

## Alveolar Laser Preservation Protocol Using Erbium and Nd:YAG Irradiation

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### SUMMARY

Extractions are unfortunately one of the most common dental procedures realized every day around the world. For many years we searched for solutions to avoid post-extraction resorption. Different grafts were proposed with or without membranes to cover them; the results are good but involve surgery and higher cost.

The clot is the best material we can use for the patient, and lasers (Erbium:YAG and Nd:YAG) can modify the blood in order to enable quicker healing and to close the socket; that's why we will develop a protocol, which seems to be interesting for extraction-related alveolar repair.

## Peri-implantitis Treatment Protocol

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### SUMMARY

Peri-implantitis is an inflammatory process with loss of supporting bone in the tissues surrounding functioning dental implants. Although there is a dispute about the etiology, it seems that a bacterial infection very similar to periodontitis is the cause of the disease. Numerous protocols have been suggested for treatment, with a focus on debridement of the inflamed tissue around the ailing implant and decontamination of the implant surface.

Erbium YAG laser is one of the most efficient tools for the decontamination of implant surfaces and debridement of the inflamed tissue and bone surface. Photobiomodulation can also be used to accelerate cellular activity and improve wound and tissue healing.

The presented protocol combines Er:YAG laser and photobiomodulation together with Nd:YAG for a structured protocol. Cases are presented with a follow up of up to one year.

## Laser Treatment - Addition or Addiction - Extravagance or Essential Standard in Dental Surgery?

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### SUMMARY

Nowadays technology enables us to treat our patients in a faster, easier, and more predictable way than in the past. As clinicians we have many new treatment protocols and possibilities to obtain better results, starting from the point of planning, through the surgery and up to the healing time.

During the presentation different treatments will be shown and the advantages of using lasers will be underlined. To emphasize the benefits resulting from the use of lasers, some procedures will be presented as performed in the regular way and some, by contrast, as performed with Nd:YAG and Er:YAG laser. Sometimes the laser is only an additional device which is very helpful and enables us to do something better, like during photobiomodulation where we obtain faster and less painful healing. Very often, however, the procedures and treatments are impossible to conduct without the laser, for example, when treating peri-implantitis or other complications which require deep disinfection and decontamination..

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