
RF AND PULSED MAGNETIC FIELD COMBINATION: AN INNOVATIVE APPROACH TO EFFECTIVELY ADDRESS SKIN LAXITY, BODY RESHAPING AND CELLULITE.

Leonardo Marini, MD, Trieste, Italy

Many different RF devices have claimed clinical efficacy in rejuvenating the skin through controlled dermal and subcutaneous fat bulk heating. Multipolar RF has shown to be superior to monopolar and bi-polar RF in effectively inducing a sequential electro-thermal tissue stratification effect improving patient comfort and decreasing side effects. Pulsed Magnetic Fields (PMF) have proven to accelerate angiogenesis, cutaneous wound healing, bone and nerve repair. PMF also decrease post-surgical pain and edema as well as negatively influence bacterial and tumoral cell growth.

The association of these two technologies seems to produce a synergistically effective dermal-hypodermal tissue functional improvement inducing long term collagen remodelling, adipose tissue reshaping and cellulite regression. Venus Freeze is the first technical example where these two innovative bio-medical strategies are intimately associated.

Temperature-induced intracellular synthesis of stress proteins could theoretically stand as the very base of the tissue bio-stimulation leading to optimization of cellular function. PMF-induced cellular and around-cell positive micro-environmental changes ideally contribute to speed up and consolidate tissue functional improvements. Long term results are very promising and can be progressively visible 2-4 months after one series of 6-10 treatments.

Patient satisfaction is very high (85% of treated patients); fair-to-acceptable (10%); minimal (5%). Minimal transient side effects were reported and were considered absolutely acceptable by both patients and physicians. More studies are nevertheless required to further understand the full potential of this extremely innovative technique.