The Only Diode Laser Developed To Treat Peri-Implantitis
In Addition To Standard Soft Tissue Procedures

SPECTRALASE IMPLANTOLOGY
DIODE LASER

SPECTRUM LASERS INC.
Manufacturing Diode Lasers In San Francisco Since 1998.
Built by renowned laser physicist Dr. George Bekov, PhD,
with over 30 years experience manufacturing medical and LASIK surgery lasers.

Proven Effective

- Using a 980nm diode laser has been recommended by many authors
  (1-17,20,22,25-31,37) and proven in numerous in vivo studies (1-14) to effectively
  eliminate bacteria and contribute considerably in successfully treating peri implantitis.

Proven Safety

- Extensive research concludes that 980nm diode lasers can be used safely on implant surfaces,
  (2,3,5,12,14,16,17,18-19,23,24,29,30-31).
Spectralase
Advantages

- Most effective and safest 980nm wavelength (2,5,13,16-17,19)
- 20 watt laser to insure bacterial elimination
- Most advanced pulse mode
- History of dependability, 10+ year life
- Energy calibrated to 99% accuracy
- Science based, no commercial gimmicks
- Closed pocket access.
- Support, call the owners
- No maintenance
- 3 year warranty
- No expensive single use tips

Cost
A Fraction Of The Cost Of Other Lasers

- Spectralase Implantology Diode Laser $14,995
  No maintenance, 3 year warranty
  No single use tips, $150 per yr to use
- CO 2 Lasers $30,000-$55,000
  Expensive maintenance, 1-2 year warranty
  Replacement tube $2500-$7500 every 2-5 years
  Extended warranty $3,000-$6000 per year
- Er:YAG LASERS $80,000-$125,000
  Expensive maintenance
  Expensive extended warranty
- Nd:YAG Contraindicated
- Other Diode Lasers
  Expensive non efficient single use tips $2000 pr yr

Essential
Advanced Pulse Mode

- A pulse mode allows tissue and implant to cool in between each pulse. Using a high power pulsed interval versus continuous wave (CW) allows for maximum bacterial mortality without exceeding the critical temperature threshold,(18,21,32)
- Greater damage to the collateral tissues with the use of continuous wave, CW mode, (32).

Laser Comparison

- An alternative to expensive CO2 lasers
- According to many studies, Nd:YAG and Ho:YAG are not suitable for use in decontamination of implant surfaces, (2,3,5,12,14,17-19,29,30-31)
- Er:YAG and CO2 power must be limited, (23).
  Previous studies with CO2 lasers have shown the associated risk with high temperature,(17,34).
- Some studies do not recommend CO2 lasers for peri-implantitis, (17). CO2 induced surface changes in the hydroxyapatite (31)
- The wavelength of the diode laser is considerably more absorbed in hemoglobin than an Nd:YAG laser. This causes not only a better incision but also an excellent coagulation of tissue deeper incisions achieved with the diode laser than with the CO2 or Nd:YAG laser at the same power setting, (21).
- Precise incision margin with 980nm Diode (13,37). Without damage to underlying tissue, (12)
- Other Diode Lasers
  Insufficient power and pulse mode to treat peri-implantitis and history as unreliable.

“Periimplantitis is a problem we must deal with. We are excited about this science based necessary innovation as an alternative to expensive and high maintenance CO2 lasers. Manufactured by a reputable laser company in San Francisco.” Dr. Randolph Resnik, Prosthodontist, Pittsburgh, PA, Surgical Director, Misch Implant Institute


12. Romanos GE, Treatment of periimplant lesions using different laser systems. Oral Laser Appl. 2002; 2; 75-80


22. Kelly B, Kelly C, Kelly D. Pulsed eliminates risk of thermal damage, safer than CW.


25. Osteoblasts can be grown, may promote osteoblast attachment


27. Romanos GE, Treatment of periimplant lesions using different laser systems. Oral Laser Appl. 2002; 2; 75-80

28. No damage to underlying tissue


32. CW exceeds temperature threshold. Pulse mode allows for higher power setting without reaching threshold for optimal bacteria kill


34. Nd:YAG laser is contraindicated, CO2 risk with high temperature


37. Diode lasers real output parameters can differ significantly.


39. Precise incision margin


41. Effective in vivo, temperature increase

42. Significant effective

43. Significant effective

44. Effective non surgical

45. Effective in vivo in, temperature increase

46. Effective in vivo

47. 980 pulsed was only laser to not reach critical threshold
SPECTRALASE
ADVANTAGES