New laser applications at the 7th LA&HA Symposium

Fotona’s new SWEEPS™ endodontic treatment, first announced at this year’s IDS, was one of the highlights of the 7th Annual Laser & Health Academy Symposium. SWEEPS™ uses the power of the Er:YAG laser and Fotona’s revolutionary new ASP technology to create non-thermal photoacoustic shock waves for removing the smear layer in root canals. Also of special interest at the LA&HA Symposium were cases utilising the innovative TwinLight® approach for treatments in periodontics, oral surgery and even in NightLase®.

The 7th Annual Laser & Health Academy Symposium took place in May at the Slovenian Alpine resort of Kranjska Gora. This year’s Symposium attracted a record number of nearly 500 participants, with more than 50 clinical experts from around the world presenting the latest innovations and applications in the field of medical and dental laser technology. The annual LA&HA Symposium is held to exchange research and education among medical professionals in the field of laser medicine, with a focus on practical instruction and presentations of the latest laser procedures and research. For further information, visit www.laserandhealthacademy.com.

Supplements are only effective in

Significant vitamin D deficiency

An international study of older adults has found that mass, untargeted provision of vitamin D supplements provides little clinical benefit to many when it comes to the common bone disease, osteoporosis. Instead, the study recommends targeting vitamin D supplements at individuals whose levels of this vitamin are markedly reduced. The results of the study—carried out by researchers at the University of Auckland, New Zealand, and Harvard Medical School, Boston—were announced today by Professor Ian R. Reid at ECTS 2017, the 44th European Calcified Tissue Society Congress being held in Salzburg, Austria.

Professor Reid concluded: “It was clear to us that future trials of vitamin D supplements in older adults should focus on those who have baseline vitamin D levels equal to or below 30 nmol per litre and that the findings represent a significant step towards defining vitamin D deficiency for bone health in older adults.”

Intraoral scanning technology

Taiwan’s Metal Industries Research and Development Centre (MIRDC) has introduced a new blue laser line intraoral scanning technology. According to the developers, the device is built with mostly Taiwanese electronic components and will be significantly cheaper than similar scanning devices from international competitors. Through software, the device uses a triangular measuring method to focus a high-coherence laser light on to the object to be scanned. In this manner, it is able to accurately construct a dental model, taking precise measurements within an area of 22 x 18 mm, which reduces the margin of error, the developers said.

Developed by the MIRDC, the blue laser line was transferred to several Taiwanese companies, Taiwan News reported online. The scanner, which is currently being tested in clinical trials, is to be introduced to the market later this year. According to the MIRDC, similar oral scanning devices made in Germany, Denmark and the US, for example, cost about NT$1.2–1.6 million (US$39,900–53,200). The MIRDC’s partners, however, hope that the commercialised product will sell for US$30,000 to hospitals and dental clinics globally.

Screenshot (YouTube/solberg hju) of the newly developed blue laser line intraoral scanning device (MIRDC Taiwan).
Obstructive Sleep Apnea causes Complications in implant-borne prostheses

Researchers from OSI Araba University Hospital in Victoria, Spain, published a study that investigated how Obstructive Sleep Apnea (OSA) affects implant-borne prostheses. The frequency with which a complication occurred and the type of complication were studied in 67 patients. Contrary to their initial hypothesis, the researchers found a high instance of complications related to OSA. Of the 67 patients included in the study, the researchers found that 16 experienced complications; 13 of which had OSA. Among these 16 patients with complications, there were 22 prostheses with a total of 30 issues. The researchers found these complications consisted of porcelain fracture, fracture of the screw/implant, loosening of the screw, and decementation. The average time for a complication to occur was 73 months post-implantation. During the study, the researchers also noted a strong relation between individuals who suffer from OSA and those who suffer from bruxism. Past studies revealed that those afflicted with bruxism had a higher instance (6/10) of complications with implant prostheses than those without bruxism (13/75). This shows that people suffering from OSA and/or bruxism have a more difficult time with successful prosthetic implantation. This study shows that 81 per cent of patients with OSA experienced complications with their prostheses. Given that the success rate of implants is reported to be between 92 and 97 per cent, there is a strong correlation between OSA and prosthetic complications.

Survey exposes truth about Our oral health habits

FDI World Dental Federation is myth busting what people around the world believe to be good oral health practices, encouraging them to become better informed and take action. Oral health is integral to our general health and well-being; impacting every aspect of our lives. The results from a survey carried out in 12 countries, by YouGov on behalf of FDI, exposed a significant gap between what people believe to be good oral health practices, versus what they actually do. Eight of the countries reported that 50 per cent or more of the people surveyed think it is important to brush your teeth straight after every main meal. Brazil, Mexico, Egypt and Poland were the worst offenders of this incorrect oral health practice (84%, 81%, 62% and 60% respectively). FDI recommends waiting at least 30 minutes after eating to brush your teeth to avoid weakening tooth enamel. The majority of countries surveyed incorrectly believe that rinsing the mouth out with water after brushing is important; Brazil, South Africa, Mexico, India and Canada were found to practice this myth the most (77%, 75%, 73%, 67% and 67% respectively). It is actually recommended not to rinse with water straight after brushing to allow maximum exposure to fluoride, which will optimize the preventive effects. Nearly half the population surveyed in India, South Africa, Brazil and Poland (52%, 49%, 48% and 42% respectively), felt that drinking fruit juice rather than fizzy drinks was important for good oral health. Fruit juice however, can also be high in sugar which can cause tooth decay. FDI recommends keeping consumption of sugary drinks to a minimum as part of a healthy, balanced diet.