

LITERATUR | BIBLIOGRAPHIE

Dioden-Laser in der Parodontitis- und Periimplantitis-Behandlung
Laser diode dans le traitement de la parodontite et de la péri-implantite

Dr. Gérald Mettraux

- 1 SUVA: www.bag.admin.ch/themen/strahlung/03710/03711/index.html?lang=d
- 2 Swissmedic: <https://www.swissmedic.ch/aktuell/00673/02195/index.html?lang=de>
- 3 Karu T I: Photobiological fundamentals of low power laser therapy. *IEEE J of Quantum Electronics*. 1987; 23 (10), 1703-17
- 4 Cho B Y, Cho J O: Experimental study of the effect of the laser irradiation in treating oral soft tissue damage. *J Dent Res* 1986; 65 (4), 600 (A 34)
- 5 Schindl A, Merwald H, Schindl L, Kaun C, Wojta J: Direct stimulatory effect of low-intensity 670 nm laser irradiation on human endothelial cell proliferation. *Br J Dermatol*. 2003; 148 (2): 334-6
- 6 Sakurai Y, Yamaguchi M, Abiko Y: Inhibitory effect of low-level laser irradiation on LPS-stimulated prostaglandin E2 production and cyclooxygenase-2 in human gingival fibroblasts. *Eur J Oral Sci*. 2000; 108 (1):29-34
- 7 Nomura K, Yamaguchi M, Abiko Y: Inhibition of interleukin-1beta production and gene expression in human gingival fibroblasts by low-energy laser irradiation. *Lasers Med Sci*. 2001; 16 (3): 318-23
- 8 Dörtbudak O, Haas R, Mailath-Pokorny G: Effect of low-power irradiation on bony implant sites. *Clin Oral Impl Res* 2002; 13: 288-292
- 9 Bolton P, Young S, Dyson M: The direct effect of 860 nm light on cell proliferation and on succinic dehydrogenase activity on human fibroblasts in vitro. *Laser Therapy*. 1995; 7 (2): 55-60
- 10 Yu W: The effect of laser irradiation on the release of bFGF from 3T3 fibroblasts. *Photochem Photobiol*. 1994; 59 (2): 167-170
- 11 Pourreau-Schneider N et al : He-Ne Laser treatment transforms fibroblasts into myofibroblasts. *Am J Pathol*. 1990; 137: 171-
- 12 Dyson M, Young S: Effect of laser therapy on wound contraction and cellularity in mice. *Lasers Med Sci* 1986 1, 125-130
- 13 Qadri T, Miranda L, Tuner J, Gustaffson A. The short-term effects of low-level lasers as adjunct therapy in the treatment of periodontal inflammation. *J Clin Periodontol*. 2005 Jul;32 (7):714-9
- 14 Gökce Aykol et al. The Effect of Low-Level Laser Therapy as an Adjunct to Non-Surgical Periodontal Treatment. *J Periodontol* 2011;82:481-488.
- 15 Chang PC, Chien LY, Ye Y, Kao MJ. Irradiation by light-emitting diode light as an adjunct to facilitate healing of experimental periodontitis in vivo. *J Periodontol Res*. 2013 Apr;48(2):135-43.
- 16 Faria Amorim et al. Clinical study of the gingiva healing after gingivectomy and low-level laser therapy. *Photomed Laser Surg*. 2006 Oct;24(5):588-94.
- 17 Aimbire F, Lopes-Martins RA, Castro-Faria-Neto HC, Albertini R, Chavantes MC, Pacheco MT, Leonardo PS, Iversen VV, Bjordal JM. Low-level laser therapy can reduce lipopolysaccharide-induced contractile force dysfunction and TNF-alpha levels in rat diaphragm muscle. *Lasers Med Sci*. 2006 Dec;21(4):238-44.
- 18 Khadra M, Kasem N, Lyngstadaas SP, Haanaes HR, Mustafa K. Laser therapy accelerates initial attachment and subsequent behaviour of human oral fibroblasts cultured on titanium implant material. *Clin Oral Implants Res*. 2005 Apr;16(2):168-75.
- 19 Mester E, Mester A F, Mester A. The biomedical effects of laser application. *Lasers Surg Med* 1985 5, 31-39.
- 20 M. Weber V. Kreisel. *Praxisbuch Laserakupunktur*, 2012
- 21 Sarkar S & Wilson M: Lethal photosensitisation of bacteria in subgingival plaque samples from patients with chronic periodontitis. *Journal of Periodontal Research* 1993; (28): 204-210.
- 22 Hamblin MR. Antimicrobial photodynamic inactivation: a bright new technique to kill resistant microbes. *Curr Opin Microbiolog* 2016 Jul 12;33:67-73.
- 23 Dörtbudak O. Photodynamic therapy for bacterial reduction of periodontal microorganisms. *Journal of oral Laser Applications* 2001; 1: 115-118.
- 24 Andersen R, Loebel N, Hammond D, Wilson M. Treatment of periodontal disease by PDT compared to scaling and root planning. *Clin Dent*. 2007;18(2):34-8.
- 25 Schär D, Ramseier CA, Eick S, Sculean A, Salvi GE. Anti-infective therapy of peri-implantitis with adjunctive local drug delivery or photodynamic therapy: six-month outcomes of a prospective randomized clinical trial. *Clin Oral Implants Res*, 2012 May 9.
- 26 Mettraux G, Hüsler J. Implementation of transgingival antibacterial photodynamic therapy (PDT) supplementary to scaling and root planing. A controlled clinical proof-of-principle study. *Schweiz Monatsschr Zahnmed*. 2011;121(1):53-67.
- 27 Moritz A, Schoop U, Goharkhay K, Schauer P, Doertbudak O, Wernisch J, Sperr W: Treatment of periodontal pockets with a diode laser. *Lasers Surg Med*. 1998;22(5):302-11.
- 28 Hauser-Gerspach I, Stübinger S, Meyer: Bactericidal effects of different laser systems on bacteria adhered to dental implant surfaces: an in vitro study comparing zirconia with titanium. *J.Clin Oral Implants Res*. 2010 Mar;21(3):277-83.
- 29 Mettraux GR, Sculean A, Bürgin WB, Salvi GE. Two-year clinical outcomes following non-surgical mechanical therapy of peri-implantitis with adjunctive diode laser application. *Clin Oral Implants Res*. 2016 Jul;27(7):845-9.