**Semiconductor Diode Lasers in Periodontics.**

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**Abstract:**

The diode laser is a solid-state semiconductor laser that typically uses a combination of Gallium (Ga), Arsenide (Ar), and other elements, such as Aluminum (Al) and Indium (In) to change electrical energy into light energy. Semiconductor diode laser has been used for gingivectomy, frenectomy, incisional and excisional biopsy, soft tissue tuberosity reduction, operculum removal, coagulation of graft donor site, and exposure of soft tissue covering osseointegrated implants. The advantages of laser use includes a relatively bloodless operating field, sterilization of the wound site, minimal swelling and scarring, reduction of surgical time and less postoperative pain to the patient.The following article describes about the effectiveness of the surgical diode laser for various periodontal soft tissue surgeries.

**Key words**: diode laser, gingivectomy, frenectomy, polyp, operculum, depigmentation.