



HIFU (High Intensive focused Ultrasound) on face rejuvenation

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HIFU has been recognized as a way for treatment of benign and malignant tumors of many years ago. HIFU stimulates the immune system and used to treat malignant tumors and recently it has emerged as a tool in skin rejuvenation.

Ultrasound waves induce heating with vibration in the molecules in the depths of the target tissues. Cellular changes depend on the exposure duration and the temperature.

The early studies on ultrasonic therapy showed significant tightening with 1 mm in eyebrow lift in more than 75% of patients that led to FDA approval in 2009 for tightening around the eyebrow. The next studies showed effects on the lower part of the face and neck. In a study, 120 people were evaluated for effects of HIFU in lift skin and improve in laxity in the nasolabial folds and jaw line. These patients were treated twice by HIFU and six months later were evaluated by photography. The result showed that 70% of patients recovering from wrinkle of the skin with the satisfaction. There was not any time required for recovery and return to work and social activities. After treatment, evaluation of biopsy samples from target tissues revealed increases dermal collagen, thickness and improve the elastic fibers.

In the other study of the effects of HIFU on Asian patients, the result was showed the HIFU is the effective method for rejuvenation in the lower part of the face, however, requires further studies to determine the parameters of the device. The complications of the treatment method are pain redness, edema that improves after a short time. By the way; we need systematic reviews for evaluation of HIFU effects and side effects in a long time as a new technology.

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