



Introducing

the new Er:YAG Laser-in-Handpiece By Light Instruments Ltd.









Why Er:YAG?











- Non-contact in some procedures, ergonomic work allowing visual control of the therapeutic effects
- Reduces bleeding and makes the surgical site clearer





- Microsurgical instrument
- Allows precise sculpting of dental tissues
- Provides the optimal precision required for a minimally invasive surgical approach procedures





Pictures courtesy of Dr Carole Leconte, France





We don't cut anymore, We don't mill, We sculpt.

> Dr Fabrice Boudot, Dentist from France





Pictures courtesy of Dr Fabrice Boudot, France



Er:YAG is the least invasive wavelength, best absorbed by water and hydroxyapatite

- Thus is safe, limiting the collateral thermal effects
- Affords great versatility in dental treatments





- Micro-Ablation mechanism or vaporization
- Maintains the tissue integrity
 & in particular their
 vascularization









Pictures courtesy of Dr Fabrice Boudot, France



 Bactericidal effects on microbial biofilms & interrupts quorum sensing (Bacteria cell to cell communication)



Excellent for decontaminating tissue surfaces, removing the smear layer and in some cases in allows flapless procedures





Not absorbed by metals, thus provides revolutionary unique solution for effective periimplantitis treatment









Very safe class 3-4 cavities preparation without affecting the neighbor tooth



LiteTouch - Increases Bone Growth Factors

According to recent research, The LiteTouch Er:YAG laser may magnify the natural bone regeneration pathway that is known to continue to a mature graft.

The Er:YAG laser, may enhance the bone regeneration by increasing the amount of growth factors present in the rabbit stemcells, when compared with the mechanical drill,



Er:yag Osteotomy





Improved the acid resistance of enamel, due to synergetic mechanism of laser and fluoride, resulting in :

- ✓ Effective caries prevention
- ✓ Less hypersensitivity





Pictures courtesy of Prof. G. Tomov, Bulgaria





- Precise & minimally invasive bone ablation.
- Second stage surgery without damaging implants.
- Effective treatment modality for Peri-Implantitis.
- Implant decontamination without any damage to the implant surface.
- Sub-ablative disinfection without injuring healthy bone.
- Increased bone-implant contact rate by encouraging bone growth factors.

Clinical Video link: https://youtu.be/NvP4IpVqcLc







Periodontics

- Effective pocket debridement & bactericidal effect (disinfection).
- Precise & selective granulation tissue ablation.
- Effective and selective calculus removal.
- Minimally invasive surgery. Fast healing of soft tissue and bone.
- Minimal inflammatory and infectious post-operative complications and discomfort.

Clinical Video link: https://youtu.be/Vy1UIR7tffU





Pedodontics

- The preferred method for treating children: Less fear factor; less noise;
- no vibrations.
- Precise, gentle and minimally invasive treatments.
- Excellent disinfection of contaminated dentine. Guaranties the success of
- restoration process.
- Efficient disinfection of occlusal pits and fissures, even in deep ones.
- Friendly equipment for good compliance: Well accepted by children.

Clinical Video link: Coming soon







Endodontics

- Minimally invasive opening preparation: No thermal damage or microcracks.
- Bactericidal and debridement efficiency: Removes smear layer, cleans and
- disinfects root canals.
- Apicoectomy: Performed in a Minimal Invasive way.

Clinical Video link: https://youtu.be/ygwLylOldEo







Restorative Dentistry

- Exceptional visibility: Non-contact work .
- Precise & selective ablation of carious lesions; avoids unnecessary ablation of
- healthy tissues.
- No vibration, No micro cracks and no carbonization.
- Bactericidal effect: decontamination of the remaining dentin.

Clinical Video link: https://youtu.be/wHvPwb8c_wc









Aesthetic Dentistry

- Gingival re-contouring smile design.
- Depigmentation of natural melanin deposits.
- Excellent for debonding porcelain veneers and crowns. Allows dentists to re-use
- veneers while preserving tooth substance.

Clinical Video link: https://youtu.be/iKF-SjSmMcE









ORAL PATHOLOGY

- Minimally invasive surgery of benign odontogenic tumor.
- Precise biopsy for safe histological diagnosis.
- An elected tool for therapy of jaw osteonecrosis in bisphosphonate treated
- patients.
- Efficiently reduces symptoms in different oral diseases.

Clinical Video link: https://youtu.be/NLAR0U5ubZg









- Bone cutting is performed in a precise and selective way, while maintaining tissue
- integrity.
- Non traumatic osteotomy.
- Bone ablation, with no thermal effects.
- Stimulates bone growth factors (Better Bone Healing).

Clinical Video link: https://youtu.be/-KP-Nn9nbwg



- Reduced chair time
- Multi-quadrant dentistry



Shorter Treatment



Essential tool for treatment of special patients, with diabetes or coexisting diseases, multiple problems in the mouth or suffering from dental phobia





Improved Patient Experience:

- \checkmark No noise or vibration
- \checkmark Reduced pain and need for anesthesia





No Vibration





No Drill



Assured Patients Loyalty







Eliminates fear & treatment postponement, setting the optimal platform for preventive dentistry









Optimal platform for preventive dentistry







The Future is Er:YAG Laser

"As Er:YAG laser enables significant reduction of pain, this leads to reduced anxiety in the patient, preventing future complications that commonly result from avoidance of dental treatment. Laser is a powerful tool in the hands of a skilled dental practitioner, as more and more clinical studies demonstrate its efficacy."



Professor Dr Andreas Moritz,

Head Professor of Professional Dental Training, Medical University of Vienna







The Future is Er:YAG Laser

"In order to have a true impact on public health, the change in patients' attitude must be affected on a large scale. As the application of laser technology reaches critical mass worldwide, the benefits of reduced trauma and reduced costs will become evident."



Professor Ivo Krejci, *President of the Dental School, University of Geneva*







A Vision in Motion

"We are standing at the cusp of an entirely new reality for dental medicine. In the near future, laser dentistry will be the standard practice all over the world, and dental fear will be a thing of the past. I believe that one day soon, we will look back and wonder how we ever tolerated the complications and consequences of traditional dental techniques."



Professor Adam Stabholz,

Head of the laser dentistry project & Former dean of the Faculty of Dental Medicine at the Hebrew University of Jerusalem, Vice Chairman of the Alliance for Oral Health Across Borders











Product Presentation teaser link: https://youtu.be/wlornJhABBU





Dentists` Best Friend



- Unique Er:YAG "Laser-in-Handpiece"
 technology
- Hard & Soft Tissue dental Procedures
- Compact Er:YAG dental laser
- Affordable Er:YAG laser
- FDA cleared











Laser-in-Handpiece technology

Integrates the entire laser

mechanism within the Applicator

chamber.

Direct delivery of the Laser energy.







Unique unmatched maneuverability





Completely Flexible & Durable Cord



Allowing full and free expression of your dental mastery and expertise



- Technological advantage
- Minimal energy loss
- Allows for ergonomic use with almost no limitation of hand movement within the oral cavity Short learning curve,

Simple maintenance











Stylish Digital Touch Screen







- Small Footprint
- Easy mobility
- Low weight





Pictures courtesy of Prof. G. Tomov, Bulgaria









Compact & friendly look and feel

- ✓ Well accepted by
 - Dentists and patients







 ✓ Boosts the dental office/ clinic's image



Pictures courtesy of Prof. G. Tomov, Bulgaria



Multitude of dental procedures in one single & compact Laser







Increased clinic revenues

Substantially contribute to clinic's revenue growth by enlarging the scope of procedures & patients referrals.









Worldwide experience with

Key Opinion Leaders from:

- ✓ Academy
- ✓ Private Clinics





Pictures courtesy of Prof. G. Tomov, Bulgaria

What successful laser dentists are saying?



with the precision and the ability in the decontamination of the operative field make this device the first choice also in oral surgery."

"LiteTouch's minimal-invasive characteristics combined

Dr. Prof. Giuseppe Iaria - Professor at the University of Genoa and lecturer on lasers in dentistry at the Universities of Genoa, Vita-Salute San Raffaele of Milan, Pisa, Italy.



What successful laser dentists are saying?



"Since 2007 I have been using different dental lasers, but after implementing LiteTouch[™] dental laser in my practice, I am finally satisfied. It allowed me to perform several necessary surgical steps with easily handling 360° rotating hand piece. Indeed, it makes me to enjoy working with it. LiteTouch[™] makes a new image of your dental office, many recommendations from the patients and overall a fresh input in your practice."



Prof. Dr. Ana Minovska / Faculty of Dentistry, European University R. Macedonia



What successful laser dentists are saying?



"I found LiteTouch's applications excellent for obtaining analgesic effect. Using LiteTouch™ has strengthened my relationship with child patients, created trust, lowered their dental anxiety and fear, and encouraged positive behavior toward patient's next visit."



Prof. Ani Belcheva, Department of Pediatric Dentistry, Medical University – Plovdiv, Bulgaria.



What successful laser dentists are saying?



Dr.Tosun Tosun, Private practit "Among all my lasers often I prefer LiteTouch[™] because it has not any delivery system that can be burnt. . LiteTouch[™] starts to operate very quickly and avoid time waste; it is very ergonomic and due to the "Laser-in-the-Handpiece" industrial design, it permits me to work even in difficult angulations with superior vision. LiteTouch`s low maintenance costs lead me to prefer it, to reduce overall expenses in my clinic, while enjoying high performance and all the benefits unique to laser dentistry: micro surgery, quicker healing, minimal invasive treatments and higher acceptance of dental treatments by patients."



ioner, Istanbul, Turkey

Professor in the Department of Surgical and Diagnostic Sciences (DI.S.C.), Medical School, University of Genova, Italy.



What successful laser dentists are saying?



"In my whole career and research work, I had the opportunity to work with different dental lasers, among them LiteTouch[™], the best dental Er:YAG laser in my point of view, mainly because its high delivered energy as a consequence of the position of the active medium. In addition, as there is no need to change delivery system, there are almost no maintenance costs or efforts involved in the use of LiteTouch[™]. LiteTouch's handpiece is small and feels like a turbine drill, allowing complete free movement, thus the learning curve and transition from using traditional tools, is very short. LiteTouch[™] made my practice easier fast, precise and comfortable, thus I recommend my colleagues choosing LiteTouch[™] the unique fiber-free Er:YAG laser."



Gabi Kesler DMD, Coordinator of laser clinic, Department of Oral Rehabilitation School of Dental Medicine, Tel-Aviv University, President Elect at ALD.



LITETOUCH™ What successful laser dentists are saying?





"LiteTouch's quality, efficiency and precision are key factors of success and for the success of some extreme cases while other conventional technologies couldn't help." Dr. Carole Leconte- Periodontology and implantology specialist, Paris, France

Dr. Carole Leconte- Fellodontology and implantology specialist, Fails, Ha



"LiteTouch[™] has provided me with a tool that offers the level of precision required for decontamination microsurgery. The ergonomic design and exceptional performance of the LiteTouch allow me to work in a highly efficient manner with optical aids, achieving tissue micro-ablation under a visual check and by destabilizing the biofilms."

Dr. Fabrice BAUDOT - Dental Surgeon, Instructor in Ergonomics and Micro-Surgery



LiteTouch[™] helps you to:

- Expand the scope of your practice
- Perform additional procedures
- Achieve better clinical results
- Increase your revenues with new

patients, save time, refer less





Join the family of worldwide LiteTouch users ...







Technology for better dentistry





Name	LiteTouch
Laser Classification	Class IV
Output Laser Type Wavelength Pulse energy Power Pulse Repetition Rate Spot size distal at end of tip	Erbium YAG 2940nm Up to 700mJ Up to 8.4 watts on tissue 10-50 Hz
Electrical requirements Protection against Electric Shock:	100-240 +-10% VAC, 13A 50-60 Hz, Single Phase Class I, Type BF Applied part
System dimensions (W x L x H)	Screen extended 37x47x79 cm Screen folded 37x47x64 cm
System cooling Method	Water Cooling (Built-in rechargeable Bottle)
System Weight	Approx. 55 lbs 25 Kg
Environmental requirements Treatment room temperature Recommended room temperature Storage- cooling system filled Storage – cooling system drained Relative humidity	5-25°C (41-77°F) 20-25°C (68-77°F) 5-50°C (41-122°F) 2-55°C (35-131°F) Up to 80%



Technical Specifications





Initial package



✓ LI-FG0012A 1 x LiteTouch™ Er:YAG Laser





OP6048(x)
3 x Laser safety goggles



3 x Laser safety gogg



- ✓ LI-KT30030 **Tips kit** Assorted sapphire tips
- ✓ LI-PB00022EN
 - 1 x Quick Working Guide
 - ✓ LI-PB30010EN + LI-PB30040EN
 - 1 x User Manual + 1 x Clinical Guide





- LI-FG0015A1x Er:YAG LaserApplicator
- AS782512 x Angled Handpieces



✓ MP65742 1x **Tips holder**



LIGHT INSTRUMENTS RISE ABOVE TECHNOLOGY

✓ AS61932
 1x Footswitch



1 x C

Additional accessories



	AS7230(x) Straight Handpiece	The Straight Handpiece, in contrast to the angled handpiece, does not use a folding mirror. Thus the laser beam is conveyed directly to the tissue through the tip. For this reason, the output energy of the straight handpiece is slightly higher.	
	LI-AS01122(x) Rinsing Handpiece	The Rinsing Handpiece provides a continuous stream of only water without air for rinsing the treatment area instead of the conventional spray. When used in conjunction with "Gentle Treatments" mode, it allows for clean, precise and delicate work on the target tissue.	
LiteTouch`s handpieces can be sterilized using a standard autoclave process at			

 $135^{\circ}C$ (the folding mirror must be removed before performing the autoclave process).







0.2 - 0.6 diameter tips

Conical tip, recommended for gingivectomy, class 3 & 5 restoration, root canal sterilization, raising soft tissue flap and apicoectomy procedures.



AS7075(x) Pack of 5 Laser tips 0.4 x 17 mm [Ø x Length], white O-ring

Thin, conical tip, recommended for ----

> AS7072(x) Pack of 5 Laser tips 0.6 x 17 mm [Ø x Length], yellow O-ring







0.8 diameter tips

Conical tip, recommended for gingivectomy, gingivoplasty, class 3 & 5 restoration, root canal sterilization, raising soft tissue flap, and apicoectomy procedures

AS7074(x) Pack of 5 Laser tips 0.8 x 14 mm [Ø x Length], red O-ring



AS7069(x) Pack of 5 Laser tips 0.8 x 17 mm [Ø x Length], red O-ring







1.0 diameter tips

Cylindrical tip, recommended for gingivoplasty, trophings and class 3 & 5 restoration procedures



AS7073(x) Pack of 5 Laser tips 1.0 x 14 mm [Ø x Length], blue O-ring



AS7068(x) Pack of 5 Laser tips 1.0 x 17 mm [Ø x Length], blue O-ring







1.3 diameter tips

Cylindrical tip, recommended for gingivoplasty, trophings, class 2 restorations, implantations and bone recontouring procedures.

AS7066(x) Pack of 5 Laser tips 1.3 x 14 mm [Ø x Length], black O-ring -----

AS7065(x) Pack of 5 Laser tips 1.3 x 17 mm [Ø x Length], black O-ring



AS7071(x) Pack of 5 Laser tips 1.3 x 19 mm [Ø x Length], black O-ring







Special Tips:

AS7450(x) Pack of 5 Laser Implant tips 1.3 x 19 mm [Ø x Length], black O-ring

SAME .

AS7197(x) Pack of 5 Chisel Laser tips 1.3 X 17 mm [Ø x Length], green O-ring

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AS7564(x) Pack of 5 Magnum Laser tips 1.3 X 6.3 mm



Implant tip

LiteTouch – Available Tips

Cylindrical tip, designed to allow dentists to easily recognize working depth and better prepare the required implant specifications. The alternating steel bands and gaps are depth indicators (1 mm each). Recommended for any type of restoration or drilling for implants.

Chisel tip

Custom-shaped tip, designed for very fine cutting, and scaling of hard tissue. The distal end of the tip is honed to a sharp edge. Recommended for any cutting or scaling procedure, including removal of calculus.

Magnum tip

Very short tip designed for minimal energy loss. Allows very fast work on the tooth surface. Recommended for drilling in occlusal enamel.





Special Tips:

AS0165(X) Pack of 5 Blade tips 0.4 x 17mm [Ø x Length], black and red O-ring



AS7631(x) Pack of 5 Side Firing Laser tips 1.3 X 19 mm [Ø x Length], green O-ring

Blade tip

Recommended for cutting procedures in soft tissue, especially when longer and finer cuts are required.

Side Firing tip

Custom-shaped tip, designed to deliver laser pulses at a 90° angle to the direction of the tip, easing work in locations that require side access. The direction marker on the side of the tip indicates the direction of the emitted laser pulses, as shown in the illustration. Recommended for class 5 restorations of side molars in both upper and lower jaw.











Product Presentation link: https://youtu.be/l3pmtYX02F8









For more information please contact: Office@light-inst.com