Dear reader,

Winston Churchill once famously said, “Difficulties mastered are opportunities won.” These words from one of Britain’s most famous statesmen aptly describe the re-launch of the Dental Tribune UK edition. The newspaper that you are holding in your hands is the result of months of research and repositioning that will see the return of an active participant in the British dental publishing scene. At this opportunity, we would like to thank our former partners for their years of commitment and wish them best of luck for their future endeavours.

Our publishing group has come a long way since the first edition of Dental Tribune UK was launched in 2007. From a few publishers operating in key markets only, it has grown into a large-scale global operation with offices and representatives in almost every corner of the globe, to borrow a famous historical phrase, the sun never sets on the Dental Tribune International (DTI) network, as somewhere in the world a publisher or partner is always working. And our expansion is still far from over: coinciding with the relaunch of the UK edition here in Birmingham, Dental Tribune is introducing its first-ever Nordic edition this month at the SCANDENT show in Copenhagen in Denmark to serve all markets in Scandinavia and Finland.

While remaining a print publisher at heart, DTI has been successfully venturing forward in other areas, most notably continuing professional education and events. While the Dental Tribune Study Club provides free online education at an international and local level, the new Clinical Masters series offers high-quality CPD in selected areas, including implantology, endodontics and aesthetic dentistry. Moreover, last year saw the successful premiere of the Digital Dentistry Show, a show within a show expo format that will see further geographical and topical expansion in 2015.

Dentistry is becoming increasingly international and, in addition to reporting reliable news on UK dentistry, Dental Tribune UK will provide perspectives on developments and trends from a much broader angle. Owing to our access to markets and opinion leaders in the industry. For example, we were recently invited to visit the headquarters of MIS Implants Technologies in Israel (see page 10 of this edition) Considered the next major competitor in implant dentistry worldwide, the company gave DTI full insight into its production facilities and corporate philosophy. Dental Tribune also offers high-quality and relevant clinical content. In this edition, among other subjects, you will learn how to recognise and manage onofacial pain, identify and deal with patients suffering from eating disorders, and boost your practice or business with Google.

We wish you an enjoyable read and look forward to hearing your opinions and comments. If you are visiting the Dentistry Show in Birmingham, we would like to invite you to meet us at Stand F80.

Sincerely,

The Dental Tribune UK editorial team

“All information and dental                                                    "Difficulties mastered are opportunities won."
Dental care professionals suitable for performing oral screenings

By Dental Tribune

MANCHESTER, UK: Researchers from the University of Manchester have found that oral hygiene therapists can perform screening for common dental diseases as well as general dentists. Their study compared the diagnostic test accuracy of hygiene therapists in screening for dental caries and periodontal disease in regularly attending asymptomatic adults.

The finding has important ramifications for service design in public-funded health systems as regularly attending adult patients in the UK are increasingly asymptomatic and often do not require treatment at their routine dental examinations. Thus, using GDPs to undertake the check-ups on regular low-risk patients represents a potentially unnecessary cost for state-funded systems.

Given recent regulatory changes in the UK, it is now theoretically possible to delegate a range of tasks to dental care professionals. According to the researchers, role substitution in primary dental care may be a promising option for reducing costs, releasing the GDP’s time and increasing the capacity to care for those who do not currently access services. Throughout the UK, only about 50 per cent of the population attend the dentist. The other half is generally socio-economically disadvantaged and experiences the majority of dental diseases.

Ten dental practices across North West England took part in the study and 1,893 asymptomatic adult patients were screened. Visual screening by hygiene therapists was taken as the index test and the GDP acted as the reference standard. The primary outcomes measured were the sensitivity and specificity values for dental caries and periodontal disease.

The results of the study showed that the hygiene therapists performed comparably to the GDPs. Richard Macey, lead author of the study and research assistant at the dental school, told dentalewsday.com: “In particular, hygiene therapists were good at identifying those patients the GDP had confirmed were caries free and at identifying periodontal disease where the dentists confirmed its presence.”

Fiona Sandom, President of the British Association of Dental Therapists, welcomed the findings of the study: “Our association find the results of this study encouraging and we view it as further evidence to support delegation within the dental team. The research confirms that dental hygienists and therapists have key parts to play in the future delivery of dental care within the UK.”

Hygiene therapists performed comparably to the GDPs in the study.

Billions to suffer from untreated decay

By Dental Tribune

LONDON, UK: Despite worldwide efforts to improve oral health, a global study has found that 39 per cent of the world’s population currently suffers from untreated carious lesions in their permanent teeth. It also established that 632 million children worldwide have tooth decay that goes without dental care.

To make things worse, hundreds of millions of new cases are expected to add to the burden of dental decay annually owing to neglected treatment, according to the new paper by researchers from the UK, the US and Australia published online in the Journal of Dental Research. Ever-developed countries are affected, with one in three people in the UK suffering the consequences of neglected treatment, along with one in five in the US, for example.

The findings, which are part of the latest Global Burden of Disease study, involved a systematic review of all data on untreated dental decay, leading to a comprehensive report on rates of tooth decay for all countries and age groups and both sexes for 1990 and 2010. The team analysed 192 studies of 15 million children aged 1 to 14 years old, across 67 countries, and 186 studies of 3.2 million people aged 5 years or older, across 74 countries.

“We have seen a clear shift in the burden of tooth decay from children to adults. The current perception that low levels of decay in childhood will continue throughout life seems incorrect,” said lead author Prof Wagner Marqueses from the Queen Mary University of London.

“It is alarming to see prevention and treatment of tooth decay has been neglected at this level because if left untreated it can cause severe pain, mouth infection and it can negatively impact children’s growth.”

Marqueses explained that the study underscores the vital need to develop effective oral health promotion strategies.

“The fact that a preventable oral disease like tooth decay is the most prevalent of all diseases and injuries examined in our report is quite disturbing and should serve as a wake-up call to policymakers to increase their focus on the importance of dental health,” he continued.

“Extending oral health promotion activities to the work environment is necessary to maintain good oral health to reduce the major biological, social and financial burden on individuals and healthcare systems.”

Tooth decay is the fourth most expensive chronic disease to treat, and studies have shown that if left untreated it can lead to poor productivity at work and absenteeism in adults and poor school attendance and performance in children.

RUGBY, UK: In marking World Cancer Day, the British Dental Health Foundation (BDHF) has highlighted the constantly increasing rates of oral cancer in the country. Latest statistics from Cancer Research UK showed that nearly 6,800 people are diagnosed with mouth cancer in the UK every year. This figure has increased by 50 per cent within the last ten years.

According to leading oral cancer campaigners, mouth cancer rates could be reduced by improving the public’s knowledge of the associated risk factors and possible symptoms.

World Cancer Day, an initiative of the Union for International Cancer Control, takes place every year on 4 February and aims to raise awareness about the disease and to promote action by governments and individuals all around the world. Under the tagline “Not beyond us”, this year’s World Cancer Day placed emphasis on cancer prevention, including following a healthy lifestyle and early detection.

In order to educate people about these risks, as well as the signs and symptoms of mouth cancer, the BDHF initiated Mouth Cancer Action Month, a month-long campaign that has been run every November since 2009.

“It is almost as though these messages were created with mouth cancer in mind, given the huge significance they can make to reducing the risk of the disease and catching it early,” stated Dr Nigel Carter, OBE, Chief Executive of the BDHF.

Lifestyle factors, such as tobacco use, excessive alcohol consumption, poor diet and human papillomavirus infection, contribute to an increased risk of developing mouth cancer. According to Cancer Research UK, nine in ten cases of oral cancer are associated with these factors.

“We often find many cases are diagnosed at stage 4—the most advanced stage where time is of the essence in potentially saving a life. Without early detection, the five-year survival rate for mouth cancer is only 50 per cent. If it is caught early, survival rates over five years can dramatically improve to up to 90 per cent,” explained Carter. According to the BDHF, more than 1,800 people in the UK lose their life to mouth cancer every year.

The BDHF recommends visiting the dentist and checking for possible mouth cancer symptoms regularly.

Carter emphasised: “We are asking everybody to be mouthaware by looking out for ulcers which do not heal within three weeks, red and white patches in the mouth and unusual lumps or swellings in the mouth are early warning signs of mouth cancer.”

Alarming increase in oral cancer rates

By Dental Tribune

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Study finds e-learning as good as traditional training for health professionals

By Dental Tribune

LONDON, UK: Electronic learning could enable millions more students to train as doctors and nurses worldwide, according to the latest research. A review commissioned by the World Health Organization (WHO) and carried out by Imperial College London researchers concluded that e-learning is likely to be as effective as traditional methods for training health professionals. These new findings support the approach to continuing education Dental Tribune International (DTI) has adopted with its free online education platform for dental professionals.

The Imperial team, led by Dr Josip Car, carried out a systematic review of the scientific literature to evaluate the effectiveness of e-learning for undergraduate health professional education. They conducted separate analyses on online learning, which requires an Internet connection, and offline learning, delivered via CD-ROMs or USB flash drives, for example.

The findings, drawn from a total of 108 studies, showed that students acquire knowledge and skills through online and offline e-learning as well as or better than they do through traditional teaching.

E-learning, the use of electronic media and devices in education, is already used by some universities to support traditional campus-based teaching or to enable distance learning. Wider use of e-learning might help to address the need to train more health workers across the globe. According to a recent WHO report, the world is short of 7.2 million health care professionals, and the figure is growing.

The authors suggest that combining e-learning with traditional teaching might be suitable for health care training, as practical skills must also be acquired.

While the study focused on the education of students, DTI follows a similar approach to continuing education, offering webinars via its Dental Tribune Study Club, which it launched in 2009. The platform regularly offers free online courses in several languages. The wide range of topics includes general dentistry, digital dentistry, practice management, as well as specialties, such as implantology and endodontology. The webinars are presented by experienced speakers and participants are awarded continuing education credits.
European dental markets trend towards group practices and consolidation
By Dental Tribune

COLOGNE, Germany: Latest market figures released by the Federation of the European Dental Industry (FIDE), in cooperation with the Association of European Dental Dealers (ADDE), last month at the International Dental Show in Cologne, indicate rapid changes towards a digital dentistry manifesting in overall trends to a more global approach with group practices and consolidations throughout dental markets in Europe. The organisation’s 2015 market survey also revealed that the number of European dentists has slightly increased to a total of 276,090 in 2014 compared to 270,045 the year before.

A contrary trend showed in the number of dental offices and dental laboratories. While the numbers of the former remained flat on average, the total figures of labs in Europe has decreased in almost every surveyed country. According to ADDE President Dominique Deschietere, given the growing numbers of practicing dentists this development either indicates a trend to group practices or consolidation.

While the number of dental technicians has remained steady or slightly decreased in all countries except Hungary, the number of dental hygienists increased in all countries of the survey. This development is especially prominent in the UK, with the number of dental hygienists growing distinctively compared to 2013. As Deschietere has put it, this seems to be a result of the evermore “bending of the laws” in this area.

On the supply channels side, the percentage of direct sales from manufacturers remained steady in most countries, and the share of products purchased via e-mail or internet is constantly, if only slightly, increasing compared to the previous year. Further, the figures indicate that the sales volume of equipment has dropped in 2014, while sales of sundries and consumables remained stable on average.

“Dentists continue to treat patients,” Deschietere pointed out. “Consumables and sundries, not new equipment like CAD/CAM units or intra-oral X-ray units, kept the figures up during the last years.”

To this date the gathering of information on new technologies seems to be the weak point of the survey. Although Germany shows a jump in the numbers of intra-oral scanners installed, most countries are not collecting data on the subject so far, explained Deschietere.

The annual ADDE/FIDE survey, which is conducted through its national associations since 1998 and represents the interests of more than 960 dental dealer organisations, covers the most relevant topics and trends for the European Dental Industry, such as the number of customers and end users, sales values for the main product categories, the use of computer and e-commerce, sales segments, distribution channels as well as VAT charges and their impact on the market.

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**Per-Ingvar Brånemark—An innovative genius**

Prof. Tomas Albrektsson, Sweden, remembers the man who changed dentistry with the discovery of osseointegration of dental implants

Per-Ingvar Brånemark passed away on 20 December 2014 at the age of 85. Throughout his career as a researcher, he overcame fierce opposition to dental implants and revolutionised methods for treating edentulous patients.

An extremely gifted scientist, Brånemark was also as witty and quick on his feet as they come. Various language editions of Reader’s Digest, hardly considered a medical journal of note, published an article in the late 1960s about his research on microcirculation. At the end of his first lecture about dental implants in Landskrona in Sweden in 1969, a member of the audience, who turned out to be a senior academic of Swedish dentistry, rose and commented, “This may prove to be a popular article, but I simply do not trust people who publish themselves in Reader’s Digest.” As it happened, that senior academic was well known to the Swedish public for having recommended a particular brand of toothpick. Brånemark immediately rose and struck back, saying, “And I don’t trust people who advertise themselves on the back of toothpick boxes of toothpicks.”

Young and naive as I was, I thought they were just poking fun at each other, but it turned out to be the opening shot of an eight-year battle with the dental profession. When someone cut a picture on dental implants several years later because Brånemark was not a practitioner, he lost no time in replying, “Teaching them anatomy is good enough for me.”

Brånemark completed his medical training at Lund University with a doctoral thesis on microcirculation in the filum of rabbits. Grinding the bone into a state of transparency permitted the use of intravital microscopy to analyse the blood flow in both bone and marrow tissue. The thesis, which found wide recognition both in Sweden and abroad, landed Brånemark an appointment at the Department of Anatomy in Gothenburg in 1959 with a year later. He was appointed as Associate Professor of Anatomy (later received a full professorship) in 1963, which qualified him for laboratories of his own and the opportunity to surround himself with a team of researchers.

Brånemark continued to pursue his studies in microcirculation in animal models and ultimately in humans. A plastic surgery technique was used to prepare soft-tissue cylinders on the inside of the upper arm. He then inserted optical devices encased in titanium that enabled intravital microscopy of microcirculation in male volunteers.

By the late 1960s, he was able to produce the highest resolution images of human circulation in the history of medicine. Many people are familiar with Lennart Nilsson’s photographs of circulation that were taken at Brånemark’s laboratories and developed at the University of Gothenburg just a few years earlier, and that enabled intravital microscopy of microcirculation in animal models and human patients. An enterprise that had hitherto been largely distrustful of Brånemark’s laboratories and developed at the Department of Anatomy. Brånemark used a hollow optical device surrounded by titanium to study microcirculation in rabbit bone, permitting both bone and blood vessels to grow through a cleft where they could be examined by means of light microscopy. During such an experiment in 1962, he discovered that the optical device had fused into the bone, a process that he eventually dubbed osseointegration. He revealed his incomparable strength as a researcher at that very moment, realising immediately that the discovery had clinical potential and determining to focus on the development of dental implants, an enterprise that had hitherto been regarded as beyond the scope of medical science.

Brånemark grasped the fundamental truth that edentulosity represents a significant disability, particularly for people who cannot tolerate dentures for some reason. He operated on his first patient in 1965, a mere three years later. The academic community was largely distrustful and hostile to the new approach. The debate was not put to rest until 1977, when three professors at Umeå University in Sweden announced that Brånemark’s technology was the recommended first-line treatment. Opposition in other countries eventually waned as well and dental implants, originally manufactured by a mechanical plant on were made in response to cases that many of his colleagues were aware of, much less accepted, the concept. Ultimately, the world came around and he was awarded honorary doctoral degrees by 29 universities and honorary memberships by more than 50 scientific associations—not to mention the Royal Swedish Academy of Engineering Science’s medal for technical innovation, the Swedish Society of Medicine’s Söderberg Prize, the European Inventor Award for Lifetime Achievement, and many other distinctions around the world.

Not only dentistry

Back in the 1970s, Brånemark began collaborating with ear specialists and technicians at Chalmers University of Technology to explore the additional potential of osseointegrated implants for developing hearing aids inserted behind the ear. Hundreds of thousands of patients around the world have had operations based on the technology initially developed in Gothenburg under his direction. Those of us who were on the team at the time will never forget a teenage girl who suffered from the effects of thalidomide. The medicine had caused not only limb deformities, but also hearing loss in many patients. Equipped with the new hearing device, she learnt to speak flawlessly.

The team also targeted facial deformities occasioned by congenital or acquired injuries. A number of implants installed in the viscera, which served as fasteners for silicone prostheses, a malleable option than attaching them to the patient’s glasses. Since the first operation in 1977, the use of the technology has become widespread internationally.

Titanium implants installed in the femur were the next spin-off of Brånemark’s research. Patients with above-knee amputations cannot have socket prostheses around soft tissue, but may have to sit on a mobile chair to get around. Inserting titanium screws in the femoral stump permitted the installation of a prosthesis and the ability to walk again. I can still remember the first patient as if it were yesterday. Another teenage girl had been run over by a streetcar in Gothenburg and had above-knee amputations in both legs. She was consigned to spending the rest of her life in a wheelchair. The operation was highly successful and she learnt to walk again.

**Acclaimed around the world**

Brånemark was fuelled by a passion to help difficult-to-treat patients, and many of his clinical discoveries from the first dental implant on were made in response to cases that had been regarded as hopeless. His innovative genius, fortified by a large research laboratory at the Department of Anatomy, also skyrocketed Gothenburg-based pharmaceutical companies like Nobel Biocare and Astra Tech into leading positions in the global market. He was devoted to the academic community’s social responsibility long before many of his colleagues were aware of, much less accepted, the concept. Ultimately, the world came around and he was awarded honorary doctoral degrees by 29 universities and honorary memberships by more than 50 scientific associations—not to mention the Royal Swedish Academy of Engineering Science’s medal for technical innovation, the Swedish Society of Medicine’s Söderberg Prize, the European Inventor Award for Lifetime Achievement, and many other distinctions around the world.
The holy grail for any organisation’s online marketing is to appear on Page 1 of Google search results. Imagine how many patients you would gain. How would you like to achieve this without spending thousands of pounds? This is possible if you have time on your hands and reduce online competition through local listing.

According to Google, there are over 40,000 search queries every second. This roughly amounts to 3.5 billion searches per day globally, with a significant portion of this (increasing all the time) being searches on mobile devices.

Google is always tweaking and improving the search factors to deliver search results based on the user’s intent. Therefore, it is understandable that your website should be focused on patients and easy for Google to find and read.

Even without a state-of-the-art website, it is possible to appear on Page 1. Organic (natural non-paid) rankings are achieved by being relevant and having authority in the online world, and depend on online competition.

On Page 1 of Google, aside from the organic listings, there are typically three to seven map listings. The most feasible way of achieving Page 1 rankings in your location is to register for a Google My Business listing first. If it has already created a listing, you will have to claim and verify this. Choose the tags relevant to the services your provide (dental practice) and ensure that your phone number (geographical number) is displayed, as well as your address and post code. Do also brand the page with your logos and personalise it with photographs of your team and practice (not necessary for rankings but highly advised). Finally, encourage your patients to leave you a five-star review on this page. This is a very important factor.

Once you have your page set up and optimised, the next step is to establish your online authority by inserting a link to your Google Business Place on your website. Ensure that your website has your contact details displayed. Then list your address details in local and large directories (try not to get carried away) and ask local businesses to cite your details online. Ensure that the details are always consistent and accurate, as inconsistent address or telephone number details will confuse Google.

Citations are a key factor for ensuring Google recognises your presence in your location. It may be that local hotels, bed and breakfasts, or newspapers are recommending dentists in your town. Even if there is no link to your website, having your address will benefit your rankings.

Google reviews can only be submitted by individuals with their own Google Account. I do not recommend allowing patients to provide reviews using your practice Internet connection, as Google may identify the location and think the reviews may not be authentic or independent. Once you have received seven reviews, Google will place a number of stars next to your practice name on the map listings. The more five-star reviews you have, the higher your score will be. It has been documented that having five stars encourages a 23 per cent increase in click through to your website.

These simple steps will set you in the right direction to achieving Page 1 rankings. Remember the results will be specific to your location and based on the user’s search terms. Google is focused on the user, so if there are seven other practices nearer to the user’s post code they inevitably will be higher up on the results list. Consider organic or pay-per-click campaigns if you want to have a higher chance of success.

There are no guarantees with Google, but you should always focus on building visibility where Google is looking, because your patients will be directed there. The recipe for success in any business is focus on serving the client, and it seems the same rule applies with your online marketing. Focus on the patient in using the platform is key to everything.
As one of the few manufacturers of dental implants, UK company Neoss has not operated in Asia before. With a recent financial support package of £1.5 million from Yorkshire Bank, the company now intends to develop new business in countries like Japan, China and Taiwan. Dental Tribune had the opportunity to speak with Chief Financial Officer Guy Leaver about the upcoming market entry and what makes his company stand out from its numerous competitors there.

Dental Tribune: Mr Leaver, how is this investment package helping you with your market entry into Asia?

Guy Leaver: The investment package will support our product launch in Asia initially. Currently, we are going through regulatory approval processes in Japan, China and Taiwan. It is difficult to say exactly when, but our expectation is that this year, probably in the second half, we will actually start to make initial sales. While we expect the growth to be significant, we need the facility for our cash flow in the beginning, as there will be a certain amount of money going out before money actually comes in.

What are your initial expectations for the region?

Since we do not have any sales in these countries at the moment, operating in Asia is completely new to us. We obviously have projections and we want to see this business grow consistently over time into something substantial. Initially, we will focus on our dental implant system, as this is the product segment we are expecting approval for this year. In the future, we will expand to our full product range, including new products we are introducing that could also potentially target these markets.

Will you sell directly in Asia or through distributors?

We have already signed up with business partners in these markets. In Japan, for example, we have an experienced distributor who has personal contact with a number of leading clinicians in the country who we understand are interested in using our implant system. It always helps to have this kind of endorsement.

We are also working with a major distributor in China and will see how that evolves. Potentially, we will put a person in charge there, but this will depend on how successful we are. If we feel there are more opportunities, we can always tweak the model.

There is also an experienced distributor we will be partnering with in Taiwan who has previously distributed a competitor’s product. Generally, we try to choose people who understand what our product is all about, are familiar with the market and know what works in that marketplace.

For Western manufacturers, the market environment in Asia can be tough. Where do you see the challenges for your company there?

As with many of these markets, business in Asia is primarily relationship based, so you need to become involved with the right people and institutions. This is particularly important in China, where there are a growing number of small private dental practices offering dental care in addition to the large government-run hospitals. We aim to take advantage of this development by choosing the right contacts for this marketplace.

Where do you want to position yourself in the market?

We want to position ourselves in the same way as we do in most markets by delivering a product that is the best there is. We strongly believe that we have a good package. Our company was founded by a clinician and an engineer, so our focus is on delivering exceptional clinical performance and product quality. There is no point in introducing a product that is not as good as someone else’s. It has to be that good or even better. We always want customers to understand that they are getting a value product. We do not sell cheap or offer massive discounts. It is a good quality product at good pricing.

In terms of customer service, we aim for exceptional logistics and support. Take Europe, for example, it is pretty much next-day delivery, so if you buy something from us in Germany, it will probably be there at noon the following day. Few of our international competitors can achieve the same.

Thank you very much for the interview.
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"It is our mission to simplify dental implantology"

DT visits the MIS headquarters and main production facility in Israel

MIS Implants Technologies is a global specialist in the development and production of advanced dental implantology products and solutions. The company, which started as a family-run business, was founded in 1995—a time when not many people understood the potential of dental implants, CEO Idan Kleinfeld told Dental Tribune (DT) at a meeting at the beginning of 2015.

Since its beginnings, MIS has seen significant growth, especially within the past ten years. "Today, the company has succeeded in building a recognised global brand in the market and is the only non-premium company operating on a global scale," Kleinfeld said. Headquartered in Israel, MIS currently has operations in 65 countries worldwide, covering major dental markets, such as the US, China and Germany, through a well-established network of local distributors.

In 2009, MIS moved operations to a large purpose-built production complex located in a new high-tech industrial park in northern Israel. "Our location adds to our uniqueness. Israel is a country of high innovation and offers particularly favourable conditions for manufacturing, because of the quality of education and people’s high levels of motivation. Furthermore, salaries are much lower than in competitor countries, making manufacturing especially profitable," he stated.

The MIS building in the Bar-Lev Industrial Park spans about 10,000 m² and has two production floors with 50 Swiss high-precision machines running 24 hours a day from Sunday to Friday. "The facility was designed and built for growth. In the near future, our automatic warehouse, which currently covers only half of its potential total area, will double in size," Kleinfeld explained.

DT further learnt that MIS primarily produces for stock, as products must be shipped to local distributors within two working days. For increased efficiency, processes controlling quality, sterilisation, packaging and storage are automatically generated. MIS produces about 800,000 implants per year.

In 2013, MIS moved its MCENTER Europe, the new MIS digital dentistry hub in Berlin in Germany, in order to meet the needs of its growing customer base in central Europe. The centre offers direct services provided by locals to local customers, bringing all MIS digital dentistry products together in one location. It is aimed at providing a comprehensive range of services to clinicians through advanced digital dentistry and CAD/CAM technologies that facilitate fast and accurate surgical implant procedures with reduced chairside time and greater predictability in outcomes.

"We are extremely excited about the opening of the new MCENTER Europe facility, and especially proud to be able to offer MIS quality and simplicity in providing our customers throughout the region with highly accurate and efficient guided implant placement procedures and CAD/CAM solutions," said Christian Hebbecker, MCENTER Europe Manager.

In addition to the new MCENTER Europe, the company will be entering the premium segment for dental implants with the launch of a new implant system later this year. It has a truly innovative design and consists of high-quality implants that are completely new in the market and will fit within the premium segment. MIS plans to offer this new implant system to its global distributors at the end of the second quarter of 2015, for local distribution worldwide.

The name MIS originally stood for "Medical Implant Systems". However, it is also an acronym that reflects the company’s main maxim to "Make it Simple." It is our mission to simplify dental implantology and, in order to become the preferred choice of dentists worldwide, we offer new and innovative products based on simple, creative solutions. Design and handling are made simpler, and all products are engineered to allow efficient, time-saving surgical procedures," Kleinfeld said. "With this simplified approach, we are set to become the largest global dental implant producer," he added. However, the "Make It Simple" motto appears to apply to more than the company’s products. The MIS philosophy defines almost all areas of the business (from human resources to production), and the organisational structure is simple and characterised by flat hierarchies. "Make it Simple" embodies the start-up mentality that remains vital in a company that has become one of the largest in the global dental implant market.
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Pathways for selling or purchasing a dental practice

By Amanda Maskery, Newcastle

According to a recent survey by the National Association of Specialist Dental Accountants and Lawyers, private buyers and small groups in the UK have recently gained ground over large corporates in dental practice sales. Particularly for individuals looking to buy or purchase a practice, however, the process can sometimes be overwhelming.

A dental practice transaction can be done through an asset purchase (this gives the purchaser the opportunity to cherry-pick the assets) or a share sale (where the purchaser buys warts and all) if the seller has incorporated his or her practice. This will depend on factors such as the tax advantages of corporate structure.

Solicitors will provide assistance with negotiation of the sale agreement. The replies will then be reviewed and any further enquiries will be raised by the purchaser’s solicitor to negotiate indemnities and/or warranty protection to be inserted for a specific amount of time, depending on whether the property is leasehold or freehold, and consents may need to be obtained from third parties, such as a landlord, to the transfer of the property to the purchaser.

The solicitors will also liaise with NHS England to ensure that the contract is correctly transferred and to ensure that there are no issues arising that would affect the smooth transfer of the business from the seller to the purchaser. Where the seller is a limited company, the contract will need to be checked for change of control provisions, whereby the NHS will need to give consent to any transfer to a third party. Furthermore, the solicitors will ensure that effective notices are given to the NHS, especially if the partnership route is required.

There are a number of post-completion matters that will need be dealt with, such as registration of the transfer of the title with the Land Registry, payment of stamp duty where applicable and ensuring that the funder’s requirements are satisfied. The purchaser may want to do consolidation of legal matters, including employment policies and procedures, and register with the Information Commissioner’s Office for data protection. Other fields in which a solicitor can provide advice are intellectual property/information technology issues, branding, website issues or regulation. From time to time, disputes may arise post-completion, such as in relation to warranty claims, the NHS or other matters resulting from the transaction.

A solicitor may also provide debt collection assistance or, in conjunction with the purchaser’s accountant, guidance on the best business structure, whether this is as a limited company, a partnership or an expense-sharing partnership. He or she will prepare any documentation required to incorporate into a limited company and will provide a partnership agreement.

One of the most meaningful ways in which a lawyer can help in a transaction such as this, however, is by offering general commercial sense and assistance. If a solicitor is experienced in this industry, he or she will be able to provide a much better service owing to an understanding of the nuances and needs of a dental practitioner embarking on the daunting task of buying or selling a dental practice.

Amanda Maskery

Amanda Maskery is one of the UK’s leading dental lawyers. She is Chair of the Association of Specialist Providers to Dentists (ASPD) in the UK and a Partner at Sintons law firm in Newcastle. Amanda can be contacted at amanda.maskery@sintons.co.uk
BIRMINGHAM, UK. A few weeks ago, the International Dental Show in Cologne Germany closed its doors with another record outcome of 131,000 visitors. During the five days of the show, manufacturers from all over the globe launched their latest dental products and solutions to markets in Europe. At the 2015 Dentistry Show, to be held from 17-18 April at the NEC in Birmingham, dental professionals in the UK will finally have the chance to get their hands on the latest materials and tools in dentistry.

The London UK however, is only one of many novelties the organiser has promised to present this year. For the first time, for example, visitors of the show will have access to the Endo Lounge, a new forum designed in association with the British Endodontic Society that will provide an update on the latest clinical techniques, materials and research in the field. Reflecting the increasing demand for information on facial aesthetics, the new Facial Aesthetics Theatre will explore the latest clinical techniques and products in this particular area to help you decide on the best treatment options.

Visitors will also find old favourites such as the ever popular PediLouge, delivering in association with the British Society of Paedodontology, and the Short-Term Orthodontics Lounge, as well as the ADI Implant, GDP and CORE CPD theatres at the show. Business Skills Workshops held in conjunction with Practice Plan will also return.

But it will be not just all mouth, the organiser said. On Friday evening, the show will host the prestigious Dental Awards with Practice Plan will also host a 'Village Fete' with traditional games such as ‘test your strength’ strongman and ‘hook a duck’.

“Not only a dental event that the whole team will enjoy but also the perfect opportunity to gain valuable education and experience, The Dentistry Show, looking forward to welcoming show attenders of all types to the American Express VIP Lounge at this glittering black tie gala dinner. Presenting with a Willy Wonka ice cream stand, UK-based charity Bridge2Aid will also host a ‘Village Fete’ with traditional games such as ‘test your strength’ strongman and ‘hook a duck’.

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www.dental-tribune.co.uk

WHAT’S ON
Over one million people make Birmingham the second most populous city in the UK after the capital. Here are some tips how to enjoy your time off in the Brum.

American Express teams up with Dentistry Show, Hosts VIP Lounge

BIRMINGHAM, UK. Under a new partnership, American Express will be supporting the VIP experience granted to attending owners, practice managers and dentists at the Dentistry Show to be held from 17 to 18 April in Birmingham. In addition to the American Express hosted VIP lounge, the VIP experience includes fast tracked entry, complimentary lunch and front row seats in the Aesthetic Dentist Theatre.

VIP status is granted automatically to attending members of the dental profession. World class speakers will present on a wide variety of clinical and business topics, with over 100 CPD sessions available and theatres dedicated to each area of the profession.

Director, Small Business Services UK, Stacey Sterbenz, said ‘American Express is delighted to be a part of such a significant event in the dental calendar. We have many established and long-standing relationships within the dental industry and with small businesses in this sector. We are very much looking forward to welcoming show attendees to the American Express VIP Lounge at The Dentistry Show.”

For more information about the range of services provided by American Express, visitors are invited to speak to one of the American Express ambassadors in the VIP Lounge at the show or visit

americanexpress.co.uk/dental
“We will see an increasingly corporate-heavy market in the UK”
An interview with Amanda Maskery, Head of Dental at Sintons & Partners

As Chair of the Association of Specialist Providers to Dentists (ASPD) and Head of Dental at Newcastle-based law firm Sintons & Partners, Amanda Maskery advises dentists on legal issues on a daily basis. Working closely with the dental community in northern England, she will be offering her expertise to visitors to this year’s Dentistry Show in Birmingham (Booth E76). Dental Tribune had the opportunity to speak with her about the new National Health Service (NHS) contract and its impact on dentists in the UK.

Dental Tribune: Ms Maskery, you have been heading ASPD for over a year. What have been the major challenges during that time?

Amanda Maskery: There are continually challenges for the dental profession, which we at ASPD have to address. During the past year, we have seen a great deal of unrest among dental professionals due to the potential introduction of the new NHS contract. As a result, there is much uncertainty as to what lies ahead.

The new NHS dental contract has indeed stirred up some debate in the UK dental community. Is this reflected in the number of clients you see and the kind of requests that you have received from dentists?

There has been a marked rise in the number of people wanting to sell their practice and exit the profession perhaps earlier than they would otherwise have done. This has resulted in corporates buying up practices in increased numbers, but also offers the opportunity to young dentists to purchase a practice from someone leaving the profession. My team and I work extensively throughout the UK and saw a significant increase in sales and transactions last year. At Sintons, we have a ten-strong specialist dental team and are regarded as being among the leading advisers in the UK. We are receiving new instructions from clients across the country as a result of the changing nature of the industry and uncertainty around the new contract.

What other issues are you confronted with on a daily basis?

There is genuine difficulty in getting things done according to a particular timescale owing to the levels of red tape that exist within the Care Quality Commission and NHS England.

When are dentists advised to seek legal advice in general?

Key times are if the structure of the practice is changing, in which case legal advice from an employment and governance point of view will be very important. Obviously, it is essential when buying or selling a practice. It is also advisable to seek the advice of a knowledgeable legal professional regarding the new NHS dental contract, after discussions with local area teams.

“We will see an increasingly corporate-heavy market in the UK”

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Providing advice to dentists requires an in-depth understanding of the complexities facing dentists. How do you keep up to date with the field?

I have a very strong network of influential dentists, among them chairpersons of local dental committees, representatives on national bodies, and entrepreneurial dentists who know and understand the marketplace. At the Dentistry Show, my firm is sharing a stand with Anushka Bogan and Damira Dental Studios, which has an extensive portfolio across the south of England. She is one of many connections who are able to update me from a dentist’s point of view, ensuring I have true insights into the profession.

In my native North East England, we are heavily involved in the dental community and work closely with Newcastle University’s School of Dental Sciences to understand the profession from its outset. Further, being Chair of ASPID, as well as a member of the National Association of Specialist Dental Accountants and Lawyers, gives me access to a wider professional network.

As a lawyer, you encounter developments in dentistry very early on. Where do you see the greatest challenges and opportunities for dentists in the UK currently and in the future?

We will see an increasingly corporate-heavy market in the UK, but there will also be opportunities for young dentists to buy into practices, since dentists are exiting the profession owing to the new contract.

Banks and funders are also very much open for business with deals in the health care sector, and this offers another avenue for dentists to acquire their own practice or practices and be able to secure the finance to do so.

Thank you very much for the interview.

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**Planmeca updates Romexis software**

The Planmeca Romexis software platform offers a multitude of tools and features to meet the demands of different specialists. According to the manufacturer (Booth F8), the new 4.0 version (available for Mac OS and Windows) redefines the all-in-one experience, further improving user friendliness and presenting a wide selection of enhanced modules. Optimised for full high-definition screens, the revamped look and design of the software correspond with the fluid usability that has come to define Planmeca products.

The innovative dashboard interface of the new version utilises a flexible tile-based layout, helping users accelerate their workflow through fewer clicks. The software also dedicates more room to patient images, while its redesigned toolbars enhance usability.

In addition, the Planmeca Romexis 3D Implant Planning module has been upgraded with several tools, including implant alignment, safety areas with alerts, as well as a custom abutment designer. Furthermore, a number of essential functional enhancements have been added, such as the 3D object browser—a feature that allows easy management of annotations and implant simulation elements.

“We have strived to build a complete ecosystem of devices, software and services that communicate with each other smoothly. Planmeca Romexis has always been integral to this process, as it is essentially the brains behind all our products,” remarked Heliana Puhlin-Nurminen, vice-president of the digital imaging and applications division at Planmeca. “The new software version is a great step forward in providing users with an even smoother workflow. With Planmeca Romexis 4.0, the future of digital dentistry has arrived.”

Planmeca is a worldwide forerunner in developing a complete range of solutions for dental professionals. The Planmeca Romexis software platform supports the most versatile range of 3-D and 3-D imaging modalities and integrates the entire chairside CAD/CAM workflow, from intra-oral scanning to prosthetic design and milling in one system. The Planmeca Romexis Clinic Management module further provides real-time information and monitoring of unit usage and events.

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**VOCO innovates at Dentistry Show**

Dental manufacturer VOOCO (Booth L15) aims to impress with several pioneering products and devices at the Dentistry Show 2015. An example is Admira Fusion x-tra, which has the same physical properties but allows increments of up to 4 mm. Other new products include the fast-setting glass ionomer material Ionokar Plus and Clip Flow, a flowable restorative material for temporary restorations.

VOCO has developed the protective dental cream Remin Pro forte especially for prophylaxis, adding gingier to the range of flavours available in the Remin Pro product line. Also on display is Celacul 3, a new cordless high-performance LED light-curing device in a pen design. It only weighs 70 g and is handled much like other devices in the surgery.

In addition to these innovations and its best-selling dental products and devices, the company is exhibiting a whole host of offers at reasonable prices at the event.

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**Implants stand out in comparative implant surface study**

Israeli manufacturer MIS Implants Technologies has announced that its products have achieved favourable results in an extensive qualitative and quantitative analysis using scanning electron microscopy. The study was conducted on behalf of the Quality and Research Committee of the European Association of Dental Implantologists. It included 65 systems of sterile-packaged implants from 37 manufacturers and ten countries.

According to the intermediate study report, the Ci implant and the SEVEN implant manufactured by MIS achieved noteworthy scores. Although the SEVEN implant exhibited blasting material on up to 7 per cent of the surface in earlier studies by the committee in 2011 and 2012, the researchers did not find even isolated spots with residue on the two MIS implant types of Grade 23 titanium in the current study.

MIS Materials Discipline Manager Dr Tal Reiner explained the surface treatment processes applied by MIS that led to the results: “We monitor the surface roughness, uniformity and purity of our implants on a daily basis, taking samples from selected batches, and using our own in-house scanning electron microscope. Because the analysis is done in our own labs, on-site, there’s no holding up production for results.”

“MIS adheres to strict procedures, adding any steps necessary to ensure the lowest percentage of contaminants, including blasting residue or remnants from various stages of production,” Reiner added. “Because the scanning electron microscope analysis is done on samples only, a trained technician also does a 100 per cent visual inspection on each and every implant. Any flawed implants are unconditionally rejected.”

The intermediate report, titled “Surface analysis of sterile-packaged implants,” was published in the 01/2015 issue of the European Journal for Dental Implantologists.
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The dental industry is moving closer to a complete digital workflow

An interview with Stratasys Director of Global Dental for 3-D printing, Avi Cohen

By Dental Tribune

Digital dentistry is an upcoming industry that has undergone rapid development in recent years. Intra-oral scanning, CAD/CAM and 3-D printing have fundamentally changed the workflow of dentists and dental technicians and have improved many dental procedures. Dental Tribune had the opportunity to discuss this topic with Avi Cohen, Director of Global Dental for 3-D printing manufacturer Stratasys recently at IDS.

Dental Tribune: Mr Cohen, what are the advantages of using 3-D printers and digital dentistry technologies in a dental practice or laboratory, and why is digital dentistry becoming increasingly important for dental professionals?

Avi Cohen: The dental industry is by its very nature fast paced and requires rapid turnaround. When patient care is directly affected by a technology, technicians will always look for innovations that can reduce time while improving quality and precision.

How have dentists responded to the trend of digital dentistry? Do you think that the majority of practices and laboratories are already using or considering using digital technologies such as 3-D printing?

Avi Cohen: With any new technology, there is always the need to educate and it is the same in dentistry. It could be argued that many dentists hold traditional plaster moulds in high regard, but now there are alternatives. I believe that an increasing number of dentists, as well as newcomers entering the industry, will adopt newly available technologies that improve productivity, one of them being a move to digital dentistry.

With an increased range of superior intra-oral scanners and associated software now available on the market, more and more dental laboratories of all sizes are exploring and installing the potential of 3-D printing technology that suits their company’s size and budget.

Most notably this year, we have seen an explosion of devices dedicated to digital imaging, impression taking and CAD/CAM fabrication of restorations—both chairside and in the laboratory. With the rollout of new 3-D printing systems, materials and capabilities offer for different indications and customers?

As a leading provider of digital dentistry, we offer a wide range of 3-D printed dental solutions, including surgical guides produced in a clear biocompatible material—the ideal solution for implant placement. We also provide stone models for dental laboratories, thereby offering an extremely accurate replacement of plaster modelling and a range of orthodontic models for various applications.

As the industry moves closer to a complete digital workflow, dentists can now focus on more strategic tasks, while their 3-D printer accelerates the development of dental solutions, such as crowns, bridges, inlays, veneers and frameworks.

What in general makes your products stand out from the competition?

Thank you very much for this interview.

With our Dental Series, dedicated to addressing the needs of dentists and orthodontic laboratories, we offer a full range of dental solutions, making us a key participant in digital dentistry. For example, our Objet Eden260VS Dental Advantage 3-D printer is engineered to meet the demanding productivity needs of mid-sized dental laboratories and medium to large orthodontic laboratories and provides new additional capabilities for improved productivity.

With labour costs as the main expense for dental and orthodontic laboratories, the Objet Eden260VS Dental Advantage addresses this through a greater level of automation. Printing is done at the click of a button and, owing to the water-soluble support material, cleaning of models is an automated process. A single laboratory technician can design, print and have all models cleaned automatically without the ‘post-processing’ required. The reduced cost per model has a knock-on effect on the labour cost.

In addition to our Dental Series 3-D printers, we offer a range of advanced dental materials, including the biocompatible VeroCure. This material is ideal for applications requiring mucous membrane contact for up to 24 hours, enabling dental laboratories to use VeroCure to create veneer try-ins in precise A2 tooth shading. Soluble support technology allows the easy cleaning of dental parts with fine features, such as small removable die inserts in dental models.

Thank you very much for this interview.
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Birmingham “Back to Backs”: Welcome to Brum

By Annemarie Fischer

“I grew up in Birmingham, where they made useful things and made them well”, says Birmingham native author Lee Child. Birmingham has been titled the “Second city”, and is also referred to as Brum, derived from an ancient variation of “Brommagem”. Over one million ‘Brummies’ make it the second most populous city in the UK after the capital.

Birmingham epitomises the idea of Enlightenment in England, fostered the Midlands Enlightenment (also “Birmingham Enlightenment”) which sparked the scientific revolution, became the pulse of the industrial revolution, and currently hosts five universities as the UK’s second-largest student city.

Lots to see and do

For a true time travel experience, the Back to Backs offers a restoration of the historic back-to-back housing. Each interior represents a different era from the 1800s the pre-and postwar 20th century. Admission is via guided tour only and can be booked via 0121 666 7671.

The Birmingham Science Museum Thinktank at the Millennium Point Building offers a hands-on experience of Birmingham as the historic “Workshop of the World” in the “City of a Thousand Trades”. It also hosts the oldest and working Smethwick Engine by Boulton and Watt from 1779, along with a planetarium and a Science Garden. Just opened in March, the Spoffire Gallery explores the history of the legendary aircraft, which was produced at the Castle Bromwich factory.

The Museum of the Jewellery Quarter captures the craftsmanship in a time capsule and preserves its iconic 19th century architecture. The museum serves as the starting point to explore the largest European hub of jewellery business, buzzing with local shops and art galleries—with St. Paul’s Gallery as the largest art gallery outside of London. Watch out for the two trails, the “Findings Trail” and the “Charm Bracelet Trail” made by Birmingham artists, as a guide for visitors throughout the quarter.

Located at Chamberlain Square, the Birmingham Museum and Art Gallery offers free admission and hosts a collection of paintings starting from the 14th century to present, as well as fine art and historical industrial objects. Visitors should enter via the Big Brum clock tower, greeting visitors with the slogan “By the gains of Industry we promote Art.”

One may also hunt for gold in the brand new Staffordshire Hoard collection of an Anglo-Saxon gold treasure. The guided tour “Birmingham: its people, its history” offers a Victorian Birmingham experience. Contemporary and upcoming artists from the West Midlands are also continuously showcased.

The Bullring with the iconic Selfridges building and the Mailbox provides large shopping areas, with the Great Western Arcade offering a true Victorian shopping experience. For independent shops and entertainment visitors should definitely pay a visit to the Custard Factory. A Birmingham souvenirs bag should definitely include Typhoo tea along with Cadbury’s chocolate. The factory premises Cadbury World in Bournville offer chocolate delights not only a taste of the treat and the biggest Cadbury shop; the chocolate aroma permeates the town specifically conceptualized according to the needs of the factory.

If you are in the mood for something savoury instead, the pub scene around Broad Street indulges in fusion cuisine that thanks to Birmingham’s multicultural population is unique in Britain. While the Michelin-award Adam’s and Purnell’s have specialised in British contemporary cuisine, the Golden Balti Indian Takeaway is the best place to go for a Balti, a curry dish that has originated in Birmingham.

www(visits)birmingham.com

What’s on in Birmingham, 17–19 April

**Hamlet (Theatre)**

*Date & time:* 16–18 April, 7.30 pm
*Location:* Crescent Theatre, 20 Sheepsdice Street www.crescent-theatre.co.uk

Probably the most famous play in the world and interpreted in thousands of different ways on stage and screen, Shakespeare’s Hamlet will be staged at the Crescent Theatre for only four nights on April. According to the theatre, Staging has a long established history of presenting award winning five star Shakespeares that are clear and accessible to all ages and all levels of experience. There will also be plenty of twists and concepts to provoke discussion and debate.

**Andy Wickett & World Service**

*Date & time:* 17 April, 8.30 pm
*Location:* Tower of Song Cafe Bar, 107 Pershore Road S www.towerofsong.co.uk

Attra Midlands artist, Andy Wickett started his career back in the 1980s singing and playing in a number of bands, most famously New Wave poster children Duran Duran. In addition, he has produced music videos and co-written albums with world renowned Asian artists Nusrat Ali Fateh Khan, Malik Singh, Stereo Nation, Tanz and EDS among others. With his latest band World Service, he is regularly performing in large arenas and venues in the UK and around the world.

**Nadine Shah + The Black Site**

*Date & time:* 18 April, 6.30 pm
*Location:* The Rainbow Venues, 160 Digbeth High Street www.therainbowvenues.co.uk

Nadine Shah is a London-based artist, her voice is powerful and provocative. She is known for her take on feminism that challenge the patriarchy and the status quo. Her work is a political statement that challenges the status quo and the norms of society.

**George Clinton & Parliament Funkadelic**

*Date & time:* 19 April, 8.00 pm
*Location:* O2 Academy Birmingham, 16 – 18 Holte Street www.o2academybirmingham.co.uk

Seventy-four year old George Clinton needs no introduction. Born in North Carolina, he is most single-handedly ruled black music in the 1970s. His inspiration, dedication and determination resulted in the elevation of ‘funk’ music to complete recognition and acceptance as a true genre in and of itself. As the single most sampled artist in music history, he inspired a whole line of artists including Afrika Bambaataa, Prince or Rap legends Public Enemy.
A mixed national picture
The current state of periodontology in the UK and why there needs a lot to be done

By Prof. Francis Hughes, London

The UK is gearing up to host the largest conference in Periodontology and Implant Dentistry ever held with EuroPerio8 taking place on 1-6 June at London ExCel. Over 100 speakers will contribute to the main scientific programme and there are many additional sponsor sessions. Over 1,500 abstracts have been accepted. Already over 7,000 periodontists, implantologists, general dentists and dental hygienists from 96 different countries have confirmed their attendance. We expect to have nearly 10,000 people at the conference in total, a new record for a conference in this field, and it is till not too late to register.

Given the huge popularity of this event, it is perhaps a perfect time to reflect on the state of periodontology in the UK. It is clear that periodontal disease is not going to go away any time soon. Although there is a lack of detailed epidemiology of the disease in the UK, the Adult Dental Health Survey provides a useful indicator of trends in the epidemiology of the disease, even if it probably seriously underestimates true prevalence rates, owing to the limited methodology used in this survey.

The good news is that there has been significant reductions in the number of people with visible plaque and calculus present, (but this is still reported as 45 % of the population) and concomitant reductions in the amount of mild periodontal disease, consisting of gingivitis and those with low levels of attachment loss. However, perhaps unexpectedly, this has not been associated with similar reductions in moderate and severe periodontitis. In fact, the number of adults with severe periodontitis (pocketing of 6mm+) has increased from 6 % in 1998 to 9 % in 2009. The reasons for this may be complex but are likely to include the fact that we have an increasingly aging population, and that dentists are (rightly) taking out fewer teeth even when judged to have poor long term prognoses.

Disconnection between trends in plaque control to more severe destructive periodontitis is a common finding in a number of recent epidemiological surveys in different populations and underlines the complexity of aetiological factors which determine susceptibility to destructive periodontitis. Although plaque tends to correlate directly with gingival disease, in the majority of people this may not necessarily result in the progression to more severe periodontitis. The major risk factors which are implicated in this process including smoking, genetic factors, and medical factors, particularly diabetes and medications such as calcium channel blocker antihypertensive drugs.

The impact of the well documented rise in the numbers of older people may be particularly important for future treatment needs. The over 65 year olds are often fit and well and have high expectations for their continued health needs, even though they may also suffer from common medical conditions such as type 2 diabetes and hypertension and may take multiple medications.

Impact of periodontal disease

Periodontal disease has now been associated with risk of a number of other systemic conditions, most notably cardiovascular and cerebrovascular disease, among many other conditions. It has been clearly shown that periodontal disease causes a measurable systemic inflammatory response but it is not at all clear that periodontal treatment actually reduces the risk of these conditions, or whether the conditions are associated through common factors such as genetic predisposition. Nevertheless, given the importance of these systemic conditions it is recommended that periodontal health should be regarded as part of general health.

Manpower

Clearly there remains a major, often unmet, periodontal treatment need within the UK population, which represent a significant challenge for dental health professionals. There are currently over 30,000 registered dentists and over 6,000 dental hygienists in the country. In addition, there are approximately 500 periodontists on the specialist list, who work mainly in private specialist practices or in the hospital and university services. Given that there are an estimated five million cases of moderate to severe periodontitis, and perhaps 20 to 30 million with some signs of periodontal disease, it would appear that these relative proportions of dental manpower are not currently ideally suited for the provision of primary and secondary periodontal care according to clinical needs. There are of course a significant but unknown number of general dentists who provide a degree of periodontal treatments that might otherwise considered to be at secondary care level.

The number of specialist periodontists in training is small (certainly less than 20 every year), which is probably insufficient to maintain the total number on the specialist list over time. There is considerable interest and some commitment to providing a group of dentists with additional skills in specific restorative specialties including periodontology, who could potentially...
meet much of the treatment need for secondary care periodontal treatment, but this group does not really exist at the present time. It should also be commented that this model of periodontal care provision does remain essentially untested on a large scale at present.

Overall the picture of periodontal care provision in the UK at present is mixed at best. In most areas of the country those choosing to seek their periodontal care from the private sector, are able to access specialist care from highly trained periodontists and their teams, who often provide a wide range of effective and sophisticated treatment options. However, outside the dental schools there is little or very patchy access to specialist treatment services within the NHS. Recognition of this manpower deficit and a move to address it through intermediate level training in periodontal therapy is an encouraging but still unproven development.

Possibly the most important health professional for the implementation of primary prevention are dental hygienists. Although there is little evidence on deployment of hygienists within primary care, anecdote suggests that they may spend much of their time removing supragingival calculus (as prescribed by their employing dentists) without any routine attention to properly targeted attempts to provide adequate personalised oral hygiene instruction. Indeed the whole issue of the routine “scale and polish” as a therapeutic intervention has been questioned and is the subject of current research projects whose findings are yet to be reported.

**Implantology**

Many aspects of implantology, including surgical management, management of soft and hard tissues, and management of peri-implant health and disease, are squarely within the realm of periodontal treatments, and implantology is indeed a substantial component of specialist training in periodontology. Whilst the growth in implant treatments has been markedly slower than in many other European countries, there is now a large and ever growing use of dental implants in UK dental practice and a wider acceptance from significant numbers of patients of the value of implants and their potential cost/benefits. It is quite clear that the need for improved treatment of implant disease should not be met within the National Health Services as the costs could potentially swallow much of the total NHS budget. However some recognition of the clinical needs and cost/benefits on a more individual basis even within the NHS dental services would appear to be inevitable in the future.

There are two major developing issues, which are partly related to each other, which may particularly affect the periododontist practicing implant dentistry. Firstly, there is the growing problem of peri-implantitis. Reported prevalence rates of long standing implants vary but are typically on the region of 30%. This progressive destructive condition creates particular problems as it appears to be much more difficult to manage than its first cousin, periodontitis. As many more implants have been placed for a number of years there is great concern about the growth of this condition.

Secondly, apparently oblivious to the above problems and an understanding of long term survival rates of teeth and implants, there is a disturbing trend amongst some to advocate early removal of diseased teeth and replacement by implants. There may be some short term gains for the dentist and/or patient to be had from this approach but it is a sure way to store up major new problems for the future.

So there remains a lot to do to tackle periodontal disease in the UK. One of the most encouraging developments in the near future is the development of care pathways within the General Dental Services which place considerable emphasis on prevention, risk factor management and tackling early periodontal disease, as well as mapping out appropriate care pathways for those in need of more involved periodontal treatment. This will inevitably be painful for some as it represents a new way of service delivery based on evidence based outcomes. However it also carries with it the prospects for better provision of higher level periodontal care, particularly if the planned development of dentists with some specialist skills is successful.

**Challenges remain**

The challenge of managing periodontal disease in an increasingly ageing population are likely to become a major issue going forward, and at time the profession will have to consider how it interacts with general medical services, for example in screening and detection of the currently estimated 7,000,000 people in the UK who may have undiagnosed diabetes.

The private sector looks set to increase its provision of specialist periodontal care and implant provision. The challenges of long term implant survival and management of peri-implant disease will present new challenges for many. There will undoubtedly be novel treatments and developments which we can only speculate on. Interesting times indeed but there is lots to do.

Francis Hughes is Professor of Periodontology at Kings College London and Chair of the European Society for Periodontology. He can be contacted at francis.hughes@kcl.ac.uk.
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Knowledge can save lives

Understanding and treating patients with eating disorders

By Linda Douglas, Canada

According to the US National Institute of Dental and Craniofacial Research, 28 per cent of patients with bulimia are first diagnosed at a dental appointment. Although dentists are in an ideal position to detect the warning signs of eating disorders, research has found that knowledge of the oral and physical signs of these conditions is often limited. Nevertheless, we have an ethical obligation to increase our knowledge and participate in secondary prevention of eating disorders, as it could improve prognosis and even be life-saving for some patients. Research has shown that such disorders have the highest mortality rate of all psychiatric illnesses. We need to initiate timely interventions, to minimise damage to the oral hard and soft tissue, and instigate medical referral for access to specialists in treating eating disorders.

An overview of eating disorders

Eating disorders are psychiatric illnesses characterised by disordered eating and disturbed attitudes to eating and body image. They are often accompanied by inappropriate, dangerous methods of weight control. The three most common eating disorders are bulimia nervosa (binge–purge), anorexia nervosa (starvation) and binge-eating disorder (bingeing without purging). There are variations of disordered eating, including eating disorders not otherwise specified.

The UK has the highest rate of eating disorders in Europe. Recent figures suggest that one in 100 British women have a clinically diagnosed eating disorder. In the US, anorexia nervosa is the third most common chronic illness among adolescents. Eating disorders occur mostly in females aged 15–25, but also occur in males, in children as young as 7 years of age, and in people aged over 50.

As one of the most common eating disorders, bulimia nervosa is characterised by a pattern of consumption of massive amounts of food (binge eating) and recurrent inappropriate weight control behaviours. These include purging through self-induced vomiting, abuse of laxatives and other substances, as well as behaviours such as fasting (not eating) and various food-related phobias.

Heart and major organs

- Cardiac arrhythmias, and cardiac arrest related to electrolyte imbalance (especially low potassium), dehydration, or starvation-induced atrophy of the myocardium
- Slow pulse rate
- Low blood pressure
- Impaired capacity to think, due to starvation-related brain changes
- Kidney damage
- Liver damage due to starvation or substance abuse
- Hypothyroidism
- Infertility related to amenorrhoea

Digestive system

- Abdominal pain
- Chronic constipation
- Poor muscle tone of the colon, and incontinence related to misuse of laxatives
- Ruptured oesophagus, or Mallory–Weiss lesions (gastro-oesophageal laceration syndrome), due to vomiting
- Gastric bleeding
- Stomach might rupture during bingeing
- Swollen parotid glands and sore throat related to purging

General

- Dehydration, malnutrition
- Fatigue
- Electrolyte imbalance
- Hypoglycaemia
- Anaemia
- Low white blood cell count, and impaired immunity
- Slow metabolism
- Osteoporosis
- Loss of muscle mass, causing stick-like limbs

Skin (especially with anorexia)

- Extremely dry, scaly, itchy skin with a grey cast
- Decreased scalp hair, which is short and brittle
- Increased lanugo hair—fine hair on the body and arms (the body’s attempt to retain heat after excessive loss of body fat)
- Bloodshot eyes and broken capillaries (petechiae) of the skin around the eyes, related to forced vomiting

Extremities

- Clubbed fingers related to cardiac complications or overuse of laxatives
- Cold hands and feet related to peripheral vasoconstriction
- Russell’s sign: calluses, scars or abrasions on the knuckles of the dominant hand, related to inserting the fingers in the mouth to induce vomiting
- Carotenoderma, orange pigmentation of skin, especially on the palms of the hands, related to excessive intake of foods containing carotene

Table 1: Medical complications of eating disorders

<table>
<thead>
<tr>
<th>Condition</th>
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<tbody>
<tr>
<td>Clubbed fingers</td>
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<tr>
<td>Decreased scalp hair</td>
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<tr>
<td>Increased lanugo hair</td>
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<tr>
<td>Bloodshot eyes and broken capillaries</td>
</tr>
<tr>
<td>Carotenoderma</td>
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</table>

These include diabulimia, where individuals intentionally take insufficient insulin in order to lose weight, anorexia athletica, which is obsessive, excessive exercising to the point of being detrimental to health, and binge-eating, or muscle dysmorphia, where the individual perceives his or her body to be underdeveloped, despite having a large, muscular physique. Orthorexia nervosa is an obsession with the quantity and quality of the food consumed. The compulsive, excessive intake of food during the hours normally reserved for sleep—often getting up multiple times during the night to eat—is called night eating syndrome. Finally, there is pica, the persistent eating of non-food substances, and various food-related phobias.
Oral findings

Traumatic lesions on the palate and oropharynx are caused by insertion of objects to induce vomiting. Signs of nutritional deficiencies occur, such as angular cheilitis, candidiasis, glossitis, and oral mucosal ulceration. Individuals with eating disorders also experience a dry mouth related to dehydration or xerogenic medications, such as antidepressants and antianxiety.

Aetiology

The aetiology of eating disorders is multifactorial and not completely understood. Contributing factors, however, include living in a culture where thinness is generally admired. There are indeed unrealistic depictions of beauty and thinness in most media. At about 6 feet (1.82 m) tall and 177 pounds (52.07 kg), today’s fashion model is far below the mean for women in Western societies. At about 6 feet (1.82 m) tall and 117 pounds (52.07 kg), today’s fashion model is far below the mean for women in Western societies. Some overachieving perfectionists weigh 23 per cent less than the average woman. Some overeating perfectionists who do not fit this questionable ideal develop eating disorders. They have not only a low self-esteem, but also a distorted perception of body shape, as well as a poor body image.9

The risk of a female developing anorexia nervosa increases ten to 20 times if she has a sibling with the disorder. Eating disorders often occur in individuals who have suffered physical or psychological trauma, and are frequently accompanied by other psychiatric illnesses, such as depression, anxiety, self-harm (such as cutting), obsessive-compulsive disorder, and chemical dependency.

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Vomit has a pH of about 3.8. During purging, the vomit hits the palatal aspects of the maxillary anterior teeth. Dental erosion due to purging by vomiting becomes apparent about six months after onset. It eventually undermines the palatal surfaces and leads to incisal fractures and chipping, and over-eruption of the mandibular anterior teeth. Erosion also occurs in the posterior teeth, causing perimolysis: tooth tissue surrounding restorations is eroded, leaving the restorations with a raised, island-like appearance. Eroded occlusal contacts also lead to loss of vertical dimension.

Bulimics tend to consume foods high in refined carbohydrates, and individuals with eating disorders often consume acidic diet beverages. Therefore, they have a high caries risk and impaired salivary buffering capacity. Dental hypersensitivity is also common. The loss of bone density increases the risk of jaw fracture during extractions.

**Dental management of patients with eating disorders**

Medical treatment of eating disorders includes nutritional therapy to treat the medical complications and the starvation-related brain changes that perpetuate the illness. This is combined with psychotherapy and medication, such as antidepressants. Individuals with eating disorders also need regular dental visits in a supportive environment, for continuing care. They must be regarded as medically compromised, owing to the risk of grave medical complications, particularly cardiac arrest due to electrolyte imbalance.

Thorough clinical assessment includes general appraisal, which begins the moment we greet our patient. We should tactfully observe his or her general demeanour, gait, and facial symmetry. The skin should also be observed for lesions and pallor, and the hands for Russell’s sign or clubbed fingers. A comprehensive medical history is needed, as well as monitoring of the vital signs. Extra-oral and intra-oral examination, as well as examina-

<table>
<thead>
<tr>
<th>Psychological aspects of eating disorders</th>
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<tbody>
<tr>
<td>• Depression, anxiety</td>
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<tr>
<td>• Perfectionist, overachiever</td>
</tr>
<tr>
<td>• Low self-esteem</td>
</tr>
<tr>
<td>• Mood swings</td>
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<tr>
<td>• Guilt, shame</td>
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<tr>
<td>• Alienation, loneliness</td>
</tr>
<tr>
<td>• Social isolation</td>
</tr>
<tr>
<td>• Eating alone</td>
</tr>
<tr>
<td>• Compulsive behaviours</td>
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<tr>
<td>• Misperception of hunger and satiation</td>
</tr>
<tr>
<td>• Obsessive thoughts about food, calories and weight often weighing themselves several times per day.</td>
</tr>
<tr>
<td>• Secrecy and denial of their illness</td>
</tr>
<tr>
<td>• Individuals with anorexia nervosa often dress to hide their body shape, and they might put coins in their pockets when being weighed.</td>
</tr>
<tr>
<td>• They often claim to have food allergies in order to justify their restrictive diet.</td>
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</tbody>
</table>

Table 2: Psychological aspects of eating disorders

When an eating disorder is suspected, this sensitive topic needs to be approached in a non-judgmental, non-threatening manner. It is beyond our scope of practice to diagnose eating disorders, but we can present the findings of our examination to the patient. For example, if there is dental erosion, we could mention some possible causes, like acidic drinks, acid reflux or frequent vomiting. This gives the patient an opportunity for disclosure. If he or she discloses his or her eating disorder to us, he or she should be referred to his or her physician. If he or she is not ready to tell us, we can still be supportive and initiate...
A prevention protocol based on our clinical findings. Definitive dental restorations cannot be completed while a patient is purging regularly, as acid erosion will compromise the restorations. Only essential restorative work should be done, to limit tooth damage and keep the patient free of pain. Pending the patient’s recovery from his or her eating disorder, the dental hygienist can provide interventions to limit damage to the oral hard and soft tissue, and relieve xerostomia and dental hypersensitivity. During dental hygiene appointments, such patients should be polished with a non-abrasive fluoride paste. A protocol to reduce caries risk should include in-office fluoride varnish applications, plus self-applied neutral fluoride, and calcium and phosphate products, such as NovaMin, Recaldent and nano-hydroxyapatite, to remineralise and desensitise.

Xylitol-containing products, such as toothpastes, gum and candies, are also beneficial. When used for 5 minutes, five times per day, they stimulate salivary flow, reduce the oral population of cariogenic bacteria, and reduce oral acidity. Patients should brush three times per day with a soft brush and a toothpaste containing 5,000 ppm fluoride. They should clean the interproximal embrasures daily and clean their tongue too, to remove biofilm and acid residue.

A mouth guard can be used to protect the dentition during vomiting. Brushing directly after vomiting causes more loss of tooth structure, and rinsing with water reduces the protective properties of the saliva. Instead, the oral pH should be neutralised by rinsing with one teaspoon of sodium bicarbonate in 250 ml water, or with a product containing calcium and phosphate ions. For additional support, we can share information on resources for those who struggle with eating disorders. With increased knowledge and vigilance, dental care professionals can enhance detection of warning signs of eating disorders, for improved patient care and favourable outcomes.

The SCOFF questions*

- Do you make yourself sick because you feel uncomfortably full?
- Do you worry you have lost control over how much you eat?
- Have you recently lost more than one stone (6.35 kg) in a three-month period?
- Do you believe yourself to be fat when others say you are too thin?
- Would you say that food dominates your life?

* One point for every “yes”, a score of ≥ 2 indicates a likely case of anorexia nervosa or bulimia.

Table 3: The SCOFF questionnaire utilises an acronym in a simple five-question test devised for use by non-professionals to assess the presence of an eating disorder.

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Linda Douglas is a British dental hygienist currently residing in Ontario in Canada. She can be contacted at lindadouglas@sympatico.ca.
Avoiding irreversible dental treatment
Types of orofacial pain and understanding them correctly

By Prof. Joanna Zakrzewska, London

Pains is one of the most complex health conditions encountered, as it affects not only the sufferers, but also the community in which they live. It is often associated with other co-morbidities, especially anxiety, depression and chronic pain elsewhere. In the orofacial region, the most commonly reported pain is dental, and this inevitably requires a visit to a dentist, who in most instances can provide a cure. However, there are other pains encountered in the orofacial region that can become chronic, defined as pain that has been present for over three months. These pains need to be diagnosed correctly, as their management is different.

At present, we have no biomarkers for chronic pain, and the only way we can make a diagnosis is to listen carefully to the history the patient gives. We need to elicit the key features of pain, for example onset, duration, location, severity, character, provoking and relieving factors, as well as the impact on quality of life and activities of daily living. It is essential to determine the presence of other illnesses, especially other chronic pain. Chronic orofacial pain has a significant psychological impact, as the face used to express pain from other parts of the body is now in pain itself. Patients with chronic orofacial pain are also confused as to whom they should consult, a dentist or a doctor. Their choice of health care provider will significantly affect both first-line treatment and subsequent referral.

Pain is notoriously difficult to communicate and poor communication of pain is cited as the main barrier to treatment and management. This “unsharability” of pain can be correlated with its resistance to language. This results in an intense burden of suffering and isolation for the individual. It is further compounded when patients do not have the requisite language skills. Yet we know that words may help a clinician in the differential diagnosis, for example, patients with musculoskeletal pain will use words such as “heavy”, “aching” and “nagging”, whereas those with neurological causes will describe their pain as “burning”, “pins and needles”, “shooting” and “stabbing.”

We also try to measure pain using a scale of 1 to 10, but do these verbal measures really capture the experiences of those with facial pain? This question recently led to a project with a visual artist to create photographic images of pain. Thus images were co-created by the artist Deborah Padmin and facial pain sufferers, aiming to reflect the individual experience of pain. A selection of these images were then made into pain cards, which are now being used with other pain patients to help improve mutual understanding and communication between doctors and patients. They appear to be helpful in describing the characteristics of the pain, as well as initiating discussions about its impact.

Once a dental or oral mucosal cause of pain has been excluded, the commonest cause of pain in the lower part of the face is temporomandibular disorders (TMD). TMD can present as clicking or locking of the jaw and can come on suddenly. It can present on only one side or both. Pain in the muscles of mastication with or without pain in the joint itself is the commonest form of this group of disorders. It is very common and up to 20 per cent of cases can become chronic.

The pain is centred in the pre-auricular area and can spread down the mandible and neck, as well as up to the forehead. It can be associated with clicks on opening or closing and rarely with reduced opening. The pain is described as dull, aching, sore and occasionally sharp. When the main muscles are palpated, the same characteristics are present. They appear to be helpful in describing the characteristics of the pain, as well as initiating discussions about its impact.

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Orofacial pain can have many non-dental causes. This pain is in the region of the teeth and/or tooth-bearing area in which a dental cause cannot be identified. In some cases, the pain is related to nerve injury. This can occur after extraction of teeth, especially third molars, as well as after root canal work, implants or facial trauma.

This pain is often not identified and leads to extensive irreversible, unnecessary dental treatment. It is probably a neuropathic pain and so needs to be managed in the same manner as other reported neuropathic pains according to guidelines. Drugs such as anti-depressants and anti-convulsants are helpful, opioids are of no help in these conditions. However, management with medications alone is insufficient. Patients need to be given an explanation about pain and how it is influenced by past experiences, mood, attention, significant life events, as well as genetic variability.

Evidence shows that chronic pain outcomes are improved when a biopsychosocial approach is used. Cognitive behaviour therapy needs to be delivered by multidisciplinary teams that include clinical psychologists and physical therapists.

Pain that remains intra-oral and does not radiate externally is burning mouth syndrome. This is defined as a burning pain or discomfort often present continuously on the tongue and other parts of the oral mucosa. There are no local or systematic factors to account for this pain, and often it is associated with altered taste and changes in salivary flow. Its highest incidence is in perimenopausal women, and so it had for many years been labelled as a psychological pain; however, recent research has now shown that this is also a neuropathic pain with abnormalities especially in perception of warmth and cold.

There have been a number of randomised controlled trials performed, but the evidence of any efficacy is low. Cognitive behaviour therapy is effective, especially if it includes a careful explanation of the potential causes of this condition and a reassurance that it is not cancerous.

Another rare pain that dentists often see is trigeminal neuralgia. It is defined as a “sudden, usually unilateral, severe, brief, stabbing, recurrent pain in the distribution of one or more branches of the fifth cranial nerve” that is provoked by light touch activities. It has a highly significant impact on quality of life and if poorly managed leads to depression. In some rare cases, it is caused by multiple sclerosis or tumours, but its cause is unknown in the majority of patients. Many patients will have compression of the nerve inside the skull. The pain often presents in the mouth, leading patients to believe that the cause is dental and to ask dentists to investigate.

Again, many patients will undergo unnecessary irreversible treatment until a dentist realises that it is non-dental. In the early stages, the pain is highly responsive to anti-convulsants, either carbamazepine or oxcarbazepine, and all guidelines suggest this as the first-line drug type. However, for trigeminal neuralgia, there is a wide range of treatments, both medical and surgical, and so patients need to be seen not only by neurologists or oral physicians, but also by neurosurgeons. In correctly diagnosed patients, surgical outcomes can give the longest pain relief periods.

It is increasingly important that dentists recognise that there are many non-dental causes of orofacial pain. Time needs to be spent in eliciting a careful history, and irreversible dental treatment must be avoided.

Chronic orofacial pain patients will have better outcomes if managed by specialist teams with multidisciplinary staff.
In prophylaxis, the individual approach is as important as the training aspect. Curaprox’s prophylaxis training (iTOP, therefore, considers “prevention” to be more than just using fluoride toothpaste. When Rolf Kufus, a Zurich dentist, talks about prevention, he emphasises the demands that prevention makes on dentists and patients alike. He compares it to music:

“In most cases, prophylaxis means that the guitarist in a heavy metal band suddenly has to learn to play the harp. This is not something you learn overnight—and especially not without a teacher,” Kufus said.

Just like a delicate ripple on the 47 strings of a harp, iTOP teeth cleaning means saying goodbye to the coarse scrubbing by a rock guitarist with his few chords. Right through from cleaning interdental spaces to the proper use of the single tuft and the efficient method with a soft, densely-bristled toothbrush based on the modified Bass method. iTOP is a three-step tutorial for dental professionals, beginners and advanced learners alike.

With a toothbrush, a single tuft brush, as well as interdental brushes and dental floss in hand, participants learn over several days how prophylaxis is more than just fluoridation and that it means efficient and atraumatic brushing, individual training and even tailored coaching.

Prophylaxis can also be a pleasure as well as it can motivate. Yes, my teeth are clean, my gums are healthy!

Train and train once again

iTOP is individually trained oral prophylaxis, that rejects the thinly-spread “watering-can” principle in favour of individually tailored prevention. Every mouth is different. If one form of prophylaxis is ideal, another leads to sustainable success. And because the individual approach often means “scrub less” that is also the training aspect that iTOP alumni such as Rolf Kufus emphasise in particular. How else can we compete against the force of habit, which so often causes us to brush our teeth incorrectly from childhood on—with too much pressure from too hard a toothbrush and dental floss where only an interdental brush is of use?

“Patients with tooth-cleaning damage such as exposed tooth necks are unaware of being ill but instead they feel they’re doing everything right,” said Kufus. “And nobody wants to intentionally destroy their mouth. These are all simply wrongly trained habits.”

Catherine Schubert, dental hygiene specialist and iTOP instructor, knows how detrimental these habits can be: “All too often, I see patients who are still suffering from bleeding gums even after ten years of treatment because they were not educated and trained. This bleeding could so easily be stopped,” she remarked.

Implants—the failures of prophylaxis

Rolf Kufus realigned the prophylaxis concept for Personalised Dentistry in his practice after his first iTOP course.

“People are living into their 90s nowadays. It’s better without exposed tooth necks.”

He recalls that a tooth goes through about six stages in the course of its existence from emerging to falling out.

“If we succeed in delaying each of these stages by a few years, then, except for special cases such as accidents or agenesis, an implant may no longer be necessary.”

In this new interpretation, an implant can be ultimately seen as a failure of prophylaxis. It is no longer like it used to be, when prophylaxis was primarily understood to mean brushing three times a day using fluoride toothpaste and the brunt of the dental work was placed on tooth repair. Today, there is an ever-increasing number of dentists who view prevention as an essential part of the Hippocratic oath—namely the obligation to dental health as a whole. This also changes the role of dental hygienists who are shedding their role as “abrasive cleaners” and are turning into partners and fitness trainers for the oral health of patients.

Ultimately, iTOP also changes the role of a dental practice, moving away from repair towards prevention—without losing sight of profit orientation.

More information are available at www.kufus.ch www.curaprox.com www.i-top-dental.com

How dental care can be fun

The three most common mistakes.

Cleaning in the wrong place: the toothbrush is not close enough to the gums, with the result that its bristles cannot reach the sulcus.

Brushing with too hard a toothbrush: if the toothbrush bristles are too hard, the patient automatically moves the brush away from the gums and simultaneously causes brushing damage.

Brushing with too much pressure: together with cuts by flossing (and resulting recession of the gums), one the most frequently corrected errors.

The three most easily achievable improvements.

Using an interdental brush: iTOP graduates learn with surprising speed just how efficiently the spaces between the teeth can be cleaned.

Feeling rather than intellect: DH professionals mainly instruct patients using a model. In iTOP courses, they learn on each other how atraumatic tooth cleaning actually feels.

Brushing perceived as pleasure: bleeding disappears in an instant thanks to a change in brushing technique and a soft brush. Dental care and its results create happiness.
“Bowie’s teeth were like everything else about him: different”

An interview with German tooth artist Jessine Hein

David Bowie was undoubtedly a major figure in popular music in the 1970s and 1980s. He is also one of the many celebrities who have undergone cosmetic dental treatment and had his characteristically crooked teeth replaced with a set of crowns in the early 1990s. Inspired by Bowie’s unique original look, Jessine Hein, a German painter and sculptor, made a reproduction of the singer’s natural teeth. Dental Tribune had the opportunity to speak with Hein about her denture sculpture and her perception of beautiful teeth.

In your opinion, what drove David Bowie, who was celebrated as a nerd, to have his crooked teeth made into a “perfect” Hollywood smile? I find it noteworthy that a pioneer of individualism, the archetype of “acting out one’s self”, decided to “normalise” his mouth. It seemed paradoxical. However, the dental change was parallel to a change in his image and music: It accompanied his development and I assume that was not pure accident, owing to the Hollywood set of teeth that was chosen rather than recreating a natural look when medical intervention was needed.

I cannot imagine that a person like David Bowie willingly left the interior design of his mouth to someone else. So I interpret the pearly whites he got as a bold statement that signalled a new chapter in his career—maybe a comment on the beauty obsession of our society: “You want regulated perfection? Here you have it!” The transformation was part of his development from alien hero of society: “You want regulated perfection? Here you have it!” The transformation was part of his development from alien hero of the heart to world star. My sculpture intends to underline this, as well as pay homage to the eras of the crooked-toothed miracle who fell to earth once upon a time.

Could you explain that Bowie was not satisfied with his teeth and underwent cosmetic dental treatment for that reason? Perhaps, his crooked teeth were a source of suffering, as is the case with many other people.

In the past, I have done small projects at a dental laboratory, such as a tooth pendant for my necklace, which I have worn ever since and never taken off, as well as another sculpture: Tooth Nuckles. With the knowledge acquired during those projects, I gained an idea of how I could actually construct this replica.

I do understand how orthodontics can improve one’s self-confidence, as I went through years of tooth alignment myself in my teens. There are four teeth missing in my maxillae. Besides having had trouble chewing properly, I looked like a freakish vampire. It was not very helpful to have an odd-looking set of teeth in this awkward phase of adolescence. Back then, I did not appreciate the beauty in the difference because I was too concerned with trying desperately to survive as a shy teenager at school.

Today, however, I celebrate teeth that are not the norm. I love the diversity and character they bring to the human head. I find it quite sad that these days almost every child undergoes some kind of dental treatment to align his or her differences solely for aesthetic reasons. Some of them might grow up wishing they still had their characteristic natural look.

I have heard Bowie talk about his old teeth in a confident way. He stated they looked fine to him. So, no, I do not think he felt uncomfortable about them at the time, quite the opposite; he was famous for celebrating his striking body in all its otherworldliness.

What do you intend to do with the sculpture? Have you been approached by collectors and fans of the singer who would like to purchase new pieces?

I have been contacted by several potential buyers, but the sculpture is not currently for sale, as I would like to have the option of putting it on display.

Thank you very much for this interview.
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