

- The Renuvion® APR Handpiece is intended for the delivery of radiofrequency energy and/or helium plasma where coagulation/contraction of soft tissue is needed. Soft tissue includes subcutaneous tissue.
- The Renuvion APR Handpiece is intended for the coagulation of subcutaneous soft tissues following liposuction for aesthetic body contouring.
- The Renuvion APR Handpiece is indicated for use in subcutaneous dermatological and aesthetic procedures to improve the appearance of lax (loose) skin in the neck and submental region.
- The Renuvion APR Handpiece is intended for the delivery of radiofrequency energy and/or helium plasma for cutting, coagulation and ablation of soft tissue during open surgical procedures.
- The Renuvion APR Handpiece is intended to be used with compatible electrosurgical generators owned by Apyx Medical..

Advances in Cosmetic Surgery 3 (2020) 173–188

ADVANCES IN COSMETIC SURGERY

Advances in Skin Tightening with Liposculpture

Plasma Technology Versus Radiofrequency



Ryan Neinstein, MD, FRCSC^{a*}, Christopher D. Funderburk, MD, MS^b

^aLenox Hill Hospital, Northwell Health System, 135 East 74th Street, New York, NY 10021, USA; ^bDepartment of Plastic Surgery, Manhattan Eye, Ear, and Throat Hospital, Northwell Health System, 210 East 64th Street, New York, NY 10065, USA

KEYWORDS

• Liposculpture • Liposuction • Skin tightening • Radiofrequency • Plasma • BodyTite • Renuvion

KEY POINTS

- The term, *liposculpture*, is used to describe a procedure that includes both fat reduction and skin tightening.
- Skin tightening involves both skin retraction at surgery and skin tightening with neocollagenesis in the long term.
- The Renuvion/J-Plasma system produces skin retraction and tightening by 2 mechanisms, radiofrequency and ionized helium (plasma).
- The BodyTite system uses radiofrequency energy for soft tissue tightening by immediate and long-term thermal contraction of the fibroseptal network in the subcutaneous space and nonablative, inflammatory heating of the dermis.



Video content accompanies this article at <http://www.advancesincosmeticsurgery.com>.

Since the latter half of the twentieth century, there has been an increasing focus on the body as a vehicle for identity and self-expression, with a greater recognition of the role of appearance and the desire for self-improvement [1]. In 1983, Illouz presented his technique of liposuction at the annual meeting of the American Society of Plastic Surgeons [2]. In 2014, liposuction replaced breast augmentation as the most frequently performed surgical procedure, with a 16% increase over 2013 cases and more than \$1 billion spent on the procedure in the United States alone [3].

Specific depths of subcutaneous fat, which vary in different body locations, should be suctioned. For example, the deep and/or intermediate fat layer should be primarily suctioned, but, in rare cases, superficial or subdermal liposuction may be appropriate [4,5].

Surgeons noticed that as the subdermis is approached with liposuction, the potential for skin retraction increased, especially in areas with thin skin [6].

The final frontier in liposuction is skin tightening. Skin tightening involves both skin retraction at surgery and skin tightening with neocollagenesis in the long term. The term, *liposculpture*, is used to describe a procedure that does both fat reduction and skin tightening.

Various lasers and lights have been used in the past for the improvement of skin quality and texture. They act by stimulating new collagen formation, leading to skin retraction in the body and face. All these devices are applied externally, and the energy (laser, light, or high-frequency ultrasound) must cross the epidermal and dermal barriers to reach their targets in the connective tissue [7].

*Corresponding author. E-mail address: Drneinstein@neinsteinplasticsurgery.com

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