

The significance of **mitochondrial efficiency** in the regeneration and rate of healing when using dental implants

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_Case 1

The fundamental aim of those who administer surgical (implantological) treatment is to minimise the repercussions of all sorts of operative procedures, significantly reduce regeneration and healing time, noticeably improve general feeling of wellbeing after operative interventions and provide patients with a fixed tooth replacement (at the very least a provisional) at the end of their operation.



Fig. 10



Fig. 1



Fig. 5



Fig. 2



Fig. 7



Fig. 3



Fig. 8



Fig. 4



Fig. 9



Fig. 6

Case 1_Female, 45-years old.

Maxilla

Fig. 1_OPG of the starting situation, generalised parodontitis.

Fig. 2_Clinical situation 4.5 weeks post extraction, after molecular biological treatment.

Fig. 3_Implant positioning, flapless after CT.

Fig. 4_Fixed provisionals, fitted immediately post-op.

Fig. 5_Definitive fixed reconstruction, fitted 1.5 weeks post-op.

Fig. 6_Optimal result, cosmetically and aesthetically.

Mandible

Fig. 7_Implants positioning, flapless after CT.

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Fig. 9_Definitive fixed reconstruction, fitted 1.5 weeks post-op.

Fig. 10_Optimal result, cosmetically and aesthetically.

_The number of dental implant procedures is constantly increasing. As absolute implantology activities increase, so do the number of older and/or multimorbid patients. Undoubtedly, impaired wound healing is to be taken into account for these patients.

Yet this aspect is given little or no attention in spite of the optimization of surgical procedures—such as, for example, ultrasound and laser surgery, ozone therapy, bone regeneration using synthetic materials, equine collagen absorbable membranes, the use of minimally invasive methods, as well as three-dimensional OP-planning, simulation and, following on from that, flapless techniques, the improvements to the surface structure and design of implants.