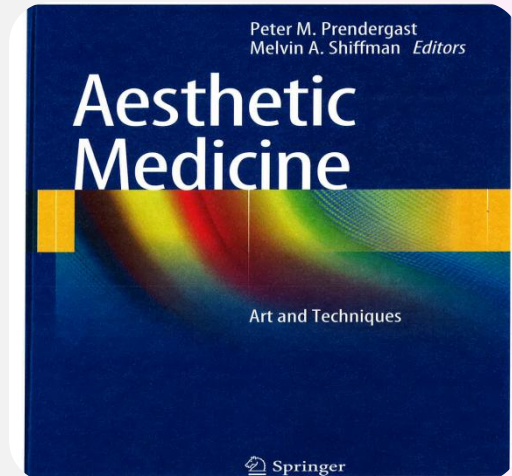


**The ZERONA® process is well supported by scientific research and analysis.**

 **ZERONA® in Aesthetic Medicine  
Textbook, 2011 Chapter 39 ; Page  
nos. 509-18**



 **Biochemistry of the ZERONA Treatment**



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 **Non Invasive Body Contouring  
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**NON INVASIVE BODY CONTOURING**  
This article is an attempt to compile the information about various noninvasive body contouring techniques by Dr. Deepak V. Chaturvedi (Metabolic Physician, Obesity and Hormone specialist at Mumbai, India www.drdeepakchaturvedi.com). The author is making no attempt to endorse any technique nor is keen to influence the thoughts of the fellow colleagues. This is not intended to prove the superiority of any technology over other.  
Page 1  
Just as liposuction is the number one cosmetic plastic surgery procedure performed worldwide, non-invasive body contouring technology is the fastest growing segment of the aesthetic capital equipment space. The annual growth in noninvasive body contouring procedures is estimated to expand by 23% per year.  
The noninvasive body contouring technologies can be classified on the basis of the type of energy delivered by a particular technology in modifying the adipocyte.  
**Classification: (in order of Evolving Technology / from primitive to advanced)**  
**S.No. Device Brands**  
1 Suction Massage Devices Endermologie  
2 Suction Massage Thermal Device TriActive, Smoothshapes.  
3 Radiofrequency Energy Devices Velasmoor, VelaShape, Thermage, Accent, TiteFX.  
4 High-Frequency Focused Ultrasound Energy Devices  
Ultrasape, Liposonix  
5 Cryolipolysis Energy Devices Zeltiq  
6 Low-Level Light Laser Therapy Devices Zerona.  
**Basic Science:**  
The basic science of non-invasive body contouring is really the basic science of the adipocytes, its storage of triglycerides, and the aggregate number of adipocytes as they relate to the focal and generalized excess of adipose tissue, the convex distortion that forms the focal "bulges", and more superficially, clinical cellulite topographically.  
The adipocyte is a very important cell involved in energy storage, hormonal regulation, and a host of other endocrinologic functions. The adipocyte has a large amount of cytoplasm that serves as a storage depot for triglycerides, which are composed of glycerol and free fatty acids. The adipocyte cells are our intermediate and long-term energy storage depot. When caloric intake exceeds caloric output, adipocytes then swell with triglycerides. As adipocytes continue to enlarge within their intracellular and intercellular fascial compartments, they create "bulges" or convex distortions of soft tissue that then modify our contours.  
Typical convex distortions that one sees in the female topography are "out-pouching", "bulges", or convex distortions of the hips, lower abdomen, outer thighs, inner knees, arms, bra line.



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