# USE OF LASERS IN DENTISTRY

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Currently, lasers are quite common in dentistry. Laser in dentistry is now used to treat diseases of the teeth, periodontium and oral mucosa, in surgical dentistry, implantology and aesthetic dentistry, as well as in hygienic procedures.

The use of lasers in dentistry is based on the desire to make surgical interventions and procedures are minimally traumatic, less painful and minimize blood loss. In addition, with the help of laser technologies, the problem of accelerating the reparative processes of bone and soft tissues, the formation quality scar, obtaining a good cosmetic result.

Advantages of using lasers in dentistry:

1.Sterility. When using a laser, there is no direct contact between the surgical instrument and soft tissue, therefore, infection of the patient’s gums is excluded.

2.Antibacterial. Dental laser radiation has antibacterial properties, due to which it suppresses pathological microflora in the area of surgery. The use of a laser makes it possible to avoid many complications and inflammatory processes after surgery or implantation.

3. Aesthetics. When using a laser to cut soft tissue, a much smaller area of necrosis remains than when working with a scalpel, and the recovery process will be faster. Thanks to the use of a laser, it is possible to avoid displacement of the gum edges during surgery, which is very important during implantation, especially at the stage of installing a permanent crown.

4. Comfort. The dental laser simultaneously with the dissection of soft tissue promotes immediate blood clotting, so the doctor has a better overview and is easier to control the situation during the operation. Comfort for the patient is that the laser operates almost silently, i.e. There are no scary moments, which psychologically makes treatment easier.

Indications for the use of laser in therapy:

-primary carious lesions in the area remote or close to the pulp;

-secondary carious lesions that contain composites (smaller cavities or composite remnants) or cements;

-conditioning the dentin surface to improve the adhesion of fillings in cavities that have been prepared using a laser or rotary instrument;

-preventive sealing of molars and premolars not affected by caries;

-extended fissure sealing after preliminary preparation of carious fissures;

- reduction in the number of microorganisms in the root canal after mechanical treatment during vital extirpation or treatment of an infected canal.

Thus, high-intensity laser radiation makes it possible to improve the quality of surgical procedures using minimally invasive techniques interventions and therapeutic treatment in dentistry, provide stable hemostasis, bactericidal effect, favorable course of the postoperative period.

Lasers are comfortable for the patient and have a number of advantages compared to traditional treatment methods. Their effectiveness has been proven by practice: safety, accuracy and speed, absence of unwanted effects, limited use of anesthetics. This allows for gentle and painless treatment.

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