easy laser guide nano
The elexxion easy laser guide offers information about dental lasers in general as well as specific information about elexxion’s laser. It is intended to support dental distribution staff in understanding the current laser market, the benefits of laser use and the role of elexxion’s laser program.
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1 · Lasers in medicine

Since the beginning of the 70’s, lasers have been used in various medical disciplines. Here are some examples:

LASER APPLICATIONS IN MEDICAL DISCIPLINES

• Vascular surgery: sclerotherapy
• Oncological surgery: tissue removal
• Skin cancer diagnostics: laser scanning
• Ophthalmology: Lasik surgery
• Urology: prostate surgery
• Dermatology: tattoo removal, depilation

LASER APPLICATIONS IN DENTISTRY

• Caries diagnostics and removal
• Hard tissue removal
• Root canal disinfection
• Periodontal pocket debridement and decontamination
• Oral surgery
• Periimplantitis treatment
• Desensitizing
• Biostimulation

WHY ARE LASERS SO HESITANTLY ACCEPTED IN DENTISTRY?

In the early years of lasers, dentistry lasers were viewed as a kind of miracle tool to substitute the dental drill. This was clearly promising too much, which quickly dampened enthusiasm for laser use. Furthermore, to achieve excellent results with lasers, the user needs to have certain knowledge and be properly trained. Lasers are available in many different wavelengths, emission modes, power levels and more. These parameters determine where a specific laser is indicated and how it should be applied. That is why education and training is essential in order to avoid disappointment with a very useful tool. Poor training, a longer learning curve and the fact that laser dentistry is only beginning to be integrated in dental school curricula has slowed adaptation among dentists.
2 · Benefits of lasers in dentistry

LASER BENEFITS FOR PATIENTS...

- minimal requirement for anesthetics
- less invasive perio-therapy
- minimized requirement for sutures
- less postoperative pain
- immediate cosmetic result
- selective removal of diseased tissue
- enhanced healing
- less postoperative inflammation
- photodynamic therapy

- minimally invasive procedures
- faster procedures
- bacterial decontamination
- less chair time
- less stress/anxiety

= High acceptance and increase in patients’ comfort

LASER BENEFITS FOR THE DENTIST...

- durable, timely hemostasis
- clean dry field/better restorations
- less stress for soft tissue
- minimal anesthetic
- elimination of packing cord
- immediate aesthetic result
- fiber access to confined areas
- precise incision/excision
- root canal sterilization

- practice marketing advantage
- staff enthusiasm
- less stress for laser procedures
- practice revenue growth potential
- less need to refer patients out
- efficiencies; more procedures/visit

= Laser use is very well accepted by patients and is economical
# Dental lasers and their application

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<tr>
<th>TYPE</th>
<th>WAVE LENGTH (NM)</th>
<th>PENETRATION DEPTH</th>
<th>SURGERY</th>
<th>ENDO</th>
<th>PERIODONTOLOGY</th>
<th>HARD TISSUE</th>
<th>SOFT LASER</th>
<th>BLEACHING</th>
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4 · claros nano

elexxion claros nano is a diode laser with a wavelength of 810 nm. With 15-watt power, it is one of the best high-performance compact lasers.

ADVANTAGES:
• Patented Digital Pulse Technology (DPT) allows the application of high power for effective cutting while simultaneously preventing collateral tissue damage and thereby promoting faster healing
• All handpieces and fibers can be autoclaved for infection control

Applications: claros nano

<table>
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<tr>
<th>ORAL SURGERY</th>
<th>ENDODONTICS</th>
<th>PERIODONTOLOGY</th>
<th>PERIIMPLANTITIS</th>
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<td>Pocket decontamination</td>
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5 · How to choose an elexxion laser?

You need a laser for Soft Tissue and Hard Tissue Applications

Yes

No

Only for Hard Tissue Applications

Yes

No

Only for Soft Tissue Applications

Yes

No

For extensive and frequent Soft Tissue Applications?

Yes

No
### 6 · Market overview of diode lasers

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<th>Biolase</th>
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7 · Laser classification

Lasers are categorized into different classes based on their hazardous potential according to DIN EN 60825-1. All elexxion lasers are Class 4 lasers.

Class 4

The laser beam is very dangerous for the human eye and skin. Even refracted radiation can be dangerous. Laser radiation can ignite fire or cause an explosion.

8 · Eye protection

It is a must for dentists, assistants and patients to wear eye protection.

Important: The protection glasses must be compatible with the specific wavelength of the laser!

Laser protection glasses claros protect, 810 nm for nano, claros
Laser protection glasses elexxion protect, 2940 nm for nano, claros, duros, delos (combination glasses)