

# today



## Are all implants equal?

A Cochrane report has recently suggested that there may be no differences in terms of long-term success, regardless of the shape of the implant or the material used.

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## CAD/CAM in focus

Petri Kajander, Product Manager for Planmeca's CAD/CAM solutions, explains the revolutionary features of these new products.

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## What's on in London

Apart from its rich cultural and culinary scenes, London offers something for nearly everyone. Some tips how to spend your time off in the British capital.

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## Three days of innovation and learning

ExCel London welcomes UK dental professionals to BDIA Dental Showcase 2014

AD

Can a tooth heal itself?  
**Yes, it can!**

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Come see GCP at  
Plandent Stand G10

Every two years, the ExCel London Exhibition and Convention Centre becomes the epicentre of all things dentistry in the UK. This year, the show promises to even exceed the previous one with more dental companies and dealers showcasing their portfolio of innovative products and solutions for dental practices and laboratories. Some of them will be available to dental professionals in the UK for the first time, such as the new line of restorative products from GCP Dental, which boasts Glass Carbomer Tech for reliable and well-fitting dental restorations. Complete solutions for the dental practice will be presented by Henry Schein, among other companies, who has announced that its whole range of dental equipment will be on display, ranging from consumables and decontamination products to advanced digital technology, and servicing and practice software.

Overall, up to 350 dental companies have registered for this year's exhibition, which will run from Thursday to Saturday at the centre. Along with the industry showcase, over 100 mini-lectures will be held over all three days, including product presentations and papers on clinical issues discussed by nationally distinguished experts. By attending these lectures, visitors are entitled to continuing professional development certification. Instruc-



tions on how to obtain the certificates are provided on the show's website.

"BDIA Dental Showcase is set to be bigger and better than ever this year," commented British Dental Industry Association Executive Director Tony Reed. "We have over

350 top names in dentistry ready to exhibit and thousands of dental professionals already registered to attend. We've got one extraordinary show on our hands and hope to see you there."

Visitors who have not registered for the show in advance

can still gain admission for the small fee of £10. Daily news and updates from the show will be available online at [www.dental-tribune.co.uk](http://www.dental-tribune.co.uk) and through the daily *Dental Tribune UK* newsletter. To sign up, please scan the code below with your mobile device. ◀

**today** About the Publisher

Editorial/  
Administrative  
Office

Phone  
Fax  
Internet

Publisher  
Director of Finance  
and Controlling  
Managing Editor  
Product Manager  
Production Executive  
Production

Dental Tribune  
International GmbH  
Holbeinstraße 29  
04229 Leipzig  
Germany  
+49 341 48474-302  
+49 341 48474-173  
[www.dental-tribune.com](http://www.dental-tribune.com)

Torsten Oemus  
Dan Wunderlich  
Daniel Zimmermann  
Claudia Salwiczek  
Gernot Meyer  
Matthias Abicht

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\* All subscribers who register between 9-11 October are entitled to take part in the raffle.





# Schedule of the mini lecture programme, BDIA Dental Showcase 2014

## Thursday, 9 October

Time	Mini Lecture Area No.	Title	Speaker
12:00	1	3-D printing teeth or mountain bikes!	Gareth Tomkinson
12:00	2	An update on all ceramic restorations	Rishi Patel
12:00	3	Why your website is an online marketing hotspot	Naz Haque
12:30	1	Introduction to Myofunctional Orthodontics	Dr Dan Hanson
12:30	2	How smart dentists attract new patients	Malcolm Counihan
12:30	3	There is no Google page 2	Naz Haque
13:00	1	Medical emergency drugs—Do you know the requirements	Lee Taylor
13:00	2	Tips and tricks in periodontology	Dr Manish Bose
13:00	3	Expect more from your oral hygiene products	Jane Jaroudi
13:30	1	Predictable alternatives to amalgam: resin composites, glass ionomers and giomers	Dr Christopher D. Lynch
13:30	2	Efficient tax planning for efficient dentists and dental practiced	Steven Vryonides
13:30	3	Handpiece innovations—What's new and why?	Tobias Harfmann
14:00	1	Banking on dental	Ian Crompton
14:00	2	A simple and effective way to move teeth as a GDP	Dr Dominique Kanaan
14:00	3	How not to use social media	Nigel Reece
14:30	1	White spots—Now you see me soon you wont!	Dr Richard Field
14:30	2	Why your website is an online marketing hotspot	Naz Haque
14:30	3	The golden rules of success with Clear Aligner Therapy	Gary Dorman
15:00	2	The journey through online patient acquisition	Naz Haque
15:00	3	The management of peri-implant diseases	Morag Powell
15:00	1	Happy ever after, or is it?	Heidi Marshall
15:30	1	“Five tactics which cannot fail to grow your practice!”	Dr Simon Hocken
15:30	2	Enlighten B1 Guaranteed Teeth Whitening	Dr Payman Langroudi
15:30	3	Dexcel Pharma Ltd/PerioChip	n.a.
16:00	1	MHRA's role in protecting public health from counterfeit and illegal dental equipment	Bruce Petrie
16:00	2	Tips for Improving the Quality of Your Dentistry ... and Saving Time Too!!	Dr Jeremy A. Cooper
16:00	3	iCOMPLY Application—Automate your compliance	Paul Mendlesohn
16:30	1	Dental Fenders, CIC Innovative of 2013	Dr J.J. Jansen van Rensburg
16:30	3	An autogenic bone graft in your clinic in less than ten minutes	Dr Lari Sapoznikov
16:30	2	The impact of snack attacks on oral health	Ali Lowe

## Friday, 10 October

11:00	1	3-D printing teeth or mountain bikes!	Gareth Tomkinson
11:00	2	Enlighten B1 guaranteed teeth whitening	Dr Payman Langroudi
11:00	3	Number one Google rankings in 60 minutes!	Nigel Reece
11:30	1	Luxation and Luxator LX, CIC Innovation of 2014	Dr J. J. Jansen van Rensburg
11:30	2	Oral health and performance in elite sport	Prof. Ian Needleman
11:30	3	iCOMPLY Application—Automate your compliance	Paul Mendlesohn
12:00	1	Predictable alternatives to amalgam: resin composites, glass ionomers and giomers	Dr Christopher D. Lynch
12:00	2	Efficient tax planning for efficient dentists and dental practiced	Steven Vryonides
12:00	3	The golden rules of success with Clear Aligner therapy	Gary Dorman
12:30	1	White spots—Now you see me soon you wont!	Dr Richard Field
12:30	2	Minimally-invasive restorative dentistry: A practical guide	Louis Mackenzie
12:30	3	Handpiece innovations—What's new and why?	Tobias Harfmann
13:00	1	“Five tactics which cannot fail to grow your practice!”	Dr Simon Hocken
13:00	2	How smart dentists attract new patients	Malcolm Counihan
13:00	3	The management of peri-implant diseases	Morag Powell
13:30	1	Tips for improving the quality of your dentistry... and saving time too!!	Dr Jeremy A. Cooper

13:30	2	Why your website is an online marketing hotspot	Naz Haque
13:30	3	Dexcel Pharma Ltd/PerioChip	n.a.
14:00	2	There is no Google page 2	Naz Haque
14:00	3	The only way is ... Prevention	Bal Chana
14:00	1	Happy ever after, or is it?	Heidi Marshall
14:30	1	Banking on Dental	Ian Crompton
14:30	2	When tooth position is the problem, tooth movement is the answer	Dr Jan Einfeldt
14:30	3	Why your website is an online marketing hotspot	Naz Haque
15:00	1	Medical emergency—Recognition & Management of Hypoglycaemia	Lee Taylor
15:00	3	The journey through online patient acquisition	Naz Haque
15:00	2	The impact of snack attacks on oral health	Ali Lowe
15:30	1	Introduction to Myofunctional Orthodontics	Dr Dan Hanson
15:30	3	An autogenic bone graft in your clinic in less than ten minutes	Prof. Itzhak Binderman
15:30	2	Successful Disposal of Your Dental Practice	George Manolescue
16:00	1	MHRA's role in protecting public health from counterfeit and illegal dental equipment	Bruce Petrie
16:00	2	Buying a dental practice—Five avoidable mistakes being made by dentists	Nathan Poole
16:00	3	The future of dentistry, Emotional dentistry	José Álvarez
16:30	1	Advanced MI Dentistry (AMID)—The ground-breaking postgraduate qualification from King's College London Dental Institute	Prof. Avijit Banerjee
16:30	3	SmyDesign Concept—The 3-D integration of Digital Smile Design and Multidisciplinary Digital Planing”	Dr Francis Coachman

## Saturday, 11 October

11:00	3	How not to use social media	Nigel Reece
11:00	1	3-D printing teeth or Mountain bikes!	Gareth Tomkinson
11:00	2	Why your website is an online marketing hotspot	Naz Haque
11:30	3	An autogenic bone graft in your clinic in less than ten minutes	Prof. Itzhak Binderman
11:30	1	Medical emergency—Recognition & management of fitting	Chris Kurt-Gabe
11:30	2	The operating microscope in endodontics	Tony Druttman
12:00	3	There is no Google page 2	Naz Haque
12:00	1	Banking on dental	Ian Crompton
12:00	2	How smart dentists attract new patients	Malcolm Counihan
12:30	3	Handpiece innovations—What's new and why?	Tobias Harfmann
12:30	2	Why are thousands of successful GDPs offering six month smiles?	Dr Jaswinder Gill
12:30	1	“Five tactics which cannot fail to grow your practice!”	Dr Simon Hocken
13:00	2	Why your website is an online marketing hotspot	Naz Haque
13:00	2	Minimally invasive restorative dentistry: A practical guide	Louis Mackenzie
13:00	1	White spots—Now you see me soon you wont!	Dr Richard Field
13:30	3	Soft tissue management during ‘Smile makeovers’	Ashish B Parmar
13:30	2	Bleaching and bonding with enlighten and reamel	Dr Dipesh Parmar
13:30	1	Introduction to Myofunctional Orthodontics	Dr Dan Hanson
14:00	3	The Golden Rules of Success with Clear Aligner Therapy	Gary Dorman
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15:30	2	Efficient tax planning for efficient dentists and dental practices	Steven Vryonides
15:30	1	Rubber dam the easy way	Dr J.J. Jansen van Rensburg
15:30	3	The impact of snack attacks on oral health	Ali Lowe



# Can a tooth heal itself?

## Yes, it can!



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# BDIA Dental Showcase sees UK premiere of revolutionary filling technology

GCP's line of restorative products featuring Glass Carbomer technology on display at Plandent Stand G10/13

■ One of the most successful species in evolution, sharks have been roaming the earth's oceans for at least 400 million years. Key to their survival are their teeth, which almost entirely consist of fluorapatite, a mineral that forms highly organised, hard structures that are able to resist exceptionally high stresses. Glass Carbomer-based restorative products also develop high concentration of this mineral. Here at the BDIA Dental Showcase in London it is now being exhibited for the first time to dental clinicians in the UK and Ireland.

Developed by GCP Dental in the Netherlands, the material has been used clinically for over ten years. It is based upon biocompatible nano particle glass incorpo-

rating liquid silica and fluor/hydroxyapatite. Once in contact with the tooth, ion exchange commences which leads to direct bonding between the material and the tooth as well as remineralisation. Through the process, the material does not only form



rating liquid silica and fluor/hydroxyapatite. Once in contact with the tooth, ion exchange commences which leads to direct bonding between the material and the tooth as well as remineralisation. Through the process, the material does not only form

Recent studies conducted with the materials have demonstrated similar or favourable retention rates to composite resin based sealants, for example. The GCP Dental's Glass Carbomer range of products is indicated for the restoration of pre-molar and molar teeth, as well as core build-up, fissure sealing and cementation. In the UK and Ireland, the line is exclusively distributed by Plandent.

"We are delighted to introduce GCP products to the UK and Irish markets in exclusive partnership with Plandent. We believe their knowledgeable and well trained sales team to be ideal to advise dental clinicians, already well aware of the benefits of glass based restorative technologies, on the benefits of improved strength and remineralisation achievable with Glass

AD

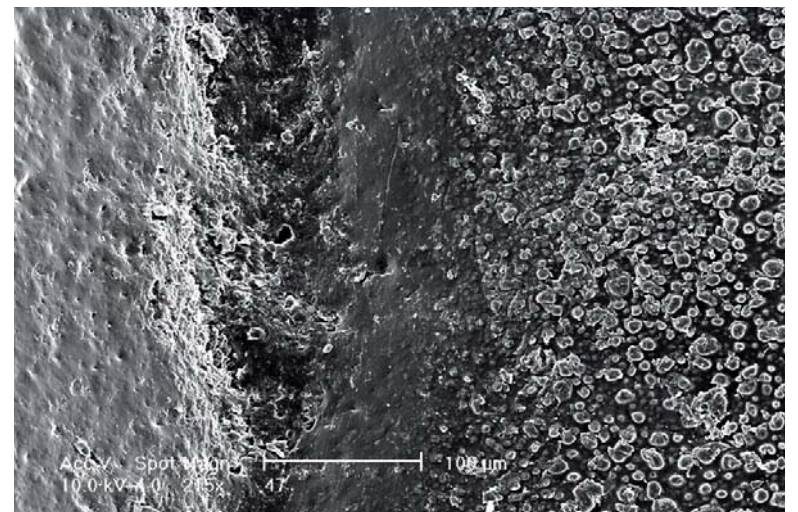
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a strong and resistant unit with the natural tooth but also allows healing to any residual caries.



Microscopic image showing the biofusion between the material and the tooth.

According to GCP, it can simply be recharged by using fluoridated toothpaste.

Fully biocompatible and fast-setting, the material is claimed to eliminate the risks of leakage and the development of any secondary caries. Clinicians will be able to continue working or taking impressions immediately after the material has been set using the thermocure LED light, the company said. While no bonding or etching agent are said to be required to establish the chemical fusion between the material and the dentine, a composite layer can be bonded onto the Glass Carbomer for enhanced aesthetics using standard acid etch/bond techniques. The material properties are optimised using a thermocuring lamp which according to GCP provides the correct level of focussed thermal energy to speed up the curing process. An integral part of the GCP restorative system, however, the Carbo LED CL 010 can also be used for curing conventional composites. Also available from the company is the GCP Carbo Mix developed to allow controllable and consis-



GCP Dental CEO Lekhrum Changoer

Carbomer technology," commented GCP Dental CEO Lekhrum Changoer. He invited visitors of the BDIA Dental Showcase to discover more about this revolutionary new restorative technology at booth G10/H13 inside the exhibition hall. Introductory packages to early adopters will be offered as well. More information about this range of products, as well as training videos, are available at the company's website at [www.gcp-dental.com](http://www.gcp-dental.com).



# LONDON'S TOP 10 ATTRACTIONS



## 1. BRITISH MUSEUM

The world-famous British Museum exhibits the works of man from prehistoric to modern times, from around the world. Highlights include the Rosetta Stone, the Parthenon sculptures and the mummies in the Ancient Egypt collection. Entry is free but special exhibitions require tickets.



## 2. NATIONAL GALLERY

The crowning glory of Trafalgar Square, London's National Gallery is a vast space filled with Western European paintings from the 13th to the 19th centuries. In this iconic art gallery you can find works by masters such as Van Gogh, da Vinci, Botticelli, Constable, Renoir, Titian and Stubbs. Entry is free but special exhibitions require tickets.



## 3. NATURAL HISTORY MUSEUM

As well as the permanent (and permanently fascinating!) dinosaur exhibition, the Natural History Museum boasts a collection of the biggest, tallest and rarest animals in the world. See a life-sized blue whale, a 40-million-year-old spider, and the beautiful Central Hall. Entry is free but special exhibitions require tickets.



## 4. TATE MODERN

Sitting grandly on the banks of the Thames is Tate Modern, Britain's national museum of modern and contemporary art. Its unique shape is due to it previously being a power station. The gallery's restaurants offer fabulous views across the city. Entry is free but special exhibitions require tickets.



## 5. THE LONDON EYE

The London Eye is a major feature of London's skyline. It boasts some of London's best views from its 32 capsules, each weighing 10 tonnes and holding up to 25 people. Climb aboard for a breathtaking experience, with an unforgettable perspective of more than 55 of London's most famous landmarks – all in just 30 minutes!



## 6. SCIENCE MUSEUM

From the future of space travel to asking that difficult question: "who am I?", the Science Museum makes your brain perform Olympic-standard mental gymnastics. See, touch and experience the major scientific advances of the last 300 years; and don't forget the awesome Imax cinema. Entry is free but some exhibitions require tickets.



## 7. VICTORIA & ALBERT MUSEUM

The V&A celebrates art and design with 3,000 years' worth of amazing artefacts from around the world. A real treasure trove of goodies, you never know what you'll discover next: furniture, paintings, sculpture, metal work and textiles; the list goes on and on... Entry is free but special exhibitions require you to purchase tickets.



## 8. TOWER OF LONDON

Take a tour with one of the Yeoman Warders around the Tower of London, one of the world's most famous buildings. Discover its 900-year history as a royal palace, prison and place of execution, arsenal, jewel house and zoo! Gaze up at the White Tower, tiptoe through a medieval king's bedchamber and marvel at the Crown Jewels.



## 9. ROYAL MUSEUMS GREENWICH

Visit the National Maritime Museum - the world's largest maritime museum, see the historic Queen's House, stand astride the Prime Meridian at Royal Observatory Greenwich and explore the famous Cutty Sark: all part of the Royal Museums Greenwich. Some are free to enter; some charges apply.



## 10. MADAME TUSSAUDS

At Madame Tussauds, you'll come face-to-face with some of the world's most famous faces. From Shakespeare to Lady Gaga you'll meet influential figures from showbiz, sport, politics and even royalty. Strike a pose with Usain Bolt, get close to One Direction or receive a once-in-a-lifetime audience with Her Majesty the Queen.



# UK adults believe that correction of their smile improves confidence

■ A UK survey commissioned by the British Dental Health Foundation and dental company Align Technology has found that over a quarter of people interviewed were dissatisfied with their smiles. In addition, the majority of the respondents felt that their confidence would increase were their smile to be corrected. However, one-third were not aware that it is never too late to have one's teeth repositioned.

The survey established that 27 per cent of Britons surveyed were unhappy with their smiles and felt that their imperfect smile had had a negative impact on certain aspects of their life. The majority of the respondents (70 per cent) stated that they never smile in pho-

tographs owing to their unattractive smile, and 45 per cent reported that they have very low confidence. About 10 per cent reported that their crooked smile had had an effect on their relationships.

When asked what aspect of their life would improve were their smile to be corrected, 76 per cent of the respondents said that they think that their confidence would increase. Almost 20 per cent said that their relationships would improve and nearly 10 per cent believed that correction of their smile could improve their career and job prospects.

Despite these advantages, 33 per cent of the respondents were

not aware that one can still have one's smile corrected as an adult. The investigators also found that many people did not seek orthodontic treatment because they did not wish to wear fixed braces.

With regard to sex differences, men were more concerned that visible braces would affect their career and relationship prospects than women were. Female respondents avoided wearing fixed braces because they were concerned about their self-confidence and risk of embarrassment.

However, there are a number of alternatives to conventional orthodontic braces available today. For instance, manufacturer Align Technology offers Invisalign

treatment, a clear alternative to metal braces. In contrast to fixed braces, the company's removable aligners have no wires or brackets and are nearly invisible. According to the company, 2.5 million people worldwide have undergone treatment with such aligners, including a considerable number of celebrities, such as singer Justin Bieber, model Gisele Bündchen and actress Eva Longoria.

The survey involved 2,027 UK adults. It was conducted by communications agency Positive



Communications as part of National Smile Month, the UK's largest oral health campaign, which ran from 18 May to 18 June this year. ◀

## More English adults see NHS dentists

■ The number of adult and child patients who visit a National Health Service (NHS) dentist is rising, but only the North of England has recorded an increase in the percentage of the child population seen by a dentist compared with eight years ago, the latest figures show. The report also found an 18 per cent rise in the number of dentists performing NHS activity since 2006/7.

Just over 29.9 million adults and children (i.e. patients under the age of 18) in England saw an NHS dentist in the 24 months before June 2014, according to the Health and Social Care Information Centre (HSCIC). This is 1.8 million (6.3 per cent) more than in the 24 months before March 2006, when the reporting series began, and equates to 55.9 per cent of

the population seen in the 24 months before June 2014 (compared with 55.6 per cent in the 24 months before March 2006).

However, while the total number and percentage of adults seen by June 2014 are higher than in 2006, the percentage of the child population seen has fallen by almost 1 percentage point.

*NHS Dental Statistics for England, 2013/14*, which provides information about patients seen by dentists and NHS dental activity in England, shows that 22.0 million adults (52.3 per cent of the adult population) had been seen in the 24 months before June 2014 compared with 20.3 million (51.5 per cent) in the 24 months before

March 2006. The report also shows that 7.9 million children (69.2 per cent of the child population) had seen a dentist in the 24 months before June 2014, compared with 7.8 million (70.2 per cent) in 24 months before March 2006.

In terms of the four NHS regions in England (North, South, London, and Midlands and East), in the 24 months before June 2014, the total number of adults seen rose in all regions compared with the 24 months before March 2006, but only two—the North and the South—saw a rise in the percentage of the population seen (with falls in the London, and Midlands and East regions).

The largest percentage of the adult population seen was in the

North at 57.6 per cent (6.9 million)—a rise of 1.1 percentage points (420,000) on 2006. The lowest was in London at 46.6 per cent (3.0 million)—a fall of 1.8 percentage points on 2006.

The total number of children seen rose in two regions, the North and London, compared with the 24 months before March 2006, but only the North saw a rise in the percentage of the population seen—of 3.1 percentage points (73,000).

The North also accounted for the largest percentage of the child population seen at 74.0 per cent (2.4 million). The lowest was in London at 63.0 per cent (1.2 million)—a fall of 0.8 percentage points on 2006.

HSCIC chair Kingsley Manning said, "Today's report shows one impact of a growing population on NHS dentistry. While more and more people are taking a turn in the dentist's chair, the proportion of the population seen is increasing slightly for adults but dipping slightly for children compared to eight years ago."

Manning explained that both the national and regional situation will be of interest to the public, and provides a basis for further exploration for health professionals. He said that the report also highlights dental workforce statistics, which show an 18 per cent rise in the number of dentists performing NHS activity since 2006/7, and will help to develop a fuller picture of the state of NHS dentistry in England. ◀

## Cochrane reports no evidence for superior long-term success of dental implants

■ Promising superior clinical outcomes, plenty of new dental implants are launched to markets each year. A report by researchers from the Cochrane Oral Health Group in Melbourne and Manchester has recently suggested that there may be no differences in terms of long-term success, regardless of the shape of the implant or the material used.

The researchers reviewed randomised clinical trials conducted around the world from the group's own database. From this, the only statistically significant difference observed was in relation to surface preparations, with smoother surfaces being found to be less prone to bone loss associated with peri-implantitis than were rougher surfaces. Smoother surfaces, however, appeared to fail early more often, according to the analysis.

Similar results were reported by the group in a series of earlier reviews, of which the first was published in 2002. In the most recent update, two of the review authors independently compared 38 different implant types, which had been placed in 27 trials involving more than 1,500 patients, ranging from the early 1980s to early 2014. They said that, while their report provided no evidence that one specific type of implant proved superior in terms of long-term success to other types of implants with different characteristics, the results would have to be evaluated carefully owing to the low number of participants and short follow-up periods, which ranged from one to 10 years.

Overall, more than half of the reviewed trials proved to be at high risk of bias, they said.

"One well known weakness of such a meta-analysis of several small studies is that it cannot predict the results of a larger study," remarked Prof. Stefan Holst, Global Head of Research and Science at Nobel Biocare, one of the global market leaders in dental implantology, on the report's findings. "With 38 different implant types with highly diverse geometries, surfaces, prosthetic superstructures and clinical protocols applied—several of which are no longer in use—there are many variables. The meta-analysis dilutes any potential effect of a single relevant implant surface or implant characteristic in clinical practice today."

A representative of Straumann also cautioned against the results, saying that the review reflects the fact that there is very little or no published clinical data on the ma-

jority of commercially available dental implants, since they have not been clinically tested. He emphasised that of all the implants available today only 38 tested in randomised controlled clinical trials were considered worthy of review.

"With regard to our own implants, the review excluded studies that we and others feel are important. Furthermore, it did not consider the large body of bench tests and pre-clinical trials that demonstrate significant differences in some cases," the representative told today.

According to Cochrane, there are more than 1,300 different dental implants available on the market today. The total value of fixed tooth replacements was estimated to be US\$3.4 billion in 2011, a figure that some analysts expect to almost double in the next five years owing to the increasing demand of an ageing population and more dentists starting to place dental implants. ◀





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# State-of-the-art solutions from Planmeca make CAD/CAM easier than ever

Planmeca's open-interface-based CAD/CAM solutions introduce, above all, quality, cost-efficiency and precision to the daily workflow at dental clinics or laboratories. In *today international*, Petri Kajander, Product Manager for Planmeca's CAD/CAM solutions, explains the revolutionary features of these new products.

## Planmeca PlanScan—super-fast intraoral scanner

The new Planmeca PlanScan is a digital and powder-free intraoral scanner that scans the patient's dentition quickly and accurately. The scanner produces real-time digital impressions from one-tooth to full-arch scans. Thanks to the open STL data, the scanned files can be sent to any dental laboratory for design work. This is the world's first dental unit integrated intraoral scanner that can also be connected to a laptop.

"The scanner has only one cable, so it is extremely easy to move from one place to another, for example between different treatment rooms or clinics", says Product Manager Petri Kajander. "In addition, the scanner is delivered with

a laptop, so the device can be flexibly shared between different users. In other words, Planmeca PlanScan offers value for your investment: it is not a device for just one dentist but can be used by the entire clinic."

The scanner utilises blue laser technique. It projects a pattern on the surface of the teeth and then analyses it from different directions while calculating distances. In this way, the device is able to calculate a model that is extremely accurate. "You can view the result as a real-time video image. The video recording and the dental surface identification algorithm make the device extremely flexible to use. Thanks to these features, you can pause the scanning at any time and continue later on at any point from where data is already available."

The scanner includes a range of exchangeable tips in various sizes, the smallest of these facilitating access to the posterior parts, particularly with small children and trauma patients. The tips can be autoclaved for efficient infection control. In addition, the scanner is extremely durable since it has no other moving parts inside except for a fan that removes warm air. "Thus, the device stays calibrated and is not subject to mechanical wear", explains Kajander.

## Planmeca PlanCAD Easy—efficient design tool for prosthetics

Planmeca also offers dentists a new kind of open software solution for 3-D design. Planmeca PlanCAD Easy is seamlessly integrated in Planmeca Romexis software and it is a user-friendly design tool for the design of inlays, onlays, veneers, crowns and bridges.

"The software runs on the so-called floating licence basis. This means that it is not tied to just one computer or workstation, but the work is saved on the Planmeca Romexis server. In this way, the scanning station can be used only for scanning, while another workstation is used for the actual design work. This is a



truly unique feature, which allows work to be continued straight away on another computer, while the scanner is freed for more productive operation", says Kajander.

Every dentist designing his or her own prosthetic works will also face cases that require assistance from a dental laboratory. For this reason, Planmeca's system utilises an open STL file format that allows the work to be sent immediately to a partner via the Planmeca Romexis Cloud service.

phases can be returned to flexibly. The automatic design software automatically takes into account the adjacent teeth's cusps and marginal ridge in addition to the contact strengths defined by the user. This creates a design that always fits its surroundings.

## Planmeca PlanMill 40—fast and precise milling unit for dental clinics

Planmeca PlanMill 40 is an extremely precise four-axis milling unit operating under the control of



Since Planmeca PlanCAD Easy is integrated in Planmeca Romexis software, soft tissue scans can also be conveniently paired with the patient's CBCT image. This combined data provides valuable information for implant planning, for example, because in addition to the soft tissues, it visualises the crown that is designed for the occlusion. This facilitates the planning of the implant screw's location.

The Planmeca PlanCAD Easy workflow from preparation to the finished result includes just five easy stages: work description, scanning, marking of the margin line, automatic design, and sending the work to the mill. "Once the work has been sent to the mill, it is transferred there in its entirety and the mill's computer finishes the work. In this way, the software and scanner are immediately freed for a new assignment."

The software is very user-friendly. All design phases are saved automatically, and if further impressions are needed, previous

its own computer. The device is suitable for all the indications of a single tooth, in other words for the milling of crowns, inlays, onlays and veneers. The mill can manage bridges of up to five units to the posterior and three units to the anterior area.

Since the mill handles the milled pieces completely independently, as many as several dozen pieces can be sent to the mill at a time. In addition, the device tells which block size, colour and material should be used, so any member of the staff can place the block in the mill. "This saves everyone's working time. The dentist does not need add the block himself, but anyone can do it", says Kajander.

The mill has a six-tool exchange mechanism, and it changes tools independently according to different job requirements. In addition, the device mills different materials according to their properties. For example, it knows how to gently handle delicate ceramics in work

phases that require precision. "If you force the material, it may break prematurely. Even the smallest hairline crack in the material can lead to a cemented piece breaking when pressure is applied on it."

Also, the maintenance of the device is care-free. The mill's own computer calculates the service life of the tools, monitors wear and reports on them via the user interface. It also calculates the time that milling will take and lets the user know when the tools or water should be replaced. "Similar to a car, a mill requires maintenance at certain intervals and notifies the user of this."

## An ideal solution also for laboratories

For dental laboratories, Planmeca offers a comprehensive solution utilising the open STL file format. Planmeca PlanScan Lab scanner is an accurate desktop scanner utilising blue light for scanning gypsum models and impressions. The device scans gypsum models fast and effortlessly with an accuracy of 15 micrometres.

Designing takes place in the open Planmeca PlanCAD Premium laboratory software, which can be used for the design of all prosthetic pieces, ranging from one-tooth units to full-arch structures. The software can also be used to design individual abutments, implant bridges and bars for cemented and screwed solutions.

Designing begins with defining the margin line, after which the path of insertion is selected and the structure designed. Several automatic functions assist in the design work, and as the design progresses, the software shows the contact areas, material thickness and distance to the antagonist or adjacent tooth. A diagnostic wax-up made in the laboratory or anatomic models saved in the software can be utilised in the design work.

The software has an Order Manager page that brings efficiency to the workflow by reporting the stage of each work. In this way, several work orders can be entered in the software in one go. The last phase is always saved in memory so working can be continued freely at the most suitable time. In addition, precise values can be set to each work for the cement gap and milling unit's blade.

An open STL file is created as a result of the design work, and it can be manufactured with all milling units supporting the open file format, including the Planmeca PlanMill 50. This milling unit can be used for the milling of all most common materials, excluding metals. In addition, the open file can be sent to a milling centre for manufacturing, such as Plandent's own PlanEasyMill milling centre. ◀







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