New standard in aseptic keyboard technology

More and more working steps make the computer indispensable. Even in medicine. The stronger health rules cause a well known problem, because to keep a PC-keyboard hygienically clean was previously impossible. Tools, like a silicone cover, are only a temporary solution, because they do not last long enough. The surface of the keyboard is glass, a special transparent glass. The keyboard layout is printed backside and the key areas are sensitive and respond to touch, whose strength is adjustable in three stages. So the keyboard is easy to use even with gloves. A "TrackPad" replaces the mouse. There is also no need to keep a standard mouse hygienically clean—you need no mouse! CleanKeys hygiene keyboards work with any computer that has an USB port. There is no need for additional software. Compatible with Windows, Mac OS X, and Unix. A subtly translucent light shows you when the Caps Lock key is pressed and an adjustable click sound makes every keystroke audible. This makes it easy to write fast. CleanKeys are proofed against humidity, splash-proof and can be cleaned with all commercially available surface disinfectants to protect against viruses and bacteria. With a simple button-touch the keyboard can be switched off for cleaning. The CleanKeys keyboard is ideal for use in medical technology. The CleanKeys PC keyboard is splash-proof to IP65 and is therefore easy and quick to clean. The absolutely flat surface and the capacitive mouse pad guarantee easy operation—with and without protective gloves. This makes the CleanKeys PC keyboard interesting for clean room work stations, which has to be absolutely hygienic and dust-free. Cleankeys uses touch-capacitive technology, similar to what you might be familiar with on touch-sensitive appliances such as a microwave oven or Ceran top stove. A small electric field is created above each key, which is affected by the presence of a human finger (try using the end of a pencil and you’ll see it won’t work). The sensors are working even when you’re wearing gloves.

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Fotona

Another Study Confirms Er:YAG Laser’s Hard Tissue Ablation Superiority

Fotona’s AT Fidelis—the All Tissue laser dentistry platform—features in a study report on heat deposition of Erbium lasers in hard dental tissues, published in the Journal of Oral Laser Applications (winter 2009 issue). In a comparative study between Er:YAG and Er,Cr:YSGG lasers it was found that less total absorbed laser energy remained in the tooth in the form of heat in teeth treated with the AT Fidelis’ Er:YAG laser. The authors conclude that this, at least partially, explains the observed higher ablation efficacy of Er:YAG lasers compared to Er,Cr:YSGG lasers. This report follows previous studies, one which was also published in the Journal of Oral Laser Applications and another published by the Laser and Health Academy (www.laserandhealth.com). Both investigated the use of laser profilometry for the characterization of craters produced in hard dental tissue by Er:YAG and Er,Cr:YSGG, which gave insights into accurately measuring laser drilling speeds. The latter study revealed that the AT Fidelis’ Er:YAG laser’s ablation rates, which determines drilling speed in volume per second, to be 3.7 times higher in dentine and and 5 times higher enamel compared to the Er,Cr:YSGG laser.

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**Biolase**

**iLase™—Questions and answers**

**What is the iLase?**

The iLase from BIOLASE is the world’s first personal laser for dentists or hygienists* to perform a full range of minimally invasive soft-tissue and hygiene procedures. A single, independent handpiece with no external connections provides intuitive finger-control of up to 5 Watts of peak laser power, and up to 3 Watts of continuous wave laser power. No extra foot pedal, and no extra cords are added to the operatory!

The exclusive ComfortPulse™ reduces both patient discomfort and the need for anesthetic. Customizable pre-sets for the most common procedures save time and improve efficiency. It is also ideal for orthodontic and periodontal practices.

*Where local law allows.

**Two wavelengths and 50 W pulse output in one machine**

Among the products they presented at the IDS 2009, elexxion AG, based in Radolfzell (Germany), included their internationally-patented combination laser elexxion delos. The elexxion delos combines two of the most frequently studied and scientifically recognised wavelengths (810 nm and 2,940 nm) in one machine so that both hard and soft tissue can be treated with one single machine. At present, according to elexxion, most applications can be reasonably treated with this combination system. For example, the elexxion delos can be used for the removal of concrements, decontamination, cavity preparation, root resection and bone ablation.

Over 100 digitally stored indications can be accessed on a large touch screen and activated at a “touch”. Output modifications can be easily and individually fine-tuned. The practitioner saves time, the dosage accuracy is guaranteed. Especially for peri-implantitis therapy and the treatment of biofilm, elexxion has cooperated with the University of Dusseldorf on the development of special sapphire tips. These feature the ability to direct 90% of the laser’s power lateral to the surface of the implant. Further advantages of the elexxion delos for soft-tissue applications are: Together with the ultra-short pulse durations of as little as 9 µs, the modern diode technology with its 50 W pulse output enables a gentle, efficient soft-tissue surgery at a speed which, according to elexxion, was previously unattainable. A flexible fibre guide is an additional relief for the dentist during treatment. At the same time, the newly developed fibre increases the output density thanks to an optimized beam profile. This means higher removal speed, for example in the tooth enamel. The machine can be connected comfortably to the internal compressed-air supply or to an external compressed-air supply. The external connection permits the water spray to be precisely adjusted and, thus, improves the removal performance. The elexxion delos combination laser can be purchased in Germany from the specialized distributor Pluradent.

**AMD Lasers**

**AMD updates its laser for soft-tissue surgery**

The US-based manufacturer AMD LASERS recently launched the Picasso Lite in dental markets worldwide. As a first in the industry, this new soft-tissue dental laser will be able to use convenient disposable tips or a low-cost strippable fibre for a wide range of applications, the company said in a press release in January. Picasso Lite is aimed at dental hygienists and dentists who have no or little experience with dental lasers. Dentists can use Picasso Lite for various kinds of soft-tissue surgery, including gingivectomies, frenectomies, trenching, exposing implants/teeth/orthodontic brackets, and treating aphthous ulcers and herpetic lesions. According to the company, it cuts and coagulates tissue with reduced trauma, bleeding and necrosis of tissue. Picasso Lite, which is priced at US$2,495, comes with a set-up DVD, online laser certification, accessories and a world power adapter. AMD offers a two-year warranty on all its products.

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