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FILLER SPREAD
A NEW CLASSIFICATION

**BODY
CONTOURING**
THE LATEST ADVANCES

**GUT
MICROBIOTA**
LONG-TERM HEALTH
AND WELLBEING



HYALURONIC
ACID THREADS
for skin improvement

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FOUR-DIMENSIONAL BODY CONTOURING: LATEST ADVANCES

Bruce Katz, MD discusses how the latest innovations in minimally-invasive technology have helped expand and improve body contouring treatments

ABSTRACT

Until recently there were only three dimensions to body contouring which included fat reduction, skin tightening and cellulite treatments. With the advent of high intensity focused electromagnetic fields, the era of muscle toning was born. his article reviews the latest advances in these four dimensions of body contouring available today

I NTEREST IN BODY CONTOURING procedures has exploded in the last few years, both from physicians and the public. It is largely due to the significant advances in non-invasive and minimally invasive technologies. These advances have made body contouring procedures more effective while at the same time allowing for fewer side-effects, faster recovery with less or no downtime.

Muscle toning and sculpting

Until recently, the three dimensions of body contouring included skin tightening, fat reduction and cellulite procedures. With the advent of high-intensity focused electromagnetic fields (Emsculpt), addressing the muscle component in body contouring became the fourth dimension! This was revolutionary in itself as we can now tone and sculpt muscles of the abdomen, buttocks, arms, thighs and legs which was not possible before. All of a sudden, we had patients coming to our offices who did not have loose skin, or excess fat or cellulite but just wanted to have sculpted abdomens, butts, arms and legs that they weren't able to achieve at the gym. We can now



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Body contouring, skin tightening, minimally invasive, muscle toning, fat reduction, cellulite

strengthen the core and women who had been pregnant could now have their diastasis tightened and stress incontinence alleviated without surgery. And in just four 20-30 minute pain-free treatments. Furthermore, multiple studies have shown these results to last for at least one year without maintenance treatments².

Skin tightening

Skin tightening procedures have also advanced. Non-invasive energy sources, such as ultrasound, radiofrequency (RF), lasers and infrared have addressed the changes leading to skin laxity. These include the age-related decreases in collagen and elastin production. With ultraviolet damage, collagen fibres become cross-linked and disorganized with an accumulation of abnormal elastin and increased metalloproteinases, which lead to further breakdown of collagen. We also see reduced glycosaminoglycans and proteoglycans, resulting in drier and looser skin. Sustained heating of the dermis and subcutaneous fibro-septal network using these various energy sources leads to immediate collagen contraction and long-term neocollagenesis.

New lasers such as the 650 microsecond Nd:YAG device (Lightpod Neo) with its high energy and short pulse duration can tighten skin of the jowls, neck, and décolleté area in several short treatments. Innovative monopolar radiofrequency technologies with new, large and flexible applicators not only tighten skin but also reduce fat non-invasively (TempSure Firm). Micro-focused ultrasound has been available for some time, but there are now combinations of RF and ultrasound to reduce skin laxity (Exilis Ultra). These non-invasive approaches are effective but often require multiple sessions to achieve the benefits.

“ All of a sudden, we had patients coming to our offices who did not have loose skin, or excess fat or cellulite but just wanted to have sculpted abdomens, butts, arms and legs that they weren't able to achieve at the gym. ”

Minimally invasive approaches to skin tightening include laser and RF devices. With the use of local tumescent anaesthesia, a 1440nm Nd:YAG laser with a side-firing fibre (PrecisionTX), can direct energy to the undersurface of the dermis to stimulate collagen and tighten skin. Both monopolar and bipolar RF have been recent advances that use skin temperature as the endpoint to maximize collagen production. In my experience, the bipolar approach has been the most effective modality for skin tightening achieved in only one session (Accutite, Facetite and Bodytite). The handpiece is designed so that one electrode is inserted below the dermis and one on the skin surface. Target temperatures can be set so that the subcutaneous electrode can achieve temperatures of up to 70°C >

