

Lip augmentation: new rejuvenation with Er:YAG and Nd:YAG laser



Photos show patient before (above) and after (below) procedure.

Lip augmentation has become progressively popular in recent years, reflecting cultural trends in youth and beauty. Research suggests that the 'ideal lip' should have the following characteristics: fullness and volume, correct balance between the upper and lower lips, and a well-defined vermillion border.

LipLase is a new revolutionary non-invasive treatment using the combined laser approach (Nd:YAG and Er:YAG) of Fotona SP Dynamis laser for fullness and colour enhancement of the lips. This is a new option for patients who are 'needle-phobic' with minimal discomfort or downtime; results are immediately visible. Laser lip-plumping treatments are required once a month for three months followed by one session every three months to maintain the increased fullness in the lips. Not only do we treat the lips and surrounding skin, but we also target the nasolabial folds to stimulate the collagen.

The Fotona Er:YAG laser under Smooth Mode is a non-ablative, gentle laser treatment that targets the oral commissures, vermillion borders of the mouth, philtrum ridges, and Cupid's bow area of lips. Use of the Er:YAG laser is based on controlled induction of thermal injury of the collagen while preserving the epidermis. A temperature increase of up to 60°C leads to subsequent collagen remodelling. The gentle lifting of the lips exposes more of the lip volume, and

the laser heat energy stimulates the production of collagen.

The second step of the procedure is working with the Nd:YAG laser in Piano Mode which is the safest mode for reaching deeper lying skin tissues, with minimal thermal effect on the surface.

The entire lip area including the borders is treated, moving the handpiece slowly to cover all of the area inside of the mouth and then outside. The settings of the 2940nm Er:YAG laser used intra-orally are: Smooth Mode, PS03, spot size: 7mm, fluence: 9 J/cm², 1.6Hz; four to six passes followed by four extra-oral passes.

The second phase is performed with the 1064nm Nd:YAG laser using these settings: Piano Mode, spot size: 15mm, fluence: 90 J/cm²; delivered at external parts of lips to reach a temperature of 42°C and then maintaining it for three minutes with local cooling. I also treat the lips above the vermillion border in order to have a well-defined vermillion border which resembles the effect of a filler.

The treatment lasts 30 minutes. The patient requires topical anaesthesia due to the slight discomfort during the treatment of external parts of the lips.

After the treatment the tissue goes through three stages: in the first stage, some oedema appears immediately after the treatment and lasts for about two days. The second stage is characterised by surface peeling that lasts for 24 to 48 hours after the treatment. Postoperative instructions are to apply skin moisturiser

as a lip balm and sun protection SPF50+ to the lips to prevent peeling. The third stage is neo-collagenesis, the development of new collagen. The patient needs to avoid going swimming, sporting activities, sun or solariums after the procedure. If the patient reports previously herpetic infection we prescribe antiviral agents for recurrent herpes simplex infection before and after the procedure.

Many patients report the feeling of the lips being swollen after the procedure. The patient may feel the sensation of mild burning for up to 30 minutes after the treatment.

This is a non-invasive procedure with minimal discomfort, minimal risk of change in skin or lumpiness in one area, and patients love it.

AUTHOR



MD dr Natasha Teovska Mitrevska,

Dermatologist, Remedika General Hospital, Skopje, Macedonia.

Declaration of competing interests: None declared.