



European Association of Dental Implantologists

Bundesverband der implantologisch  
tätigen Zahnärzte in Europa e.V.

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# EDI JOURNAL

European Journal for Dental Implantologists



35 YEARS OF BDIZ EDI  
Still going strong

**EDI News** | Part II of the 19<sup>th</sup> Expert Symposium: Digital dentistry with BDIZ EDI | Coming up: 20<sup>th</sup> Expert Symposium in Cologne: Complications in implantology—why did it happen? | Curriculum Implantology—now also offered in southern Germany |  
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**Case Studies** | Four-year follow-up | Successful regenerative treatment using modern alloplastic bone graft material |

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**Dr. Rubén Davó**  
A Zygoma Academy Mentor



## 35 years of BDIZ EDI: Still going strong

Dear colleagues,

I am very proud to announce that BDIZ EDI is celebrating its 35<sup>th</sup> anniversary this year. This certainly makes it one of the most prestigious associations and professional societies in the world of implantology.

We can look back on an eventful history. In 2001, we achieved the recognition of the formal Focus on Professional Activities—Implantology (in Germany, this is an official designation and indicates a narrower area of specialisation of a professional—in our case, a dentist) by fighting for it all the way to the German Constitutional Court. In 2012 and 2013, on the initiative of BDIZ EDI, six dentists went to the same court against the 2012 version of the GOZ, the German fee schedule for dentists in private practice. In 2015 we sent an alternative draft law on anti-corruption legislation in the healthcare sector to the Ministry of Justice.

The BDIZ EDI and its external experts were involved at an early stage in the analyses of the EU Medical Device Regulation (MDR). We predicted the situation as it is itself today—with excessive bureaucracy, a lack of Notified Bodies and the demise of medium-sized medical device manufacturers. We conducted an extensive survey of the dental industry, which confirmed our fears. Without the support of our legal advisor, Prof. Thomas Ratajczak, who has been with us from the very beginning, we would not have been able to implement many of these projects and overcome the obstacles. At the moment, six dentists, on the initiative of the BDIZ EDI, are taking legal action before the Constitutional Court of Berlin

against the 65-year (!) hiatus in the increase in value of fee points in the GOZ.

For more than 25 years, BDIZ EDI, in cooperation with the University of Cologne, has been teaching young and interested dentists the basics of oral implantology in its Curriculum Implantology. In October, Joachim E. Zöller and Hans-Joachim Nickenig will start the 26<sup>th</sup> course at the University of Cologne. Due to high demand, we will be offering a second Curriculum in the south of Germany, starting in September, which will be supervised by Jörg Neugebauer and Markus Tröltzsch. The face-to-face events will take place at the Munich and Ansbach locations, but there will also be online courses that can be accessed on demand. High quality, small groups, affordable fees—that is still our motto. We are happy to share our expertise on the structure of our Curricula modules with our partner associations if they see a need for their own Curricula Implantology.

A European orientation has been part of the BDIZ EDI statutes since 2002. The addition of “EDI” symbolises this orientation: European Association of Dental Implantologists (EDI). EDI is also part of the name of the *EDI Journal*, which has been distributed to implantology associations and professional societies and members outside Germany for almost 20 years. BDIZ EDI works with partner associations throughout Europe that support its aims. Whether in Berlin or Brussels or Strasbourg, the association participates involved in health policy debates as soon as they have a bearing on dental practice.

The BDIZ EDI guidelines have been an important part of BDIZ EDI’s appeal since 2006. These guidelines communicate diagnostic and therapeutic recommendations to the “outside world”. To this end, we have established the European Consensus Conference (EuCC), which examines current issues in oral implantology from a European perspective. We are supported by experts from dental practices and universities in Europe and beyond who work with us to develop these guidelines for implantologists. Ultimately, the consensus is translated into a document that has a real impact on implant practice—every year.

The Association’s guiding principle comes from its “founding fathers”: “Any dentist who has obtained the requisite qualifications should be able to practise dental implantology in his or her own practice.” This is what we stand for and what we on the BDIZ EDI Board are still working for today: postgraduate training for dentists, the economic viability of every dental practice and the freedom for dentists to continue to do what we do best in the future: treat our patients well.

Our association was founded 35 years ago to preserve the fledgeling discipline of oral implantology in individual dental practices. As you can see, we are still working towards that goal in the 35<sup>th</sup> year since the Association was founded.

A handwritten signature in blue ink, appearing to read 'Berger'.

Christian Berger, President BDIZ EDI



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# Partner Organizations of BDIZ EDI



## Association of Dental Implantology UK (ADI UK)

ADI UK, founded in 1987, is a registered charity committed to improving the standards of implant dentistry by providing continuing education and ensuring scientific research. It is a membership-focused organisation dedicated to providing the dental profession with continuing education, and the public with a greater understanding of the benefits of dental implant treatment. Membership of the ADI is open to the whole dental team and industry, and offers a wealth of benefits, education and support for anyone wishing to start out or develop further in the field of dental implantology.



## Ogólnopolskie Stowarzyszenie Implantologii Stomatologicznej (OSIS EDI)

OSIS EDI, founded in 1992, is a university-based organisation of Polish scientific implantological associations that joined forces to form OSIS. The mission of OSIS EDI is to increase implant patients' comfort and quality of life by promoting the state-of-the-art and high standards of treatment among dental professionals. OSIS EDI offers a postgraduate education in dental implantology leading to receiving a Certificate of Skills (Certykat Umiejetnosci OSIS), which over 130 dental implantologists have already been awarded.



## Sociedad Española de Implantes (SEI)

SEI is the oldest society for oral implantology in Europe. The pioneer work started in 1959 with great expectations. The concept of the founding fathers had been a bold one at the time, although a preliminary form of implantology had existed both in Spain and Italy for some time. Today, what was started by those visionaries has become a centrepiece of dentistry in Spain. SEI is the society of reference for all those who practice implantology in Spain and has been throughout the 50 years, during which the practice has been promoted and defended whereas many other societies had jumped on the bandwagon. In 2009 SEI celebrated its 50<sup>th</sup> anniversary and the board is still emphasizing the importance of cooperating with other recognised and renowned professional societies and associations throughout Europe.



## Sociedade Portuguesa de Cirurgia Oral (SPCO)

SOCIEDADE PORTUGUESA DE CIRURGIA ORAL

The SPCO's first international activity was the foundation—together with their counterparts in France, Italy, Spain and Germany—of the European Federation of Oral Surgery (EFOOS) in 1999. The Sociedade Portuguesa de Cirurgia Oral's primary objective is the promotion of medical knowledge in the field of oral surgery and the training of its members.



## Udruženje Stomatologa Implantologa Srbije-EDI (USSI EDI)

USSI EDI was founded in 2010 with the desire to enhance dentists' knowledge of dental implants, as well as to provide the highest quality of continuing education in dentistry. The most important aims of the organisation are to make postgraduate studies meeting the standards of the European Union available to dentists from Serbia and the region; to raise the level of education in the field of oral implantology; to develop forensic practice in implantology; and to cooperate with countries in the region striving to achieve similar goals.



## EDI of Macedonia

The Association is Albanian Implantology Association of Macedonia—AIAM was founded in 2013 as a branch of Albanian Dental Society of Macedonia. The association was created to advance education in the field of dental implantology for the benefit of the population. The objectives of the association are:

- To promote the progress of education, research and development of dental implantology in Macedonia
- To encourage postgraduate education, study and research in dental implantology through:
  - Appointment of meetings, lectures, seminars and courses either individually or with others
  - Encouraging the publication of dental implantology articles!
  - To cooperate and make agreements with relevant, national, local, foreign and different institutions.

In 2017, AIAM & MAOS (Macedonian Association of Oral Surgeons) became EDI of Macedonia and signed a Cooperation Agreement with BDIZ EDI to cooperate in dental implantology!



## Scientific Board

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 <b>Professor Antonio Felino, Porto</b>	 <b>Professor Jens Fischer, Basel</b>	 <b>Dr Roland Glaser, Zurich</b>	 <b>Professor Ingrid Grunert, Innsbruck</b>	 <b>Dr Detlef Hildebrand, Berlin</b>	 <b>Dr Axel Kirsch, Filderstadt</b>	 <b>Professor Ulrich Lotzmann, Marburg</b>
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All case reports and scientific documentations are peer reviewed by the international editorial board of EDI Journal.

Chair is Professor Jörg Neugebauer.

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## 19<sup>th</sup> BDIZ EDI Expert Symposium, Cologne, Part II

# Digital dentistry with BDIZ EDI

This second part of our report on the 2024 Expert Symposium on “Digital dentistry—Current possibilities and limits of digital treatment” addresses the surgical, prosthetic and periodontal aspects of this topic. At the end of the symposium, Prof. Jörg Neugebauer, Secretary General of BDIZ EDI, presented the results of the EuCC consensus paper, published in the 1/2024 issue of *EDI Journal*.



### Digital procedures in periodontology: Or would you rather do it by hand? Prof. Dr Stefan Fickl

“Perio is still very much analogue,” said Professor Fickl at the start of his online presentation. He sees himself as one of the few people to put on the brakes on digitalisation in periodontology. “We know that periodontology often depends on systemic factors. CBCTs are important for diagnosis and for confirming the success of treatment.” Of course, Fickl continued, digital procedures make life easier in terms of treatment and treatment options. Predictability is especially important for periodontologists. Digital techniques have had

little overall impact on periodontology. However, significant advances have been made in the discipline thanks to a better understanding of biofilm and the aetiology of periodontitis. The focus is on systemic and minimally invasive approaches.

Of course, Fickl concluded, digitalisation helps in diagnosis and in securing treatment outcomes through digital radiography; chairside digital fabrication of dental prostheses has reduced the pressure when providing long-term provisionals.

## Digital procedures in prosthetics: whither dental technology?

**Prof. Dr Daniel Edelhoff**

Prof. Edelhoff believes that the pace of innovation is so fast that it is no longer possible to keep up with studies in the field of digital procedures in dental technology. Only analogue impressions still have an advantage over digital full-arch scans, he explained at the beginning of his presentation. Edelhoff also wanted to give an indication of the impact on materials. The variety and quality of materials would not exist today without the advances made by the digital approach. However, 3D printing is not quite as advanced as Edelhoff, who holds the chair of Dental Prosthetics at the University of Munich, would like it to be. Is there a time advantage? "It was already clear in 2019 that dental technology would benefit the most from digitalisation and digital intra-oral imaging!" Today, digital images of the

dynamic system, i.e., the movements of the mandible offer further advantages, without mechanical limitations—the basis for virtual articulators. For the first time, he said, it is possible to synchronise occlusal examinations thanks to instrumental functional analyses (Kodroß et al., 2020). In Edelhoff's view, with a little routine, this functional examination could be completed within half an hour. From digital support for bite elevation to 3D printing of crowns (lithium disilicate ceramics), the printing of dentin core crowns as an interesting option for the future, printing the enamel in one piece: monolithic-bichromatic—"You won't be able to achieve this with analogue technology now or in the future!" Finally, Edelhoff presented a restorative case he had published (*Dental Dialogue*): Digital one-piece complete



maxillary denture (monolithic polymer) meets multi-layer zirconia with gradient technology.

## What does good dentistry look like in 2024?

**Prof. Dr Florian Beuer**

For Prof. Beuer, the landscape in dentistry is changing completely, "and we don't even realise it, and we're not well prepared!" He backed up this provocative statement in his presentation, which focused on good dentistry in the year 2024. In his view, these changes are: digitalisation and demographics: "When the last baby boomers leave their practices in 15 to 20 years, the current concepts will no longer work."

He sees future prosthodontics, for example, increasingly facing challenges such as dementia and occlusion, as well as sleep apnoea, which will call for a holistic approach. Beuer made it clear that he was concerned with the biological "value" of the patient. Referring a case at the Charité from last year in which he had treated a patient to the patient's full satisfaction, he criticised the fact that he had dramati-

cally reduced the biological value of the 42-year-old periodontal patient by performing an invasive procedure. Beuer believes that microinvasive or minimally invasive dentistry is what the next generation of dentists needs to be taught. He cited a 20-year-old paper on microinvasive dentistry in periodontal surgery by Burkhardt, Lang et al. which showed that "we get significantly better recession coverage and healing when we work with the microscope!" He said there was relatively little data on such restorative procedures—except in endodontics. He advocated the use of magnifying aids: "If magnifying glasses opened up a new world for us, the microscope opens up a new galaxy."

And another concern: dental hard tissue is sacred! He spoke of the "death spiral" of the tooth during full-crown preparation, a view he backed up with a number



of research papers. For Beuer, the goal must be additive dentistry using new technology and without reducing tooth hard tissue.



## Digital implant surgery, part 1: What does the robot do? Dr Markus Tröltzsch

What are the advantages of digital technology in implant surgery? Dr Tröltzsch asked ChatGPT about this and got unsurprising answers: better precision, better planning, better communication and better documentation. “I don’t think digital technology will replace everything analogue, but rather complement it,” he said. Until now, digital implantology has been defined as fully guided, template-based implantology. In science, the fully guided approach, i.e. the template system, is the most precise system compared to the pilot-guided system, where only one drill is guided. He believes that anyone who does freehand drilling—even the most experienced practitioners—will be under pressure to justify it in the event of failure. The next step is dynamic navigation.

The literature shows that dynamic navigation, supported by lenses and cameras, can achieve a high level of precision (Wei et al., 2021). So which is better? An examination of available systematic reviews shows that the deviations are comparable. But actually, other metrics are much more interesting.

Tröltzsch showed the differences between dynamic and fully guided (static) navigation with complementary results using a comparison table from different studies. In his practice, he tries to combine the advantages of both systems with his own “home-made” system. He concluded that digitalisation and navigation technologies could simplify procedures, making them safer and saving manpower.





## Digital implant surgery, part 2: What does the robot do? Dr Detlef Hildebrand

Digital implant surgery was also the topic of Dr Hildebrand, who demonstrated digital implant surgery in his Berlin practice. For him, who has been working with

digital systems for over 20 years, navigation aids are essential. Where are we headed? Planning, he said, is the central aspect of our work. It is important that

the systems are predictable and can be implemented without a time-consuming learning process: "A technology that turns complex challenges into simple ones."



The heart of the navigation devices, said Hildebrand, is the planning software that is implemented—the heart of any navigation and template technology. For him, a possible future step is an anatomical implant that, generated three-dimensionally based on 3D imaging, is tapped into the socket with minimal trauma. He now has 50 cases in his practice that have been treated using this method.

## Digital planning and execution of implant surgery Prof. Dr Hans-Joachim Nickenig, M.Sc.

Prof. Nickenig has been using surgical guides in navigated implantology for 25 years. Nevertheless, freehand implantation is still widespread, accounting for about 90 per cent of cases, he reported. In 931 of his own cases, the follow-up showed the following result: "The deeper the position of the mandibular canal in the posterior region, the more pronounced the lingual undercut. If we find a deep nerve region in the mandibular canal in only two dimensions, we must expect an undercut jaw in 90 per cent of cases." This area in the floor of the mouth cannot be palpated clinically.—The clinical relevance of this finding is obvious. "You can't place a nice long implant with just a panoramic radiograph." Under clinical conditions, guided implants have been

shown to have a positional deviation of 1 mm and an angular deviation of 5 degrees, compared to freehand implant placement with a positional deviation of 3–4 mm and an angular deviation of 15 degrees. What does the clinical evidence say about 3D-based digital procedures and perspectives according to the literature: there is no difference between dynamic and static navigation (Struwe et al., 2023); the accuracy of augmented-reality procedures is almost as good as static navigation (Mai et al., 2023); there is little difference between fully guided and navigated pilot drilling (Schulz et al., 2023); and digital planning with low-dose CBCT has shown promising results (Unger et al., 2023).



AWU



**BDIZ EDI celebrates 20 years of Expert Symposium**

# Complications in implantology— why did it happen?

The expert symposium is being held in Cologne for the 20<sup>th</sup> time. For this anniversary symposium on Sunday, 2 March 2025, the BDIZ EDI is offering a modified concept that is aimed in particular at the next generation of implantologists.

In addition to the experts, the speakers' assistants will present cases and discuss them with the main speakers and the participants. The topic of complications in implantology will therefore be back on the agenda after 2019.

In 2025, the European Consensus Conference (EuCC) under the auspices of the BDIZ EDI will again discuss complications in implantology in the run-up to the 20<sup>th</sup> Expert Symposium. The then 14<sup>th</sup> guideline, the EuCC consensus paper, summarised the 2024 results as follows:

"Dental implants are reliable treatment options for restoring patient function and aesthetics. Careful case selection is necessary by considering not only the oral findings alone. Due to the great variation of implant designs and surgical and prosthetic procedures proposed, the individual suggested parameter should be followed to avoid complications. All procedures should be performed by treatment providers with the requisite up-to-date expertise and training."

The day before, on Saturday, 1 March 2025, new technological and scientifically proven findings await participants in four workshops held by industry partners. New to the programme is a presentation award, which will be presented at the end of the one-day symposium.

The 20<sup>th</sup> Expert Symposium is under the proven scientific direction of Prof. Joachim E. Zöller. Zöller, Vice President of the BDIZ EDI, has also been the President of "Grosse von 1823", Cologne's oldest Carnival Society, for many years. Participants of the 20<sup>th</sup> anniversary symposium will again be invited to the Sunday night Great Carnival Session in Gürzenich Hall.

For the second time, the symposium will take place at the Pullman Hotel in Cologne, on Helenenstraße, this year.

## Save the Date!

**20<sup>th</sup> BDIZ EDI  
Expert Symposium**  
Pullman Hotel, Cologne

1 March 2025: Industry workshops  
2 March 2025: Symposium

More Information  
and registration:





### Sunday programme

09:00 – 09:15	Welcome 20 <sup>th</sup> Expert Symposium <b>Christian Berger and Prof. Joachim E. Zöller</b>
9:00 – 9:45	Major presentation Complications from a legal perspective <b>Prof. Thomas Ratajczak (Sindelfingen)</b>
10:00 – 10:45	Major presentation Deviations from 3D planning: always a complication? <b>Prof. Jörg Neugebauer (Landsberg am Lech)</b>
10:45 – 11:15	Coffee break Dental exhibition visit
11:15 – 11:30	Short presentation The learning curve in 3D-based implantology: Is everything really made easier? <b>Dr Paul Henn (Ölbrunn-Dörn), PhD student with Prof. Neugebauer</b>
11:30 – 11:45	Short presentation Complications in fully guided oral implantology <b>Nikolaus Ernst, assistant of Prof. Schlegel</b>
11:45 – 12:30	Major presentation Demographics—what is happening? <b>Dr Markus Tröltzsch (Ansbach)</b>
12:30 – 13:30	Lunch break Dental exhibition visit
13:30 – 13:45	Short presentation All-ceramics on implants—is stronger always better? <b>Dr Tobias Graf, assistant of Prof. Güth</b>
13:45 – 14:00	Short presentation Damage related to local anaesthesia <b>Zina Younan, assistant of Dr. Hartmann</b>
14:00 – 14:45	Major presentation Avoiding complications in implant prosthetics <b>Prof. Jan Güth (Frankfurt am Main)</b>
14:45 – 15:15	Coffee break Dental exhibition visit
15:15 – 16:00	Major presentation Why neurophysiological changes get on your nerves <b>Dr Amely Hartmann (Filderstadt)</b>
16:00 – 16:15	Short presentation TBA <b>VFwZ award winner</b>
16:15 – 17:00	Major presentation Complications in augmentative implantology <b>Prof. Andreas Schlegel (Munich)</b>
17:00 – 17:30	Discussion, award ceremony <b>Christian Berger and Prof. Joachim E. Zöller</b>

## BDIZ EDI Board members on the association's 35<sup>th</sup> anniversary

# Implantology and beyond

On the occasion of the 35<sup>th</sup> anniversary of BDIZ EDI, the editors of the *EDI Journal* asked members of the Board: how would you rate the association's achievements?

### Dr Renate Tischer (Bad Salzungen)

Board member since 2001

BDIZ EDI will be celebrating its 35<sup>th</sup> anniversary the same year I will be celebrating my 50<sup>th</sup> anniversary as a dentist. I am proud to know many of the founding members personally. They helped me to successfully integrate oral implantology into my practice in the early 1990s. Then as now, the BDIZ EDI is the point of contact for all dentists working in implantology. As a member of the extended Board myself since 2001, I am always available to answer any questions, problems and concerns my colleagues may have.



### Christian Berger (Kempten)

President since 2005; Vice President from 2001 to 2005

I have been involved from the very beginning—and I was around when oral implantology was just gaining scientific recognition in 1988. Today, our curricula enable every dentist to work independently in implantology, in their own practice.

The monetary value of each fee point in the German Standard Schedule of Fees for Dentists (GOZ) has not been increased for 40 years. BDIZ EDI is now focusing on the remuneration of implantology services—not least in comparison with international developments. Our tables show the way—far beyond oral implantology in the narrower sense. I know of no other dental organisation that is more innovative and more progressive.

### Prof. Joachim E. Zöller (Cologne)

Vice President since 2005

I appreciate the work of the BDIZ EDI for us dentists because it is one of the few associations to formulate scientific statements. Since 2006, the European Consensus Conference (EuCC), under the auspices of the BDIZ EDI, has annually issued guidelines that have the status of a recommendation to provide practitioners with support on current issues relating to implant therapy. At times, these guidelines far transcend implant surgery and implant prosthodontics and cross the line into the legal realm. The association has also been very successful in the field of dental implantology training for many years. With the 25<sup>th</sup> curriculum already held in Cologne, a curriculum will soon be established in Munich.



### Dr Nathalie Khasin (Berlin)

Board member since 2017

Exchanging ideas with European colleagues is not only exciting in itself, it also produces results. We offer young dentists in Germany and Europe the opportunity to study the BDIZ EDI curriculum and learn the basics of oral implantology at low cost and with passionate teachers—just think of our cooperation partners at the University of Cologne!



### Anita Wuttke (Munich)

Press Officer since 2007; Editor-in-Chief of *konkret* and *EDI Journal* since 2013

No other dental association in Germany—or in Europe for that matter—is involved in such a broad range of activities. Working for the association—a task that goes far beyond science, practice, accounting and law takes us to Berlin, Brussels and Strasbourg—gives us a wealth of opportunities to cultivate the public relations work that still needs to be done!

**Dr Jörg Neugebauer (Landsberg am Lech)**

Secretary General since 2021; Chair of the Quality and Registration Committee since 2004

For 35 years now, the association has performed an incredible balancing act. The successful practice of oral implantology requires more than optimal treatment efforts. Questions of health politics, insurance law and the legal environment also play an important role, and here especially the cooperation with the manufacturers of medical devices.

**Prof. Thomas Ratajczak (Sindelfingen)**

Legal Counsel since 1992

35 years of BDIZ EDI: there is no other association that has achieved so much for the dental profession, in such a short time and with such commitment!

**Dr Stefan Liepe (Hannover)**

Managing Director since 2007; Secretary since 2009

For me, 35 years of BDIZ EDI means 35 years of active representation of the interests of dentists, of high-quality, advanced, scientifically validated training, but also of support in legal issues or challenges in practice management. And for me personally,

it marks 35 years of continuous work for dentists working in implantology.

**Dr Markus Tröltzsch (Ansbach)**

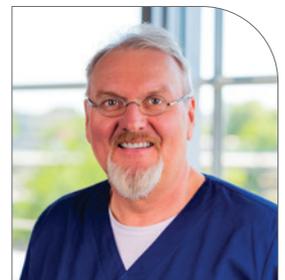
Board member since 2021

For me, the special thing about the association is that it looks beyond German national laws and regulations. Many EU regulations now affect German dental practices. A current example is the lawsuit filed by six dentists against the Federal Ministry of Health before the Administrative Court of Berlin for equal treatment in fee regulations—and the long-awaited increase in the GOZ point value.

**Dr Detlef Hildebrand (Berlin)**

Secretary from 2006 to 2009; Secretary General from 2009 to 2021; member of the Board since 2021

BDIZ EDI stands like a rock in the surf for dentists working in implantology. BDIZ EDI represents the interests of German and European dentists far beyond oral implantology. In the age of digital dentistry/implantology and the increasing use of artificial intelligence, it is good for us dentists to have the BDIZ EDI at our side as a professional association. Here's to the next 35 years in the service of implantology...

**Dr Wolfgang Neumann (Philippsthal)**

Treasurer since 2016; Board member since 2013

The BDIZ EDI contributes to the goal of legal certainty in many areas by providing legal support—from private dental billing issues to dental documentation, to name just a few examples. The association provides practical support for all dental practices in the areas of billing and continuing education, and here I would like to mention the new educational opportunities such as our new Curriculum Implantology in the south, the Billing Congress and the Expert Curriculum. In addition, there is the new BDIZ EDI table, which compares the GOZ fee schedule (private patients) with the BEMA fee schedule (statutory health insurance patients). This will be supplemented this year by a table with analogous fee positions. This activity of the association does only help implantology practices. BDIZ EDI members are always "up to date".

**Dr Freimut Vizethum (Rauenberg)**

Board member from 2006 to 2013 and since 2016; Chief Strategist since 2015

We are living at a time of fragile stability and social and health policy upheaval. Unpredictability, risks and increasing liability are directly or indirectly affecting the professional environment of implant and prosthetic dentists. In times like these we need an efficient and effective professional organisation that is committed to the interests of its members and contributes to the ongoing discussions in order to create improved and stable framework conditions in an increasingly bureaucratic environment through participation in political decisions. The Board is united and ambitious in its commitment to the association's members and will continue to be so in the future!





## European Commission President Ursula von der Leyen reelected

# A successful embrace

The European Parliament has reelected Ursula von der Leyen as President of the European Commission. In terms of political substance, the German centre-right politician had ventured far beyond her own “tribe” and tried to include all parties—from the far left to the far right.

Ursula von der Leyen’s reelection had required many compromises. Her election was not straightforward, especially as the European Union with its 27 member states has a parliament in which 200 national parties are represented. The big embrace has paid off. When she presented her programme, she was able to convince a majority of MEPs to reelect her. 401 MEPs voted for her, 284 against, with 15 abstentions and 7 invalid votes. This gave von der Leyen the required majority of 360 votes.

In the debate before the vote, however, von der Leyen faced strong opposition from all corners of the parliamentary spectrum. While the French liberals reacted positively to her speech, the Ger-

man liberals announced before the election that it would withhold its vote from von der Leyen. The promises made by von der Leyen in her guidelines for the next five years were not enough, said Marie-Agnes Strack-Zimmermann, leader of the five German liberal MEPs, through her spokesperson. Von der Leyen had not clearly rejected common European debt.

The Greens were also frustrated. “If you ask me: Is Ursula von der Leyen a green commission candidate, has she given us the necessary political green guidelines? Then I can tell you: no”, said Terry Reintke, co-chair of the Greens in the European Parliament. Von der Leyen had also held intensive negotiations with the Greens in

the previous weeks. The result was disappointing for Reintke, who said her group had made “many compromises”. She hinted that her group would vote for von der Leyen—but rather out of a sense of duty: “What is crucial for me is that there must be a majority of prodemocratic groups in this house. We must prevent the far right from gaining power.”

Reintke put her finger in the wound: in order to stay in office, von der Leyen had sought the approval of both the far-right Fratelli d’Italia (of Italy’s Prime Minister Georgia Meloni) and the Greens. As there is no whip or party discipline in the European Parliament, von der Leyen had to expect many dissenters in her informal

coalition of Conservatives, Liberals and Social Democrats—as well as persuading some members of other parties.

One member of Meloni's Fratelli party is Nicola Procaccini, co-leader of the right-wing European Conservatives and Reformists (ECR) group. During the debate, Procaccini warned von der Leyen against relying on the “losers”—the Greens, Liberals and Social Democrats. He deliberately withheld any endorsement and any recommendation for the parties in his group. This sounded relatively conciliatory—after all, he did not rule out supporting von der Leyen for a second term. As the vote was secret, in the end no one could check whether the Greens or the Fratelli—or some of them—had voted for von der Leyen. In fact, both were possible, despite warnings from both sides.

Indeed, von der Leyen attempted to win over all parties with her programme. Her offer to Meloni's party: greater commitment to tackling migration into the EU. She promised to triple the staff of the EU's border and coast guard agency, Frontex, from 10,000 to 30,000 employees. She also set her sights on concluding more migration agreements for efficient returns—a key demand by Meloni's. Von der Leyen also proposed a special commissioner post for cooperation in the Mediterranean—a special concession to the Fratelli, who could possibly fill this portfolio. In recent weeks, Meloni had repeatedly demanded a Commission portfolio for one of her party friends.

Von der Leyen also praised the migration pact adopted this spring as a “big step forward”. The Greens had opposed the pact, on mainly humanitarian grounds. They reject Meloni's strict asylum policy.

### **Climate protection in a business-friendly way**

For the Greens, von der Leyen had something else: the “Clean Industrial Deal”, which she intends to present within the first 100 days of her second term in office. It will ensure a business-friendly implementation of the ambitious EU “Green Deal” climate agenda. “This will help cre-

ate lead markets in everything from clean steel to clean technology and it will speed up planning, tendering, and approvals”, said von der Leyen. At the same time, she sent reassuring signals to her conservative European People's Party (EVP), which has accused her of making too many concessions to the Greens in her policies. Von der Leyen stressed that the “Clean Industrial Deal” was about reconciling climate protection and a thriving economy.

The Social Democrats also got some sweeteners, including a new Commissioner for housing. And there was a gift for all the groups in the political centre: For the first time, von der Leyen used one of her speeches to attack Hungary's prime minister, Viktor Orbán. Orbán had infuriated his European partners by paying an unscheduled surprise visit to Russian President Vladimir Putin right at the start of his EU Council presidency without prior consultation.

Orbán ostensibly advocated “peace”, but what he really meant was Putin's peace diktat, which would amount to the capitulation of Ukraine. “Two weeks ago, an EU prime minister went to Moscow. This so-called peace mission was nothing but an appeasement mission”, said von der Leyen. In recent years, Liberals, Greens, Social Democrats and even members of her own EVP had urged von der Leyen to exert more pressure on the Russia-friendly Orbán. Now, members of the ultra-right and other Russia supporters were explicitly excluded from von der Leyen's broad embrace.

### **Promises and suggestions**

Ursula von der Leyen made a number of promises in line with the demands of the main political groups in the EU Parliament. She spoke at length about boosting competitiveness, cutting red tape, investing in defence and protecting farmers to satisfy her Conservative “political family”. She promised to tackle the housing crisis and mentioned collective bargaining and women's rights to satisfy the Social Democrats. She reiterated the need to respect fundamental rights in return for receiving EU funding—a must for the

Liberals. And she promised to stick to the goals of the European Green Deal, which the Greens are committed to upholding.

“The last five years have shown what we can do together. Let us do it again. Let us make the choice of strength. Let us make the choice of leadership”, she said.

The speech combined initiatives from her first term, such as the signing of multi-billion dollar deals with neighbouring countries to curb irregular immigration, with others hinted at in public speeches, such as a “European Shield for Democracy” to prevent manipulation and interference by foreign powers.

But the incumbent also presented brand new proposals to dispel any suspicion that she would lack ambition in her second term of office. Her “guidelines”, a manifesto published ahead of her speech, announced a “Clean Industrial Deal” to mobilise investment in net-zero technologies, a Commissioner for the Mediterranean, an EU-wide inquiry into the impact of social media on the well-being of young people, and a radical overhaul of the EU's common budget with a stronger focus on reform.

According to von der Leyen, these ideas are a response to a world of “fear and insecurity”, in which families are being crushed by the cost-of-living crisis, polarisation is dividing societies and climate change is wreaking havoc and depleting natural resources.

“Europe cannot control dictators and demagogues around the world, but it can choose to protect its own democracy. Europe cannot decide elections around the world, but it can choose to invest in the security and defence of its own continent,” she said.

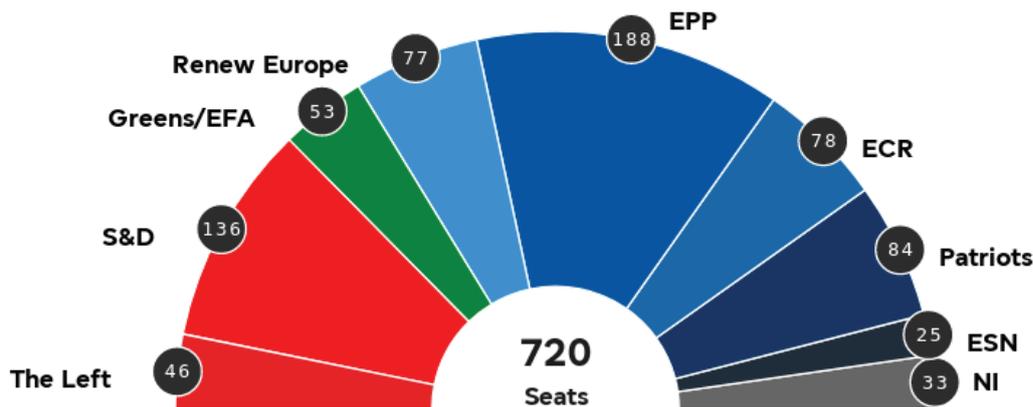
“Europe cannot stop change, but it can choose to embrace it by investing in a new age of prosperity and improving our quality of life.”

### **Ukraine and Gaza**

The EU Commission President promised to “give Ukraine everything it needs to resist and prevail” and to “unwaveringly” support Kyiv's ambitions to join the European Union.

## European Parliament 2024 - 2029

Constitutive session



Source: Provided by Verian for the European Parliament



Von der Leyen also mentioned the war between Israel and Hamas, whose leadership she had criticised. In her speech, she sought to rebut accusations of pro-Israeli bias, saying her executive would present a “much larger multi-year package to support an effective Palestinian Authority”.

“I want to be clear: the bloodshed in Gaza must stop now. Too many children, women and civilians have lost their lives as a result of Israel’s response to Hamas’ brutal terror. The people of Gaza cannot bear any more” she said to applause from the audience. “We need an immediate and enduring ceasefire. We need the release of the Israeli hostages. And we need to prepare for the day after.”

Von der Leyen’s speech lasted almost an hour and touched on a wide range of policy issues, giving a strong indication of what her second mandate, if approved by the European Parliament, could entail in the coming years.

### Overview of the main initiatives

- A European Shield for Democracy to prevent foreign interference and manipulation
- A European Housing Plan to examine “all the causes” of the housing crisis and a Commissioner with “direct responsibility” for housing
- An overhaul of the EU budget to make it more responsive to the needs of the individual member states
- A Vice President to coordinate work on competitiveness and SMEs
- A “Clean Industrial Deal” to mobilise investment and help energy-intensive industries become carbon-neutral
- A European Savings and Investment Union to unlock capital for local start-ups
- A European Defence Fund for investment in high-quality defence capabilities, a European air defence

shield and a new Commissioner for Defence

- A tripling of Frontex, the EU’s border guard, to 30,000 members
- A Commissioner for the Mediterranean and a new agenda to develop “comprehensive partnerships” with neighbouring countries
- An EU-wide study on the impact of social media on the well-being of young people
- A roadmap on women’s rights

Sources: Euronews, ntv

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In memoriam Dr Philippe D. Ledermann

# A pioneer in oral implantology

It is with deep sorrow that BDIZ EDI announces the death of Dr Philippe Daniel Ledermann from Bern, Switzerland. He passed away on 17 March 2024 in Bern. He was awarded the BDIZ EDI Medal of Honour in 2009 for his outstanding work in the field of oral implantology.

Ledermann was a pioneer in oral implantology, significantly shaping the discipline through his dedication and innovative developments. His studies and innovations led to the creation of the Ledermann screw, named after him. Together with Andre Schroeder, he was involved in the development of the ITI systems.

His particular interest was in the osseointegration and mucosal integration of endosseous implants. His pioneering activities led to the development of the HaTi implant concept and improvements to the Ledermann screw. As a practitioner, he dedicated himself to superstructures, providing essential impulses for prosthetic designs. Through numerous publications, seminars, courses, lectures, and a monograph, Ledermann not only set scientific milestones but also significantly contributed to the practical training in dental implantology.

His meritorious work earned him numerous national and international honours. During the 20<sup>th</sup> anniversary celebration of BDIZ EDI in 2009, Ledermann received the BDIZ EDI Honorary Medal for his decades-long exceptional work in oral implantology and thus for his life's work. Ledermann, inventor of the eponymous screw, had been the first to prove that immediate loading in the anterior mandible results in approximately the same success rates as classic conventional loading.

A multitasking person, he was musically gifted, studied law alongside his work as an implant dentist and his activities as an inventor, and he published several works of fiction and non-fiction after closing his dental practice in 2006. He died in Bern at the age of 79 years. Our thoughts are with his wife Marina and his family. We will cherish Dr Ledermann's memory with affection and respect.

**Christian Berger**  
on behalf of the BDIZ EDI Board





European Association of Dental Implantologists

Bundesverband der implantologisch  
tätigen Zahnärzte in Europa e.V.

20<sup>th</sup> EXPERT SYMPOSIUM OF BDIZ EDI

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Sunday

**MARCH 02<sup>nd</sup>, 2025**

IN COLOGNE

**BDIZ EDI launches a new in-depth basic course in oral implantology**

# Curriculum Implantology—now also offered in southern Germany

The BDIZ EDI Curriculum Implantology is a must for beginners—but not only for them. BDIZ EDI has been offering the successful Curriculum Implantology in cooperation with the University of Cologne for 25 years. The 26<sup>th</sup> iteration starts on 18 October 2024. And for the first time, a second curriculum will be held in southern Germany—starting on 27 and 28 September 2024 in Ansbach, one hour west of Nürnberg.



## Register now

Places are still available for the Curriculum Cologne. Registration is now open for the Curriculum South. Check the BDIZ EDI website for the latest information:

Curriculum Cologne:  
<https://bdizedi.org/26-curriculum-implantologie/>



Curriculum South:  
<https://bdizedi.org/curriculum-sued>





The in-depth basic course in oral implantology is characterised by its high proportion of practical exercises. A special feature is that training modules completed elsewhere can be integrated into the BDIZ EDI Curriculum Implantology if their scientific character is recognised. Benefits include:

- Knowledge transfer in a mix of topics
- Ideal learning experience through highly qualified instructors
- Large proportion of practical exercises in the workshops
- Unbeatable price

Instruction takes place once a month in blocks of two (week-end) days. Curriculum Cologne starts on 18 October 2024; Curriculum South starts on 27 September, in Ansbach.

The new Curriculum South will be led by Prof. Jörg Neugebauer, Dr Markus Tröltzsch and Prof. Joachim E. Zöller. It consists of five on-site modules and three online/on-demand modules. This concept allows participants to decide for themselves when they want to view and study with the online modules. While the Curriculum Cologne will continue to be held at the University of Cologne, under the proven leadership of Prof. Zöller and Prof. Hans-Joachim Nickenig, the Curriculum South will take alternate between Munich, Landsberg am Lech and Ansbach. Both start with Module 1, which introduces the basics of oral implantology, and both terminate with a final examination after completion of eight modules. Successful graduates receive a certificate, which forms the basis for a formal Focus of Professional Activities: Oral Implantology ("Tätigkeitsschwerpunkt").

If you are already a member of BDIZ EDI or decide to join when you register for the Curriculum Implantology, you will benefit from a significantly reduced registration fee—so if you are not yet a member, joining now will pay off!

In memoriam Prof. Peter Tetsch

# A passionate scientist and teacher

Prof. Peter Tetsch died on 4 April 2024. BDIZ EDI remembers his pioneering spirit in implantology with great affection. He was a visionary and active participant in oral implantology, inspiring and motivating dentists with his dedication and commitment.

In 1984, Prof. Tetsch assumed the role of chair of the Working Group on Implantology within the German Association of Dental, Oral, and Craniomandibular Sciences (DGZMK). During his tenure, the group expanded to become a highly regarded specialist circle.

Tetsch's dedication to scientific inquiry and passion for teaching led him to integrate implantology into the curriculum well before it became a common practice. He was a mentor and inspiration to many students and residents and was a sought-after lecturer at more than 1,000 continuing education courses. His ability to impart knowledge and inspire others with his ideas and concepts was extraordinary.

With substantial financial support from the German Research Foundation (DFG), Tetsch initiated a groundbreaking study on "Progress Monitoring and Further Development of Dental Implants". This study, conducted in collaboration with five universities, established the scientific foundation for the recognition of implantology in Germany and beyond.

Prof. Tetsch was a leading figure in his field. His spirit lives on in the individuals he taught, inspired and influenced. BDIZ EDI was privileged to collaborate with him on numerous joint projects over the years. We will miss him.

**Prof. Dr Dr. Joachim E. Zöller**  
on behalf of the BDIZ EDI Board



### 3<sup>rd</sup> Congress for Oral Surgery and Implantology in Skopje

# The profession first

Modern aspects in oral/implant surgery and facial aesthetics will be the topic of the 3<sup>rd</sup> Congress for Oral Surgery and Implantology with international participation to be held from 3 to 5 October 2024 in Skopje, North Macedonia.

The congress is organised by the Association of Specialists in Oral Surgery, the Albanian Implantology Associations AIAM and the EDI of Macedonia with the working title “Modern aspects in oral/implant surgery and facial aesthetics” and the motto: the profession first.

Eminent professors from the country and abroad, professional and scientific experts from the field of oral implantology and aesthetic dentistry have been invited to the congress with international participation.

The congress is expected to be attended by more than 400 participants, specialists in oral surgery, implantologists, dentists from other dental specialties as well as other general dentists.

BDIZ EDI is associated partner of the EDI of Macedonia. Host will be Dr Fisnik Kasapi, President of AIAM and EDI of Macedonia (BDIZ EDI) and Dr Daniela Veleska-Stevkovska, President of the Association of Specialists in Oral Surgery.



Registration and payment instructions for foreign national participants:





Speakers and organising team: BDIZ EDI President Christian Berger (left), USSI EDI Vice President Dr Zoran Marjanović (centre), Dr Vikas Gowd (4<sup>th</sup> from right).

## 12<sup>th</sup> International Congress of Dentists of Vojvodina

# USSI EDI at its best

The 12<sup>th</sup> International Congress of Dentists of Vojvodina traditionally was held in the centre of oil company NIS, on 1 and 2 March 2024. The event was organised by USSI EDI, the associated partner of BDIZ EDI.

The congress has been accredited by the Health Council with a maximum number of 10 points. Accreditation was valid for: dentists, dental assistants, dental technicians and physicians. The congress has been patronaged by the Provincial Secretariat for Trade and Tourism and supported by the BDIZ EDI and in particular by President Christian Berger.

The scientific programme, with speakers from Germany, India, Turkey, Hungary, Russia, Belarus, Croatia, Montenegro, Bosnia and the Republic of Serbia and North Macedonia focussed on dental implantology and included all fields of modern general dentistry.

Every year the USSI EDI is carefully selecting lecturers and topics in order to satisfy the wishes and needs of the Serbian colleagues, and thus raise the level of treatment success.

Along with the congress programme, USSI EDI organised three hands-on workshops in the fields of basic implantology, 3D diagnostics and planning, endo treatments as well.

The Friday programme was moderated by Prof. Dr Vojislav Letić and Dr Emilija Josić-Rankov. Dr Zoran Marjanović, Vice President of USSI EDI, addressed a warm welcome to participants and speakers as well as the Secretary of the Provincial Sec-

retariat for Trade and Tourism, Dr Nenad Ivanišević.

First speaker Prof. Dr Esad Kučević, University of Podgorica (Montenegro) focussed on artificial intelligence and robots in dentistry.

Immediate implants in the molar region was the title of Dr Vikas Gowd's lecture. He runs a private practice in Banjara Hills, Hyderabad (India). Dr Onur Sorkun, Istanbul (Turkey) was speaking about implants surgery and complications management. Christian Berger, President of BDIZ EDI (Germany) gave some insights of the digital workflow in implantology following prosthetic concepts.

Prof. Dr Ksenija Bošković, President DLV-SLD, University of Novi Sad (Serbia) introduced the application of collagen in the therapy of degenerative rheumatic diseases.

The following lectures included: Prosthetic care of edentulousness by Prof. Dr Rade Živković, University of Belgrade (Serbia); Modern approach in patients with prosthetic stomatitis by Doc. Dr Mirjana

Perić, University of Belgrade (Serbia); Cover prosthesis on implants by Prof. Dr Asja Čelebić, University of Zagreb (Croatia); What do we really know about metal-free ceramics by Prof. Dr Ana Jevremović, University of Novi Sad, Dental Faculty in Pančevo (Serbia); Solving prosthetic cases by biological terminal implantations by Prim. Dr Zoran Milankov, Novi Sad; Dental tourism and marketing by Prof. Damjanka Đurić, Director of MIKODENTAL DENTAL DEPOT, Belgrade.

### Main programme on Saturday

The second day has been moderated by Prim. Dr Marinel Subu and Prof. Dr Esad Kučević. The lectures: Prof. Dr Oxana Shuliatnikova, University of Moscow (Russia): Treatment of patients with injuries, inflammatory and oncological diseases of organs and tissues of the maxillofacial region; Prof. Dr Sanja Panchevska, University of Skopje (North Macedonia): Conventional complete dentures; Prof. Dr Sanja Peršić Kiršić, University of Zagreb:

Challenges in dental prosthetics—when to agree to compromises? Prof. Dr Nikola Stojanović, University of East Sarajevo, Foča, Republika Srpska (Bosnia): Where are the boundaries in endodontic therapy. Dr Noémi Kovács, University of Budapest (Hungary): Complex treatment of maxillary and mandibular cysts; Dr Jelena Njegomir, Sombor (Serbia): Digital technology in orthodontics; Prof. Dr Sonja Apostolska, University of Skopje: Complications and errors during endodontic treatment; Prof. Dr Dragan Ivanović, University of East Sarajevo: Prevention of tooth erosion; Prof. Dr Tamara Terehova, University of Minsk (Belarus): Different duration of etching with orthophosphoric acid; Prof. Dr Irina Pohodenko-Chudakova, University of Minsk: Infectious and inflammatory processes of the maxillofacial region.

**Dr Zoran Marjanović**  
Vice President USSI EDI

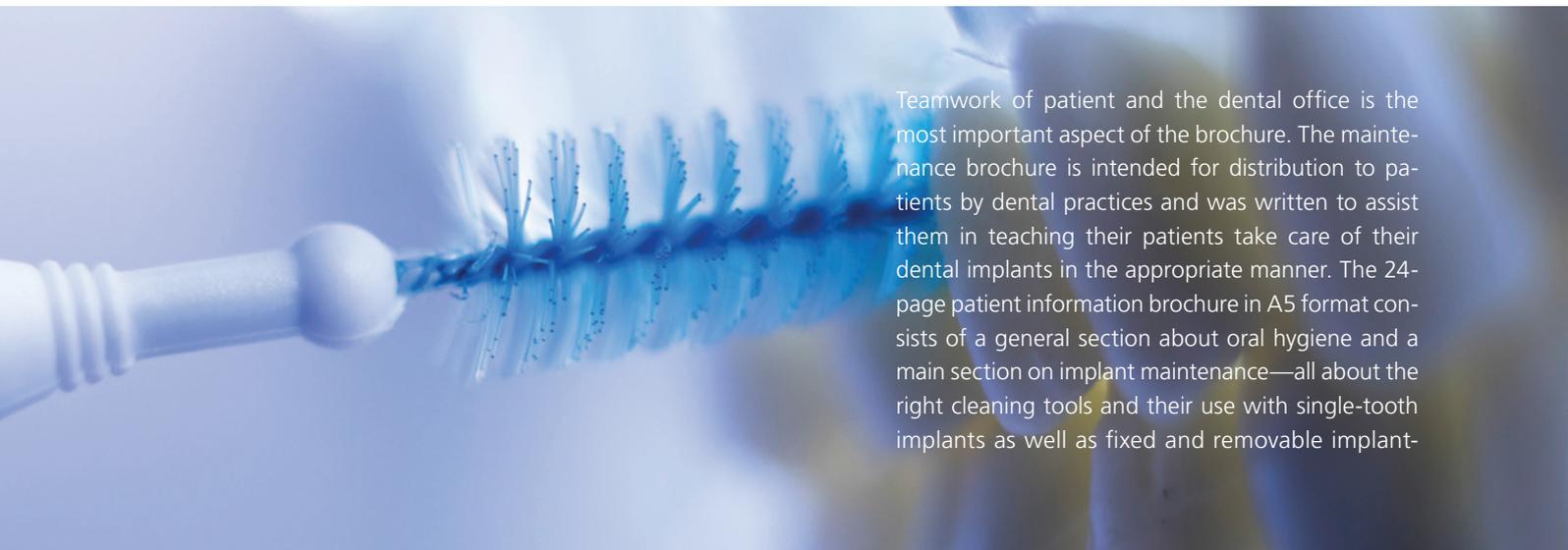


Interview with Christian Berger at the congress in Novi Sad.

Implant care instructions brochure for patients

# Implant maintenance is a team effort

The European Association of Dental Implantologists (BDIZ EDI) has published an English edition of its implant maintenance brochure. In easy-to-understand language, the brochure entitled “Implants—longer-lasting and longer beautiful” offers well-illustrated instructions and general information about oral health.



Teamwork of patient and the dental office is the most important aspect of the brochure. The maintenance brochure is intended for distribution to patients by dental practices and was written to assist them in teaching their patients take care of their dental implants in the appropriate manner. The 24-page patient information brochure in A5 format consists of a general section about oral hygiene and a main section on implant maintenance—all about the right cleaning tools and their use with single-tooth implants as well as fixed and removable implant-



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supported restorations. "Good to know" provides background information on choosing the right toothbrush and using the proper brushing technique, describes the process of professional tooth cleaning and educates readers about risk factors. A checklist intends to alert implant patients to possible changes in the mouth and around the implant. This is the first English edition of the brochure, which has been completely redesigned with large images and short texts in easy language that patients can understand. The preface states: "It is up to you to ensure careful oral hygiene, and this is a prerequisite for a long implant life. Teamwork is of the essence!"

AWU

## Bibliography

Implant care brochure of BDIZ EDI for patients  
*Long-lasting implants for long-lasting beauty*

A5 format, 24 pages, 32 images  
Prize: €1.50 + VAT + shipping (minimum order: 10)

Contact BDIZ EDI in Munich/Germany  
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Via Phone: +49 89 72069-888  
Fax: +49 89 72069-889



**INTRODUCTION**

### Why is normal oral hygiene not good enough?

**The threat of bone loss**

Dental plaque is home to numerous bacteria. As long as the plaque deposits are removed at regular intervals before they cause damage to the teeth or gums, the biological balance in the oral cavity will be maintained. But as soon as the plaque bacteria multiply, there will be an increasing risk of tooth decay and periodontal disease. Severe inflammatory conditions such as periodontitis (inflammation of the gums around a tooth) or peri-implantitis (inflammation of the gums around an implant) pose a significant risk for bone loss and may cause the loss of the tooth or implant.

**What tools can and cannot do**

- ▶ Toothbrushes (even the most futuristic electric ones) cannot clean the teeth everywhere because they do not get into the interdental spaces.
- ▶ Dental floss, interdental brushes or toothpicks are essential (there is even "thick" dental floss especially for use around implants). They are the only way to remove the bacterial plaque between the teeth.
- ▶ Oral irrigators are of limited use around implants and certainly not a substitute for proper tooth cleaning.

6



**INTRODUCTION**

### Why do implants need particularly intensive care?

There is a natural protective barrier between each natural tooth and the surrounding gums. The transition zone between an implant and its surrounding gums can be passed more easily, so the risk is greater that bacteria can penetrate it and cause inflammation of the mucous membrane around the implant (peri-implant mucositis).

gressing, attacking the supporting jawbone and breaking it up or destroying it. The implant may work itself loose or even to fall out.

The many different types of bacteria in the mouth (in the oral cavity) will colonize implant roots in the same way as natural tooth roots.

But if you follow a few simple rules, things will not have to come this far. Proper maintenance is the be-all and end-all of implant care. You should invest a bit more time and effort than with "normal" tooth care. In this guide we show you how to maintain your implants carefully and gently.

Since implant surfaces are usually rough and may be designed in screw form (depending on the system), invading bacteria can settle down easily and will be difficult to remove even by an experienced professional. Unless it can be stopped, the inflammation will keep on pro-

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## Certification as an EDA Expert in Implantology

# Qualification for experienced implantologists

For many years, BDIZ EDI has been catering to experienced and well-versed oral implantologists by offering the certification exam for EDA Expert in Implantology. Jointly with the European Dental Association (EDA), BDIZ EDI regularly invites interested dentists to take the certification exam, which we would like to present in this article.

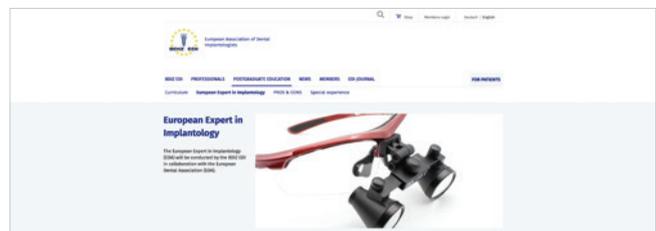
That quality is of paramount importance to BDIZ EDI is no secret. BDIZ EDI has demonstrated this in many different areas—legal and accounting, materials testing, postgraduate education, the annual guidelines of the European Consensus Conference (EuCC) on current implantological issues and finally the qualification of court experts. BDIZ EDI also supports dental education with its Curriculum Implantology that introduces aspiring dentists and young implantologists to this dental specialty in eight well-organised modules.

### Admission requirements for the certification exam

Certification as Expert in Implantology requires very good to excellent skills and knowledge. Candidates must meet the following admission requirements:

- 250 EDA-recognised continuing education/training hours in various sub-disciplines of implantology
- Submission of ten documented, independently performed implantological treatment cases
- At least five years of professional activity, primarily in the field of implantology.

Specific experience and primary activity in the field of implantology must be documented by at least 400 implants inserted and



150 implants restored within the past five years. Candidates who already obtained qualifications in oral implantology (e.g. from other professional societies) may submit the appropriate credentials with their application for certification as EDA Expert in Implantology.

### The exam

Candidates meeting all the requirements will be admitted to the examination. The examination board of BDIZ EDI and EDA consists of recognised specialists. The exam has a theoretical and a practical part, both of which must be completed successfully. The procedure is as follows: the theoretical part of the exam will start with a discussion of the documented cases. In addition, candidates are expected to answer questions related to oral implantology and closely associated fields. The theoretical examination usually takes no longer than 60 minutes; it may be administered to candidates in groups. The practical part of the examination covers one or more recognised, state-of-the-art treatment method or methods and/or treatment plans covering some aspect of oral implantology. Candidates will be informed of the respective topic two weeks before the exam date. Candidates are responsible for providing the required materials and instruments on the day of the exam. The examination as a whole is subject to a fee to cover the cost incurred by the examination board.

New EDA Experts in Implantology are nominated by the president or vice president of the EDA certification committee.

### More information...

To register for the next certification exam, please go to [www.bdizedi.org](http://www.bdizedi.org) and select English > Professionals > Expert or write to the BDIZ EDI office in Cologne at [office@bdizedi.org](mailto:office@bdizedi.org).





Bundesverband der implantologisch  
tätigen Zahnärzte in Europa e.V.  
European Association of Dental Implantologists

**Applicant's address:**

Full name: .....

Full address: .....

.....

.....

E-mail: .....

Date: .....

**Forward by mail or fax to:**

European Association of Dental Implantologists (BDIZ EDI)

Lipowskystr. 12

81373 Munich

Germany

**office@bdizedi.org**

**Fax: +49 89 72069889**

**Certification exam: EDA Expert in Implantology  
Application for accreditation**

I hereby apply for the EDA Expert in Implantology certification exam (EDA = European Dental Association).

I am qualified for this exam as defined below:

Member of BDIZ EDI  yes  no

Member of the following Societies/Associations: .....

I am:  a dental clinician  an oral surgeon  a maxillofacial surgeon

I meet the training requirement of 250 hours of postgraduate education.  yes  no

**Education and experience:**

**Surgery:**

Inserted implants:  less than 400  more than 400

Sinus lift:  yes  no

Close to nerve:  yes  no

Advanced atrophy of the jaw:  yes  no

Soft-tissue augmentation:  yes  no

Bone augmentation:  yes  no

**Prosthodontics:**

Implant-supported restorations:  less than 150  150 or more

During the exam, I will be able to present documentation for 10 treatment cases.  yes  no

I understand that the examination board will review my qualifications and vote to accept or reject my application. Furthermore, I declare that all images I present are my own and that the implants have been inserted and prosthetically restored by me.

.....  
Applicant's signature

.....  
Date

Having successfully passed the exam and paid the requisite fee, I will be certified as EDA Expert in Implantology.

The commercial processing of your personal data on this form is based on the EU General Data Protection Regulation (GDPR – Regulation (EU) 2016/679 of 27 April 2016), Article 6 f GDPR by the European Association of Dental Implantologists (BDIZ EDI), Lipowskystr. 12, D-81373 Munich/Germany. You have the right to obtain information about personal data concerning you (Article 15 of the GDPR). You can also request the correction (rectification) of incorrect data (Article 16 of the GDPR). More information: Privacy Statement on [www.bdizedi.org](http://www.bdizedi.org).



Statement by the Council of European Dentists

# Waste management and sustainability in dentistry

The Council of European Dentists (CED) is committed to raising awareness of sustainability among dental product manufacturers and the profession. This applies in particular to sustainable waste management.

Waste disposal and sustainability in dentistry were the main topics at the spring conference of the CED in Athens at the end of May. The delegates unanimously adopted a statement on the subject. They pledged to raise awareness of sustainability, especially among manufacturers of dental products and the dental profession.

The statement also emphasises that sustainable waste management, as already practised in many EU member states, is a necessity for the dental sector. Dental practices and manufacturers can thus reduce their ecological footprint and contribute to a healthier future for all. By working together, the environment will be protected and, at the same time, patients throughout the EU can be offered high-quality dental care.

## Education is needed

The statement reads: "If we work together, we can improve oral and consequently overall health to reduce the amount of curative treatments and lower the pollution caused by medicine residues and travel movements. By increasing the public knowledge about good oral health-care, we can prevent a lot of treatments and reduce the use of dental materials. All materials that we do not have to use are helping us to reduce waste."

The CED believes that manufacturers play a vital role in promoting sustainable waste management in dentistry. Manufacturers must focus on developing eco-friendly and recyclable dental products. Dental practices who wish to do so can

seek and obtain environmental certifications that demonstrate their commitment to responsible waste management and sustainability. The CED also proposed that EU funding and national subsidies supporting dental practices should be encouraged.

However, such strategies should not introduce any significant financial and administrative burdens on dental practices, as small and micro enterprises will not be able to cope with too many rules and restrictions. Excessive bureaucracy is the wrong approach and must be avoided.

*Source: Office for European Affairs of the German Dental Association*



# 2024

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IMPLANT

### Anger unleashed against dentists in the UK

## Patient frustration over lack of access to dental care



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Frustration over exorbitant waiting times for appointments is fuelling anger against dental professionals in the UK. In a Dental Protection survey of over 1,300 UK dental professionals, more than half (57%) said they had experienced or witnessed verbal or physical abuse from patients or their relatives in the last 12 months. Of these, 64% said the incidents were due to frustration at waiting too long for an appointment and 59% said it was due to not getting the treatment they expected. In addition, 58% of those affected reported that the violence, disrespect and anger they experienced or witnessed had impaired their mental health, and over a third (37%) said an increase in abuse and intimidation from patients had made them reconsider their career in dentistry. Almost a third of dental professionals (31%) also feel that abuse against dental professionals is not taken seriously by the police.

Source: Dental Protection Survey 2023

### Irish Dental Association complains

## Too few dental screenings in Irish schools

More than 100,000 Irish children were denied dental appointments for school screenings in 2023, according to the Irish Dental Association (IDA). There has been a 31% reduction in these appointments since 2019. Fintan Hourihan, CEO of the IDA, said, "The Health Service Executive (HSE) has failed to deliver in its duty to provide appropriate care to patients under the Health Act. Over 50% of school children have been denied access to dental care under this scheme. This represents a 31% reduction in the number of school children screened since 2019 despite a 7.3% increase in the population." The IDA is therefore calling for the immediate allocation of additional funding to the public dental service.

Source: Irish Dental Association

### Mon Espace Santé (MES) in France

## Digital patient file works

In France, more than 95% of people with social insurance use the country's digital patient file (Mon Espace Santé [MES], which translates as "My Health Space"). This was introduced in January 2022 and is an opt-out solution, meaning that people with social insurance had to actively opt out, says David Sainati, deputy head of the digitalisation department at the French Ministry of Health. Insured persons are able to access their data in a special online area, which will also be accessible to doctors.

Sainati explains the high take-up to the opt-out rule; in addition, the French state has earmarked an extra two billion euros to synchronise existing social security data and feed it into the new system. However, Sainati is certain that successful implementation of a system like this depends on the various interfaces. If the software is not fully adapted from the outset, then the systems cannot be interconnected. This is why France set up a task force in the run-up to the implementation of MES, which proceeded sector after sector and carefully studied the challenges faced by users. The aim was to make the system compatible and homogeneous.

To ensure that the system is financially viable, France has a new financing mechanism, Sainati adds. For example, pharmacists and doctors have bought applications from the state to update interfaces between the MES and their own IT systems. This money can be used to further develop the systems and their interfaces.

Source: Deutsches Ärzteblatt

## British Dental Association reports

# Sugar levy delivers the goods

The United Kingdom introduced a Soft Drinks Industry Levy (SDIL) in April 2018. The British Dental Association (BDA) told the FDI World Dental Federation about the impact – and why it is in favour of extending it. The SDIL was announced in 2016 and came into effect in April 2018. The levy applies to sugar-sweetened beverages and is designed to encourage manufacturers to reduce the sugar content of their products and offer consumers healthier options. As the BDA has now explained to the FDI, the measure generated the equivalent of £355 million [€414 million] in the 2022/2023 fiscal year alone. In 2021/2022, it had yielded £334 million (€390 million), and in 2020/2021, £299 million (€350 million). There are two rates of this levy, depending on the sugar content of the beverage: the “standard rate” (18p/€0.21 per litre) that applies to drinks with a total sugar content of 5 g to under 8 g per 100 ml, and the “higher rate” (24p/€0.28 per litre) that applies to drinks with a total sugar content of 8 g or more per 100 ml. Beverages with less than 5 g of sugar per 100 ml are exempt.



In November 2023, a study published in the *British Medical Journal* showed that the sugar levy was associated with 12.1 per cent fewer hospital admissions for tooth extraction among minors. The effect was particularly pronounced in children under the age of four (28.6 per cent). In light of this success, the BDA is calling for the levy to be extended, for example to include milk-based drinks, biscuits and sweets, to encourage consumers to choose products that are less harmful to oral and systemic health. The measure could also help to promote the conversion of foods with a high sugar content without increasing costs for consumers.

Source: British Dental Association

## German Dental Association appeals to the EU Parliament

# 12 key demands from Germany



The German Dental Association (BZÄK) has issued a position paper to the new EU Parliament. According to the BZÄK, the importance of the EU for the dental profession has increased significantly since the last European elections five years ago. In a recently published position paper, the organisation points out that many issues that are critical for the dental profession are no longer decided at a national level, but in Brussels and Strasbourg. One of the key demands is to maintain the responsibility of the EU member states for their health care systems.

The BZÄK is also calling for a rapid revision of the EU legal framework for medical devices. Digitalisation in the healthcare sector must be for the benefit of patients and should lead to improved and less bureaucratic care. The BZÄK calls for less bureaucracy for dental practices and a consistent continuation of the fight against antibiotic resistance. Freedom of treatment and decision-making must be protected throughout Europe—the BZÄK warned against the erosion in quality as a consequence of the reduction of services provided by independent dentists in favour of dental chains run by financial investors.

The BZÄK calls on the EU Parliament to support the European Charter of the Liberal Professions in order to define the position of the liberal professions at European level. Other issues include free access to dental care for all EU citizens and to the improvement of oral health prevention in the EU.

Source: German Dental Association



## Judgement of the European Court of Justice (ECJ)

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# Equal treatment for cross-border commuters

Cross-border workers (frontier workers) in the EU must receive the same social benefits as resident workers, the European Court of Justice (ECJ) ruled in case C-27/23.

### The case

A Belgian employee worked in Luxembourg and lived in Belgium. As a cross-border worker, he was reliant on the Luxembourg system for family allowances, which he had received for several years for a child placed in his household by a court order. In 2017, the Luxembourg Caisse pour l'avenir des enfants (CAE; Children's Future Fund) nevertheless withdrew that family allowance. According to the CAE, family allowances are paid only to children who have a direct relationship with the cross-border worker (legitimate, natural or adopted children). By contrast, children who live in Luxembourg and are placed in care under a court order are entitled to receive a family allowance, which is paid to the natural or legal person that has custody of them.

The Luxembourg Court de Cassation (Cassation Court) sought to determine whether the application of different conditions for the award of the allowance, depending on whether or not the worker is a resident, might be perceived as indirect discrimination in contravention of the Luxembourg Social Security Code.

In its judgement, the Court of Justice noted that cross-border workers contribute to the financing of the social network of the host member state in terms of taxes and social security contributions which they pay in that state by virtue of their employment there. Accordingly, they must be able to enjoy family benefits and social and tax advantages under the same conditions as resident workers.

### Violation of EU law

The Court considered that legislation such as that at issue gives rise to a difference in treatment and is contrary to EU law.

Any legislation of a member state under which non-resident workers—unlike resident workers—are not entitled to receive a social benefit in respect of children who are placed in their household, of whom they have custody, who are officially resident with them and who actually live with them on a continuous basis, constitutes indirect discrimination on the ground of nationality.

The fact that the placement was determined by a court of a member state other

than the host member state of the worker concerned has no bearing on that conclusion.

Similarly, the question of whether the cross-border worker provides for the upkeep of the child placed in their household cannot have any relevance if the same requirement is not also applied to a resident worker with whom a child has been placed.

### Note

A reference for a preliminary ruling allows the courts and tribunals of the member states, in disputes which have been brought before them, to refer questions to the ECJ about the interpretation of European Union law or the validity of a European Union act. The ECJ does not decide the dispute itself. It is for the national court or tribunal to dispose of the case in accordance with the Court's decision, which is similarly binding on other national courts or tribunals before which a similar issue is raised.

Source: *Press release of the ECJ in case C-27/23 ECJ of 16 May 2024*

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## ECJ ruling

# Guideline practice—learning from Europe

Medical guidelines are being produced worldwide at such a pace that it is difficult to expect that they will actually be implemented in practice. Consider, for example, how far German jurisprudence is prepared to go in recognising guidelines published abroad in determining whether there have been errors in treatment, even gross ones. This reverses the burden of proof to the detriment of the treating party.

One recalls the controversy between the Higher Regional Court of Koblenz in its decision of 25 June 2014 (5 U 792/13) and the Federal Court of Justice in its decision of 16 June 2015 (VI ZR 332/14) which dealt with the question of whether a regular German hospital should have taken into account in January 2006 a medical guideline from Canada that had been published there in February 2005. The Higher Regional Court had answered this question in the affirmative, while the Federal Court of Justice took a somewhat more nuanced view.

If guidelines are held in such high esteem in liability law, it is all the more important that they reflect the standard of care recognised at the time of their adoption in the sense of evidence-based medicine/evidence-based dentistry, and that any bias is excluded as far as reasonably possible.

Anyone who has ever worked on guidelines knows that the most important bias influencing the content of guidelines is human bias.

In a recent decision dated 14 March 2024 (C-291/22 P), the European Court of Justice in Luxembourg (ECJ) has provided some interesting guidance on human bias in the European Medicines Agency's (EMA) review activities. The case pending before the ECJ concerned, among other things, how the EMA should select experts for the authorisation of medicinal products.

The decision concerns the tension between the expertise that is called upon and the control of that expertise—and thus the core area of any guideline.

The case concerned a drug that had been refused marketing authorisation by the European Commission. The refusal was based on an opinion from the EMA's

Committee for Medicinal Products for Human Use (CHMP) and an ad-hoc expert group convened by the EMA. The pharmaceutical manufacturer had complained unsuccessfully that individual members of the expert group were not independent and had conflicts of interest. The manufacturer was successful in having this decision overturned by the ECJ.

The ECJ refers to the fundamental right to good administration enshrined in Article 41 of the European Charter of Fundamental Rights. This fundamental right includes the right of every person to have their affairs handled impartially by the institutions, bodies, offices and agencies of the European Union. This requires sufficient guarantees to exclude any legitimate doubt as to possible bias.

With specific reference to the EMA, the ECJ considers that impartiality would

be compromised if a conflict of interest could arise for one of the members of the CHMP as a result of a clash of responsibilities, irrespective of the personal conduct of that member. Such a breach could lead to the illegality of the decision adopted by the Commission at the end of the procedure. Objective impartiality is also compromised if an expert with a conflict of interest is part of the group of experts consulted by the CHMP in the course of the review leading to the EMA's opinion and the Commission's decision on the application for marketing authorisation. The ECJ considers the conflict of interest to be an objective exclusion criterion. It is irrelevant whether the conflict of interest has become known. If it exists, the respective expert cannot be appointed.

How can the EMA identify such a situation? The ECJ requires the EMA to actively investigate conflicts of interest itself, at least as soon as it has received any indications of such conflicts. In this case, the pharmaceutical manufacturer had provided the EMA with this information. Had the EMA followed up, it would have discovered that one of the authorised experts was the principal investigator for a competing product in the European phase 3 clinical trial for the medicinal product in the authorisation procedure. A conflict of interest could hardly be more obvious.

The ECJ requires that the influence of conflicts of interest to be excluded with certainty, not just the non-participation in or non-voting at advisory meetings.

The ECJ's comments on the influence of conflicts of interest (human bias) are equally important and interesting for the development of guidelines (no. 76–77):

“It must be observed, in that regard, that the opinion expressed by the expert group convened by the CHMP has a potentially decisive influence on the EMA's opinion and, through that opinion, on the Commission's decision. Each member of that group may, in some circumstances, have a considerable influence on the discussions and deliberations that take place, on a confidential basis, within that group. Accordingly, participation in the expert group consulted by the CHMP of a person who is in a situation of conflict of interest gives rise to a situation that does not offer sufficient guarantees to exclude any legitimate doubt as to possible bias, within the meaning of the case-law referred to in paragraph 73 of the present judgment.

Therefore [...] a conflict of interest on the part of a member of the expert group consulted by the CHMP substantially vitiates the procedure. The fact that, at the end of its discussions and deliberations, that expert group expresses its opinion collegially does not remove such a defect. That collegiality is not such as to neutralise either the influence that the member in a situation of conflict of interest is in a position to exert within that group or the doubts as to the impartiality of that group which are legitimately based on the fact that that member was able to contribute to the discussions.”

According to the ECJ, it is the EMA's responsibility to identify conflicts of interest and draw the appropriate conclusions.

Anyone analysing guidelines, in particular guideline reports and conflict-of-interest statements, should be able to expect that any guideline author will comply with these requirements of the ECJ and will not accept guidelines developed with the involvement of persons with conflicts of interest. This also applies to existing guidelines. If the involvement of persons with a conflict of interest has clearly had an influence, these guidelines must be withdrawn; otherwise, they must be revised in a timely manner. A conflict of interest must result in the person being removed from the guideline group. If this means that the guidelines will not be developed in the same way as before, so be it.

#### Author

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# Did you know...

## ...that this year marks the 35<sup>th</sup> anniversary of BDIZ EDI?

The association was originally founded in 1989 as the Federal Association of Implant Dentists in Private Practice (BDIZ) in Frankfurt am Main (“in private practice” was dropped later). The association was established in response to the non-increase in the point value of the German Standard Schedule of Fees for Dentists (GOZ) following its amendment at the time. The association was also founded to preserve the practice of oral implantology in dental practices following the scientific recognition of the fledgling discipline in the mid-1980s. The founding father, Prof. Egon Brinkmann (†), described the mission of the association in a single sentence: every dentist should have the opportunity, after appropriate training, to work in implantology in their own practice.



Meeting of the founding members on the occasion of the 20<sup>th</sup> anniversary of BDIZ EDI.

## ...that BDIZ EDI will hold its 20<sup>th</sup> Expert Symposium on 2 March 2025?

The concept developed by Vice President Prof. Joachim Zöller to offer a symposium with expert opinions on a current topic in oral implantology—always in Cologne on Carnival Sunday—has proved its worth over the past two decades. Immediately prior to the symposium, the European Consensus Conference (EuCC) under the auspices of BDIZ EDI, seeks and achieves consensus on the respective topic of the symposium. The resulting guidelines serve as recommendations for implant practice. Over the years, BDIZ EDI has produced 20 practice guidelines in German and English and has updated many of the topics several times.



Full house at the BDIZ EDI Expert Symposium.

## ...that BDIZ EDI is approaching the conclusion of its 25<sup>th</sup> Curriculum Implantology, which it organises in cooperation with the University of Cologne?

To date, almost 1,000 young implantologists have successfully completed this introductory course in eight modules over a period of one year. The successful Curriculum is now also being successfully “replicated” by partner associations in other European countries. The 26<sup>th</sup> Curriculum Implantology will start on 18 October at the University of Cologne: its southern counterpart will start already on 27 September in Munich, Landsberg am Lech and Ansbach.



The graduates of the 24<sup>th</sup> Curriculum Implantology at the University of Cologne.

## BDIZ EDI website relaunched

# Clear and well-structured

BDIZ EDI has updated its website. It now has a clearer, more contemporary look and is much more service-oriented. In the new BDIZ EDI shop you can book events and order publications very easily—and pay conveniently online!

www.bdizedi.org aims to meet the needs of its visitors and target groups, integrating the social networks used by BDIZ EDI to create synergy effects. The clean home page and navigation menu also make it easier to present the association's objectives.

### Improved user experience

To improve the site's user-friendliness, Hanover-based agency Domanetzki & Partner, Design, commissioned by BDIZ EDI, has made targeted improvements to optimise the user experience. From a more logical arrangement of elements to more responsive features, the aim was to make interaction with the site as smooth and intuitive as possible.

### Updated look

The new design is fresh and contemporary to make navigating the site even more enjoyable. The structure of the site has been revised to ensure more consistent and logical navigation. It is now easier and quicker to find what you are looking for.

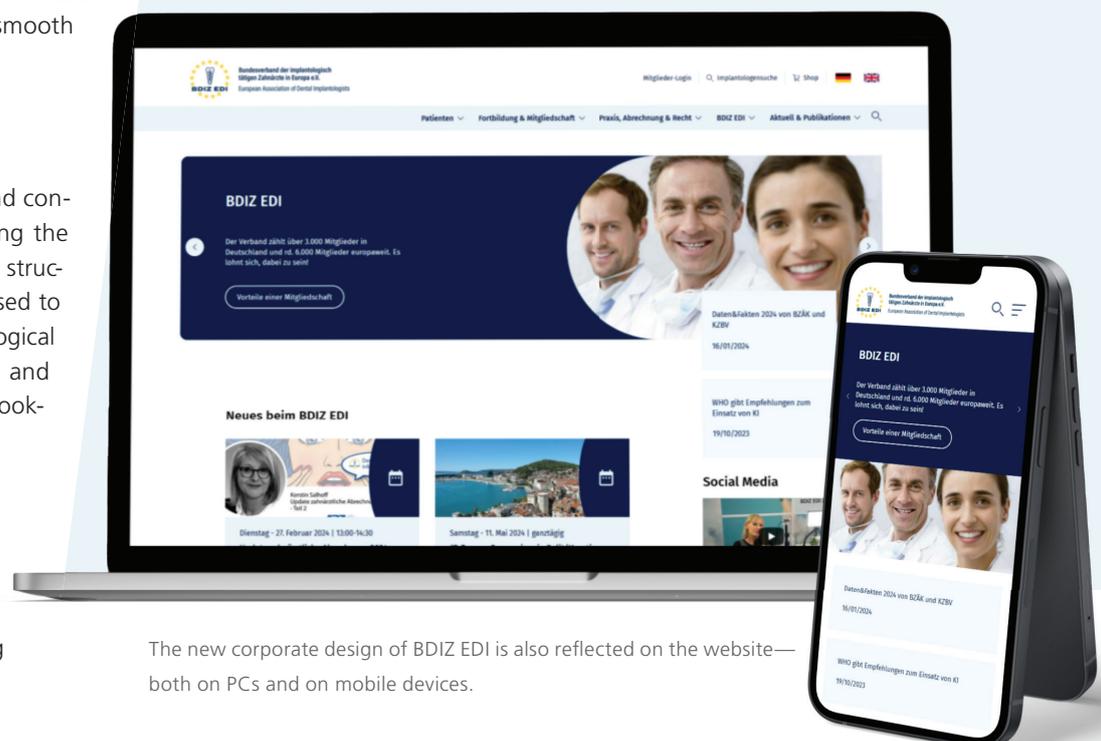
### Expanded shop

The shop area has been expanded to include not only products but also training and events—all in one place.

### PayPal as a payment method

PayPal has been added as a payment method to give users more flexibility and security when shopping. There are also plans to add more payment options in the future.

AWU



The new corporate design of BDIZ EDI is also reflected on the website—both on PCs and on mobile devices.

# Impressions from the 17<sup>th</sup> European Symposium

Excitement under the Mediterranean sun: "Today's implantology—what is new, what is reliable?" The 17<sup>th</sup> European Symposium in Split had it all: with topics relating to implant prosthetics and implant surgery, peppered with THE current topic: artificial intelligence and its sensible use in dentistry.

The speakers came from Germany (Dr Markus Tröltzsch and Dr Amely Hartmann), Croatia (Dr Hrovje Starčević and Dr Juraj Brozović), the Czech Republic (Prof. Roman Šmucler) and Albania (Dr Erion Çerekja)

and delivered a firework display of implantology knowledge. Dr Deni Milevčić, board member of the Croatian Dental Association, opened the event with the association's greetings. BDIZ EDI President Christian Berger hosted the training day, which was attended by many German dentists.

The day before, participants were able to find out about innovations in the field of digital workflow in a workshop with Dr Tröltzsch. The BDIZ EDI would like to thank its sponsoring partners Nobel Biocare and bfs for their support.



The content of the training day will be covered in *EDI Journal 3/2024*.

AWU



Dr Deni Milevčić und Christian Berger opened the 17<sup>th</sup> European Symposium in Split.



Dr Juraj Brozović spoke about "reliable bone transplantation".



Dr Dr Markus Tröltzsch focussed on digitally assisted surgery.



Long-time-friends: Dr Liepe, Dr Šimunović und Dr Neumann.



The picturesque harbour in Split.



Video production with intro by Dr Dr Tröltzsch.



Dr Amely Hartmann discussed digital augmentation procedures.



Prof. Dr Roman Šmucler presented artificial intelligence in medicine and dentistry.



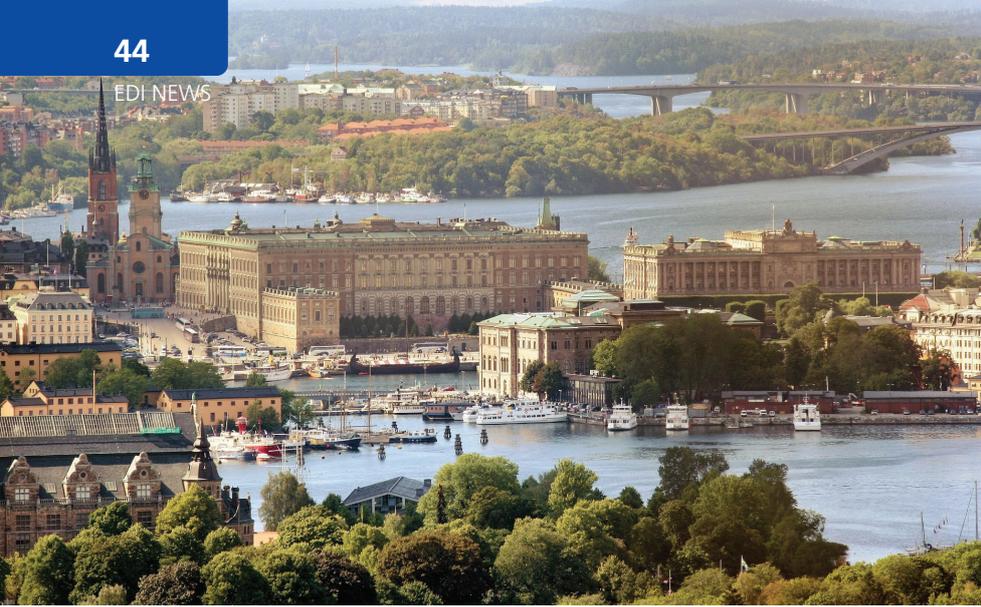
Dr Erion Cerekja spoke about prosthetic solutions on dental implants.



Full attention on modern implantology.



Immediate implantation was the main topic for Dr Hrvoje Starčević.



Save the Date—June 2025

# 18<sup>th</sup> European Symposium of BDIZ EDI—up north

The 2025 BDIZ EDI European Symposium will be held in Stockholm. For the first time, Scandinavia—more specifically Sweden’s capital Stockholm—will be the destination for the one-day BDIZ EDI Symposium, which promotes the exchange of ideas between implant dentists in Europe.

Speakers will be coming from all over Europe—including, of course, members of the BDIZ EDI Board. The Symposium will be held in English. Topics will include implant surgery and implant prosthetics.

## Stockholm—then and now

Stockholm is probably named after the protective wooden poles (stock) that lined the sound of Lake Mälaren leading up to the islet (holme) which is today the central island called Stads-holmen or, more commonly, Gamla Stan. Its history of settlement dates back to the 11<sup>th</sup> century. Stockholm has been the royal residence since 1643.

Water covers about 30 per cent of the city’s area. The city still draws its drinking water from Lake Mälaren; the high quality of the water makes it possible to fish for salmon right in the city centre. The city is spread over 14 islands connected by 53 bridges. Much of the city is wooded.

The site of present-day Stockholm was first mentioned by the Icelandic poet and saga writer Snorri Sturluson (1179–1241) in his *Ynglinga saga*, where he describes a barrier of poles across today’s Norrström waterway, which he called Stokksunda. Excavations in the late 1970s uncovered the remains of water poles from the 11<sup>th</sup> century, which support this statement. Snorri also mentions a fortification tower from the 12<sup>th</sup> century, which

is said to have been located where the royal castle has stood since 1580.

A letter of protection for Fogdö Monastery, issued in July 1252, is the oldest surviving document in which Stockholm is mentioned. The Erik Chronicle (*Erikskrönikan*), written between 1320 and 1335, states that the founder of Stockholm, the regent Birger Jarl, wanted to build a fortress around 1250 to protect Lake Mälaren from pirate raids.

In the 15<sup>th</sup> century, its strategic and economic importance made Stockholm an important factor in the conflicts between the Danish kings of the Kalmar Union and the Swedish national independence movement. With the arrival of Gustav Vasa in 1523 and the establishment of a strong royal power, Stockholm became an important royal residence. The royal court also began to shape the cityscape, which had previously been dominated by merchants—often German—and craftsmen.

Sweden rose to become a great power in the 17<sup>th</sup> century. This was reflected in the development of Stockholm—between 1610 and 1680 the population increased sixfold. In 1713 and 1714, Stockholm was ravaged by the plague. After the end of the Great Northern War and the resulting loss of Swedish territory in 1721, the city began to stagnate and continued to do so throughout the early 19<sup>th</sup> century. Norrköping became the largest manufacturing city and Gothenburg, with its favourable location on the Kattogat, a straight opening to the Skagerrak and the North



Sea, became Sweden's most important export port. It was not until the second half of the century that Stockholm once again took on a leading role in the country's economic development. A number of important industrial companies were established here, with the result that Stockholm developed into an important centre for trade and services, as well as a transport hub.

### Places of interest

Stockholm's cityscape and architecture are shaped by its unique location on the shores of Lake Mälaren, a freshwater lake that runs from west to east; a ridge of glacial moraine that runs from north to south; and the central island in the middle of the river. The city has many small parks, including Tegnérunden, which is mentioned in Astrid Lindgren's work. The old town (Gamla Stan) on the city island (Stadsholmen) still has the medieval street network with the streets that cross the island from north to south (Österlånggatan and Västerlånggatan) and narrow alleyways sloping down to the water—which have become longer and longer over the centuries as the land has slowly risen following the disappearance of the heavy Ice Age glaciers, a process that continues to this day.



## Why the European Symposium?

Every day we face new and continuing practical challenges. Undoubtedly, innovations in implant dentistry come from scientific advances and are translated into products developed by the dental industry. The demand from practicing dentists for new products and procedures and improved treatment options has culminated in the remarkable variety of new applications we see on the market today—new approaches to bone grafting, new capabilities in laser technology, chairside CAD/CAM and new materials of all kinds.

Given that we have already achieved very high standards and high success rates in implant therapy, it is not easy to strive for even better results and shorter treatment times. Nature sets limits. This makes it all the more important for implantologists to continue their education to stay abreast of the latest scientific and technical innovations and materials for the benefit of their patients and their practices. Education and training must keep pace with developments.

BDIZ EDI has therefore always considered the exchange of ideas as part of its professional focus. For the 18<sup>th</sup> time, BDIZ EDI will be organising its European Symposium in 2025—and for the first time in Scandinavia. Demosthenes (384–322 BCE) already knew that “small opportunities are often the beginning of great enterprises.” This quote is characteristic of the BDIZ EDI's European Symposia. Humble beginnings and spurious opportunities have been consolidated into a comprehensive approach that allows communities of dentists to transcend national borders and to intensify the exchange of ideas within Europe. The 18<sup>th</sup> European Symposium in Stockholm is a good example of this. It will once again demonstrate how implant dentists from all over Europe can benefit from each other's experience.

Christian Berger  
President, BDIZ EDI



### Third International Congress of the four dental associations of the Czech Republic, Austria, Bavaria and Saxony

## Meeting in Bohemia

The meeting has already become a tradition: this year's international congress of the four (national or regional) dental associations from the Czech Republic, Austria, Bavaria and Saxony took place against the historic backdrop of Český Krumlov in South Bohemia. In the two previous years, the city of Karlovy Vary had been the meeting place for the four dental associations. The BDIZ EDI was also once again present at this third transnational meeting.

In the presence of Pavel Klíma, Deputy Governor of the South Bohemian Regional Committee, congress host doc. MUDr. Roman Šmucler, CSc, President of the Czech Dental Association, opened the one-day congress, which is traditionally attended by speakers from the Czech Republic, Germany and Austria. Šmucler praised the city of Český Krumlov on the Vltava River as an excellent place to host this transnational meeting. He said that cooperation between dental associations was particularly important in promoting cohesion within the European Union.

At the opening ceremony, the representatives of the guest dental chambers offered their greetings: Dr Christoph Meißner, Vice President of the Saxon Chamber of Dentists (LZKS) and—on behalf of the presidents from Bavaria and Austria, who had been held up in traf-

fic—Christian Berger as Past President of the Bavarian Chamber of Dentists (BLZK) and Dr Ernst Michael Reicher, from the Austrian state of Burgenland. While the four presidents discussed topics in a political meeting as soon as Dr Frank Wohl, President of the Bavarian Chamber of Dentists (BLZK), and his Austrian colleague Dr Birgit Vetter-Scheidl, President of the Austrian Dental Chamber (ÖZÄK)—the Congress itself also got underway.

MDDr. Patrik Pauliška (Prague, CZ), opened the session with a presentation on the vertical preparation of fixed restorations, using his own cases to support the "renaissance of the Biologically Oriented Preparation Technique (BOPT)" according to Ignazio Loi, who in 2013 had presented a novel approach to the prosthetic restoration of periodontally healthy teeth using vertical or feather-edge prepara-

tion. The aim of BOPT is to remove the anatomical emergence profile of the tooth or existing preparation margins, thus creating a preparation area to be created in which the crown margin can be moved coronally.

MDDr. Martin Košťál (Trutnov, CZ) discussed pre-endodontic preparation, used for professional root canal treatment through the cavity/canal access opening. Inefficient radiographs often lead to misdiagnosis, he warned. In case of doubt, a digital volume tomography helps to plan the correct access to the root canal system. Despite all the technological support, the possible anomalies of the root canal system should be known. Ultimately, common sense should be used to weigh up the options. Košťál, who claims a 92 per cent success rate for root canal treatment in his practice, believes that underesti-



mating the basic parameters can lead to incorrect trephination. "You can recognise good endodontists by the fact that they do not deviate from the protocol", he concluded.

Prof. Dr Karl Glockner, Head of the Division of Restorative Dentistry, Periodontology and Prosthetics of the Medical University of Graz (AT), reported on the unsatisfactory search for replacement materials against the backdrop of the EU amalgam ban, which will come into effect on 1 January 2025. Composite fillings take three to five times longer to place than amalgam fillings. For him, glassionomer cement fillings are therefore the viable alternative, with the caveat that they only last three to five years.

The prosthetically driven digital workflow in oral implantology was the topic of the presentation given by the only speaker from Germany, Christian Berger (Kempten). Berger, who is President of the European Association of Dental Implantologists (BDIZ EDI), presented the current guideline of the European Consensus Conference, which is held every year under the auspices of the BDIZ EDI and provides clear recommendations on a current topic in oral implantology. The latest update to the guideline on the digital workflow was published in February 2024. This comprehensive document covers all aspects of digital dentistry, from digital diagnostics and digital impression taking and im-

aging to CAD/CAM-supported augmentation techniques and digitally controlled implant positioning. For the first time, artificial intelligence (AI) has also been considered in the guideline. Berger used his own cases to demonstrate the path of prosthetically driven case planning. "Every case is a combined case: from prosthetically oriented case planning to implant surgery."

Following the presentation by Mgr. Alexandra Košťálová, on nutritional issues with school meals in the Czech Republic, MuDr. Pavel Hyšpler (Prague, CZ) confidently presented the essence of his 15 years of clinical experience in dealing with L-PRF (leukocytes and platelet-rich fibrin). His experience with vestibular augmentation in ridge preservation using only PRF (platelet-rich fibrin) had shown stable tissue after five years. PRF is an autologous platelet concentrate used to regenerate soft tissue and bone. The membranes did not turn into bone as hoped. There was soft-tissue regeneration, but no bone formation. His experience with L-PRF, which he now uses for transcresal sinus lifts, has been very different. Hyspler confirmed that the newly formed tissue had indeed turned out to be bone. His conclusion for the audience was clear: L-PRF is more cost-effective than collagen membranes and has been proven to be beneficial in scientific studies. However, there is a clear need for qualified personnel. He concluded by stating emphatically that PRF is not a blood derivative, but autologous tissue. This distinction is crucial for dental practices.



Reception of the presidents with Prof. Roman Šmucler (left) and the past-president of Bayerische Landes Zahnärztekammer Christian Berger (middle).



MDDr. Patrik Pauliška



MDDr. Martin Košťál



Prof. Dr Karl Glockner



Christian Berger



MUDr. Pavel Hyšpler



Prof. Dr Roman Šmucler

MUDr. Roman Šmucler, delivered a presentation on the realistic application of artificial intelligence in dentistry that was eagerly awaited. The Czech chamber president chairs the “Digital Dentistry and AI” working group of the European regional organisation ERO in the Federation Dentaire Internationale (FDI) and also works together with Prof. Dr Falk Schwen-

dicke (University of Munich) in the global FDI working group on artificial intelligence. Šmucler stated emphatically that AI is bringing about the most significant structural change in dentistry in the last 100 years. This includes the use of ChatGPT, telemedicine, marketing, AI-controlled medical documentation and even autonomous implant placement by

robots. He was clear that a gap would open up in the future between practices that used AI and those that did not. However, the development of AI is generally extremely rapid because the systems are capable of learning and optimising themselves. The EU Parliament is currently working on regulating AI for various risk groups. He also highlighted the use of chatbots in dental practice, citing their use in administration, marketing, X-ray screening and initial interpretations, experiments in diagnostics and digital modalities as current trends. “Robotics and AI will completely change the planning and processes in the dental practice,” he concluded.

After all these discussions of future developments and AI, historian Ondřej Lee Stolička, PhD, concluded the congress by taking the audience on a journey into the rich past of Český Krumlov and the history of the noble Rosenberg family during the Renaissance era. The congress was held in the former Jesuit school, now the Hotel Růže.



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33<sup>rd</sup> International Expert Symposium on regenerative procedures in dentistry

# Surgical and prosthetic complications

For the 33<sup>rd</sup> time, Prof. Joachim E. Zöller will organise his Expert Symposium on regenerative procedures in dentistry on Fuerteventura, Canary Islands, Spain. From 25 October to 1 November 2024, the Robinson Club Esquinzo Playa will be the venue for the symposium on surgical and prosthetic complications.



Learn from your mistakes! This ancient wisdom also applies to oral implantology. The review of surgical and prosthetic complications prompted the speakers to examine the affected treatment cases in minute detail, promoting intensive discussions in an intimate setting. "You don't need to experience all the negative situations yourself to avoid future mistakes; the available knowledge can help practitioners effectively handle upcoming challenges", said Prof. Zöller.

More than 40 speakers will explore the topic of complications in detail and offer many practical suggestions to the expected 300 delegates under the southern sun at the Robinson Club Esquinzo Playa, Fuerteventura. The following is an extract from the conference programme. (Workshops are not listed. All speakers are based in Germany unless otherwise indicated.)

**33<sup>rd</sup> Expert Symposium: “Surgical and prosthetic complications”**

25 October to 1 November 2024, Robinson Club Esquinzo Playa, Fuerteventura, Spain

Preliminary programme		
<p>Early complications in soft- and hard-tissue surgery: From causes to solutions <b>Prof. Peer Kämmerer, Mainz</b></p>	<p>Alternative treatment options with custom implants after odontogenic/iatrogenic maxillary sinusitis and maximum jaw atrophy <b>Dr Matthias Zirk and Agnes Zirk, Cologne</b></p>	
<p>Complications in guided implant surgery <b>Prof. Jörg Neugebauer, Reichling</b></p>	<p>Update on AWB two-piece bone-level ceramic implants <b>Dr Jochen Mellinghoff, Ulm</b></p>	
<p>Long-term experience from 20 years of implantology: Learning together from mistakes <b>Dr Ralf Masur, Bad Wörishofen</b></p>	<p>Biological solutions in dentistry <b>Dr Kianusch Yazdani, Münster</b></p>	
<p>The xHya factor for permanent optimisation <b>Dr Alexander Müller-Busch, Ingolstadt</b></p>	<p>The role of the dentist in the early detection of facial skin tumours <b>Dr Sebastian Schiel, Augsburg</b></p>	
<p>Biological complications: Causes and prevention <b>Dr Lars Börner, Berlin</b></p>	<p>Occlusion on teeth and implants: what do we know and what do we believe? <b>Prof. Florian Beuer, Berlin</b></p>	
<p>Mistakes, failures and pure bad luck: Challenges in oral implantology <b>Dr Martin Gollner, Bayreuth</b></p>	<p>Subcrestal implant placement—a ten-year follow-up <b>Dr Volker Knorr, Eislingen/Fils</b></p>	
<p>How likely is the loss of multiple implants? The cluster phenomenon <b>Dr Rebecca Rosen, Vienna, Austria</b></p>	<p>Teach on the beach: A short course in functional diagnostics for implantologists <b>Dr Christian Könecke, Bremen</b></p>	
<p>Is there a reliable way to diagnose preclinical peri-implantitis? What are the therapeutic implications? <b>Prof. Ralf Rößler, Luxembourg, Luxembourg</b></p>	<p>A gift from God, a public duty or a market commodity? The changing face of health in the course of time <b>Prof. Axel Karenberg, Cologne</b></p>	
<p>Implant loss and clinical and radiological outcomes after surgical treatment of peri-implantitis <b>Dr Alex Solderer, Zurich, Switzerland</b></p>	<p>Resilient cities <b>Henriette Reker, Lord Mayor of Cologne</b></p>	
<p>Laser surgery, soft laser, antimicrobial photodynamic therapy and hyaluronic acid: Strategies for the treatment and prevention of peri-implantitis and surgical complications <b>Dr Sigurd Hafner, Munich</b></p>	<th>Supplementary offer</th>	Supplementary offer
<p>Treatment of peri-implantitis: New frontiers <b>Dr Lucrezia Paternó Holtzman, Rome, Italy</b></p>	<p>Update course in radiation protection (expertise and proof of knowledge) <b>Dr Friedhelm Weber, Hamm and Jochen Völkening, Stemwede</b></p>	
<p>When and why is a single implant in the edentulous jaw better than no implant? <b>Prof. Matthias Kern, Kiel</b></p>		
<p>Dental printing ... an underestimated revolution in dentistry? <b>Dr Gerhard Werling, Landau</b></p>		
<p>Can particulate dentin as a biological bone substitute prevent complications in oral implantology? <b>Dr Jochen Weitz, Augsburg</b></p>		
<p>Implant-prosthetic first aid <b>Dr Wolfgang Bücking, Wangen im Allgäu</b></p>		
<p>Update on immediate implant placement in the aesthetic zone What do we know? How far can/should we go? <b>Dr Peter Randelzhofer, Munich</b></p>		
<p>Complications and solutions in the context of sinus floor elevation <b>Prof. Fred Bergmann, Viernheim</b></p>		

For further information and registration please contact:  
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## European Federation of Periodontology (EFP)

# Moritz Kebschull is the new president of Europe's periodontists

With Prof. Moritz Kebschull, another renowned scientist from the German periodontology community is now at the helm of the European Federation of Periodontology (EFP). An association of 38 national periodontal societies from Argentina to Australia, the EFP pursues a global agenda to promote awareness of periodontology and the importance of periodontal oral health.



# EFP

## European Federation of Periodontology

Kebschull succeeds Dr Darko Božić (University of Zagreb, Croatia) as President of the EFP. After Prof. Lavinia Flores-de-Jacoby, Prof. Jörg Meyle and Prof. Søren Jepsen, the EFP presidency is now held by another scientist who was educated in Germany (and the USA) and who has been active in Bonn for many years, including in the German Research Foundation (DFG) research project on periodontology. Kebschull, who has been awarded the prestigious Miller Prize by the German Society of Dentistry, Oral and Maxillofacial Medicine, is currently working in the UK,

where he holds the Chair of Restorative Dentistry at the University of Birmingham. His collaborators include Prof. Iain Chapple, for whom he organised a major symposium to mark the latter's retirement in 2023. Kebschull also holds an associate professorship at Columbia University (USA).

### Award-winning research

Kebschull's award-winning translational research investigates the links between the clinical features and molecular basis of periodontal and peri-implant diseases and other systemic diseases. In Birmingham, he leads an extensive portfolio of externally funded research programmes, including a module at the Birmingham Biomedical Research Centre funded by the National Institute for Health and Care Research (NIHR).

### Board member of national professional societies and the EFP Executive Committee

As a board member of the British and German national societies and as a member of the EFP Executive Committee for

the past three years, Kebschull has promoted the development of evidence-based clinical practice guidelines for the treatment of periodontal disease in the UK and Germany and across Europe. He has based the EFP's procedures on those established in Germany by the Association of the Scientific Medical Societies in Germany (AWMF) for the development of medical guidelines.

### Three major tasks for the presidency

Moritz Kebschull has set himself three tasks for his presidency, which he intends to pursue with priority and with which he wants to further strengthen the global influence of the EFP as the world's largest scientific organisation in periodontology. He wants to expand the EFP's leading role in the development of guidelines in the field of dentistry, to open up ways for training dentists in periodontology and to promote scientific periodontology by supporting young, internationally mobile researchers.

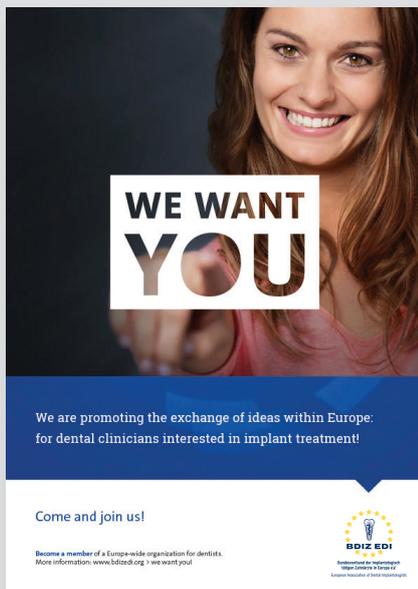
Source: EFP



## BDIZ EDI and its multifaceted work

# We want YOU!

BDIZ EDI's "We want you" information campaign aims to interest young dentists from Germany and Europe in oral implantology and in the work of BDIZ EDI.



With the "We want you" campaign, the association wants to draw attention to the many different support services it offers for all dental practices, even beyond implantology, including continuing education for newcomers to the profession and seasoned practitioners alike.

BDIZ EDI is an active Europe-wide association that in 2002 went beyond the borders of Germany to forge collaborations, support partner associations and make its voice heard in EU politics. Of course, health policy interventions are also initiated at the federal level. BDIZ EDI is the only association to have presented its own draft law on combating corruption in the health sector. It is currently working intensively on the Medical Device Regulation (MDR) and its many problems.

With its information offensive, BDIZ EDI is highlighting its work in the field of continuing education:

- "Meet the Experts" allows newcomers to get in touch with experienced implantologists and top lecturers.
- An absolute must for anyone interested in implantology is the Curriculum Implantology, which is run in cooperation with the University of Cologne. This eight-module course teaches the key building blocks of implant dentistry to small groups of participants. The curriculum takes place at the University of Cologne. It runs for one year and is designed to be affordable for newcomers to the profession. It is planned to start the Curriculum South in Munich in 2024. Some partner associations have

adopted, and adapted, the modules for their countries: Greece, Serbia, Poland—and soon even India.

- Each year, the BDIZ EDI Expert Symposium provides an update on a current issue in implant dentistry, and the associated European Consensus Conference (EuCC) provides guidance for practitioners.
- The Europe Symposium of BDIZ EDI provides an opportunity to look beyond the local dental fence and to appreciate the work of European colleagues and exchange ideas. This year's Europe Symposium took place in June in a villa near Verona in cooperation with OEMUS MEDIA AG.

### A wide field

The full scope of BDIZ EDI's work is illustrated by the "BDIZ EDI informs" webinar series, which the association has been organising since the start of the COVID-19 pandemic in 2020. The continuing-education webinars feature top-notch presenters and cover dental topics (not just implantology!) as well as legal issues. The webinars are particularly suitable for strategic practice orientation for current and future practice owners. BDIZ EDI webinars are aimed at dentists and all members of the dental team. Participation is free of charge for members. On average, BDIZ EDI webinars are attended by between 150 and 400 participants. Members can view the recorded webinars in the seminar archive after the live broadcast.

AWU

## Full-arch rehabilitation with Straumann® TLX implants in a severely resorbed mandible

# Four-year follow-up

Drs Louwrens Swart, Paul van Zyl, South Africa

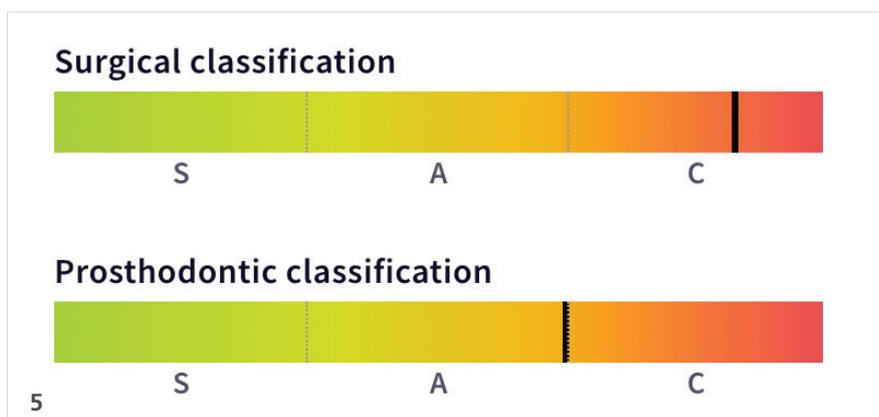
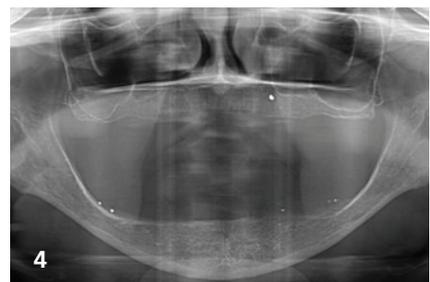
The evolution of dental implantology has changed the management of edentulous patients, providing a predictable solution for the restoration of oral function and aesthetics. With advancements in implant design and surgical techniques, immediate loading protocols have gained considerable attention, offering patients the benefits of accelerated treatment and improved satisfaction.

Straumann® TLX SLActive® implants represent a cutting-edge advancement in implant dentistry, characterised by their tapered tissue-level design and innovative surface characteristics aimed at optimising osseointegration and long-term stability.

A growing amount of scientific literature supports immediate loading protocols, demonstrating favourable clinical outcomes and high implant survival rates. Recent studies have underscored the feasibility and efficacy of immediate loading in full-arch rehabilitations, highlighting its potential to shorten treatment times and enhance patient satisfaction without compromising long-term success.<sup>1,2</sup>

However, despite the promising evidence, the literature remains relatively underexplored regarding the application of immediate loading protocols in conjunction with TLX implants for full-arch rehabilitations in the mandible. Therefore, this case report aims to contribute to the existing evidence by documenting the clinical outcomes of immediate loading with four Straumann® TLX implants in the lower jaw with a four-year follow-up.

**Figs. 1 & 2:** Extra-oral examination. **Fig. 3:** Intra-oral examination. **Fig. 4:** Panoramic view. **Fig. 5:** Surgical and prosthodontic classification according to the SAC system.



## Initial situation

We present the case of a 74-year-old female patient classified as healthy (ASA I), a non-smoker, with no medications or allergies. She sought evaluation at our clinic due to dissatisfaction with her current prostheses. The patient has been wearing full prostheses for an extended period, experiencing significant challenges in eating and speaking as the lower prosthesis constantly moves, resulting in painful sores and discomfort. This condition has adversely affected her health and overall quality of life. Consequently, she expressed a desire for a stable, fixed, full-arch rehabilitation.

The extra-oral examination showed the lower third slightly diminished and slight retrusion of the teeth (Figs. 1 & 2).

After the removal of the full prostheses, an intra-oral examination was conducted. The examination revealed a view of the edentulous mandible with an uneven vertical ridge, accompanied by muscle and fibrous bands. Sore spots and ulcerations were observed (Fig. 3).

The panoramic view showed severely resorbed ridges in the mandible (Fig. 4).

In terms of surgical classification, the patient was classified as complex and, in terms of prosthodontics, between complex and advanced according to the SAC system (Fig. 5).

## Treatment planning

After discussing various treatment options extensively with the patient, it was decided to proceed with a full-arch rehabilitation using four Straumann® TLX implants. This decision was based on the severely resorbed mandible and the patient's desire for a stable prosthesis.

The treatment workflow included:

1. Prosthetic and aesthetic analysis.
2. Digital planification and lower denture converted to a surgical guide.
3. Four Straumann® TLX implants placed between the anterior loops of the mental nerves.

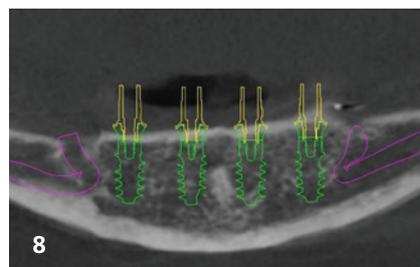
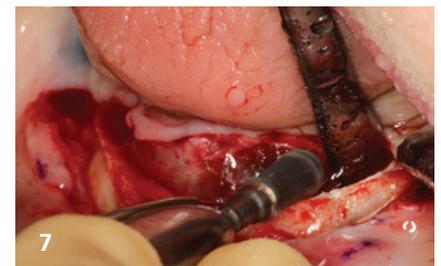
4. Delivery of the temporary prosthesis.
5. The definitive prosthesis includes a Straumann® Cares milled titanium bar attached to the tissue-level portion of TLX implants. No intermediary abutments were required. The titanium at the bottom of the prosthesis and the implant connection facilitates the maintenance and resistance in the cantilever.

## Surgical procedure

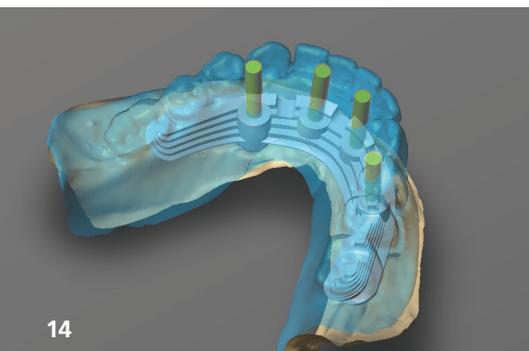
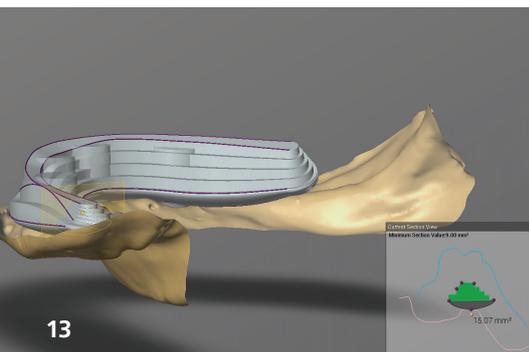
Prior to the surgery, local anaesthesia with lidocaine 2% with epinephrine 1:100k was administered. A mucoperiosteal flap was then carefully created, with a crestal incision and a distal relieving incision placed approximately 10 mm behind the mental foramina, while ensuring preservation of the mandibular nerve (Fig. 6).

Vertical ridge reduction was performed to level the alveolar crest, facilitating the creation of the desired bone architecture. This procedure was essential to ensure adequate bone width for successful implant placement and to provide sufficient space for the prosthetic hardware (Fig. 7). The surgical procedure included both bone reduction and implant placement, effectively minimising trauma and the necessity for separate interventions.

The implant placement planning was conducted using coDiagnostiX® software, an AI-powered dental treatment planning tool. The software for 3D diagnostics and implant planning is designed for precise surgical planning of dental implants, including TLX Implants available within its digital library. This procedure took into account the distribution between the an-



**Fig. 6:** Mucoperiosteal flap with a crestal incision and a distal relieving incision, placed approximately 10 mm behind the mental foramina, while ensuring preservation of the mandibular nerve. **Fig. 7:** Vertical ridge reduction was performed to level the alveolar crest. **Fig. 8:** The implant placement planning was conducted using coDiagnostiX® software. **Fig. 9:** The positions for implant placement were determined and marked, with clear identification of the mental nerves. **Fig. 10:** The correct positions were verified using the diagnostic template. **Fig. 11:** The Straumann® TLX Implants were placed using the handpiece.



**Fig. 12:** An immediate-load prosthesis, designed with a shortened dental arch, was placed within 24 hours of the surgery. **Figs. 13 & 14:** After a healing period of three months, a new impression was taken to define the shape of the Straumann® Cares® milled titanium bar. **Fig. 15:** The final outcome revealed excellent health of both hard and soft tissues.

terior loops of the mental nerves for optimal implant positioning (Fig. 8).

The positions for implant placement were determined and marked, with clear identification of the mental nerves (Fig. 9).

The drill templates were utilised to guide pilot-hole drilling, and CT was conducted to evaluate the accuracy of the pilot holes. For preparing the implant bed, the Straumann® Modular Cassette was used, following the pilot drilling protocol depending on the bone density. This provides the adaptability to customise the preparation of the implant bed according to the specific bone quality and anatomical circumstances of each patient. Pilot holes were drilled with the pilot drill ( 2.2 mm) to full implant length. The subsequent drills were used following the drilling protocol, taking into consideration the fact that the drill tip, designed to accommodate the function of the drills, is up to 0.5 mm longer than the insertion depth of the implant. The correct positions were verified using the diagnostic template (Fig. 10).

The Straumann® TLX Implants were placed using the handpiece, without exceeding the recommended maximum speed of 15 rpm. The parallelism of the Straumann® TLX implants was evaluated, a final torque of at least 35 Ncm was achieved, and radiographic control was conducted with healing caps in place (Fig. 11).

### Prosthetic procedure

An immediate-load prosthesis, designed with a shortened dental arch, was placed within 24 hours of the surgery (Fig. 12). Occlusion was checked, and oral hygiene instructions were given.

At the suture removal appointment, healing was noticed to be uneventful.

After a healing period of three months, a new impression was taken to define the shape of the Straumann® Cares® milled titanium bar (Figs. 13 & 14).

The definitive prosthesis was evaluated intra-orally, and oral hygiene instructions were provided, along with a check of the occlusion. Radiographic control was conducted during the delivery of the prosthe-

sis. The final outcome revealed excellent health of both hard and soft tissues (Fig. 15).

### Treatment outcomes

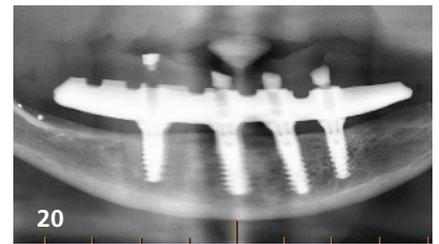
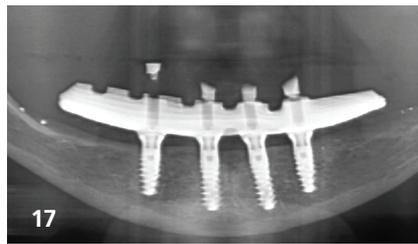
After a two-year follow-up, an intra-oral examination was conducted to assess the condition of the definitive prosthesis and its relationship with the upper antagonist. The examination revealed good stability, and occlusal adjustments were not necessary (Fig. 16). Additionally, radiographic control after two years confirmed satisfactory outcomes (Fig. 17). The extra-oral photos demonstrated a nice smile with good lip support and an aesthetically pleasing profile (Figs. 18 & 19).

After a four-year follow-up, an examination was conducted to assess the condition of the prosthesis. The prosthesis was in optimal condition, and the patient was delighted as her treatment outcomes were preserved over time. The extra-oral results showcased a stable outcome, with the patient expressing satisfaction with the results (Fig. 20). The quality of the extra-oral and panoramic images is less than optimal since they were provided by the patient after relocating from the country. A panoramic radiograph was taken as a control measure, revealing no abnormalities or concerns (Fig. 21).

Following the latest follow-up appointment the patient stated: "I could never believe that these implants could be so natural and comfortable in my mouth with absolutely no discomfort whatsoever. The actual operation and dental work performed in 2020 by Dr Swart was amazing, just brilliant. My teeth do not move around or need repositioning. They are well and truly fixed in place. I am exceedingly happy with the results that I have attained. I would, without any reservations, highly recommend this trailblazing procedure for a better quality of dental life."

### Conclusion

An immediately loaded hybrid prosthesis is a highly predictable and stable solution for an edentulous mandible if no vertical bone is available behind the men-



**Fig. 16:** The examination revealed good stability. **Fig. 17:** Radiographic control after two years. **Fig. 18 & 19:** The extra-oral photos demonstrated a nice smile with good lip support and an aesthetically pleasing profile. **Fig. 20:** The panoramic radiograph revealed no abnormalities or concerns. **Fig. 21:** Four-year follow-up: the extra-oral results showcased a stable outcome.

tal foramina for implants. During this surgery, the innominate blood vessel was identified to prevent intra-operative bleeding, which can lead to potentially life-threatening swelling and airway compromise; also, the anterior loop of the mental nerve was not easily identifiable on 3D X-ray analysis; after positive clinical identification, the alveolar ridge can be reduced to accommodate the width of the implants as well as the height of prosthetic hardware as needed. A stent is always used to ensure that the implants are correctly positioned to support the hybrid prosthesis.



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# Implant placement in narrow spaces—a guided approach

Drs Sean W. Meitner, William S. Woodworth, Gregori M. Kurtzman, USA

Implant placement in spaces that are narrow in the mesiodistal dimension poses challenges related to the surgical aspect of treatment. This is further complicated by the anatomy in the buccolingual dimension, which cannot be accessed with standard 2D (periapical and panoramic) radiographs. This is more common in the mandibular anterior and maxillary lateral positions and is related to the dimensions of those teeth under healthy conditions.

CBCT provides a more complete 3D view that visualises the buccolingual dimension as well as the mesiodistal aspects of the site that will be receiving the implant.<sup>1,2</sup> However, prosthetic positioning is typically missing from CBCT scans.<sup>3,4</sup> That missing information can be acquired with the use of a diagnostic guide worn during the CBCT scan, the diagnostic guide having the ideal prosthetic positions for the planned implants.<sup>5,6</sup> That data can then be used in virtual planning to better determine where the implants need to be positioned, including their angulation, restoratively. This will also aid in determining whether grafting of the buccal aspect of the ridge will be required to position the implant. Should ridge augmentation be required and be performed as a prelude to implant placement, a new diagnostic

guide can be fabricated and used to design and fabricate the surgical guide based on virtual planning.<sup>7,8</sup>

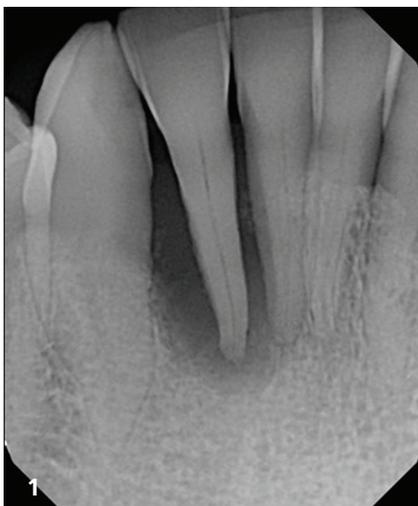
Implant surgical guides may be fabricated in the laboratory or in the office. The benefits of in-office fabrication are decreased guide preparation time, decreased cost for diagnostic and surgical guides and affordability of an in-office preliminary guide that can be worn during the initial diagnostic CBCT scan.

The components of the Guide Right system (DePlaque) for creating a diagnostic guide and surgical guide consist of: (1) straight and offset guide posts; (2) straight and angled guide sleeves; (3) a 3/32 in. pilot drill; and (4) additional drills with depth stops that match the interior of the guide sleeves. The offset guide posts are designed as two pieces. The upper re-

movable part is available in 0.0–3.5 mm offset in 0.5 mm increments. Regarding the guide sleeves, guide sleeve inserts are available to guide each successive drill in the intended sequence to the final osteotomy diameter and allow use of the final implant brand drill for the final osteotomy preparation. The following case will detail fabrication of the preliminary CBCT guide using this system and the necessary correction for fabrication of the final surgical guide to be used for osteotomy creation and implant placement.

## Case report

A 60-year-old male patient was referred for mobility of the mandibular right lateral incisor (tooth #42) and associated discomfort with the tooth. Examination noted



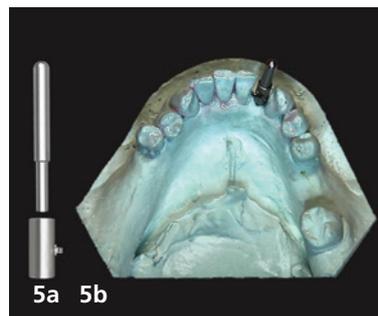
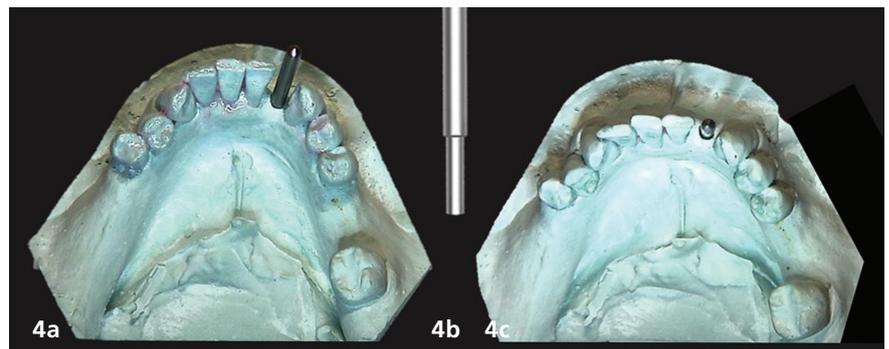
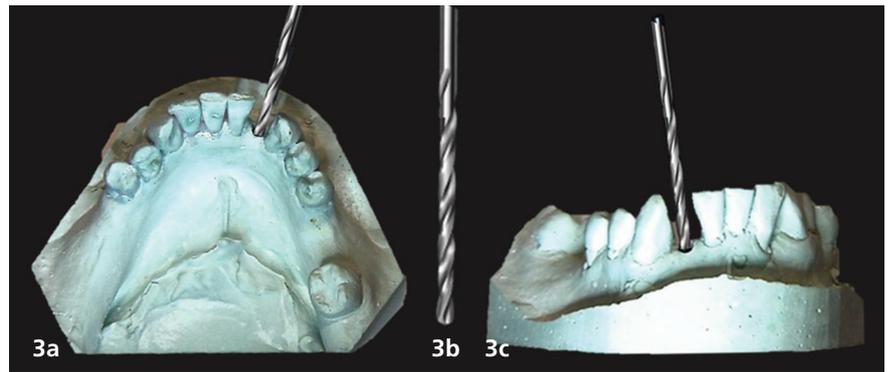
**Fig. 1:** Periapical radiograph of the maxillary anterior to evaluate the mobile tooth #42 and the adjacent dentition. **Fig. 2:** Healed extraction site eight weeks after extraction of tooth #42.

Grade III mobility of tooth #42 and no mobility of the adjacent teeth. A periapical radiograph was taken, and a large lesion was noted around tooth #42, and there was no osseous support (Fig. 1). A thin area of bone was noted between tooth #41 and tooth #42, and we suspected possible involvement of the apical area of tooth #41 regarding the lesion around tooth #42. Tooth #41 had no percussion sensitivity, and the patient did not indicate any temperature sensitivity in the area prior to the appointment.

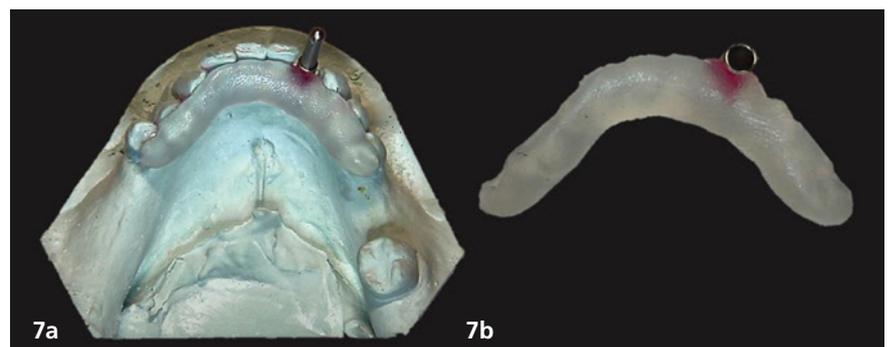
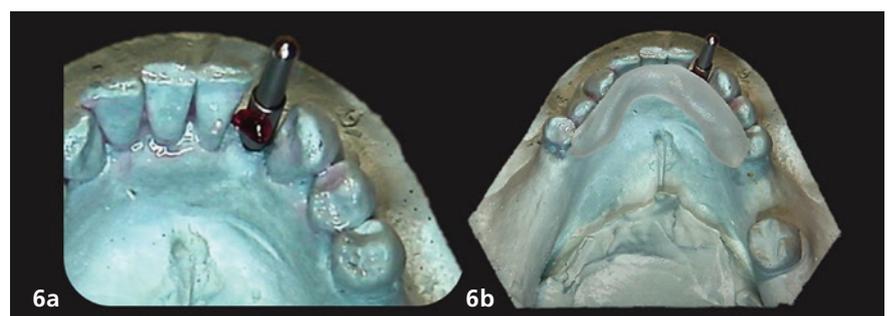
Extraction of tooth #42 and delayed implant placement were recommended to the patient. This would also allow for further evaluation of tooth #41 and the potential need for endodontic treatment or extraction should the tooth become sensitive or mobile during healing of the extraction site. The patient agreed to the treatment recommendations, and a consent form was signed. Local anaesthetic was administered, and tooth #42 was atraumatically extracted.

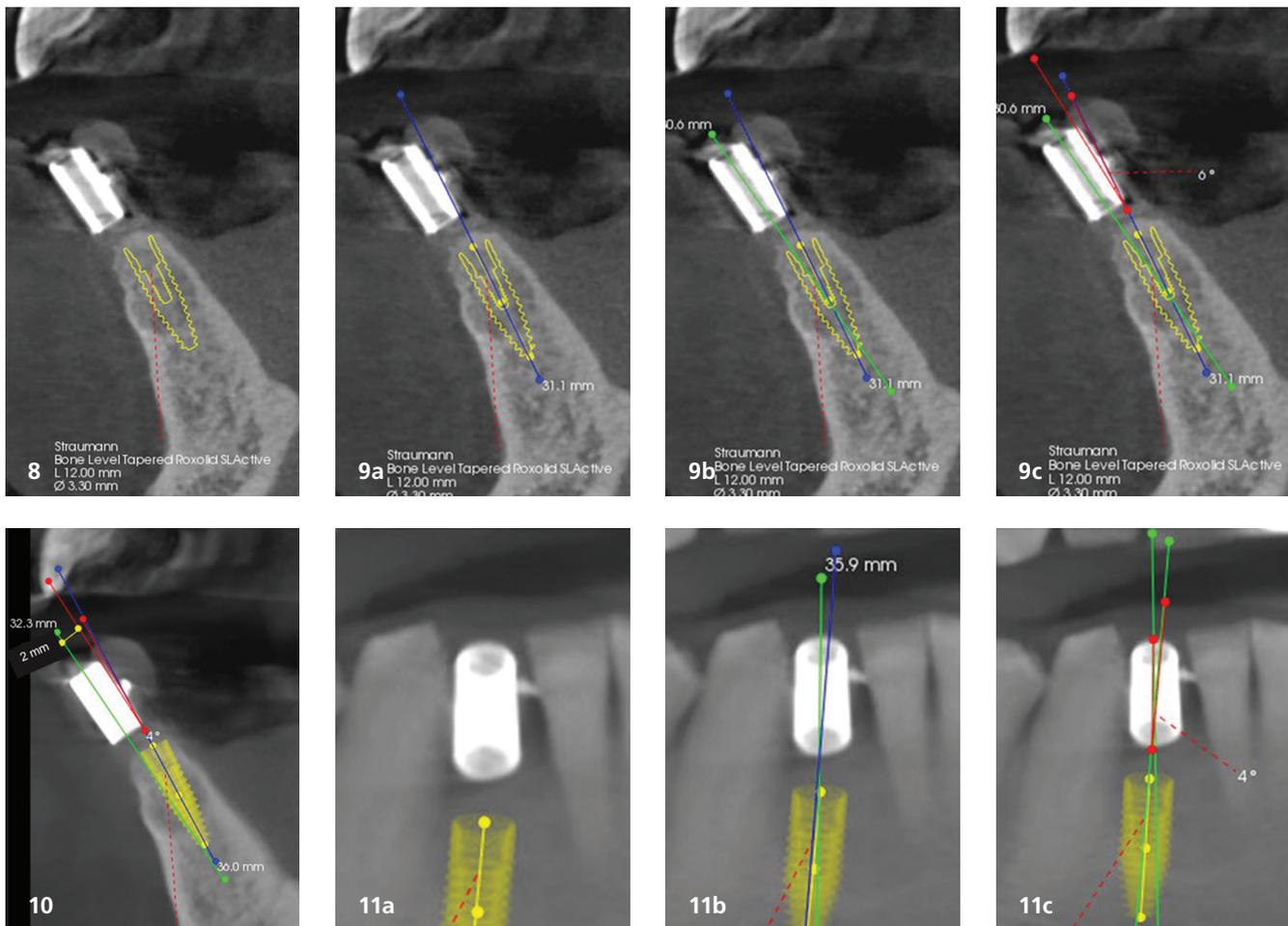
The patient returned eight weeks after extraction of tooth #42 for evaluation of tooth #41 and of site healing and for initiation of the planning phase of implant treatment (Fig. 2). Keratinised soft tissue had covered the extraction socket, and no inflammation was noted. Tooth #41 was examined, and no mobility was noted, nor was there percussion sensitivity. The treatment plan was reviewed for placement of an implant in site #42 and a delayed loading protocol, allowing for osseointegration of the implant before restoration. An impression of the mandibular arch was taken to initiate the planning phase of treatment with fabrication of a diagnostic guide, and the patient was scheduled for the next appointment.

The conventional impression was utilised to create a stone cast to be used to fabricate a diagnostic guide. The 3/32 in. Guide Right pilot drill was utilised to create a guide hole in the planned implant site on the cast that was parallel to the adjacent teeth and centred in the extraction site (Fig. 3). A Guide Right one-piece



**Figs. 3a–c:** Pilot hole made in the cast at the planned implant site, paralleling it to the adjacent teeth and centring it in the site (a & c). Guide Right pilot drill (b). **Figs. 4a–c:** Guide post placed into the pilot hole on the cast (a & c). Guide Right guide post (b). **Figs. 5a & b:** Guide Right guide sleeve and post (a). Guide sleeve placed over the guide post with the retentive cleat positioned on the lingual aspect (b). **Figs. 6a & b:** Primopattern LC Gel placed over the cleat (a). Primosplint placed on the lingual aspect of the teeth on the cast (b). **Figs. 7a & b:** Resin adapted to the lingual and occlusal aspects of the teeth (a). Diagnostic guide (b).





**Fig. 8:** Cross-sectional view of the planned implant site with the diagnostic guide in place and the virtual planned implant in the ideal position relative to the anatomy. **Figs. 9a–c:** Long axis of the virtual implant (blue line) drawn in (a). Long axis of the guide sleeve (green line) added (b). Angle correction in the buccolingual dimension (red line) was determined to be 6° (c). **Fig. 10:** Required angle correction of 6° (red line) between the planned implant axis (blue line) and the axis of the guide sleeve (green line). **Figs. 11a–c:** Mesiodistal positioning of the virtual planned implant in the planning software (a). Virtual planned implant position (blue line) in relation to the guide sleeve (green line; b) in the mesiodistal dimension, requiring a 4° angle correction (red line; c).

guide post was inserted into the pilot hole on the cast (Fig. 4). Next, a Guide Right guide sleeve was inserted over the guide post with the retentive cleat positioned to the lingual aspect (Fig. 5). A light-polymerising resin (primopattern LC Gel, primotec) was placed over the cleat and then a roll of light-polymerising resin (primosplint, primotec) was placed on the lingual aspect of the teeth on the cast (Fig. 6). The resin was then pressed on to the lingual aspect of the teeth and the occlusal surfaces, light-polymerised and removed from the cast, creating the diagnostic guide (Fig. 7).

At the next appointment, the diagnostic guide was tried in intra-orally and fit and stability confirmed on the arch. A

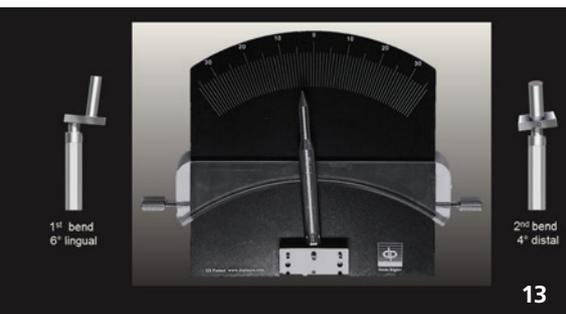
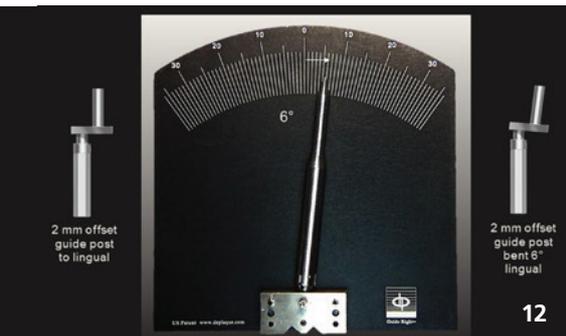
CBCT scan was taken with the diagnostic guide in place. The patient was scheduled for the implant placement phase of treatment.

The CBCT scan with the diagnostic guide in place was imported into implant planning software (Carestream Dental) and analysed for implant placement at the planned implant site. A virtual implant (3.3 × 12.0 mm) was placed in the planning software with respect to the available anatomy in the mesiodistal and buccolingual dimensions. The virtual implant was viewed in cross section to access its orientation with respect to the guide sleeve on the diagnostic guide (Fig. 8). A line was drawn through the long axis of the virtual implant and of the guide sleeve to ana-

lyse what corrections would be necessary in the buccolingual dimension (Fig. 9). A 6° angle correction between the virtual implant axis and guide sleeve axis would be required (Fig. 10). A shift of 2 mm from the position of the guide sleeve and virtual implant position would also be required.

Next, the mesiodistal positioning was analysed in the planning software. The long axis of the virtual implant and guide sleeve were again placed in the software. A 4° angle correction was determined to be needed for ideal implant placement in this dimension (Fig. 11).

A 2 mm offset guide post that would position the upper portion of the guide post to the lingual aspect was selected. Utilising the Guide Right bending tool, a



**Fig. 12:** First angle correction made utilising the bending tool to bend the offset guide post 6° in the lingual direction. **Fig. 13:** Second angle correction of the modified offset guide post 4° to the distal aspect. **Figs. 14a–c:** Guide post before correction (a), after the first angle correction of 6° to the lingual aspect (b) and after the second angle correction of 4° to the distal aspect (c), completing the two-bend guide post modification.

6° correction was made to the guide post, completing the first angle correction (Fig. 12). The second angle correction was made by reorienting the modified 2 mm offset guide post with the bending tool, achieving a 4° correction (Fig. 13). The completed two-bend guide post incorporated a 6° correction (first bend) in the

buccolingual direction and a 4° correction (second bend) in the mesiodistal direction (Fig. 14).

The modified guide post was inserted back into the guide hole in the cast with the top oriented to the lingual aspect, a 3.85 mm upper removable part was placed over the top of the modified guide post in the cast, and a guide sleeve was placed on the upper removable part with the cleat oriented to the lingual aspect (Fig. 15). Primopattern LC Gel was placed over the cleat and primosplint placed in a similar manner to when the diagnostic guide was fabricated and light-polymerised to complete the corrected surgical guide (Fig. 16).

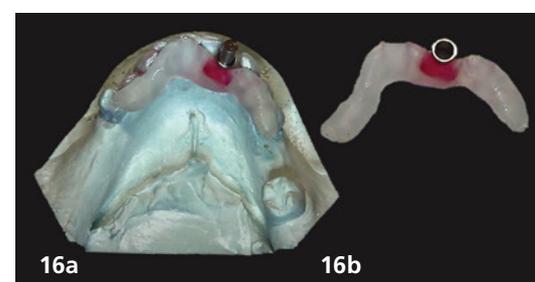
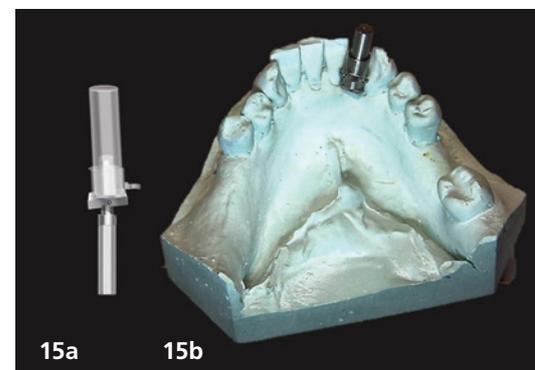
The patient returned for implant placement, and the consent form was reviewed and signed by the patient. The surgical guide was tried in intra-orally to verify its fit to the arch and stability. Local anaesthetic was administered. A flapless surgical approach was undertaken. Initially, a pilot drill with a 3.9 mm depth stop was utilised through the guide sleeve on the surgical guide to start the osteotomy (Fig. 17). To accommodate the thickness of the gingival tissue (3 mm) plus the length of the implant (12 mm), a length from the top of the guide sleeve of 15 mm was selected and an appropriate length guide sleeve set on the drills. The drilling sequence through the surgical guide was completed with a Straumann 2.8 mm drill with the 15 mm guide depth. A 3.3 × 12.0 mm implant was then placed into the osteotomy and the Straumann explantation tool utilised to place the platform of the implant 1–2 mm subcrestally. A 2 mm high healing abutment was placed with its top flush with the gingival crest. A CBCT scan was taken to document the implant placement relative to the surrounding anatomy. Analysis of the scan demonstrated ideal placement in the narrow site, respecting the adjacent anatomy in the mesiodistal and buccolingual directions.

The restorative phase of treatment was initiated after three months of osseointegration. Restoration was completed with a screw-retained crown. A periapical radiograph was taken to confirm seating of

the implant restoration on the platform (Fig. 18). Radiographically, it was noted that the bone level on the mesial and distal aspects was at the top of the platform and that there was complete bone fill on the distal aspect of tooth #41. Clinically, the gingiva was healthy and keratinised and presented with no inflammation (Fig. 19).

## Discussion

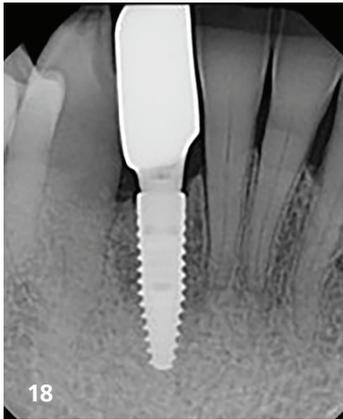
It is well established that surgical guides aid in ideal placement of implants, and the use of CBCT is becoming a routine part of the planning and fabrication of surgical guides. CBCT scans provide valuable information when planning implant placement, but prosthetic positioning is not possible with a typical scan. Information from a dental cast may be used to ideally position the implant prosthetically, which is especially critical in narrow sites. The information is then transferred to the CBCT scan by use of a diagnostic guide. Coordinating the cast and CBCT data allows



**Figs. 15a & b:** Upper removable part placed over the modified offset guide post on the cast and the guide sleeve placed over it with the cleat to the lingual aspect (a), all on the cast (b). **Figs. 16a & b:** Primopattern LC Gel placed over the cleat and primosplint adapted to the cast (a). Corrected surgical guide after light polymerisation (b).



**Figs. 17a & b:** Corrected surgical guide inserted intra-orally (a) and utilised to guide the osteotomy drills for site preparation (b). **Fig. 18:** Periapical radiograph of the restored implant, demonstrating good implant placement with respect to the anatomy in the narrow site. **Fig. 19:** Implant restoration *in situ*.



prosthetic positioning to be utilised with the virtual planning.<sup>9,10</sup> A diagnostic guide fabricated on a cast of the pretreatment arch aids in guiding planning and analysis, providing data to the planning software to better aid in surgical guide design.

The particular case featured in this article required ridge augmentation to create dimensions that would accommodate implant placement. After healing of the grafted ridge, a new CBCT scan was taken with the diagnostic guide, and implant planning in the software was then performed with the new osseous anatomy.

Design of the diagnostic guide uses straight guide posts on the pretreatment cast. The offset guide post is used when a correction to the osteotomy position is required, positioning the osteotomy to the facial or lingual aspect based on the CBCT analysis. This allows use of the guide hole in the initial cast to correct the position and angulation of the guided osteotomy when fabricating the corrected surgical guide.

## Conclusion

Guided implant placement allows the practitioner to avoid misplacement with regard to the surrounding anatomy. This is particularly critical when placing an implant into a narrow site. When done free-hand, this may result in contact with the root of the adjacent teeth or a lack of interproximal bone, which may lead to implant failure owing to insufficient bone between the implant and tooth. A CBCT scan provides analysis of the planned site in 3D, but as implant treatment is restoratively driven, there needs to be a way to incorporate the restorative position with the anatomy to best plan for ideal implant placement. Utilisation of a diagnostic guide allows that information to be part of the implant planning and fabrication of a corrected surgical guide for ideal implant placement in narrow sites and avoids potential problems with surgical placement as well as with restoration of the implant.

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References



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## Therapy of an infra-bony peri-implant defect

# Successful regenerative treatment using modern alloplastic bone graft material

Dr Hussein Asaria, UK

Using dental implants for restoring single or multiple missing teeth has become commonplace, owing to their high success rates (97%) and long-term durability.<sup>10</sup> However, the widespread adoption of dental implant therapy has also brought forth various complications, spanning from biomechanical issues to infections and inflammations.<sup>3</sup>

Among these complications, peri-implantitis stands out as the primary cause of late-stage implant failure and subsequent removal. A meta-analysis has estimated a substantial average prevalence of 22% for this condition.<sup>10</sup> According to the Consensus report from the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions, peri-implantitis is characterised by inflammation of the tissues surrounding dental implants, resulting in progressive loss of supporting bone. Clinical manifestations include inflammation, bleeding upon probing, suppuration, increased probing depths, recession of the mucosal margin, and radiographic evidence of bone loss.

Diagnosis typically relies on the presence of bleeding or suppuration upon gentle probing, probing depths of  $\geq 6$  mm, and bone levels  $\geq 3$  mm apical to the most coronal part of the implant.<sup>1</sup>

Despite extensive research aimed at identifying optimal treatment strategies, there is currently no universally accepted protocol for effectively and predictably resolving these complications. Treatment approaches generally fall into two categories: resective or regenerative, depending on whether the defect is supra-bony or infra-bony. The choice of approach is further influenced by patient-specific factors such as smoking habits, oral hygiene, and overall medical condition.

Hydrogen peroxide has emerged as a widely used chemical agent for implant surface decontamination, owing to its availability, efficacy, and safety. Application of hydrogen peroxide on the implant surface for two minutes is a commonly employed method for chemical decontamination, although non-surgical therapy alone appears to be generally ineffective and is often used as a preliminary step before surgical intervention.<sup>10</sup>

The aim of the present clinical case is to describe a surgical approach for reconstructive therapy to address an intra-body peri-implant defect. This involves the use of EthOss®, a fully synthetic bone regenerative material, in a peri-implant defect



Figs. 1 & 2: Initial clinical situation.

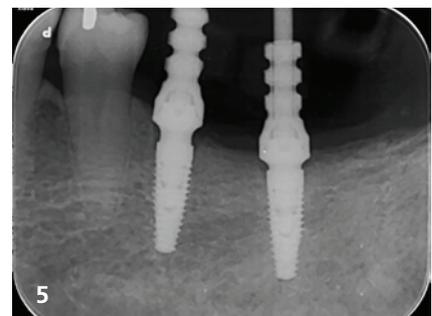
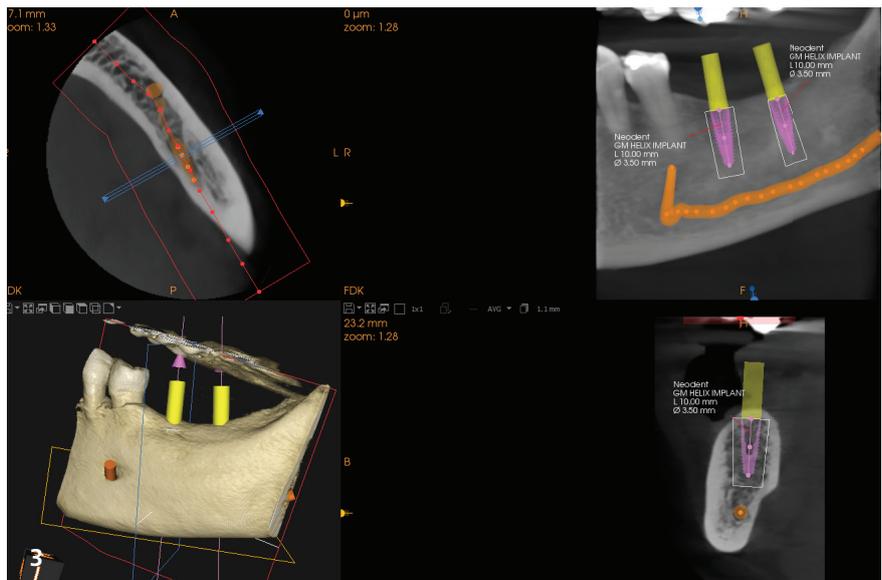
that has been thoroughly debrided and disinfected with hydrogen peroxide.

**Case presentation**

In January 2022, a 58-year-old woman presented with a long-standing concern about her inability to bite effectively on her lower left side due to the absence of her first and second molars (Figs. 1 & 2). She expressed interest in exploring dental implant options to restore her bite functionality.

Her medical history revealed high blood pressure and borderline type 2 diabetes, for which she was regularly taking amlodipine and metformin. A cone beam computed tomography (CBCT) scan was conducted for planning purposes (Fig. 3). Subsequently, implant placement was performed three months later (Fig. 4). The patient was pre-medicated with 3g of Amoxicillin, and a full-thickness flap was raised to place two GM Helix Neodent implants, each 3.5 x 10 mm, with a torque of 45 Ncm. Healing abutments were also placed, and no grafting was necessary. The surgical procedure was uneventful, and the patient returned a week later for suture removal, with healing progressing as expected.

Four months post-implantation, multi-unit abutments (GM Mini Conical) were fitted, and impressions were taken for linked crowns (Fig. 5). The crowns were placed one month later (Fig. 6). Six weeks after crown placement, the patient was recalled for an assessment, which revealed no issues, with baseline probing depths around the implants being satisfactory.



**Fig. 3:** CBCT scan for treatment planning.  
**Fig. 4:** Implants at the time of placement.  
**Fig. 5:** Radiograph taken during the impression phase.  
**Fig. 6:** Condition of the tissues at the time of fit.

Table 1		#36	
1	4		3
1	1		1

Table 2		#37	
3	3		1
1	2		1

Table 1 and 2 showing probing depths at base line, six weeks after fit.

However, seven months post-implantation, the patient reported a strange, swollen sensation in her gum over the past six weeks. Her general dentist prescribed Amoxicillin 500mg, to be taken three times daily for five days. Clinical examination and radiographs revealed bleeding on probing, suppuration, increased probing depths, and progressive bone loss around implant #37 only (Figs. 7 & 8).

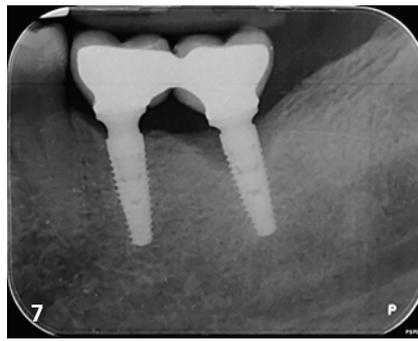
Table 3		#36	
1	1		3
1	2		1

Table 4		#37	
5(S)	5(S)		2
3	3		3

Table 3 and 4 showing new probing depths.

To address this, the patient was instructed to follow an intense oral hygiene regimen, including interdental brushing and salt rinses, for two weeks. Following this regimen, the restoration was removed (Fig. 9), and the #37 abutment was replaced with a flat cover screw. A full-thickness three-sided flap was performed to avoid disturbing implant #36 (Fig. 10). The granulation tissue was meticulously removed using hand instruments and EthOss® degranulation burs, and the implant was cleaned with a stainless steel hand curette. After thoroughly removing the infected tissue, the implant surface was disinfected with 6% hydrogen peroxide gel for two minutes, followed by saline rinsing. This decontamination process was repeated five times (Figs. 11–16).

Four months later, the patient returned for a follow-up, reporting no pain or issues. Probing depths around implant #37 were 112/111 around the protection cylinder, and around implant #36 were 101/101 around the healing abutment. The healing abutment was replaced with the initially used MUA, and the same restoration was reattached (Figs. 17–24).



**Fig. 7:** Radiograph at nine months post-op. **Fig. 8:** Buccal swelling can be observed. **Fig. 9:** Removal of the restoration. **Fig. 10:** Three-sided flap revealing the defect.



#### References



## Conclusion

The regenerative approach employed in addressing the infra-bony defect with hydrogen peroxide and EthOss® has proven successful. This success is evident both from the patient's perspective, with no reported pain and restored full function, as well as from clinical observations. Significant improvements include a net gain of 3 mm in probing depth, absence of bleeding or suppuration, and radiographic evidence of bone regeneration, which has persisted for nine months post-surgery and six months after replacement of the restoration.

Furthermore, the ability to retain the same restoration and multi-unit abutment without any observable soft- or hard-tissue recession indicates no actual loss of tissue occurred. The favourable outcome of this case, coupled with the accessibility and effectiveness of the materials used, suggests that this approach represents a viable option for treating infra-bony peri-implant defects.



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Table 5		#36	
1	1	2	
1	1	1	

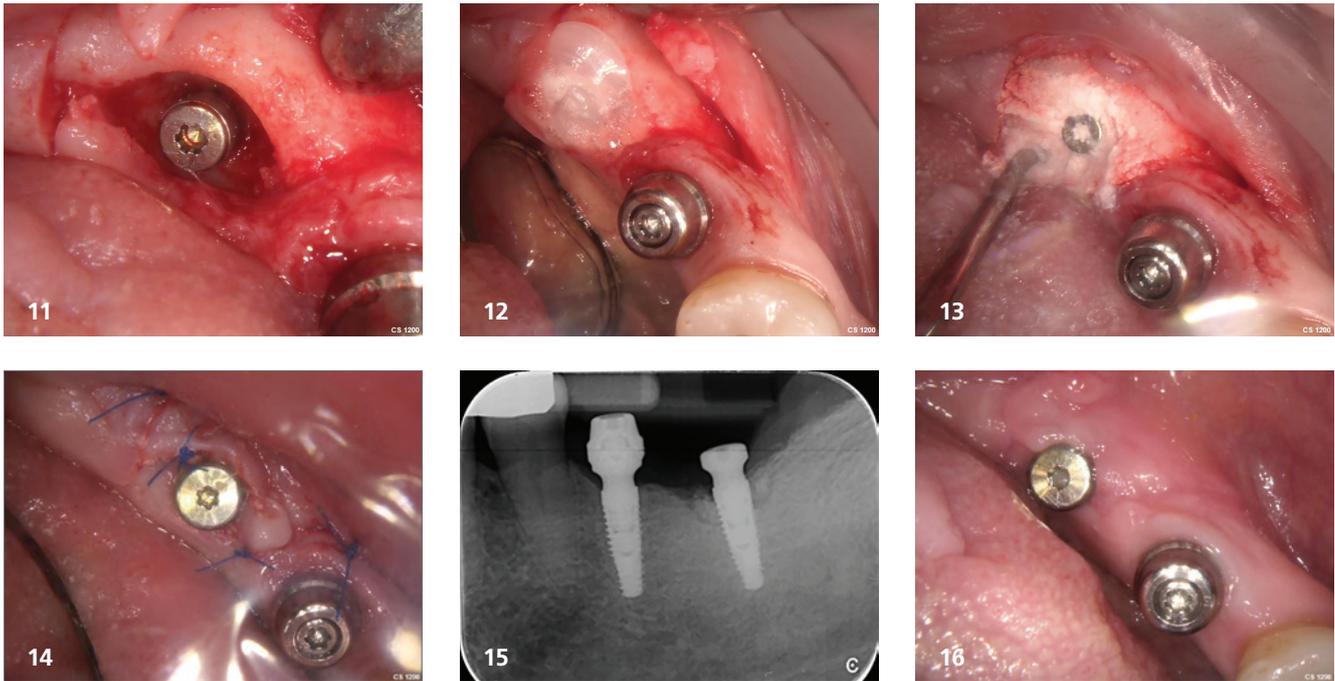
Table 6		#37	
1	0	1	
1	0	1	

Table 5 and 6 showing probing depths at six-week-review.

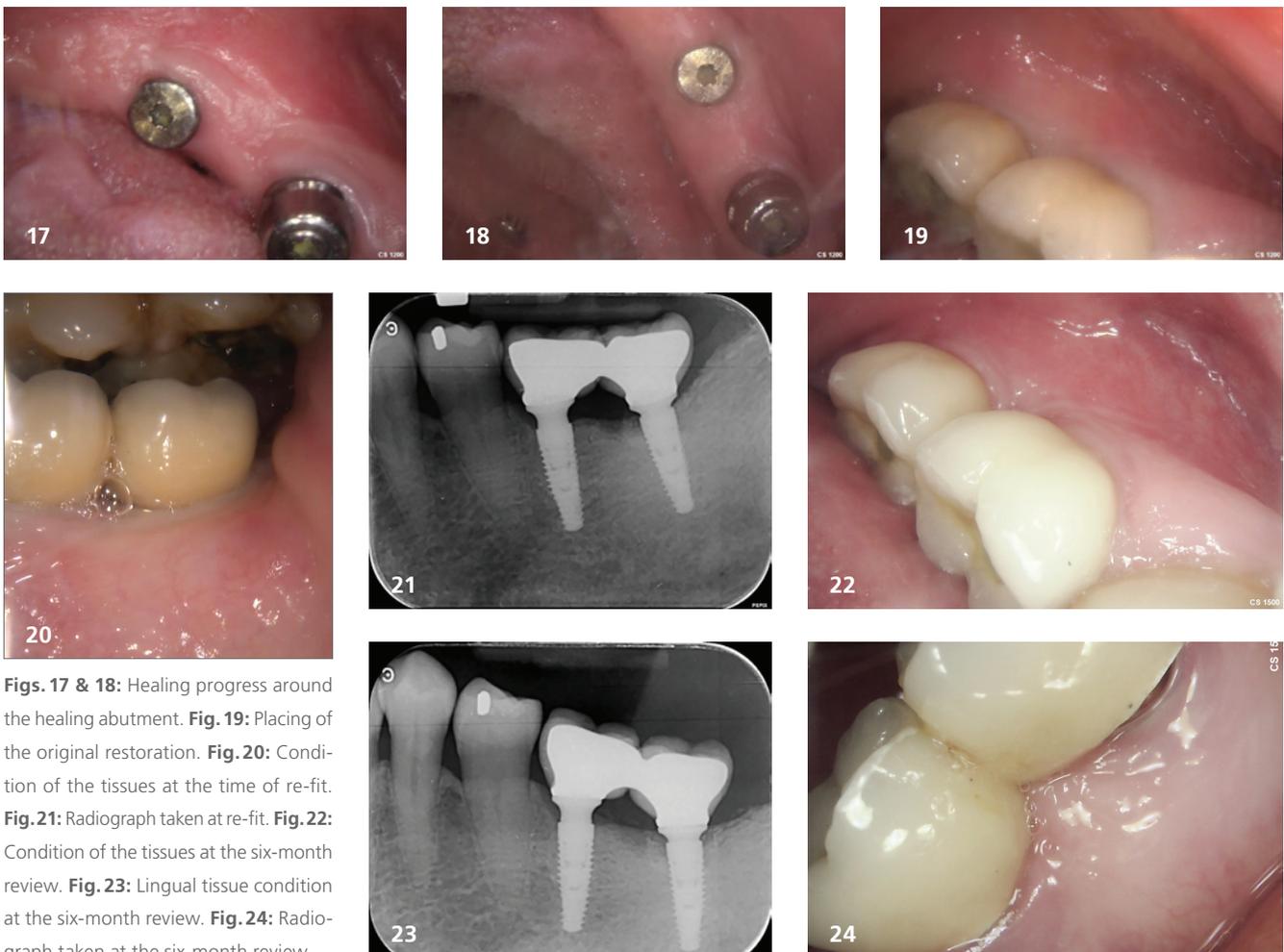
Table 7		LR6	
0	0	1	
1	1	1	

Table 8		LR7	
0	1	0	
0	1	1	

Table 7 and 8 showing probing depths at six-month-review.



**Fig. 11:** Intra-bony elliptical circumferential defect fully exposed. **Fig. 12:** Disinfection of the implant using H<sub>2</sub>O<sub>2</sub> gel. **Fig. 13:** Filling the infra-bony defect with EthOss®. **Fig. 14:** Placement of the healing abutment and closure of the site with 5/0 Prolene sutures. **Fig. 15:** Radiograph following peri-implant surgery. **Fig. 16:** One-week post-op showing initial healing.



**Figs. 17 & 18:** Healing progress around the healing abutment. **Fig. 19:** Placing of the original restoration. **Fig. 20:** Condition of the tissues at the time of re-fit. **Fig. 21:** Radiograph taken at re-fit. **Fig. 22:** Condition of the tissues at the six-month review. **Fig. 23:** Lingual tissue condition at the six-month review. **Fig. 24:** Radiograph taken at the six-month review.



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An interview with Prof. Arjan Vissink on the current state of big data in implant dentistry

# Big data in implant dentistry—“We are standing at the beginning”

Big data and artificial intelligence in implant dentistry have become significant topics in contemporary discussions. In this interview, Prof. Arjan Vissink, a renowned oral and maxillofacial surgeon from the Faculty of Medical Sciences of the University of Groningen in the Netherlands, provides an insightful exploration of this subject. He delves into the current state of big data in implant dentistry, its future uses and its challenges.

**Prof. Vissink, what possibilities does big data offer in dentistry right now, and what does the future hold?**

Very few studies have used big data in implant dentistry. We are standing at the beginning. Not much can be said yet of the impact of observations from big data in implant dentistry with regard to diagnostics, risk profiles and prognosis. So far, there has only been cursory study done in this area. Some aspects explored include implant type and diameter used (irrespective of the brand), indication and application, for example immediate or delayed loading, and whether bone augmentation was needed, in addition to general health perspectives, such as smoking, diabetes, immunological diseases, radiotherapy in the head and neck region, and bisphosphonates, with regard to overall implant survival. It has also been investigated whether an oral surgeon or periodontist has a better implant outcome, but the indications for implant placement were not assessed. Whether implants are good solutions in elderly patients has also been studied, specifically for supporting prosthetic restorations and how underlying diseases could compromise the outcome in this situation. The data reported so far is not sufficiently robust to guide decision-making.



**Technical innovations are being developed faster than ever before. When will big data be more commonly used in dental practice?**

At the moment, there is no direct use of the results of big data studies in implant dentistry for daily dental practice. Only very rough overall data is available, and it is not tailored to the individual patient. There is no data available on immediate or delayed placement, immediate or delayed loading, one- or two-stage procedures, or when an implant site should be considered compromised, etc. We should first begin to better record implant procedures, restorations, procedures used in the upper and lower jaw, situations that necessitate bone regeneration, the implant platform used and more. From such data, better general conclusions could be drawn, and eventually, better recommendations for the individual patient could be made. Although innovations are evolving rapidly, it will be quite some time before the dental practice and the individual patient in particular will benefit from these achievements.

**Can you share some tips for dental professionals who want to get more involved with artificial intelligence and the use of big data?**

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Dentists should first start with a uniform description of procedures, such as a standardised questionnaire for the initial data collection for as many patients as possible. Better conclusions could be formulated from such data even if they are not yet tailored for the individual and apply just at a group level. It will take much longer before the conclusions drawn from big data research will have a direct impact on individual patient care.

#### ***What challenges does the use of big data in dental practice entail?***

Big data in implant dentistry is in its infancy. First, a standardised database should be designed in which all details of implant placement and restoration can be recorded in a standardised manner. Standardisation of the data entries will be a starting point for many future studies. Next, dentists who place implants and/or make the prostheses for these implants should take the time to create a record in the database for every patient they treat. Time spent on building the database is time that cannot be used for patient treatment, but it will bring implant dentistry further in the long run. Once the data entry process becomes routine for the dentist, the time requirement will become minimal.

#### ***The use of modern technologies also raises concerns regarding data protection. How can this issue be addressed? And are there any other issues that need to be considered when handling personal medical data?***

All data can be collected in an anonymised way. We must ensure that insurance companies or organisations who could gain financially cannot access this data. For example, all patient data could be coded in the database using a code only known by the treating physician. Thereafter, all implant-specific data could be added to that database. An example of big data documentation is the case of the database used for patients with Sjögren's syndrome, a rare autoimmune disease affecting, among other things, the eye (keratoconjunctivitis sicca) and the mouth (hyposalivation, xerostomia). More than 15,000 well-classified Sjögren's

patients are anonymously registered in a very valuable database documenting their disease. Those responsible for using the data and writing arising research reports have no access to the patient files. When data is missing or incomplete, the treating clinician is asked to provide the missing data where possible. Financially, there is barely any support.

#### ***What are the three most vital things about big data's role in implant dentistry to remember?***

Big data in implant dentistry is just getting started. There is no generally approved protocol as to what parameters to evaluate and how to score. First, the content of the questions through which data will be gathered must be arranged, in addition to determining how those responses will be reported.

Thus far, only very general trends have been reported with regard to implant dentistry.

We have to agree on the creation of a standardised database in which all results related to implant treatment will be recorded.

*Editorial note: This interview was conducted by Franziska Beier, Dental Tribune International, and first published in today EAO Berlin 2023.*

## about the interviewee

**Prof. Arjan Vissink** is a renowned expert in oral medicine at the University Medical Centre Groningen in the Netherlands. His extensive expertise in implantology and reconstructive surgery has led to significant contributions in these fields. Globally recognised, he is frequently invited to speak at international conferences and has authored numerous publications.

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# DDS.Berlin concludes its premiere with positive feedback

DDS.Berlin, the first edition of the Digital Dentistry Show, took place at Arena Berlin on 28 and 29 June 2024. Nearly 80 exhibitors and more than 1,000 attendees did not want to miss the premiere. About half of the attendees came from Germany. The event also attracted many dentists from other European countries and the rest of the world.

During the event, a total of 32 presentations were given by more than 50 speakers, including many experts from the Digital Dentistry Society itself. They presented a wide range of topics related to digital dentistry and its application in daily practice. Highlights included the presentations by Prof. Christos Angelopoulos, Dr Luis Bessa, Dr Leon Emdin, Dr Raquel Zita Gomes, Dr Anne Heinz, Dr Miloš Ljubičić and Dr Paul Schuh, who presented a broad range of clinical cases and demonstrated applications of digital technologies.

In addition to the presentations, more than 20 workshops were held, offering the 300 attendees hands-on learning experiences on topics such as intra-oral scanning, digital implant placement, chair-

side workflows, dynamic data acquisition, 3D printing and AI-supported treatment planning.

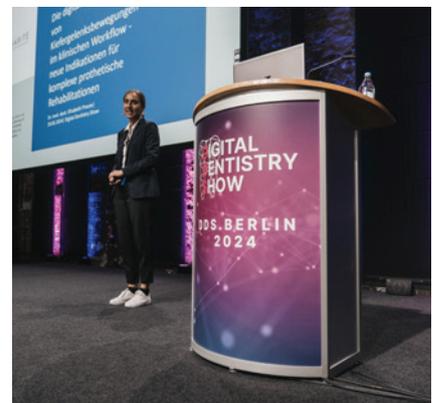
Holger Emmert, Head of Marketing at SprintRay Europe, commented: "We are pleasantly surprised by the audience and the highly specific questions that were asked. The overall level of expertise of the attendees is higher than what we normally encounter at trade fairs or conferences."

"DDS.Berlin is an important meeting of scientific and industrial groups [...]. Unlike larger conferences with a general focus, this event provides a unique opportunity to focus exclusively on the digital aspects", said Connie Peterse-van der Koppel, Principal Scientific Adviser at NextDent by 3D Systems.

Dr Henriette Lerner, Past President of the Digital Dentistry Society, who has been involved in planning the scientific programme, added: "Digital dentistry is the present and the future of our clinical practice. The value of this event lies in the convergence of the latest technological developments and the exchange on clinical applications through workshops and lectures."

DDS.Berlin also offered a live stream of the presentations, which will be available online shortly. The next DDS.Berlin event is scheduled for 26 and 27 June 2026.

More information about the event can be found on the DDS.Berlin website.



The first edition of DDS.Berlin offered a considerable number of educational opportunities. In his workshop, Dr Miloš Ljubičić demonstrated the transformative effect of 3D printing in dentistry (left). As part of the lecture programme, Dr Elisabeth Prause from Charité—Universitätsmedizin Berlin spoke about the use of advanced digital technologies in prosthetic rehabilitation (right).

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National Osteology Symposium Paris

# National Osteology Symposium

26–28 Septembre 2024

Paris

Maison de la Chimie

The Beauty of Regeneration  
La Beauté de la Régénération

## The beauty of regeneration

The National Osteology Symposium is set to convene in the vibrant city of Paris from 26 to 28 September 2024, offering three days of unrivaled learning and networking opportunities. Hosted at the historic Maison de la Chimie, the event will bring together world leaders and experts in oral tissue regeneration, led by scientific chairs Emmanuelle Ettegui, Hélène Arnal, and Anton Sculean. All sessions will be in English or with English translation.

The symposium will begin on Thursday morning with hands-on workshops designed to enhance surgical skills and introduce participants to innovative materials. In the afternoon, attendees will have the unique opportunity to engage with renowned speakers Franck Renouard, Giovanni Salvi and Brenda Mertens as they explore strategies for preventing errors and complications in periodontal and implant surgery, with a focus on predictable procedures and reliability.

Friday's agenda is dedicated to exploring the latest advances in hard- and soft-tissue regeneration. Attendees will be treated to a phenomenal session on guided bone regeneration, featuring the pioneer Christer Dahlin as well as Istvan Urban and Georges Khoury who will share their

expertise in vertical and horizontal bone regeneration. The afternoon will continue with presentations from masters of soft-tissue regeneration, including Mario Rocuzzo, Stavros Pelekanos, and Oscar González Martín.

Saturday's sessions promise to maintain the high standard set by previous days, with discussions led by experts Giulio Rasperini, Nikos Donos, Martina Stefanini, and Sofia Aroca. Topics will include intrabony and furcation lesions, severe recession cases, and connective tissue substitutes.

Don't miss this unparalleled opportunity to meet the cream of the crop in oral tissue regeneration in the heart of Europe.

For more information and registration details, visit [osteology.org](http://osteology.org).



Register here



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# EuroPerio11 kicks off with virtual event and ambassador meet-up

The virtual kick-off for EuroPerio11 took place on 3 June 2024, marking the beginning of the countdown to the world's leading congress in periodontology and implant dentistry.

The virtual event featured three clinical masters of periodontal and implant surgery who dissected the outcomes of the live surgeries performed at EuroPerio10 in Copenhagen, Denmark, 2022. Attendees were thrilled to experience the excitement of the operating room from the front row as the masters unveiled the results of their first-class clinical procedures.

With over 2,000 registrations, the event drew significant attention. 1,050 people tuned in to watch it live, reflecting the high interest and anticipation for EuroPerio11. The kick-off also emphasised the importance of the upcoming congress, which will take place from 14 to 17 May 2025 in Vienna, Austria.

Anton Sculean, EuroPerio11 chair, encourages dental health professionals to attend EuroPerio11: "EuroPerio is the world's leading congress in periodontology and implant dentistry. The congress features a rich and varied scientific programme, including live surgeries, interactive sessions, and much more. With more than 150 top speakers from all over the world who are the most respected masters in their fields, it's the ideal place to meet friends and colleagues and exchange the latest information. The exhibition showcases the latest products and technologies, while the poster exhibition will present over 1,000 new publications in the field. To sum up, EuroPerio11 is the place to be."

EuroPerio11 ambassadors also met in Vienna to discuss their roles and strategies for promoting the congress

within their respective member societies. The total number of ambassadors participating in this initiative is 30, including full and associate members. A group of eight international ambassadors will also help to promote the event in their regions. Ambassadors play a crucial role in ensuring widespread engagement and participation in EuroPerio11.

The chair of the ambassador group, Mia Rakić, highlighted their significance saying: "EuroPerio ambassadors are vital in promoting the event across Europe. Their dedication and efforts in each member society are key to the success of the congress. We are grateful for their commitment and enthusiasm."

EuroPerio11 promises to be a pivotal event in the field of periodontology, offering unparalleled opportunities for learning and networking. Registration and abstract submission for EuroPerio11 will open on 2 September 2024. Be sure to mark your calendars and prepare for an exceptional event that will shape the future of periodontology and implant dentistry.

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Kick-off event of the EuroPerio11.



1,050 participants followed the event live.



The results of EuroPerio10 in Copenhagen 2022 were analysed.



# Details make perfection: EAO congress 2024

The European Association for Osseointegration is delighted to announce that its 2024 annual congress will be held in Milan, Italy from 24 to 26 October 2024.

The scientific committee has put together an inspiring programme structured around three daily themes. These will focus on “The fundamentals”, “State of the art—certainties” and “Beyond the limits”.

As always, the congress will bring together experts to debate the latest evidence-based practice, with a strong focus on take-home techniques for daily use in your clinic.

The meeting will continue the EAO’s tradition of partnering with respected local associations, and will share the stage with the Italian Academy for Osseointegration (IAO) and the Italian Society of Periodontology (SidP). Their well-respected scientific and professional perspectives will form an important additional element of the meeting.

This will be the EAO’s second visit to Italy in a decade following its 2014 congress in Rome. We are looking forward to welcoming you to modern and lively Milan, which offers unique opportunities both socially and culturally.

There are so many reasons to attend this meeting. It will combine a unique mixture of cutting-edge presentations and opportunities to network with distinguished colleagues, while spending time in a beautiful European city. Most importantly, the programme is top-notch, and the speaker line-up represents the best professionals in the field of implant dentistry and related specialities.

On behalf of the EAO, the IAO and the SidP, we look forward to seeing you in Milan!

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Expert insights from Prof. Darko Božić

# Transforming periodontal treatment

Periodontal defects present a significant challenge in dentistry, necessitating innovative solutions for comprehensive tissue regeneration. The *EDI Journal* editorial team had the opportunity to speak with Prof. Darko Božić, former President of the European Federation of Periodontology (EFP) and an esteemed associate professor in the Department of Periodontology at the School of Dental Medicine, University of Zagreb, Croatia.



Prof. Darko Božić

Prof. Božić's academic journey is deeply rooted at the University of Zagreb, where he completed his MSc, PhD, and post-graduate periodontics programme. His passion for periodontal regeneration and growth factors began during his dental studies. Mentored by Prof. Slobodan Vukičević, a pioneer in bone morphogenetic protein (BMP) research, he focused his PhD on the effects of BMPs on cementoblasts. Currently, his research centers on using hyaluronic acid in periodontal and bone regeneration. Prof. Božić's team has participated in a large multicentre trial using enamel matrix derivatives in non-surgical therapy, publishing several studies and investigating the tissue proteomics of periodontal tissue.

***Your academic work focuses on growth factors to restore lost periodontal tissues. Are there any emerging trends or future directions in this area that you find particularly promising or noteworthy?***

When we talk about periodontal regeneration, we still believe that growth factors are the way forward. In recent years, we have been using hyaluronic acid for periodontal regeneration and evidence shows it helps restore lost periodontal tissues.

We have animal histology, cementoblast *in vitro* study, and a few human clinical trials demonstrating the beneficial effects of this molecule for periodontal regeneration.

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genic matrices for soft-tissue reconstruction around implants. While many still consider the connective tissue graft as the gold standard, I would say it probably is. Based on my experience over the past several years, I've found collagenous xenogeneic matrices to be a viable alternative. These matrices show promising clinical indications as replacement grafting materials, effectively enhancing and thickening soft tissues around implants.

Additionally, our observations indicate a significant increase in keratinised tissue width over time with the use of collagenous matrices. However, it's important to note that a certain amount of keratinised tissue is necessary for fibroblasts from the keratinised mucosa or gingiva to integrate into the matrix and induce soft-tissue keratinisation.

I would say that daily for minor defects and minor concavities around implants, collagenous matrices are as effective and even exceptionally good, and well tolerated by the patients as compared to the connective tissue graft. I will demonstrate clinical cases and provide more evidence during my presentation at the symposium in November.

***Hyaluronic acid is known for its versatile applications in dentistry and is praised for its regenerative properties. Could you please elaborate on the findings from your recent study regarding the effects of hyaluronic acid on mineralised tissue markers and cementoblast-specific genes?***

I believe that growth factors continue to represent the most promising and effective strategy for advancing periodontal regeneration. The problem with the growth factors was that carriers are difficult to identify which is a good carrier for a certain growth factor. Is beta-TCP ( $\beta$ -tricalcium phosphate) as effective as hydroxyapatite, demineralised porcine bone, demineralised bovine bone, or an allograft?

In our recent study on inducing some mineralised associated genes in cementoblasts, we demonstrated that hyaluronic acid significantly improves and enhances

gene expression even after eight days. This finding is particularly noteworthy, as many growth factors typically exhibit a peak in induction followed by a decline in cellular activity.

In cementoblasts treated with hyaluronic acid, we observed a sustained elevation in gene expression levels. Additionally, both our research and other studies indicate that hyaluronic acid can also induce osteoblast differentiation.

Considering these findings, hyaluronic acid emerges as a versatile molecule capable of inducing both periodontal and bone regeneration. Over the past six to seven years, I have used it monthly for bone regeneration, consistently achieving exceptionally good results.

***Do you think the application of the HA will be a game changer in periodontal tissue regeneration?***

I believe that among the numerous molecules available on the market, hyaluronic acid, in particular, stands out as an exceptionally beneficial compound for successful periodontal and bone regeneration. Whether referred to as a protein or a molecule, its effectiveness in promoting tissue regeneration is well-supported by research and clinical evidence.

***Thank you for your time, Prof. Božić!***

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We know that enamel matrix derivatives or nanomaterial derivatives for the last two decades have been also in the clinical site, PDGF (Platelet Derived Growth Factor), and I still think in the future a BMP will be one of the growth factors that will be used successfully for periodontal regeneration.

***At the symposium supported by the OSSTEM Scientific Community in London later this year you plan to lecture on xenogeneic collagen matrices, is this the material you use in your practice now? Would you say it is more effective than connective tissue grafts or other alternatives?***

At the symposium in London, my presentation will focus on collagenous xeno-

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OSSTEM-Hiossen  
Meeting 2024

London



# High primary stability and aesthetic appearance

The whiteSKY implant system from bredent is among the best-documented zirconia implant systems worldwide. It has not only demonstrated excellent osseointegration and longevity in numerous studies but has also proven its efficacy in practice. In fact, the longevity of whiteSKY implants is comparable to that of titanium implants. The whiteSKY implant system offers two different implant types: the whiteSKY Tissue Line and the whiteSKY Alveo Line. The narrow whiteSKY Tissue Line implant provides sufficient space for both the hard and soft tissue and ensures an aesthetically pleasing appearance with its slightly tapered shape in the sulcus area, transitioning from the gingiva to the implant crown. The whiteSKY Alveo Line, on the other hand, is ideal for immediate loading as it fills the extraction socket. At the same time, it provides the treating doctor with the possibility to individualise the implant according

to the specific requirements of the clinical case.

## Optimal conditions for soft-tissue attachment and high mechanical stability

Both the Alveo and Tissue Line implants of the whiteSKY system offer optimal conditions for soft-tissue attachment due to their specially designed sulcus surface. The whiteSKY implants are made of hardened zirconia and are one-piece, which gives them particularly high mechanical stability. Thanks to the improved thread design and bone-quality-oriented surgical protocol, the whiteSKY implants achieve high primary stability, making them ideal for immediate loading. Studies have shown that immediate implant placement can improve the bone-implant contact by more than 50 per cent.



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## 70 years of the Straumann brand

From its foundation in 1954 to the latest developments in implantology and digital dentistry, Straumann's history is marked by significant milestones that have shaped the dental industry. In the 1950s, Straumann made significant contributions to research into alloys for osteosynthesis. In the 1970s, the company entered the field of oral implantology with the introduction of the first Straumann dental implant. In 1980, the International Team for Implantology (ITI), which has developed into the world's leading scientific dental network, was founded. This was followed by Straumann's IPO in the 1990s. The period from 2014 to 2024 was characterised by noteworthy progress in various treatment areas, marked by the introduction of innovative products that embody Straumann quality and set new standards in treatment protocols and long-term clinical success. You can find more information at [www.straumann.com/de/de/discover/70-years-straumann](http://www.straumann.com/de/de/discover/70-years-straumann).

Source: Straumann GmbH Deutschland



BEGO

# The smart (r)evolution of dental 3D printing

BEGO, a pioneer in dental material research with more than 135 years of experience, proudly announces the launch of VarseoSmile® TriniQ®. VarseoSmile® TriniQ® represents a smart (r)evolution and sets new standards in flexibility, aesthetics, and durability in dental 3D printing.

## BEGO presents groundbreaking material for dentistry and dental technology

With the market introduction of VarseoSmile® TriniQ®, BEGO brings a smart (r)evolution to dental 3D printing. This new material enables the printing of definitive, permanent three-unit bridges for the first time and offers unmatched aesthetics with 10 VITA® shades. The high material stability opens up new possibilities for permanent restorations and extensive temporary restorations.

## Premiere at LMT LAB DAY Chicago 2024

VarseoSmile® TriniQ® was presented to the public for the first time at LMT LAB DAY Chicago 2024, which took place from 22 to 24 February 2024. This event offered the first opportunity to experience the groundbreaking properties and applications of VS TriniQ® firsthand.



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# Geistlich collagen portfolio receives EU MDR certification

Geistlich is one of the first companies in the field of regenerative dentistry to receive MDR certification for its collagen product range. This includes the entire product lines of Geistlich Bio-Gide®, Geistlich Fibro-Gide® and Geistlich Mucograft®. The Swiss company is taking a pioneering role in their field with the approval of these products for bone- and soft-tissue regeneration.

Geistlich has received MDR (Medical Device Regulation) certification from TÜV SÜD Product Service GmbH for its established product lines of Geistlich Bio-Gide®, Geistlich Fibro-Gide® and Geistlich Mucograft®, fulfilling the new EU regulations.

Despite the increased and more demanding quality and evidence requirements of the MDR, all indications for these products, which include a variety of regenerative procedures, have been confirmed.

Doctors can therefore rely on a complete range of collagen products that meet their high standards of quality and therapeutic safety.

## Pioneer in medical regeneration, extended range of indications

Geistlich Fibro-Gide® is the first non-active class III medical device of animal origin to be certified according to MDR by TÜV SÜD Product Service GmbH. The MDR certification for Geistlich Mucograft®, which is now also approved for indications outside the mouth in the facial area, is particularly pleasing.

## Commitment to the highest quality standards and patient safety

Diego Gabathuler, CEO, says: "With the MDR certification, long before the official transition period ends, we underline our commitment to the highest quality standards and patient safety, which we share together with doctors." With its four subsidiaries and numerous sales partners in Europe, Geistlich has been committed to the well-being of patients on the continent for decades and is driving medical regeneration forward.

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# The Swiss company launches Zygoma academy

Zygomatic implants provide a faster and more comfortable alternative to sinus lift or other types of bone grafting

and Nobel Biocare's new Zygoma Academy will enable more clinicians to provide immediate full-arch restorations in highly complex cases.

At the recent Envista Summit in Barcelona in Spain, Nobel Biocare announced its latest advancement in professional development: Zygoma Academy. This community-driven initiative includes one-to-one mentorship sessions with international experts and will enable more clinicians to provide immediate full-arch restorations in highly complex cases.

## Personalised learning experiences

Zygomatic implants are primarily for the severely resorbed maxilla, and they provide a faster and more comfortable alternative to sinus lift or other types of bone grafting. To support clinicians' skill in providing such advanced treatments, the Zygoma Academy programme offers several levels of mentorship and training to meet various needs:

- ZYGOMA 1 on 1: individualised mentorship and expert guidance in specific areas of interest or concern
- ZYGOMA 1 on 2: small-group discussions for case reviews and problem-solving, providing a platform for sharing experiences
- ZYGOMA 1 on 3: in-person courses with hands-on training that enables participants to develop practical skills and confidence.

In addition, one of the standout features of Zygoma Academy is its over-the-shoulder offering, which provides a rare opportunity for clinicians to observe mentors in action.

## A new era for the zygomatic implant community

The academy boasts an impressive roster of mentors and trainers, including Drs Rubén Davó, Paulo Maló, Enrico Agliardi and Chantal Malevez. These experts, hailing from more than ten countries,

bring with them diverse perspectives and a wealth of knowledge for the next generation of best-in-class surgeons.

## Commitment to excellence

Zygoma Academy represents Nobel Biocare's ongoing commitment to advancing dental education and practice. By creating a supportive, collaborative environment, the academy will not only enhance individual skills but also contribute to the advancement of the dental community and delivery of oral care. For clinicians seeking to master this complex area of practice, Zygoma Academy offers a new opportunity to learn, grow and excel.



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# Redefining dental laser technology

Fotona's LightWalker is a revolutionary dental laser system with 20W of power, two wavelengths, five pulse durations and four special pulse modes, offering an unparalleled range of clinical applications.

Practitioners are thrilled by the LightWalker's SWEEPS mode for its efficacy in endodontics, witnessing the power of bubbles in cleaning narrow root canal spaces, removing the smear layer, debris and biofilm. SWEEPS also enables non-surgical removal of biofilm and calculus in periodontal and peri-implant therapy.

The LightWalker's patented QSP mode makes it invaluable for hard-tissue treatments, debonding of veneers and orthodontic brackets, dental aesthet-

ics and surgery. With the laser's SMOOTH mode, dental practices can even perform a wide range of cutting-edge aesthetic and anti-snoring laser therapies, thus attracting new patients and revenue.

Embrace the power of LightWalker's unmatched versatility.

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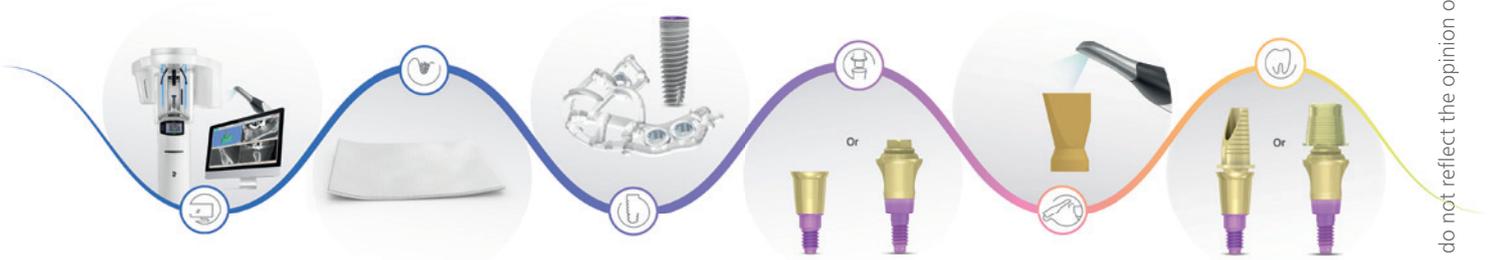
**Fotona, Slovenia**

www.fotona.com



## Making implantology simple with the MIS digital workflow

# Insights in modern dentistry



Digital workflows connect the dots in modern dentistry by merging several connected procedures into one complete treatment. The harnessing of digital tools facilitates accurate diagnosis and treatment planning, significantly improving patient outcomes and clinical efficiency. Being part of Dentsply Sirona, MIS Implants Technologies is uniquely positioned to offer its customers comprehensive digital workflows, combining MIS solutions with the latest Dentsply Sirona equipment and materials.

MIS has been investing in digital solutions for many years, and the company has watched with enthusiasm as its digital workflow has been adopted by clinicians around the world. The workflow incorporates digital imaging, intra-oral scanning, guided surgery and CAD/CAM technologies designed to enhance every step of the treatment process. According to Orit Kario, digital solutions product manager at MIS, the aim is to simplify treatment for clinicians, laboratories and patients through seamless communication and data transition.

MIS offers workflows for single-tooth, partial-arch and full-arch procedures that are tailored to general dentists and specialists and the setting, whether chairside or laboratory. They include implant-level and tissue-level solutions and enable implant-to-crown procedures.

For example, the company's workflow for conical connection implants begins with a Primescan intra-oral scan and efficient prosthetically driven MSOFT planning, assisted by the MCENTER team, which provides comprehensive digital dentistry services and detailed surgical plans. In the surgical step, bone augmentation is done with the use of OSSIX biomaterials, and clinicians benefit from the advantages of the unique MGUIDE surgical guides. The C1 implant and MIS CONNECT stay-in abutment provide primary and long-term stability and offer the ability to

maximise tissue-level restoration, and the use of a computer-guided approach contributes to the reduction of patient visits, treatment steps and corrections. For final restoration, MIS customers are offered a wide range of implant-level and tissue-level digital prosthetic solutions, all implemented in leading CAD software.

Kario said that being a Dentsply Sirona company allows MIS to offer clinicians significant advantages. She explained: "MIS can offer its customers a complete digital workflow that incorporates the MIS guided surgery system, the unique implant connections and the comprehensive digital prosthetic line, in combination with Dentsply Sirona equipment and materials, all under one roof. We believe that providing tools of this quality strengthens the brand and contributes to customer trust."

What can clinicians and laboratories gain from adopting the digital workflow? Kario emphasised: "Digital workflows address procedural challenges that impact clinical efficiency, may improve profit potential and drive actual practice growth."

To learn more, visit [www.mis-implants.com/products/digital-workflow](http://www.mis-implants.com/products/digital-workflow).



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# Digitally networked implant treatment

NSK has developed and improved the Surgic Pro surgical micro-motor system, which is now available as Surgic Pro2. Surgic Pro2 provides a Bluetooth connection to the Osseo 100+ osseo-integration gauge and a Link Set connection to the VarioSurg3 ultrasonic surgical system. By installing an application and connecting an iPad to the control unit, detailed intervention data can be displayed in real time. Both Surgic Pro2 treatment parameters and Osseo 100+ data can be displayed and stored on the iPad. The traceability of patient-specific treatment data means that implant treatment can be customised for each patient. The Surgic Pro2 and VarioSurg3 can be operated wirelessly and hygienically using a common foot control. But even without connection to other units, Surgic Pro2 offers advantages for the practitioner. The micromotor is short, lightweight and ergonomic. A high-resolution LED in the micromotor serves as light source to match working conditions under full daylight. The pump module is quiet, and the irrigation tube is easy to attach. The Surgic Pro2 is simple and intuitive to use, making it easy to upgrade from the previous model to Surgic Pro2.

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	Event	Location	Date	Details/Registration
09/2024	Warsaw Dental Medica Show	Warsaw Poland	05–07 September 2024	<a href="https://dentalmedicashow.pl/en/">https://dentalmedicashow.pl/en/</a>
	FDI World Dental Congress	Istanbul Turkey	12–15 September 2024	<a href="https://2024.world-dental-congress.org/en/">https://2024.world-dental-congress.org/en/</a>
	INTERNATIONAL ESTHETIC DAYS	Mallorca Spain	19–21 September 2024	<a href="https://www.straumann.com/en/landing/ied-2023.html">https://www.straumann.com/en/landing/ied-2023.html</a>
	6. Schweizer Implantat Kongress	Bern Switzerland	19–21 September 2024	<a href="https://implantatstiftung.ch/kongress/">https://implantatstiftung.ch/kongress/</a>
	Konstanzer Forum für Innovative Implantologie	Constance Germany	20–21 September 2024	<a href="https://konstanzer-forum.de/">https://konstanzer-forum.de/</a>
	17 <sup>th</sup> International Sofia Dental Meeting	Sofia Bulgaria	26–28 September 2024	<a href="https://sofiadentalmeeting.com/">https://sofiadentalmeeting.com/</a>
10/2024	Dental World—International Dental Exhibition and Congress	Budapest Hungary	10–12 October 2024	<a href="https://dentalworld.hu/">https://dentalworld.hu/</a>
	4 <sup>th</sup> JOINT CONGRESS for CERAMIC IMPLANTOLOGY	Kreuzlingen Switzerland	11–12 October 2024	<a href="https://joint-congress.com/">https://joint-congress.com/</a>
11/2024	ADF Congress 2024	Paris France	27–30 November 2024	<a href="https://www.adfcongres.com/fr/">https://www.adfcongres.com/fr/</a>

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**EDI Journal** – the interdisciplinary journal for prosthetic dental implantology is aimed at dentists and technicians interested in prosthetics implantology. All contributions submitted should be focused on this aspect in content and form. Suggested contributions may include:

- Original scientific research
- Case studies
- Product studies
- Overviews

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Submissions should be made in digital form. Original articles will be considered for publication only on the condition that they have not been published elsewhere in part or in whole and are not simultaneously under consideration elsewhere.

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[1] Albrektsson, T.: A multicenter report on osseointegrated oral implants. *J Prosthet Dent* 1988; 60, 75–82.

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