

# SMAS Face Lift with HIFU Technology (High Intensity Focused Ultrasound) for the ULTRAFORMER Unit

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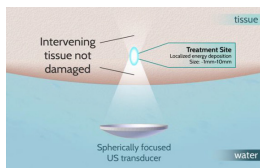
## BACKGROUND

As human gets older, skin and its under structural tissues constantly get ageing process. Typically, number of fibroblast on the skin decreases and collagen synthesis also decreases and functions and numbers of many skin appendages are also dropped. In the past, ablative laser or chemical peeling was used for face lifting. Recently, HIFU was introduced as a new treatment modality for skin tightening and rejuvenation. HIFU (High Intensity Focused Ultrasound)

The deposition of acoustic energy can cause different bio-effects, such as transiently increasing cell and vessel permeability, tissue heating and irreversible tissue destruction. Achieving Non-invasive lifting procedure, temperature is critical factor. Micro-focused ultrasound heats tissue to >60°C, to denature collagen and cause contraction of the collagen structure without damage surrounding area.

## INTRODUCTION

Face and scalp are composed of several layers and these can be specifically composed into five standard layers: Skin, Subcutaneous layer, Musculoaponeurotic layer (SMAS: Superficial Muscular Aponeurotic System), Loose areolar tissue (spaces and retaining ligaments), fixed periosteum and deep fascia. For the face lifting effect, target tissue is dermis, connective tissue in fat layer and SMAS (at a depth of 4.5mm beneath the skin. The HIFU (High Intensity Focused Ultrasound) is irradiated fractionally at a depth of 3.0 or 4.5mm). The SMAS at a depth of 4.5mm is coagulated by the focused beams of light (fascia, SMAS, fibrous tissue). Skin regeneration and lifting effect by newly formed collagen and elastin. Focused ultrasound heat up 65~70 (only focal area)



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## METHOD

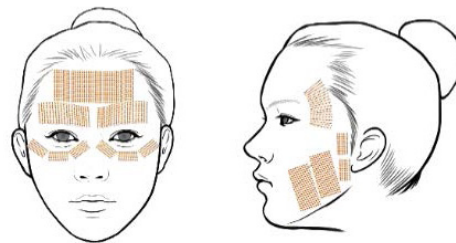
The best indications for face contouring are Forehead wrinkles, eyebrow, cheek, Jowl line, wrinkle lifting, skin tone improvement, V-line forming, double chin and neck wrinkle.

Focused ultrasound heat up 65~70°C (only focal area) and coagulate the tissue at the target lifting-4.5mm, 3.0mm, 2.0mm and 1.5mm depth standard treatment segments are as below. SIDE EFFECTS

The skin might appear flushed at first and the redness should disappear within a few hours factors affecting treatment response.

## CONCLUSION

There will always be patients who are candidates for surgery but just don't want to go under the knife. HIFU treatment will not provide them drastic results like face lifting surgery. However, it is the only non-invasive procedure which reaches the same layers of skin as are addressed in a surgical facelift. There are some factors affecting HIFU treatment response; skin laxity- amount



	Treatment Cartridge
Forehead	1.5mm
Around eyes	1.5mm
Cheek	3.0mm/4.5mm
Lateral neck	3.0mm/4.5mm
Submentum	3.0mm/4.5mm

of excess, loose skin on the face or neck, Volume: Degree and distribution of fat on the face, Skin quality: extent of lines, wrinkles, crepiness and sun damage. And Age and the lifestyle/health (smoker or nonsmoker, underlying health issues) can be the factors as well.

HIFU treatment creates new collagen at multiple depths within the skin for a more multi-dimensional approach. Patients will likely need more than one treatment to get the results and will keep them coming back every 1~2 years for continued maintenance.

