

## Laser melanin gingival depigmentation

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**Objective:** To show the possibilities and comparable results of using four laser wavelengths in gingival de-pigmentation.

**Background:** Intra oral tissue pigmentation such as melanin pigmentation, which the gums may appear black or dark brown are one of the most responsible reasons behind displacing appearance of the intra oral tissue. De-pigmentation procedures include the removal of the pigmented epithelial layer (where normally melanocytes and melanin exist in the basal layer) and to control the post-operative infection to allow the tissue to generate a new layer.

**Method:** The following 15 case reports been treated with laser, using five laser wavelengths: Er:YAG (2940 nm), Er, Cr, YSGG (2780 nm), Diode (980 nm), Diode (940nm), Diode (810 nm). All cases where radiated on the desired pigmented areas and been seen after one week to evaluate the results, pain were evaluated while operation and post-op.

**Results:** All 5 wavelengths were effective in the de-pigmentation procedures, despite the differences of time of the procedure and the comfort of the patient, diodes was less comfortable but faster. Er:YAG and Er, Cr, YSGG were slower but more comfortable while the procedure, all cases where between tolerable to no pain in the post-op evaluation.

**Conclusion:** All wavelengths are helpful in de-pigmentation, but still other wavelengths should be included in such clinical study.

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