection product

Figure 4 Comparison between the traditional micro-bolus technique (right side of the face) and Interstitial Fluid Technique (left side). The photo shoot was performed before (A) and immediately after (B) the injection treatment

“Post-implant massage follows the same pattern, from the periphery towards the centre given that, in this case, we don’t intend to allow the product to follow the interstitial routes.”

Figure 5 Ageing process in a strong smoker; (A) 49 years old, (B) 54 years old, (C) 55 years old, (D) 57 years old

on the extracellular matrix is optimised, promoting a stagnation of interstitial fluids in the areas where the loss of volume is greatest. In fact, rather than a lifting effect, in these cases it is necessary to restore the facial convexity, given that the face does not age following gravity vectors, but rather facial concavities. *Figure 5* shows the course, over the years, of the ageing process on a heavy smoker,

with an accentuated degree of ageing with respect to her age. Despite the accelerated progression of the ageing process, cutaneous laxity is not observed, but rather a gradual depletion of volume. The treatment is carried out in the medium/deep dermis, injecting from the periphery towards the centre, always on transverse planes, 3-4 points per side

and per plane, thus counteracting the interstitial flow.

Post-implant massage follows the same pattern, from the periphery towards the centre given that, in this case, we don’t intend to allow the product to follow the interstitial routes. ▷



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Key points

IFT is a technique combining an injection into the medium-deep dermis and using light lymphatic drainage to distribute (or to counteract the distribution) the product into the injected area

IFT and Reverse IFT allow you to obtain a lifting effect or a plumping effect by working with or against the interstitial fluids flow

The technique requires the use of a product that is able to stimulate the production of collagen and more importantly elastin. Sunekos injectable is clinically proven to be able to do this



Figure 6 Comparison between the traditional random micro-bolus technique (right side of the face) and Interstitial Fluid Technique (left side). Photo shoot was performed before (A) and immediately after (B) the injection treatment.

➤ The technique helps to distribute the product evenly over the central facial area and to stimulate the extracellular matrix neoformation in the dermis and hypodermis at the same site. In my experience, this technique results in an immediate volumising effect on the face and softer lines compared with the other side of the face, which is treated with the same product but using the random micro-bolus technique (Figure 6). One session every 7-10 days to be repeated for a total of 4 sessions, to be repeated twice a year, as a general indication.

Finally, in cases of significant volume depletion, the Cushion technique is performed. To volumise, a support structure or scaffold is created, injecting a specific product, with high molecular weight non-cross-linked hyaluronic acid (1,200Kd) and amino acid precursors of

“ To volumise, a support structure or scaffold is created, injecting a specific product, with high molecular weight non-cross-linked hyaluronic acid (1,200Kd) and amino acid precursors of collagen and elastin into the areas that appear most depleted. ”

collagen and elastin (Sunekos 1200, Professional Dietetics) into the areas that appear most depleted. This implant technique involves the treatment of the deep dermis/hypodermis, preferably using a cannula. The protocol includes: a session for the scaffold (using Sunekos 1200) followed immediately by the first session of the four injections with reverse IFT (using Sunekos 200). Retouching can also be performed on alternate months, or at longer intervals, depending on individual needs, with no related accumulation or overdosing issues. The treatment of the neck and décolleté can also, in cases of notable depletion, follow the cushion and centripetal technique, i.e., from the periphery towards the centre, in the deep dermis (always combining Sunekos 1200 + Sunekos 200) with an oblique course, i.e., from the mandibular angle and area below the ear. In conclusion, based on the results which can be seen, even visually and the instrumental assessments (in the process of being published) we currently have an innovative combined method that can be adapted to the various conformations of the face and different mechanisms capable of causing skin ageing.

► **Declaration of Relationships** Adele Sparavigna is Scientific & Clinical coordinator at SUNEKOS

► **Figure 1-7** © Dr Adele Sparavigna



Figure 7 Cushion technique with cannula