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

A BEACON OF EUROPEAN IMPLANTOLOGY

BDIZ EDI celebrates 20 years of EDI Journal

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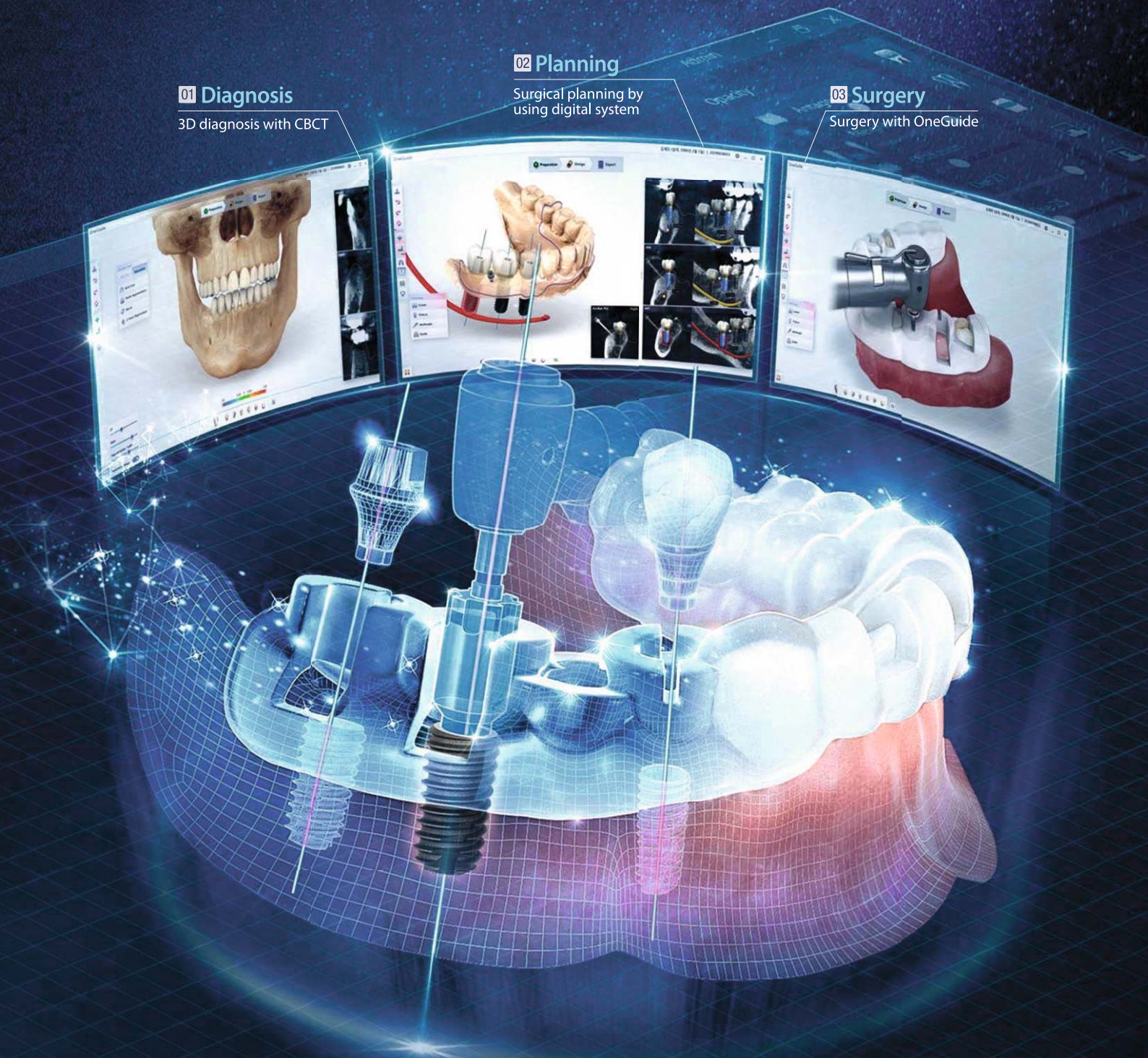

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OSSTEM IMPLANT

Celebrating 20 years of *EDI Journal*—a journey of excellence, innovation, and impact

Twenty years ago, the *EDI Journal* was born from a bold vision: to create a platform that would not only chronicle the evolution of evidence-based dentistry and digital innovation, but also shape its future. Today, as we mark the 20th anniversary of this publication, I am filled with immense pride and gratitude—for the journey we've taken, the milestones we've achieved, and the community we've built together.

From its inception, the EDI *Journal* has stood at the intersection of clinical excellence and technological advancement. We have witnessed—and documented—a remarkable transformation in dental practice: the rise of digital workflows, the integration of CAD/CAM systems, the evolution of oral implantology, and the growing importance of interdisciplinary collaboration. Through it all, our mission has remained steadfast: to inform, inspire, and elevate the global dental community.

This anniversary is not just a celebration of longevity—it is a testament to relevance. In an era of rapid change, staying current is not enough; we must lead. Over the past two decades, *EDI Journal* has done just that, thanks to the unwavering commitment of our contributors, reviewers, editorial board, and readers. Your expertise, curiosity, and critical thinking have shaped the content and character of this journal.

It is also a moment to honour the visionaries who laid the foundation for this success. I extend heartfelt thanks to Ralf Suckert, CEO of the former publishing house teamwork media and my predecessor, whose entrepreneurial spirit and leadership were instrumental in launching the journal. I also pay tribute to Marianne Steinbeck, whose years of dedicated project management helped steer *EDI Journal* through many successful chapters. To Dieter Adolph, managing director at the former teamwork media, whose contributions and support have been invaluable throughout our journey—thank you. And of course, to Christian Berger, president of BDIZ EDI and publisher of this journal, whose steadfast commitment to quality and professional advancement continues to guide our mission—your leadership is deeply appreciated.

As we look ahead, we embrace the future with the same spirit of innovation that has defined our past. Artificial intelligence, regenerative and interdisciplinary therapies are no longer distant concepts—they are the next chapters in our story. *EDI Journal* will continue to be your trusted companion in navigating these frontiers, fostering dialogue, and sharing knowledge that empowers better care.

To our readers: thank you for your loyalty and engagement. To our authors and partners: thank you for your trust and collaboration. And to our editorial team: thank you for your tireless dedication and editorial integrity. This milestone belongs to all of you.

Here's to the next 20 years—may they be as bold, brilliant, and boundary-breaking as the last.

With sincere appreciation,

Anita Wuttke
Editor-in-Chief

20 years of *EDI Journal*—a beacon of European Implantology.

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Quo vadis, implantology?

Compulsory vaccination in the workplace.

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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.

Ogolnopolskie 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 (Certy kat Umiejetnosci OSIS), which over 130 dental implantologists have already been awarded.

Sociedad Espanola 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 50th 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)

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)

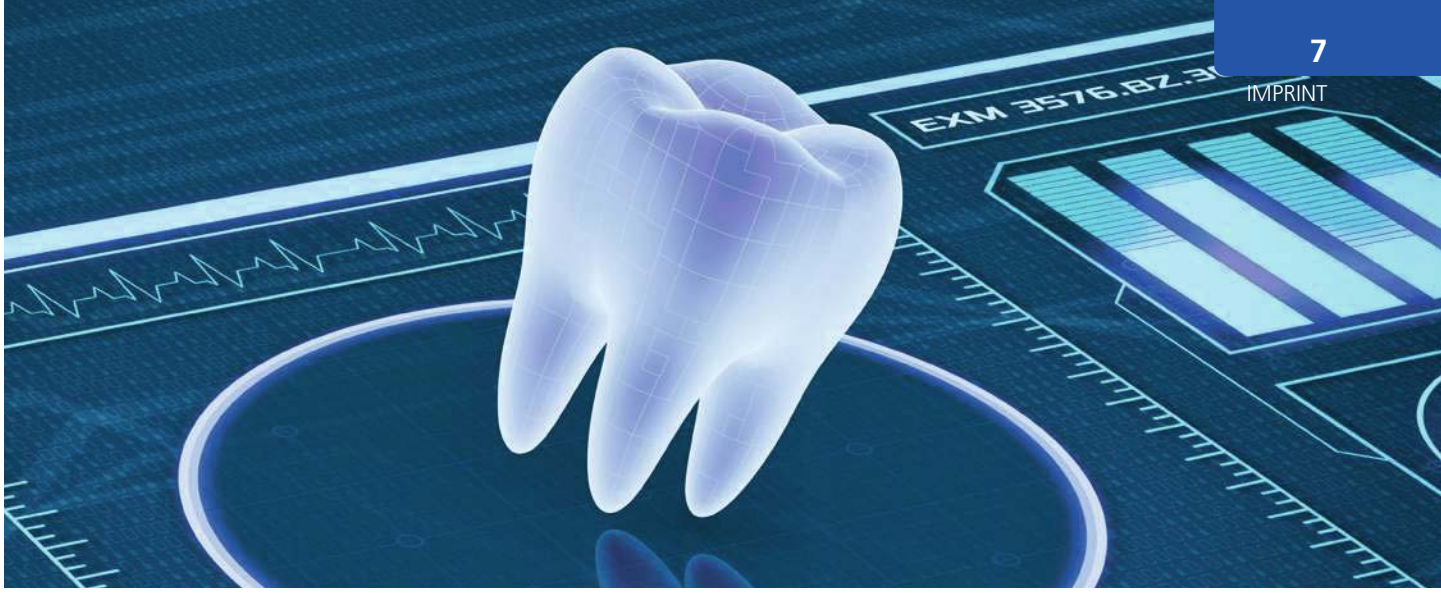
USSI EDI was founded in 2010 with the desire to enhance dentists' knowledge of dental implants, as well as to provide the highest quality of continuing education in dentistry. The most important aims of the organisation are to make postgraduate studies meeting the standards of the European Union available 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

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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20 years of *EDI Journal*

A beacon of European implantology

In 2025, *EDI Journal*—the specialist publication for implant dentistry and the English-language counterpart to *BDIZ EDI konkret*—celebrates its 20th anniversary. Over two decades, the journal has firmly established itself as an invaluable source of knowledge and a leading authority in European oral implantology. Published by the European Association of Dental Implantologists (BDIZ EDI), *EDI Journal* stands for scientific excellence, clinical relevance, and international collaboration.

The 2020 European Consensus Conference in Cologne brought together international delegates from Serbia, Nepal, India, Croatia, the United Kingdom, Germany, Portugal, North Macedonia and Turkey.

A promise of quality: state of the art in implantology

From the outset, the mission of *EDI Journal* has been clear: to inform and set new standards. Every issue is dedicated to the latest scientific and clinical developments—"state of the art" is not just a slogan, but a commitment. Whether the focus is on implant surgery, implant prosthetics, digital workflows or regenerative approaches to tooth replacement, the journal provides content that is firmly grounded in science and has direct clinical applicability.

What sets it apart is the close integration of science and hands-on experience. Leading experts from research and practice share their insights through case reports and their work on BDIZ EDI guidelines. As such, *EDI Journal* serves as a practical and comprehensive resource for all professionals demanding the highest standards in implant dentistry.

Milestones of European collaboration

EDI Journal is more than just a professional publication; it embodies the spirit of European cooperation in dentistry. Among its key milestones are:

- **European Consensus Conferences (EuCC).** Led by BDIZ EDI, these conferences produce evidence-based clinical guidelines for dental practitioners. In 2025, the focus was on managing complications in implant treatments.
- **Legal and health policy contributions.** The journal regularly addresses the evolving regulatory landscape in Europe, covering topics such as MDR compliance and delegation frameworks and professional licensing.
- **Promoting continuing education.** With reports on international congresses, workshops, and product innovations, the journal plays an active role in the professional development of dental implantologists.
- **European Committee.** Representatives from partner organisations discuss the future of implantology across Europe on an equal footing.

Looking ahead

As it enters its third decade, *EDI Journal* remains committed to its core values of quality, relevance, and a European perspective. The editorial team is focused on innovation and rejuvenation while maintaining the journal's proven strengths. New digital formats, interactive content and stronger engagement with young professionals are gradually being introduced.

To mark this milestone, the publisher BDIZ EDI, OEMUS Media, and Editor-in-Chief Anita Wuttke extend their heartfelt thanks to the editorial team and contributing authors for their dedication, which has made every issue of *EDI Journal* a valuable contribution to the future of implantology.

EDI Journal stands for …

… 20 years of expertise. Four issues per year. Countless insights for clinical practice.

„Our goal is not only to keep dentists across Europe up to date with the state of the art in science and progress in oral implantology, but also to inform them at an early stage about political developments coming from Brussels and Strasbourg."

***Christian Berger**, President of BDIZ EDI and Publisher*

„Patients and their needs know no borders—and neither do the therapeutic approaches in modern dentistry. They exist independently of national healthcare systems and their respective frameworks. A borderless commitment to patient care calls for cross-border dialogue on professional legal matters in Europe—something BDIZ EDI has successfully promoted for years."

***Norbert A. Froitzheim**, former Publisher and Managing Director, Deutscher Ärzte-Verlag GmbH, on the 20th anniversary of EDI Journal in 2015*

„Launching a European journal for implantologists was truly visionary 20 years ago—and any publishing decision of that magnitude is a risk. But with strong international networks, a publishing infrastructure that works across Europe, solid production expertise, and high-level content relevant across national borders, we made it a success."

***Ralf Suckert**, Publisher, teamwork media and Editor-in-Chief until 2014, on the 20th anniversary of EDI Journal*

„*EDI Journal* not only has the longest tradition, but also a clear and unique editorial profile. No other publication covers politically sensitive topics so thoroughly—issues that ultimately have a major impact—on the future of oral implantology."

***Marianne Steinbeck**, Project Manager of EDI Journal until 2017, on the 20th anniversary of the journal*

Anniversary salutations: 20 years of *EDI Journal*

Council of European Dentists (CED)

As President of the Council of European Dentists (CED), I am honoured to represent the interests of over 340,000 practising dentists across Europe. Since 1961, CED has served as the united voice of the profession at EU level, ensuring that dentistry is heard in the complex debates shaping European health policy.

In recent years, healthcare in Europe has been going through major changes. From new digital health rules and emerging challenges posed by artificial intelligence, to workforce shortages, as well as oral health strategies, dental education and the recognition of professional qualifications, European dentists are directly impacted by EU decisions in their daily practice.

CED's mission is to safeguard high quality oral healthcare, protect professional autonomy, and support patient safety, while encouraging innovation and responding to the needs of our societies. We are working on key issues such as cross-border professional mobility, including of dental specialists, continuous professional development, the regulation of dental devices and materials, and the growing integration of dentistry into broader EU health initiatives.

Over the past 20 years, *EDI Journal* has become an important reference point in the field of implant dentistry. It not only shares scientific knowledge and clinical experience but also provides a platform where broader professional developments can be followed. By doing so, the journal helps dentists remain well-informed about both innovation in implantology and the wider trends shaping our profession.

On the occasion of *EDI Journal*'s continued success, I warmly congratulate the team and look forward to following your future contributions to the European dental community with great interest.

Dr. Freddie Sloth-Lisbjerg
President of Council of European Dentists
https://www.cedentists.eu/

German Dental Association (BZÄK)

Since its inception, *EDI Journal* has established itself as a leading authority in the field of dentistry, providing an invaluable resource for anyone dedicated to oral implantology.

It has documented the developments in the field and continuously provided fresh impetus. With scientific depth, journalistic precision, and an eye for relevant topics, *EDI Journal* skilfully brings together current research, innovative techniques, and practical case studies. In doing so, it has become a reliable compass for modern implantology.

Of particular note is the journal's international focus and the promotion of the exchange of ideas from the outset. In an increasingly interconnected world, cross-border collaboration in research and clinical practice is essential. *EDI Journal* has been, and continues to be, a platform for sharing and debating new findings and perspectives from around the globe.

On behalf of the German Dental Association (BZÄK), I would like to offer my heartfelt congratulations on *EDI Journal*'s 20th anniversary. I wish its editors and contributors continued success and thank them for their outstanding commitment to advancing oral implantology.

Professor Christoph Benz
President of the German Dental Association (BZÄK)

OEMUS MEDIA AG

Congratulations for 20 years of *EDI Journal*!

OEMUS MEDIA AG has been working with BDIZ EDI for four years now, and it is our pleasure to jointly shape the leading European voice for dental implantology: the *EDI Journal*.

What makes this journal standing out? Science with a good attitude, practical relevance with an overview, and a European visionary perspective. From in-depth analyses and case reports to regulatory classifications—decision-makers and young scientists will find reliable guidance here.

Special thanks go to the board of BDIZ EDI, in particular to President Christian Berger and Vice-President Prof. Joachim E. Zöller, for their trust and partnership. We would also like to express our great appreciation to the editor-in-chief Anita Wuttke and all the authors who fill the journal with life and substance.

And a big "Thank you" to Stefan Thieme, who has supported the project with great commitment, expertise and reliability—and thus contributed to our joint success.

We look forward to many more years full of topics that move implantology forward—with curiosity, quality and team spirit.

Congratulations on your 20th anniversary, *EDI Journal*—here's to the next 20!

Lutz V. Hiller
Board OEMUS MEDIA AG

Czech Dental Chamber (CSK)

Twenty years of the *EDI Journal* are twenty years of a community that unites scientific rigor with clinical expertise. The Journal has guided Europe's implantology from early survival metrics to today's focus on long-term function, soft-tissue stability, and patient-reported outcomes—while championing digital workflows, responsible innovation, and patient safety. Our cooperation with BDIZ EDI's leadership—President Christian Berger and Vice President Prof. Dr Dr Joachim E. Zöller—has grown far beyond a formal link; it is a genuine friendship based on mutual help that is generous and entirely selfless. Together we are contributing to the FDI World Dental Congress Prague 2026 and to raising the bar in systematic implantology education in the Czech Republic. Congratulations to the editors, authors, and readers who made these two decades count.

Assoc. Prof. Dr Roman Šmucler, MUDr., CSc.
President, Česká stomatologická komora (ČSK)

Croatian Dental Chamber (CDC)

On behalf of the Croatian Dental Chamber, it is my great honor to extend our heartfelt congratulations to the *EDI Journal* on its 20th anniversary. For two decades, the Journal has been more than a publication—it has stood as a trusted platform for scientific exchange, professional dialogue, and the dissemination of knowledge that directly benefits both practitioners and patients.

Our Chamber highly values the close cooperation with BDIZ EDI, grounded in our shared commitment to education and continuing professional development. These pillars are essential for advancing implant dentistry and ensuring that our members remain at the forefront of innovation and evidence-based practice. The *EDI Journal* has been instrumental in supporting these goals, fostering collaboration across borders, and strengthening the European community of dental professionals.

As the *EDI Journal* enters its third decade, we look forward to continuing this fruitful partnership, united by the common vision of excellence in education, professional standards, and patient care.

Let this anniversary not only celebrate the past, but also inspire us to reach even greater heights in advancing knowledge, strengthening collaboration, and improving lives through dentistry!

Congratulations!

Hrvoje Pezo, PhD, DMD
President of the Croatian Dental Chamber

Association of Dental Implantology UK (ADI UK)

Twenty years of the *EDI Journal* deserves to be celebrated as a beacon of collaboration and partnership with the dental industry, especially as regards implant dentistry. The ADI's mission is to advance education in the field of dental implantology for the benefit of the public. This means to maximise the importance of education across all dental disciplines, with a special focus on implant training and the science supporting it. The *EDI Journal*, which our members receive, has contributed greatly to that exchange of knowledge and techniques via postgraduate training in implant science, and the vast pool of specialist know-how the journal promotes from Europe and beyond.

It has highlighted through its partnerships with the dental technology industry the advances in innovative treatments and constantly improving materials and methods, and via its case reports, product trials and comparative quality studies provided a window into the latest advances in our field by world-renowned experts.

It is vital in this post-Brexit world for practitioners in the UK to be able to access up-to-date commentary on the changes in the framework condition for dental practices prevalent across Europe, which of course do not stop at national borders. The track record of the *EDI Journal* across its 20 years reflects an ongoing success story of all those expert voices who have contributed.

When the *EDI Journal* was originally conceived as a European journal for oral implantology, we could not have foreseen the changes in the dentistry world that have taken place since then, with a harmonised internal European market and the ongoing negotiations for an American-European free-trade agreement. Innovation has been central in the development of implant dentistry, as in all medical fields. The European continent plays a definitive role in a wide range of collaborations, with partners across dental specialists, universities and technology companies.

Today, European nations are all pulling together in the same direction, sharing innovations in techniques, methodology and technology. The economic strengths within Europe and its coterie of well-trained specialist employees provide world-class success.

The promotion of research and education in the field of implant dentistry is key to the ongoing success of our industry. National and international events where specialists and experts share knowledge and innovation are central to this ongoing development of new techniques and materials, and encouraging the next generation of implant dentists to embrace studies in the field and establish new business across the world.

In the field of oral health, a field of medicine typically underestimated and under-invested in by most governments, we very actively support education and awareness—one of the three key areas identified by the European Platform For Better Oral Health. Training and education is paramount to successful treatment for our patients, and proper education and awareness of the benefits of oral health for the whole being is likewise vital. We all depend on an economic and educational environment that is at least partly determined by EU politics as well as a stable international financial market. In terms of education we would support the creation of a European accreditation or quality label for dental education events and courses which would help further harmonise internationally accepted standards. This is something the *EDI Journal* has long championed, and the ADI supports its efforts to continue this message for the shared future we all hope will bring closer cooperation, further innovation, and the advances in our industry which will help generate better outcomes for patients and dentists alike.

Amit Patel
President, Association of Dental Impantology

EDI of Macedonia

On behalf of EDI of Macedonia, it is a true pleasure to congratulate the *EDI Journal* on reaching its 20th anniversary. This milestone is not only a celebration of time, but also of countless efforts, ideas, and collaborations that have helped shape the field of dental implantology across Europe.

Since our founding in 2013 as the Albanian Implantology Association of Macedonia, we have shared the same passion that drives your work: to advance dental implantology through education, research, and cooperation for the benefit of our patients and our profession. Over the years, the *EDI Journal* has been a trusted companion—offering knowledge, connecting colleagues, and inspiring new generations of dental professionals to aim higher.

We are proud to stand alongside you as part of this strong European network, and we look forward to many more years of shared progress, innovation, and friendship.

Dr Fisnik Kasapi
President of EDI of Macedonia

Albanian Association of Dental Implantologists (EDI of Albania)

Twenty years of *EDI Journal* represent not only a publishing milestone but also two decades of meaningful progress in European dental Implantology. In a field evolving at remarkable speed, *EDI Journal* has been a constant—offering clarity amid complexity, and fostering a shared scientific dialogue that transcends borders. *EDI Journal* continues to provide more than clinical insight; it connects practitioners, institutions, and policy shapers. Whether through consensus papers, policy analysis, or showcasing innovation, the journal remains a vital bridge between science and clinical application, grounded in patient-centered care. I extend my sincere congratulations to the editorial team and the BDIZ EDI leadership for their enduring commitment. May the next 20 years of *EDI Journal* be just as bold, insightful, and unifying as the first.

Dr Erion Çerekja
President Albanian Association of Dental Implantologists (EDI of Albania)

Polish Osseointegration Association (OSIS EDI)

EDI Journal plays an important role for the Polish Osseointegration Association OSIS and dental clinicians in Poland by providing up-to-date, balanced, evidence-based knowledge.

We particularly appreciate the Consensus Papers published annually following the European Consensus Conferences held by BDIZ EDI in Cologne. We see a great and growing number of denta clinicians in Poland working with implants on a daily basis, and we need clear and easily accessible guidelines to do so safely while meeting increasing patient demands in terms of speed, pain-free procedures and impeccable aesthetic results that will preferably last forever.

Implant dentistry is by far the biggest commercial surgical specialty practiced by the largest number of medical professionals in the world. Dentists have therefore become the targets of dental manufacturers and the dental-education industry that produces a massive and not infrequently misleading information tempest that can lead clinicians to commit inadvertent treatment errors, resulting in serious medical and financial consequences. All the more reason to truly appreciate the Guidelines provided by bdiz edi through its *EDI Journal* as a reliable reference. Thank you very much for this! We congratulate *EDI Journal* and its staff on their prestigious position in the world of dental publications and we hope or another decade of success and further growth for you, as our profession needs it desperately.

Ass. Professor Kornel Krasny, DDS, PhD; President of OSIS EDI

straumanngroup

Straumann Group

Europe, as part of our EMEA region, has always been a cornerstone of our business. As a Swiss-based global leader in implantology and digital dentistry, we are deeply committed to serving patients and professionals across the European Union. Europe is not only one of our largest and most established markets but also a region where scientific excellence, clinical innovation, and strong partnerships with dental professionals thrive. About 50 per cent of our sales are generated from products manufactured in Europe—a testament to its central importance.

At the same time, our industry faces growing challenges. We see more regulatory complexity, longer approval timelines, and rising documentation requirements. While patient safety and product quality are non-negotiable, we call on EU policymakers to balance oversight with efficiency and predictability in approvals. Streamlined frameworks would allow innovations to reach patients faster while maintaining the highest standards. We also encourage the EU to ensure open and fair trade. Global competitors, particularly from the US and Korea, may benefit from tariff regimes that distort competition. For Europe to remain competitive, we need policies that support innovation, fair market access, and advanced healthcare technologies. Looking ahead, Straumann Group will continue to invest in Europe—in research, manufacturing, education, and partnerships. At the same time, we are expanding globally in China and North America. Our mission remains unchanged: to create smiles and restore confidence for millions of patients worldwide.

Guillaume Daniellot, CEO Straumann Group

What are your expectations of the EU?

Statements from the dental industry

20 years of *EDI Journal* means a twenty-year partnership with dental research and the dental industry. In particular the implant manufacturers have been faithful companions of our journal. Without them, there would be no innovative treatments, no constantly improving materials—and no case reports, no product trials and no comparative quality studies of BDIZ EDI. Their input is an important part of what this journal thrives on. *EDI Journal* is a symbiosis of all players in this innovative field within health care. So if we look back today on the track record of twenty years, we are also looking back on the success story of all those who have contributed.

EDI Journal was originally conceived as a European journal for oral implantology. Which it of course still is—but today, looking over the fence has become more important than ever in view of a harmonised internal European market.

We have asked the representatives of the implant industry about their expectations of the EU. Question and answers:

What does your commitment look like in Europe (the European Union), and what do you expect and demand from EU politics?

DENTAURUM 1886

The European Union remains a place of stability and shared values in the midst of global geopolitical and economic challenges, with freedom held in the highest regard. Here, individuals enjoy remarkable opportunities for personal growth and advancement, opportunities that are unparalleled elsewhere in the world. Dentaurum's products and services are not only sought after internationally but are essential for oral and dental health—making our investment in Europe both deliberate and optimistic.

Nonetheless, exploding bureaucracy has significantly increased the administrative and staffing burdens across the dental sector. Dental clinics, laboratories, and industry are grappling with rising costs and diminishing efficiency. In particular, the complex certification processes for quality management systems and low-risk products, alongside increased government levies, have become cumbersome. Reducing unnecessary regulatory hurdles is therefore a crucial priority to ensure the continued strength and sustainability of the European Union.

Claudia Stöhrle and Ralph Dittes
Managing Directors

medentis medical

For two decades, the *EDI Journal* has covered the evolution of dental implantology in Europe with journalistic excellence and professional insight. On behalf of medentis medical GmbH, we would like to extend our sincere congratulations on the 20th anniversary and express our gratitude for the journal's continuous support of the industry.

Our commitment across Europe is defined by our strong dedication to quality, innovation, and close collaboration. With our ICX system, we now operate in over 40 countries, most of them in the EU. Our focus is on sustainable production in Germany and Europe, fair pricing, uncompromising service and close cooperation with dentists and specialist retailers throughout Europe.

We expect EU policymakers to provide a regulatory framework that promotes the free movement of goods, supports innovation in medium-sized medical technology companies, and upholds patient safety. This includes transparent and practical regulatory guidelines, stronger support for accessing international markets, and effective protection against unfair competitive practices.

To us, Europe is more than just a market. It is a shared space for medical progress and responsibility. Therefore, we hope to see EU policies that empower SMEs, promote innovation and uphold the high standards of European medical technology at the same time.

We believe that open dialogue between industry, professionals and policymakers, as well as platforms such as the *EDI Journal*, which has successfully fostered this dialogue for 20 years, are key to the future of implantology in Europe.

Alexander Scholz
Managing Director, medentis medical GmbH

It is a great honour to extend our heartfelt congratulations on the 20th anniversary of the *EDI Journal*. Over the past two decades, the Journal has served as a trusted reference for knowledge exchange, information sharing, and innovation in European dental implantology—benefiting both clinicians and patients. We commend this outstanding contribution to the profession.

As a Korean company active in the global dental community, OSSTEM IMPLANT shares the European Union's commitment to high standards in healthcare and to the values of solidarity. These principles inspire us to align our work in Europe with the highest expectations for quality, safety, and education.

Our commitment in Europe is clear: we are expanding partnerships with leading institutions, supporting clinicians through global education and hands-on training, and advancing digital dentistry with intra-oral scanning, CAD/CAM workflows, and AI-driven solutions to enhance treatment outcomes and improve patient health across Europe.

We welcome a predictable and harmonised regulatory environment, a level playing field, and sustained investment in research and education. Policies that encourage innovation, foster cross-border collaboration, and broaden access to high-quality dental care will benefit both clinicians and patients. OSSTEM IMPLANT stands ready to contribute constructively to these shared goals.

The EDI Journal has consistently fulfilled its mission as a leading professional medium, championing these values within the European dental community. On this special 20th anniversary, we once again offer our sincere congratulations and reaffirm our commitment to close collaboration with Europe's dental community in support of EU healthcare policies that drive innovation and enhance patient well-being.

Haesung Kim
CEO, OSSTEM IMPLANT Co., Ltd.

Geistlich is proud of its deep roots in Europe: Since the middle of the 20th century, we have been represented in Great Britain and Germany. This was followed by branches in Italy and France. Together with our numerous distribution partners across the continent, these locations have made a significant contribution to our global success.

Innovation in a high-tech field is inconceivable without a strong network and shared values. For decades, we have found expertise, reliability, openness and perfection in Europe from scientists, partners and institutions who want to advance medical regeneration together with us.

It is particularly important to us to work closely with dentists and implantologists in Europe who use our products in their practice on a daily basis. Their feedback and experience are invaluable to us and make a significant contribution to continuously improving our products and adapting them to the needs of patients.

Geistlich stands for the highest innovation and quality standards that enable unique and sustainable therapeutic success. Our passion for quality is reflected in the successful certification of our entire portfolio according to the strict requirements of the MDR. This is a testament not only to our commitment to excellence, but also to our ability to meet ever-evolving regulatory requirements.

From EU policy we would like to see clear and reliable framework conditions that promote innovation and secure access to high-quality medical devices, while also keeping an eye on medium-sized companies like Geistlich.

Diego Gabathuler
CEO, Geistlich Pharma AG

As a full-service provider for oral surgery and implantology, the W&H Group supports surgeons in making procedures simpler and more efficient. Our smart product solutions help streamline daily workflows and ensure optimal treatment outcomes with maximum safety.

The Medical Device Regulation (MDR, EU 2017/745) imposes requirements relating to clinical evaluation, post-market surveillance, traceability and documentation for medical devices. This documentation must ensure safety, performance, and traceability, adding to the clinical workload.

While digitalisation has become a reality in many sectors, dental practices still have considerable room for improvement in this area. This is where W&H comes in. ioDent, W&H's cloud-based platform, automates documentation at the push of a button, guarantees traceability and significantly reduces administrative effort, allowing medical and regulatory requirements to be met efficiently.

We have now added this capability in the latest generation of our Implantmed system. Thanks to its connectivity with implant planning software, patient- and procedure-specific parameters can be transferred directly to the Implantmed Plus II. Data generated during treatment is automatically documented and stored in ioDent.

As a European manufacturer of medical devices, we are calling for stricter enforcement of regulations and standards for imports from Asia, in order to ensure patient safety and fair competition. Close dialogue between the EU and the dental industry is essential to achieve this.

Peter Malata
CEO, W&H Dentalwerk Bürmoos GmbH

The 20th anniversary of *EDI Journal* is an important milestone for European implantology. For two decades, the journal has been a trusted platform where science, clinical expertise and innovation come together, helping clinicians and industry partners share knowledge and move dentistry forward. We warmly congratulate the editorial team and the BDIZ EDI for their outstanding contribution.

At TBR, we are proud to be part of this journey. Founded in 1987 in Toulouse, France our company has grown from a family vision into a European reference in implantology. From the very beginning, our philosophy has been to combine rigorous science with bold innovation, always with the goal of serving patients and supporting practitioners in their daily practice.

This commitment gave birth to our flagship solution, the Z1 implant with its unique and patented zirconia collar. More than a product, it represents our belief in biomimetic and minimally invasive dentistry: protecting peri-implant tissues, ensuring long-term stability, and simplifying clinical procedures.

Celebrating 20 years of *EDI Journal* also means celebrating the spirit of innovation that drives European implantology. With the patented Z1 implant, TBR reaffirms its dedication to advancing high-value solutions made in Europe, solutions that bring clinicians confidence and patients lasting benefits.

Julien Benhamou
President TBR Dental

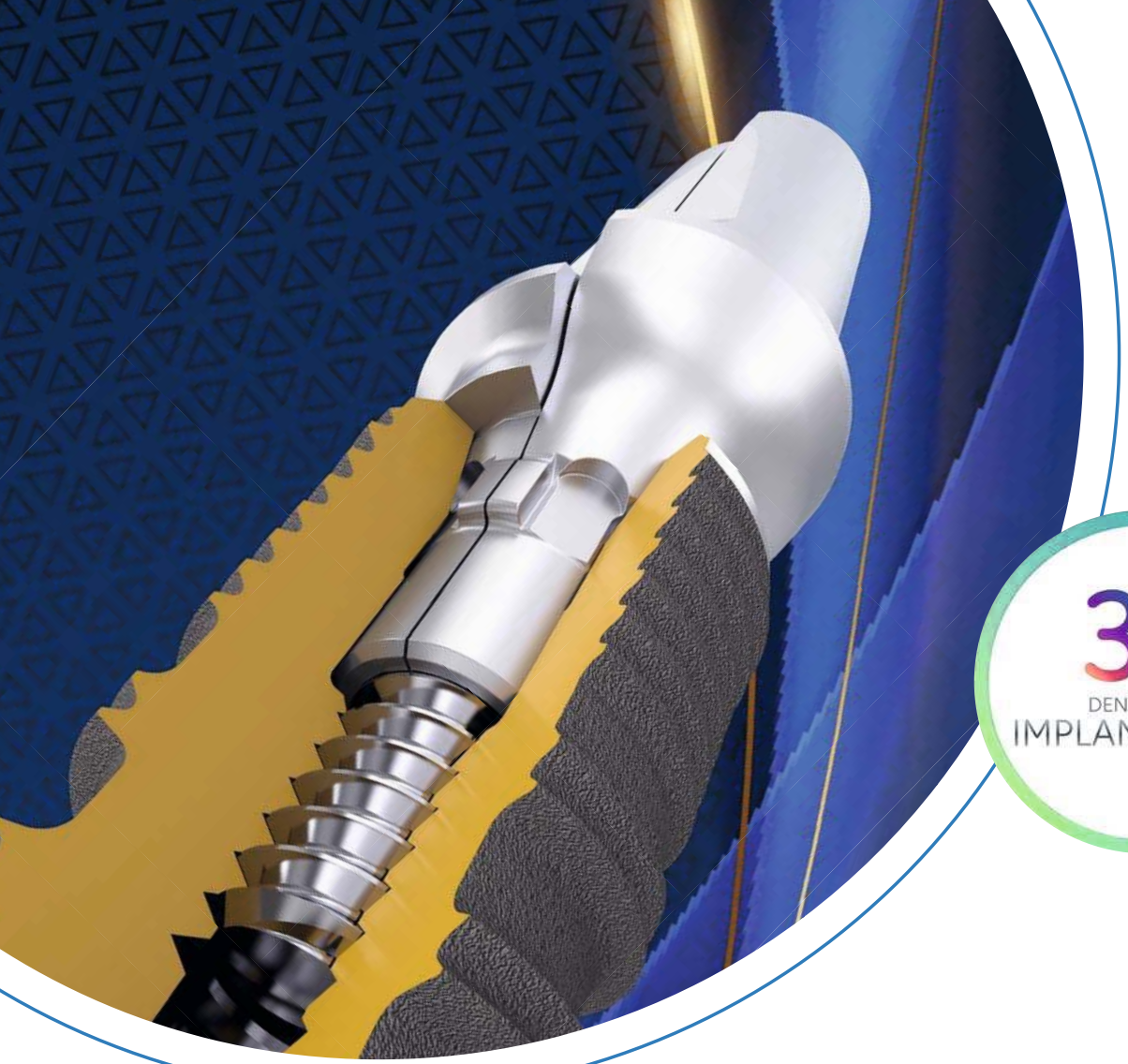
On behalf of Nobel Biocare, congratulations to the *EDI Journal* on its 20th anniversary.

Europe is central to our heritage and future, and our commitment is built on innovation, quality, and partnership. We invest in European R&D, manufacturing, and education, advancing materials science and digital workflows. Our early EU MDR certification shows our dedication to safety and compliance, but our goal is to empower clinicians and improve patient outcomes across Europe.

We believe that a balanced approach combining scientific rigor, efficiency, and fairness is essential to advance patient care in Europe. Continued progress depends on effective implementation of the MDR, consistent market oversight, and strong support for research, education, and digital transformation. Recognising oral health as an integral element of overall well-being will help expand access to high-quality care. Likewise, sustainability efforts should encourage both environmental responsibility and ongoing innovation.

Our vision is a Europe where innovation thrives, clinicians are empowered, and patients benefit from world-class care. Nobel Biocare and Envista remain committed to advancing dentistry through science and collaboration.

Stefan Nilsson
President, Nobel Biocare



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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.

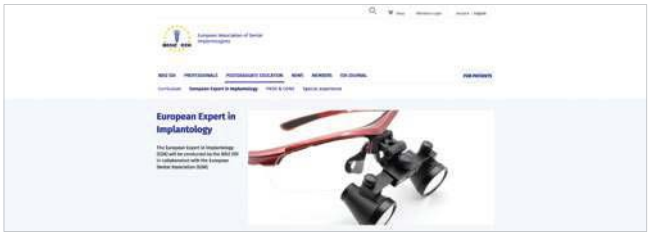
That quality is of paramount importance to BDIZ EDI is no secret. BDIZ EDI has demonstrated this in many different areas—legal and accounting, material testing, postgraduate education, the annual guidelines of the European Consensus Conference (EuCC) on current implantological issues and finally the 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.

AWU

More information...

To register for the next certification exam, please go to www.bdizedi.org and select English > Professionals > Expert or write to the BDIZ EDI office in Munich at office@bdizedi.org.

Q&A

Managing fibromyalgia

In this issue, EDI Journal is launching a new section featuring practical answers to clinical questions received by the BDIZ EDI office via email or phone. This first case concerns the treatment planning of an implant for a patient who has recently been diagnosed with fibromyalgia.

Question

One of my patients is scheduled to have tooth 36 replaced with a dental implant. The bone quality is good. However, she has recently been diagnosed with fibromyalgia by her internist. She is receiving low-dose corticosteroid therapy, which she says has led to an improvement in symptoms. Are there any medical or expert concerns regarding implant placement in this context? Should any adjustments be made to the procedure, such as temporarily increasing the corticosteroid dosage in consultation with the treating internist?

Answer

Thank you for your detailed enquiry.

Fibromyalgia is primarily considered a chronic pain disorder rather than a classical autoimmune disease. This diagnosis does not represent a direct contraindication for implant placement. More relevant are the patient's concomitant medications and individual risk factors.

1. **Medication:** The use of low-dose corticosteroids should definitely be taken into account. Even at low doses, infection prophylaxis must be ensured, and careful soft-tissue management (flap handling) is essential. A perioperative corticosteroid adjustment or stress dose is generally not required, but if one is considered, it must be closely coordinated with the internist and depend on the dosage, the duration of the treatment and the patient's overall health. Please also ask about other commonly prescribed medications in this context, such as proton pump inhibitors or antidepressants.
2. **Comorbidities:** Additional potential risk factors—such as osteoporosis, diabetes mellitus, or other systemic metabolic disorders – should be evaluated in advance, as these may affect bone healing and implant integration.
3. **General approach:** If the patient's bone conditions are favourable, her oral hygiene is good and interdisciplinary coordination is ensured (particularly regarding corticosteroid use), implant placement appears feasible in the case described.

Conclusion: In summary, there are no general objections to implant treatment, provided that the patient's individual risks are considered and treatment planning is carried out in consultation with her physicians.

BDIZ EDI on Wikipedia

Shaping a European player in dentistry

For the past few months, the BDIZ EDI has had a dedicated entry on Wikipedia, “The Free Encyclopedia”. The article provides a comprehensive overview of the association’s history, mission and international presence. As the oldest association of its kind in Germany, the BDIZ EDI boasts an impressive range of activities that extend far beyond national borders. The entry was created by Prof. Joachim E. Zöller, a recognised Wikipedia author.

International networking and a European perspective

Since amending its statutes in 2002, the association has borne the subtitle European Association of Dental Implantologists, clearly committing itself to the European dimension of its work. BDIZ EDI maintains close contacts with partner organisations across Europe and beyond. It is also in dialogue with the Council of European Dentists in Brussels and several European dental chambers. More recently, it has engaged with the FDI World Dental Federation. This international networking enables BDIZ EDI to respond to EU directives and represent the interests of dental implantologists across Europe.

The Wikipedia article reflects the broad scope of BDIZ EDI's activities.

BDIZ EDI is more than a professional organisation; it is also a centre of excellence in dental implantology. Its core activities include:

- Postgraduate education. Practical curricula in cooperation with universities, e. g. in Cologne and southern Germany
- Scientific expert assessments. Supporting quality assurance and patient-oriented care
- Legal support. Advice on billing issues and legal matters related to the German fee schedule for dentists in private practice (GOZ)
- Political advocacy. Active engagement in shaping healthcare policy on both the national and EU levels

The Wikipedia article clearly illustrates how BDIZ EDI connects science, clinical practice, politics, and international cooperation. BDIZ EDI is an organisation that supports dentists and actively helps to shape the future of implantology.

BDIZ EDI's international collaboration is more than just a promise. It is expressed through structured initiatives and strategic partnerships.

EU-relevant topics in *EDI Journal*

The association's journal regularly reports on developments in Brussels, such as medical device regulations and data protection laws, while also presenting innovations in implant surgery and prosthetics, materials and procedures.

Cooperation with national and international professional associations

- BDIZ EDI maintains close relationships with implantology organisations in Germany and across Europe. These partnerships include joint congresses, continuing education programmes, and publications.
- Regular bilateral meetings provide a platform for exchanging standards, scientific findings, and political strategies.

International continuing education and certification

- The association offers internationally recognised postgraduate curricula, often in cooperation with German and international universities.
- BDIZ EDI certificates are widely recognised, and cross-border exchange between dentists supports international professional development.

Political representation at the EU level

- BDIZ EDI plays an active role in debates surrounding EU legislation, such as the Medical Device Regulation (MDR) or the digitalisation of healthcare.
- Its network in Brussels enables the association to respond quickly to planned legislative changes and to advocate for its members' interests.

In short, BDIZ EDI embodies its European mission through concrete projects, political engagement, and professional networking. It is not merely a German association with an international name; it is a true European leader in dentistry.

The BDIZ EDI Wikipedia entry can be found here:

ChatGPT/AWU

Prof. Joachim E. Zöller

Introducing the newly elected members of the BDIZ EDI board

Fresh perspectives and proven expertise

BDIZ EDI enters a new term with renewed energy, professional expertise, and a fresh outlook. At the general assembly held in Augsburg at the end of June, new board members were elected. The composition of the board reflects the diversity and innovative strength of dental implantologists in Europe.

Whether long-standing professionals or new voices in the field—all members are committed to advancing the interests of their colleagues and shaping the future of implantology. Below we introduce the new members who, alongside the re-elected board members, will help guide the future direction of BDIZ EDI.

Kristin-Theres Tischer is a dentist practising in Bad Salzungen, Thuringia. Since 1 September 2016, she has co-owned the Dr Tischer und Tischer dental practice together with her mother, Dr Renate Tischer. She completed her dental studies at the University of Erlangen, graduating in July 2010. She then worked as an assistant dentist in Roth before joining the Tischer practice in Bad Salzungen. Before establishing her own practice, she was employed at a dental clinic in Nuremberg. In 2013, she successfully completed the BDIZ EDI Curriculum Implantology in Cologne. Tischer has been involved in dental politics since 2017, heading up the local branch of the Dental Chamber of Thuringia (KZV) in the Wartburg district. In 2025, the BDIZ EDI general assembly elected her to the extended board for the following four-year term. Among other responsibilities, she will focus on promoting young professionals and expanding the membership base.

Stefanie Tiede, from Rostock, is an oral surgeon who specialises in implantology. She has demonstrated deep commitment to both national and international dental policy. Since 2021, she has served as president of the Dental Chamber of Mecklenburg-Western Pomerania. She is also a certified evaluator for implantological services and is actively involved in promoting work-life balance within the dental profession. After studying dentistry at the University of Greifswald, she completed her specialist training in oral surgery at the University of Rostock and earned a master's degree in implantology and periodontology. Since 2012, she has been practising at Zahnarztpraxis Tiede in Rostock. Through the German Dental Association (BZÄK), Tiede has taken on increasing responsibilities in international dental policy. She plays a key role within the World Dental Federation (FDI), leading the German delegation at the FDI World Dental Congress and contributing to several committees preparing for the FDI World Dental Parliament. Some of these committees address alternatives to amalgam and strategies for reducing sugar consumption. In her new role on the extended board, Tiede will strengthen the international presence of BDIZ EDI in global dental forums.

Prof. Johann Müller is a renowned dentist and specialist in craniomandibular dysfunction (CMD), aesthetic and reconstructive dentistry, and implantology. He is certified by the European Dental Association (EDA). He began his dental education at the University of Munich in 1977 and earned his doctorate summa cum laude in 1983. This was followed by his venia legendi in dental, oral, and maxillofacial medicine. In 1993, he was appointed as a tenured professor at the same university. Alongside his academic position at the department of prosthodontics, he established his private practice in Munich in 1996, which transitioned into a group practice in 2023. Müller has served as president of the EDA since 1999. The EDA is an organisation dedicated to certifying specialists in various dental disciplines. BDIZ EDI collaborates with the EDA to offer the examination for the European Specialist in Implantology. From 1998 to 2008, he was also president of Zahnärztlicher Arbeitskreis Kempten (ZAK), a dental association with more than 800 members, known for its hands-on training and interdisciplinary events. Müller combines scientifically grounded dentistry with technical precision, with a strong focus on causal diagnostics and sustainable therapeutic concepts—principles he will continue to promote as a member of the extended BDIZ EDI board.

Cologne wouldn't be Cologne without its beating heart—the carnival. This was the 2025 meeting at Gürzenich Hall with BDIZ EDI.

21st Expert Symposium in Cologne in February 2026

Printing, milling, melting: Quo vadis, implantology?

When expertise, innovation and a touch of Rhineland cheerfulness come together, it's time once again for the BDIZ EDI Expert Symposium in Cologne. The theme: Printing, milling, melting—Quo vadis, implantology? On 15 February 2026, this one-day event will explore digital manufacturing technologies that are transforming implant dentistry. The day before, on 14 February 2026, BDIZ EDI will host workshops in collaboration with its industry partners.

At a glance

What: 21st Expert Symposium
When: 14 and 15 February 2026 (Saturday and Sunday)
Where: Hotel Pullman in Cologne (limited number of rooms available, keyword: BDIZ EDI)
How: Register via the BDIZ EDI website:

From additive processes such as 3D printing to subtractive techniques like milling and selective laser melting, material processing has shifted from the workbench to the digital realm. Our expert speakers will explore what is already possible today, what will become standard practice tomorrow—and where the limits lie. Renowned experts will offer insights into clinical applications, technical developments and regulatory challenges.

New concept proves successful

Last year, the new format of the Expert Symposium was put to the test: practical case studies presented by younger speakers were discussed and expanded upon by leading experts, and the 21st Expert Symposium at the Pullman Hotel will be no exception. Top-level speakers include professors Ralf Smeets, Florian Beuer, Daniel Edelhoff, Petra Gierthmühlen and Peer Kämmerer.

Also joining the panel will be Board member Dr Markus Tröltzsch. Prof. Joachim Zöller will once again be responsible for the scientific direction.

Participants can also attend industry-led workshops on Saturday, held in rotating groups with breaks in between. This hands-on workshop format also proved highly successful last year.

Exciting presentations by experts can be expected during the one-day symposium.

Continuing education with a smile

Cologne wouldn't be Cologne without its beating heart—the carnival. After a stimulating weekend of learning, participants are invited to attend the Sunday session of Cologne's oldest carnival society, "Die Grosse von 1823". Expect an evening full of spectacle, acrobatics, top carnival bands from both sides of the Rhine, humour and a knowing wink—a reminder that learning is always better with a smile. The invitation comes from Prof. Joachim Zöller, president of "Die Grosse von 1823"—a cherished tradition at BDIZ EDI by now.

Register early to secure your ticket for the evening event and benefit from the early-bird discount!

AWU

Workshops on Saturday—rotating participation.

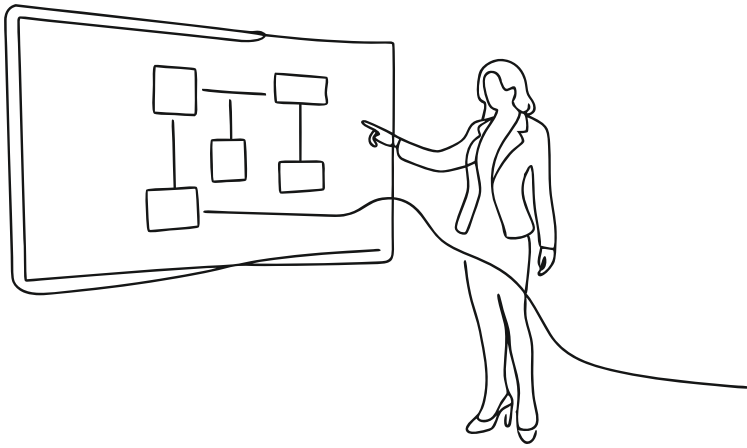
21st Expert Symposium in Cologne, 14–15 February 2026

Programme

Printing, milling, melting: Quo vadis, implantology

Saturday, 14 February 2026

2:00 a.m. – 6:00 a.m. **Up to four rotating workshops**



Sunday, 15 February 2026

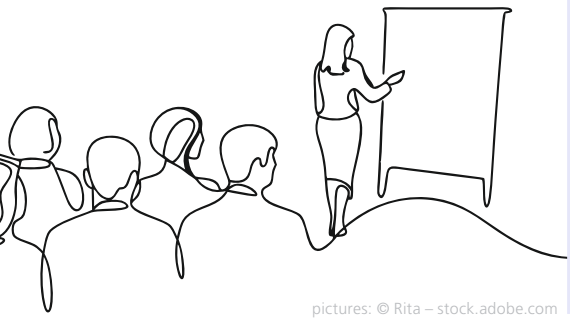
09:00 a.m. – 09:15 a.m. **Welcoming address**
Christian Berger, President
Prof. Joachim E. Zöller, Scientific Director

09:15 a.m. – 09:45 a.m. **3D printing in bone augmentation: Indications and alternatives**
Dr Markus Tröltzsch (Ansbach)

09:45 a.m. – 09:55 a.m. **Discussion**

09:55 a.m. – 10:25 a.m. **3D printing in oral implantology: Status quo and outlook**
Prof. Ralf Smeets (Hamburg)

10:25 a.m. – 10:35 a.m. **Problems in milling and printing**
Team members of Prof Ralf Smeets



pictures: © Rita – stock.adobe.com

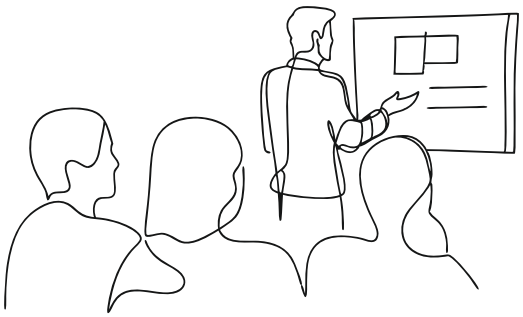
Registration fee

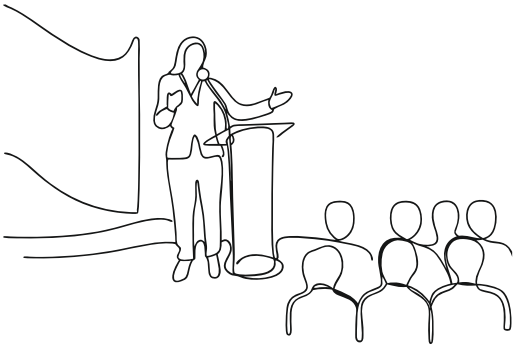
The early bird discount is valid until 15 December 2025. Since session tickets are limited, it is worthwhile to register quickly.

	Early bird	Regular
Members	€270	€380
Non-members	€380	€520
Student*	€110	€120
Dentist ≤ 5 years in practice*	€165	€230

*Session ticket not included

10:35 a.m. – 10:50 a.m.	**Discussion**
10:50 a.m. – 11:20 a.m.	**Milling, printing or casting— which will win the race in superstructures?** Prof. Florian Beuer, MME, Berlin
11:20 a.m. – 11:30 a.m.	**Discussion**
11:30 a.m. – noon	**Coffee break** Dental exhibition visit
Noon – 12:30 p.m.	**Rethinking materials science: From PEEK to zirconia in 3D printing** Prof. Daniel Edelhoff, Munich
12:30 p.m. – 12:40 p.m.	**Complications with 3D-printed superstructures** Team members of Prof. Daniel Edelhoff
12:40 p.m. – 12:55 p.m.	**Discussion**
12:55 p.m. – 2:00 p.m.	**Lunch break** Dental exhibition visit
2:00 p.m. – 2:30 p.m.	**Artificial intelligence in design: How algorithms plan superstructures** Prof. Petra Gierthmühlen, Düsseldorf
2:30 p.m. – 2:40 p.m.	**Discussion**
2:40 p.m. – 3:10 p.m.	**Where are we going? Prospects for the next ten years** Prof. Peer Kämmerer, MA FEBOMS, Mainz
3:10 p.m. – 3:25 p.m.	**Discussion**
3:25 p.m. – 3:55 p.m.	**Coffee break** Dental exhibition visit
3:55 p.m. – 4:25 p.m.	**Results of the EuCC** Prof. Hans-Jörg Nickenig, Cologne
4:25 p.m. – 5:00 p.m.	**Final discussion**





8 CE points will be awarded for the Expert Symposium and 4 CE points for participation in the workshops.

At the end of the day, the president of the "Grosse von 1823", Prof. Joachim Zöller, invites you to the last session of the Cologne Carnival at Gürzenich Hall.

Session tickets for Sunday provided courtesy of the European Symposium's sponsors. Additional session tickets can be ordered at a price of 120 Euro incl. VAT.

Hotel

A limited number of rooms are available at the Hotel Pullman, Helenenstr. 14, 50667 Cologne, Germany. Phone: +49 221 2750.

Travel code: BDIZ EDI

Single room: €249
Double room: €268

Room rates include breakfast.

Curricula Cologne and South successfully completed—time for the next round

Mission accomplished

It's a true success story: the directors of the Curriculum Implantology, in cooperation with the University of Cologne, have seen their 26th group of graduates, through to completion. They are now equipped with a solid foundation in implantology and ready for the future. Meanwhile, the Curriculum South programme has also successfully completed its first run in Munich and Ansbach. With both the Cologne and South curricula well underway, BDIZ EDI is preparing for the next round. The 27th Curriculum Cologne will begin on 28–29 November 2025 at the University of Cologne. The second round of the Curriculum South has already begun, starting on 19–20 September 2025 in Ansbach.

A spectacular setting: Participants of the 26th Curriculum Cologne celebrate the successful completion of their final examination. Seated on the right is course leader Prof. Hans-Jörg Nickenig.

Graduates of the 26th Curriculum Implantology in Cologne

Imane Abbadi	Alexander Jung	Marcel Senf
Samoual Al Hamada	Kamilla Kilicel	Dr Kirsten Storz
Nouha Al-Amin	Dr Carolin Isabell Kopitzki	Chukri Sulaiman
Ayham Alasas	Katharina Kreutzer	Sami Sultan
Dr Mona Alves	Xenia Lambidou	Dr Anna Theresa Tangarife Bodensiek
Widscha Amiri	Dr Lina Laubersheimer	Orietta Toma
Dr Pia Sophie Andree	Julia Maus	Anja Trinkner
Dr Jessica Beckers	Anton Meier	Dr Lea Ufermann
Dr Jan Lukas Böhle	Dr Buu-Duc Nguyen	Dr Marie Wegner
Dr Erdal Bölükbasi	Dr Julia Katharina Nosch	Dr Armin Werner
Dr Rebecca Luise Buxton	Mohammad Mostafa Shalaby	Henning Wolfram
Marco Daweke	Mohammad Potein	Dr Sven Wrobel
Mohammadnoor Eideh, MSc.	Dr Malte Richters	Sepehr Mohammad Yarian
Monique Harlaß	Mahmoud Saleh	Mansour Yousef
Kiana Serena Hauck	Shawkat Samo	Dr Hüseyin Yücel
Dr Daniela Jantschek	Dr Katharina Schellberg	Endri Zace
Dr Jana Jasmin John	Oliver Seebode	

"We are extremely proud of both these high-quality programmes. The overwhelming interest shown by participants proves that the next generation of dentists is highly motivated to implement top-quality oral implantology in practice and willing to invest a full year in acquiring solid foundational knowledge," said BDIZ EDI President Christian Berger.

Where it all began

The "father" of the BDIZ EDI Curricula is Prof. Joachim Zöller. He established the Curriculum Cologne in the early 2000s and has successfully led the programme for many years in collaboration with Prof. Hans-Jörg Nickenig at the University of Cologne. More than 1,000 successful graduates have received their certificates upon passing the final exam. Due to increasing demand, BDIZ EDI has now created two course groups with 25 participants each. Nevertheless, places on the Curriculum Cologne often fill up quickly, and prospective participants are frequently placed on the waiting list. At the time of this writing, a few spots were still available.

Heading south

Following the example set in Cologne, BDIZ EDI launched its Curriculum South last year under the leadership of Dr Markus Tröltzsch. This programme combines in-person and online learning, with live modules held in Munich and Ansbach and theoretical content delivered online and on demand. The first Curriculum South, which began in autumn 2024, was fully booked. The second cycle, which began at the end of September 2025, is also already fully booked.

Programme details and dates are available on the BDIZ EDI website: www.bdizedi.org.

Taking the first step into implantology

Successfully completing the Curriculum Implantology is the first step. After gaining extensive clinical experience, graduates may apply for the official designation "Focus of professional activities: oral implantology" (TSP). BDIZ EDI will review each candidate's experience, expertise, and long-term involvement in implant dentistry. The TSP status must be renewed every five years.

One step further: EDA Expert in Implantology

The next level—intended for highly experienced dental implantologists—is the "Expert in Implantology" designation, which is awarded by the European Dental Association (EDA). Applicants must demonstrate that their clinical work is primarily focused on implantology and provide proof of significant experience in the field. Details on requirements for both the TSP and the EDA Expert designations are available at www.bdizedi.org.

BDIZ EDI would like to thank all the course directors, lecturers and industry partners who contributed materials and expertise to the curricula.

AWU

Above the rooftops of Ansbach: Graduates of the first Curriculum South celebrate their achievement, Centre right: Course leader Dr Markus Tröltzsch.

Graduates of the 1st Curriculum Implantology

Dr Xenia Melina Antón	Grzegorz Ledniowski
Ilke Aydin Demirel	Dr Ilias Lohbusch
Dr Sophia Block	Dr Lukas Moser
Hakan Böyüktas	Dr Martina Müller
Julian Freise	Dr Hanna Pinker
Dr Florian Gärtner	Dr Elena Rieger
Dr Marie-Anne Beatrice Franziska	Silke Katharina Schütte
Elisabeth Graf	Sebastian Sondermann
Dr Christian Grünler	Dr Patrick Straßer
Dr Vesna Heins	Simon Niklas Tilsner
Dr stom. (Univ. Belgrade) Milan Jezdimirović	Stavroulla Tsolia
Dr Matthias Kelch, M.Sc.	Martina Elisabeth Werner

Europe Ticker +++

Study on repairing damaged tooth surfaces

Could keratin protect enamel?

A research team at King's College London has discovered a way to naturally support the repair of damaged tooth surfaces. The key lies in a protein familiar to us all: keratin. Found in hair, skin, and nails, keratin can be extracted in large quantities from biological waste materials. The researchers used keratin isolated from wool. When applied to the tooth surface, the keratin reacts with the minerals in saliva to form a crystal-like layer that closely resembles natural enamel. This layer acts as a protective barrier while sealing sensitive areas where nerves are exposed.

This approach differs significantly from previous methods. While fluoride can slow down demineralisation, it cannot reverse it. Composites and other filling materials serve a functional purpose yet remain foreign bodies in the mouth. Keratin, by contrast, integrates directly into natural biological processes. The results were published on the King's College website and in *Advanced Healthcare Materials*. The study was led by Dr Sherif Elsharkawy, with Dr Sara Gamea as first author.

Source: Dental Tribune International

Support through AI-powered robotic assistants

Robotics in dental surgery

The first AI-supported robotic assistants are already being used to support implant procedures and other surgical interventions. These systems rely on AI to drill or cut with millimetre precision. This technology is already in use in specialised clinics, particularly in the USA and Asia. The first and currently only FDA-approved robotic system for dental implantology is called Yomi. Yomi provides haptic guidance during implant insertion, helping to ensure the planned implant position and angulation is implemented with precision. This is intended to minimise the risk of deviation and enhance safety during complex procedures.

The legal framework for AI-based robotics in dental surgery is complex and evolving—especially in light of the recently adopted EU Artificial Intelligence Act (AI Act). Strict requirements apply to AI systems classified as high-risk, such as AI-based medical software or AI systems used in hiring processes. These requirements include risk mitigation, high-quality datasets, clear user instructions and human supervision. AI systems that pose a clear threat to fundamental rights are banned. This includes systems that allow authorities or companies to assess individuals' social behaviour (social scoring).

The EU aims to take a global leadership role in ensuring the safety of AI. By developing a robust regulatory framework grounded in human rights and core values, the EU intends to foster an AI ecosystem that serves the greater good, offering improved healthcare, safer and cleaner transport systems, and more efficient public services for citizens.

Source: EU AI Regulation of 1 August 2024; FDA

EU Council presidency passes to Denmark

Security and competitiveness at the forefront

Denmark assumed the rotating presidency of the Council of the European Union on 1 July 2025, taking over from Poland for a six-month term. The Scandinavian country is prioritising two overarching political objectives: security and competitiveness. Denmark emphasises the urgent need to strengthen Europe's defence capabilities by 2030 at the latest. At the same time, it aims to reduce economic pressure by reducing regulatory burdens to promote innovation, productivity, and competitiveness.

Denmark believes that health is a vital part of Europe's resilience, security of supply, and long-term competitiveness. The Danish presidency will focus on four central health policy areas:

1. Concluding negotiations on the so-called Pharmaceutical Package, which aims to improve access to medicines, promote innovation, and speed up authorisation procedures.
2. Continuing discussions on the Critical Medicines Act, which seeks to strengthen supply chains for essential medicines, reduce external dependencies, and prevent shortages.
3. Enhancing the resilience of health systems to cope with human-made crises and natural disasters.
4. Advancing international agreements under the WHO's umbrella, such as the Framework Convention on Tobacco Control and the Pandemic Accord.

Regarding the internal market, the Danish presidency intends to prioritise reducing bureaucracy and promoting digitalisation, particularly by digitalising administrative processes to encourage intra-European mobility and by advocating for increased EU investment in digital infrastructure and innovation.

Source: German Dental Association (BZÄK)

Access to dental care

Where Europe is falling short

In several parts of Europe, access to dental care remains a challenge—and not only in remote regions. According to the latest Eurostat figures, more than 6% of people in the EU aged 16 and over report being unable to access to dental care in 2024. The countries with the highest unmet dental care needs were Greece (27.1%), Latvia (16.5%), and Romania (16.2%). The countries with the most secure access to dental care were Malta (0.4%), Germany (0.9%) and Croatia (1.1%). Key barriers include financial hardship, long waiting times and travel distance to practices. In 23 out of 27 EU countries, cost was the most common reason for leaving toothache untreated.

Sources: Euronews, 3 September 2025; EuroStat

ECJ ruling on biological hazards

Compulsory vaccination in the workplace

In its ruling of 12 June 2025, the ECJ ruled that national regulations are permissible that oblige employers to vaccinate employees if they are exposed to biological agents (e.g. SARS-CoV-2). This is based on Directives 89/391/EEC and 2000/54/EC on occupational health and safety.

The ECJ refers to Article 6 (1) and (2) and Article 9 (1) of Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work, and Article 14 (3) of Directive 2000/54/EC of the European Parliament and of the council of 18 September 2000 on the protection of workers from risks related to exposure to biological agents at work (seventh individual directive within the meaning of Article 16 [1] of Directive 89/391/EEC), as amended by Commission Directive (EU) 2020/739 of 3 June 2020, read in conjunction with points 1 and 2 of Annex VII to Directive 2000/54, as amended.

Confirmation of national regulations

According to the ECJ, the aforementioned directives and measures are to be construed to the effect that they do not preclude national legislation pursuant to which an employer may require workers with whom it has concluded an employment contract to undergo vaccination if they are exposed to a biological risk.

The request was made in proceedings between, on the one hand, several members of the operational staff responsible for emergency assistance within Tallinna Kiirabi (Tallinn ambulance service, Estonia), and, on the other hand, Tallinna linn (City of Tallinn), concerning the termination of those members' employment contracts on account of the lack of proof of vaccination against the SARS-CoV-2 virus or of a contraindication to such vaccination.

Original proceedings

At the national level, the parties to the proceedings went through several legal instances. Since the applicants in the main proceedings did not furnish such proof, the City of Tallinn, in July 2021, terminated their employment contracts without notice, on the ground that the specific nature of the work of ambulance staff requires and warrants the vaccination of the persons exercising it and that, since no other measure is sufficient to protect the health of patients, other workers and the worker him or herself, the work of ambulance staff may be carried out only by vaccinated persons.

By judgment of 29 September 2022, the Harju Maakohus (Court of First Instance, Harju, Estonia), before which the applicants in the main proceedings brought an action challenging the termination of their employment contracts and seeking compensation from the City of Tallinn for unfair termination, upheld that action in part. That court held that that termination was null and void, on the ground that the City of Tallinn could not unilaterally impose mandatory vaccination in the absence of a law or regulation of the executive enabling it to do so. It therefore ordered the City of Tallinn to pay compensation, albeit in an amount lower than that requested by the applicants in the main proceedings.

The applicants in the main proceedings and the City of Tallinn each brought an appeal against that decision before the Tallinna Ringkonnakohus (Court of Appeal, Tallinn, Estonia), which, by judgment of 26 May 2023, held, while setting aside in part the judgment of the Harju Maakohus (Court of First Instance, Harju) as regards the amount of the compensation, that the City of Tallinn could not unilaterally impose mandatory vaccination, pointing out in that regard, in particular, that neither Paragraph 13 (2) of the TTOS nor Paragraph 6 (2) (7) of the Regulation on biological risks confers on it the power to impose such mandatory vaccination.

The City of Tallinn brought an appeal on a point of law against that decision before the Riigikohus (Supreme Court, Estonia), which is the referring court. This court dealt with the question of whether vaccination—in a context marked by the absence of national rules defining the areas of activity or the professions for which vaccination against the SARS-CoV-2 virus is mandatory—should be regarded as a requirement relating to health and safety at work or as a unilateral measure on the part of the employer.

Under Estonian law, the employer must guarantee that the employee's working conditions comply with the requirements relating to health and safety at work; to that end, Paragraph 13(2) of the TTOS provides that the employer may impose more stringent requirements than those laid down by the national legislation. Thus, in the present case, the City of Tallinn, after carrying out a risk assessment, required the applicants in the main proceedings to undergo vaccination against the SARS-CoV-2 virus, on the basis of Paragraph 13 (2) of the TTOS, which had transposed the provisions of Directives 89/391 and 2000/54 into Estonian law.

In that context, the Riigikohus (Supreme Court) of Estonia had doubts as to whether national legislation allowing an employer to impose on its workers mandatory vaccination without their consent as a condition for continuing the employment relationship, is compatible with those directives, having regard also to the right to the integrity of the person, guaranteed by Article 3 of the Charter. In these circumstances, the court decided to stay the proceedings and to refer the following questions to the Court of Justice for a preliminary ruling.

Not within the scope of the Charter

The ECJ has held that fundamental EU rights could not be applied in relation to national legislation because the provisions of EU law in the area concerned did not impose any specific obligation on member states with regard to a given situation (judgments of 10 July 2014, Julián Hernández and others, C-198/13, EU:C:2014:2055, no. 35, and of 28 November 2024, PT [Agreement concluded between the prosecutor and the perpetrator of an offence], C-432/22, EU:C:2024:987, no. 36).

In such a case, the national rule enacted by a member state as regards such a situation falls outside the scope of the Charter and, accordingly, that situation cannot be assessed in the light of the provisions of the Charter (see, to that effect, the judgment of 20 October 2022, Curtea de Apel Alba Iulia and others, C-301/21, EU:C:2022:811, no. 75 and the case law cited).

On those grounds, the court (Tenth Chamber) ruled, following due deliberation, that nothing precludes national legislation pursuant to which an employer may require workers with whom it has concluded an employment contract to undergo vaccination if they are exposed to a biological risk.

Areas of application

The ruling affects professions with an increased risk of infection: e.g., nursing staff, laboratory workers, medical personnel. Employers may therefore require vaccinations if no equivalent protective measure is possible.

Significance

The ruling strengthens occupational health and safety and gives member states leeway to regulate vaccination obligations. It emphasises that employers have a duty of care towards their employees.

Conclusion

With this ruling, the ECJ confirms that national laws that provide for such an obligation are compatible with EU law.

Source: ECJ ruling C-219/24, judgment of 12 June 2025

EU regulation facilitates cross-border criminal investigations

E-Evidence on the horizon

Have you heard of the EU's E-Evidence Regulation? If not, it is time to find out more, as it could affect professionals bound by confidentiality obligations, including doctors, dentists and psychotherapists. The regulation aims to streamline the way criminal prosecution authorities in Europe obtain access to digital evidence, such as e-mails, chat logs or stored data on servers, in order to improve the investigation of serious crimes, including terrorism and cybercrime. However, there is also an ongoing debate about data protection and the rights of those affected.

Regulation (EU) 2023/1543 of the European Parliament and of the Council on European Production Orders and European Preservation Orders for electronic evidence in criminal proceedings and for the execution of custodial sentences following criminal proceedings—known as the E-Evidence Regulation (EEVR)—has been in force since 2023. So far, it has largely escaped the attention of professionals bound by confidentiality obligations, such as physicians, dentists or psychotherapists. In June, the German Federal Government published its draft legislation for transposing the regulation into national law. The three-year transitional period granted to member states will expire in August 2026. After that date, the regulation will be binding across the EU.

Background

The E-Evidence Regulation is a significant step towards modernising criminal prosecutions across the European Union. By simplifying and accelerating access to digital evidence, it aims to improve the

effectiveness of investigations while safeguarding the rights of individuals, according to its authors.

Under the regulation, law enforcement authorities in one member state can request information directly from service providers based in another member state without the involvement of the judicial authorities in the requested country. This applies to all types of electronic evidence, including subscriber data, traffic data and content data.

The European Production Order, introduced by the regulation, enables the direct request and retrieval of digital evidence from service providers. Providers must make the requested data available within ten days, or within eight hours in an emergency. Additionally, a European Preservation Order ensures that data can be secured for later retrieval, even before a production order is issued.

Although the official purpose is to streamline justice, some of the regulation's provisions read like something straight out of Orwell's *1984*. Authorities in other EU member states can compel electronic service providers to release data directly, without the knowledge or approval of domestic judicial bodies. This could include data stored in electronic patient records (EPRs), practice management software or cloud services. In other words: highly sensitive patient data, protected by medical confidentiality, could be disclosed to foreign investigative authorities.

Implementation into national law: the German example

In June 2025, the German Federal Government presented a draft bill designed to transpose the E-Evidence Regulation into national legislation in a legally sound manner. The stated objective was to strike a fair balance between efficient criminal prosecution and the protection of fundamental rights. The draft explicitly emphasises the need for careful handling of data relating to professional confidentiality, such as information held by doctors, lawyers and other professional groups bound by secrecy obligations.

According to the proposal, such sensitive data may only be disclosed under strict conditions, for example, only via German authorities if the person concerned resides in Germany. Furthermore, the draft provides for a notification requirement: if a production order is issued by an authority in another member state, the German authorities must be informed. German authorities may then refuse to execute the order if it breaches data protection rights or contradicts national legislation.

Are dentists affected?

Data from electronic patient records (EPRs), practice management systems and cloud services could be affected, even though the regulation, compared to the original commission proposal, provides for an "effective level of protection for data of professional secrecy holders from access by state investigative authorities".

The German Dental Association (Bundeszahnärztekammer, BZÄK) and the National Association of Statutory Health Insurance Dentists (KZBV) have expressed their concerns in a statement to the federal government: "This level of protection must also be fully and unambiguously guaranteed at national level." The protection of highly sensitive patient data, which is subject to medical confidentiality, is at stake, and this data must now be shielded from access by foreign investigative authorities.

Is medical confidentiality under threat?

The German Medical Association (Bundesärztekammer, BÄK) and the BZÄK fear that the regulation may circumvent national protective provisions such as the seizure ban (Section 97 of the German Code of Criminal Procedure, StPO), because it does not currently provide for automatic exemptions for professional secrecy holders. Furthermore, the persons or institutions affected (e.g., dental practices) are not necessarily informed when their data is disclosed. This makes it more difficult to safeguard the rights of those affected.

There is a lack of clear and comprehensive definitions as to which data fall under professional secrecy and how they are to be protected. For years, the BZÄK and the Council of European Dentists (CED) have been calling for improvements at national and European levels. At the initiative of the German Dental Association, the CED had urged the EU legislator at an early stage to uphold medical and professional confidentiality and to anchor corresponding exceptions in the proposed regulation. These include protection of the EPR and other sensitive storage locations through explicit provisions, as well as the introduction of an automatic seizure ban for confidential data. At least a partial success has been achieved, as outlined above.

Legal measures

To protect medical confidentiality from the kind of access envisaged under the E-Evidence Regulation, a combination of legal and technical-organisational safeguards are required. In terms of legislation, the German Federal Government must actively prevent the disclosure of data held by professionals bound by confidentiality obligations without judicial oversight. In particular, Section 97 of the StPO (prohibition on seizure) would need to be amended to cover electronic data stored in cloud services or digital patient records. Furthermore, affected individuals or institutions must be informed of every data request so that they can take legal action (e. g., an objection or an appeal) in due time. An independent judicial review should be mandatory before any sensitive data is released, including in cross-border requests.

Technical protection of data

Technical and organisational measures range from end-to-end encryption of sensitive data to requirements for national data storage (e. g. on German servers), and access logging to document potential abuse. Ultimately, raising awareness among those bound by professional secrecy is also essential to safeguarding confidential data.

Loss of data subject rights

Germany's Data Protection Conference (DSK), the body comprising the independent data protection supervisory authorities of the federal and state governments, has criticised the EU's E-Evidence Regulation.

Its primary concerns relate to the protection of personal data and the rule-of-law safeguards in the context of cross-border investigations. In its statement dated 12 April 2024, the DSK highlights four core areas of concern:

- Lack of judicial oversight
- Threats to fundamental rights
- Varying data protection standards across EU member states
- Lack of transparency and accountability, including an absence of robust rules for tracing data requests

Preliminary conclusion

Since the EU Commission's original draft of the E-Evidence Regulation, various changes and clarifications have been made, particularly regarding implementation and data protection. Where direct access to data is concerned, sensitive categories of data are now excluded and still require review by the authorities of the receiving member state.

However, as of 18 August 2026, telecommunications providers, internet service providers, cloud service operators, online shops, platforms, forums and other electronic services accessible to users will be required to disclose or temporarily restore certain user data upon request from law enforcement authorities in any EU member state. Failure to comply may result in fines.

AWU

Sources: Data Protection Conference (DSK), IHK, bfdi.bund.de, EUR-lex

Did you ever know…

…that BDIZ EDI offers with the Curriculum Implantology a comprehensive training programme in collaboration with the University of Cologne. It includes theoretical foundations and hands-on practical exercised, ideal for both beginners and experienced practitioners. Starting in 2024 the Curriculum "South" has been established due to the high demand for postgraduate education in the discipline of oral implantology.

…that the Expert Symposium is an annual event focussing on cutting-edge topics such as digital workflows, 3D printing, and implant planning. In February 2026 the scientific chairman of the symposium, Prof. Joachim E. Zöller, will cover all aspects of printing, milling, melting during the one-day symposium.

…that the BDIZ EDI, together with the European Dental Association (EDA), offers an international examination for absolute experts in oral implantology? The certified EDA Expert is certainly enhancing professional credibility. Since 2025, the president of the EDI has been a member of the advisory board of the BDIZ EDI.

A new simulation centre for education and training

The University of Sarajevo is setting the pace

The Faculty of Dental Medicine and the University Dental Clinic in Sarajevo have opened a new centre for education and training and are actively seeking partners for serious cooperation in the European dental education sector.

At the invitation of the University of Sarajevo and the Croatian Dental Chamber (CDC), BDIZ EDI president Christian Berger travelled to Sarajevo to tour the newly built simulation centre at the university dental clinic. The guests from Croatia and Germany were given a guided tour of the state-of-the-art simulation facility, which was built and equipped specifically for educational and training activities, by the clinic's management.

A working meeting was also held to explore the potential for future collaboration with BDIZ EDI. "The aim of this meeting is to strengthen professional and academic cooperation between the institutions, with a particular focus on joint educational activities and faculty exchanges," said Prof. Muhamed Ajanović, dean of the faculty.

Key topics on the meeting agenda included the accreditation system for professional training courses in EU countries (with a focus on Croatia and Bosnia and Herzegovina), international recognition of continuing education credits for jointly organised courses and integrating postgraduate specialist training programmes into everyday clinical practice and dental coordination.

The simulation system is designed to open new avenues for integrating standards and sharing experiences among colleagues from the region and across the EU.

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Johann Nepomuk Czermak (1827–1873).

Johann Nepomuk Czermak and his journeys through Europe

Discoverer of interglobular dentin

In 1850, Johann Nepomuk Czermak (1827–1873) completed his dissertation Observationes novae de structura dentium penitiori (New Observations on the Internal Structure of Dentin) in Würzburg, Germany. In this dissertation, he became the first to describe interglobular dentin. Today, his findings are commonly known among dental professionals as "Czermak lacunae". While his name is familiar in dental histology, little is known about the life of this remarkable scientist, who pursued an academic career at various European universities and lived in several major cities across the continent. His life was marked by notable achievements, as well as painful setbacks.

Czermak was born into a respected family in Prague, which is now the capital of the Czech Republic but was an important city in the Austro-Hungarian empire at the time. His father, Johann Conrad Czermak, was a renowned physician to Prague's aristocracy. His brother Josef became head of psychiatry in Brno and later professor in Graz. His uncle Josef Julius Czermak was a professor of physiology in Vienna. The latter's son, Wilhelm Czermak, later served as a professor of ophthalmology in Prague. The family name is written as "Czermak" in German and Latin texts but as "Čermák" in Czech, where it remains a common surname. The name Čermák literally translates as "robin".

The Czermak household was a regular meeting place for members of Prague's scientific and political elite. In 1837, during the Congress of German Physicians and Natural Scientists, Jan Evangelista Purkyně visited the family home. At the time, Purkyně was serving as professor of physiology in Breslau, Prussia, Germany (today Wrocław, Poland), having previously been unsuccessful under the Austrian monarchy and relocated to Prussia. ("Purkyně", in this context, is also spelt "Purkinje", and he is known today for the eponymous cells, effect, images and fibres.) He became a close friend of the Czermak family and offered to mentor the then nine-year-old Johann Nepomuk should he choose to pursue a career in medicine.

A gifted child

Johann Nepomuk displayed an early talent for music, particularly piano, and composed pieces to express this talent. His parents even published one of his improvisations as Opus 1. Ultimately, however, Johann followed the family tradition and chose a career in medicine.

He began his studies in Prague but soon transferred to Breslau to study under Purkyně. In the spring of 1848, Czermak returned home to Prague for the Easter holidays. His visit coincided with the March Revolution, which gripped the streets of Prague and made a deep impression on him. He ended up staying in the city longer than planned and experienced key political events first-hand, such as the lifting of censorship and the establishment of press freedom. He joined the student guard and was quickly appointed an officer. Consequently, he took part in the June Uprising of 1848, including the attack on the Karolinum, the historic main building of Charles University, one of the oldest universities in Europe, founded in Prague in 1348. When the uprising was suppressed by Austrian troops, Czermak was arrested. However, friends of his family convinced the Austrian authorities that he had entered the Karolinum only to persuade other students not to participate. He was released shortly afterwards and returned to Breslau to resume his studies with Purkyně.

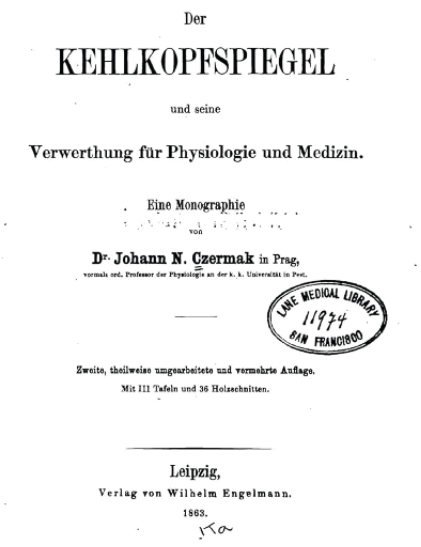
In the final year of his medical training, Czermak travelled to Würzburg on Purkyně's recommendation, where he studied under Albert von Kölliker. It was there that he completed the dissertation that would later earn him recognition in the field of dental science.

Career and setbacks

In April 1850, Jan Evangelista Purkyně returned to Prague after 27 years away and registered Johann Nepomuk Czermak as his assistant at the institute of physiology with the ministry of education. Under Purkyně's guidance, Czermak was so successful in his research that he was

awarded a lectureship in 1854. Although the minister of education, Count Leo von Thun, was aware of Czermak's interest in a professorship, he also knew that Purkyně had no intention of retiring.

As a compromise, von Thun offered Czermak a professorship in zoology in Graz, Austria, promising him a future chair in physiology at an Austrian university once one became available. In 1856, Czermak was appointed to the University of Krakow, Poland, which was also part of the Austro-Hungarian Empire at the time. However, he never felt fully accepted by his Polish colleagues. His appointment was perceived as favouritism by his colleagues in Vienna, and Czermak's limited command of the Polish language made it difficult for him to lecture effectively.


Der
KEHLKOPFSPIEGEL
und seine
Verwerthung für Physiologie und Medizin.
Eine Monographie
von
Dr. Johann N. Czermak in Prag,
vormals ord. Professor der Physiologie an der k. k. Universität in Pest.
LANE MEDICAL LIBRARY 11974 SAN FRANCISCO
Zweite, theilweise umgearbeitete und vermehrte Auflage.
Mit III Tafeln und 36 Holzschnitten.
Leipzig,
Verlag von Wilhelm Engelmann.
1863.

Left: Czermak examining a patient using his laryngoscope. Right: Czermak's book *Der Kehlkopfspiegel* ("The Laryngoscope").

The laryngoscope

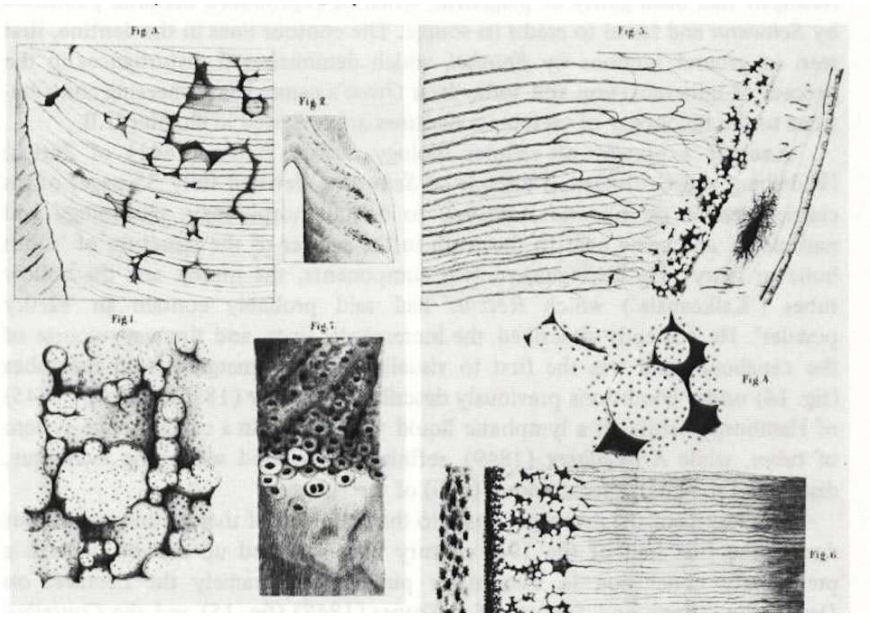
Years earlier, while still living in Prague, Czermak had married the daughter of a wealthy Viennese banker. Leaving his unsatisfying time in Krakow behind him, he now moved to Vienna with his wife. There, he focused on the physiology of the vocal cords, particularly the physical influence of different languages, including Arabic, on the human vocal apparatus. As part of these studies, he borrowed specialised laryngeal mirrors from Ludwig Türck, a neurologist in Vienna. These mirrors resembled those commonly used in dentistry.

Dissatisfied with their handling characteristics, Czermak developed his own tool: the head mirror, which was a circular mirror mounted on a headband, with a central opening aligned with the examiner's eye. This allowed artificial light to be reflected directly into the patient's larynx while simultaneously giving the examiner a clear view. This head mirror—which illuminated and visualised both the larynx and nasopharynx—became standard equipment among ENT specialists and can still be recognised today.

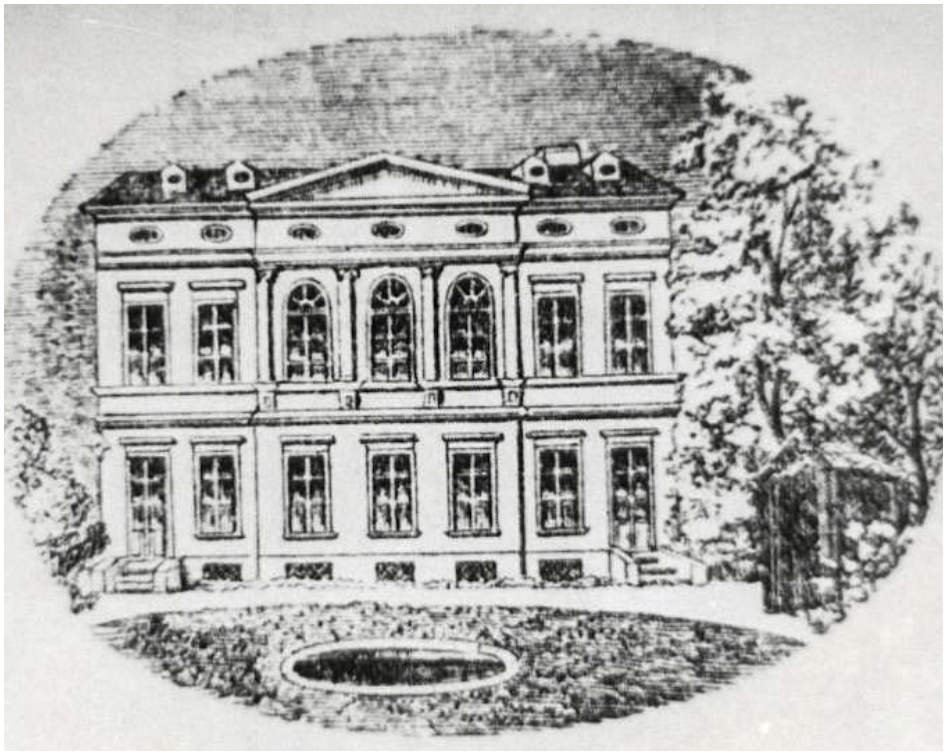
Czermak published his findings and innovations in a monograph titled *Der Kehlkopfspiegel* ("The Laryngoscope"). The book was translated into English and French and met with great success. Encouraged by the recognition, Czermak submitted his work to the French Academy of Sciences for consideration. Unexpectedly, however, Ludwig Türck also submitted a competing entry for the same prize, claiming that Czermak's results were based on his own earlier work and that he therefore deserved priority. Czermak firmly rejected the accusation, maintaining that he had merely borrowed Türck's instruments—not his research. Unwilling to settle the dispute, the Parisian jury opted for a diplomatic compromise and split the award between the two men. However, Czermak considered this to be an injustice and a betrayal.

Longing for Prague

In 1857, Minister von Thun offered Johann Nepomuk Czermak a professorship at the University of Pest (now Budapest, Hungary). However, Czermak longed to return to his native Prague. He wrote to Purkyně for advice, expressing concern



Interglobular dentin from Czermak's dissertation.

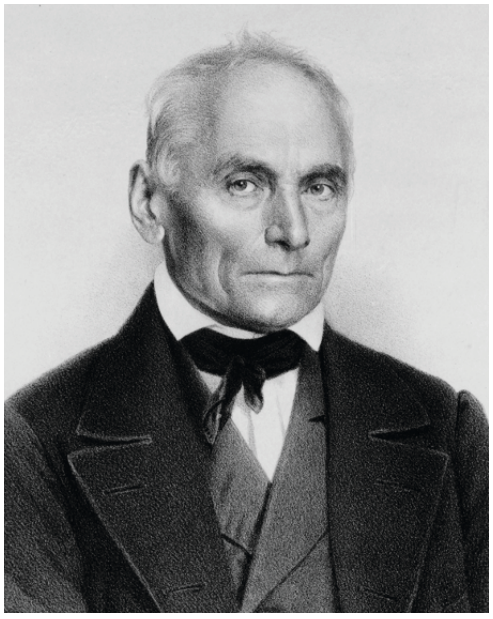


"Czermaks Garten", a street in Leipzig.

Czermak's private physiology laboratory in Prague.

that his teaching obligations in Pest would leave him little time for research. His alternative plan was to return to Prague and dedicate himself fully to physiology in a private laboratory. But Purkyně did not reply.

On 17 December 1857, Czermak wrote again, openly stating that he would like to work alongside Purkyně in Prague as a professor of experimental physiology. He expressly stated that he had no intention of challenging Purkyně's position. This time, Purkyně responded promptly—and rejected the proposal outright. Unbeknownst to Czermak, the day he sent his second letter was Purkyně's 70th birthday. Purkyně had probably expected a similar message from his former student. Instead, he interpreted Czermak's request as an attempt to unseat him.



Jan Evangelista Purkyně (1787–1869).

Deeply disappointed, Czermak accepted the post in Pest. Although he was received warmly, he soon realised that Hungarian was strictly required for both instruction and academic exchange—a language he did not speak. After just two years, he resigned and returned to Prague. In 1860, he founded a private institute of physiology on the grounds of his family estate.

Designed by the renowned Prague architect Josef Ullmann, the building featured an elegant two-storey façade and offered views of a carefully maintained garden. Here, Czermak devoted himself to science and to training a new generation of Prague physicians. Privately, he still hoped to one day succeed Purkyně, should he retire.

From Prague to Jena and Leipzig

But Purkyně was not only a university professor; he was also a prominent public figure, having been elected to parliament in 1861. The question of his possible successor gained public attention. When the medical press in Vienna criticised Purkyně for being unsuited to his academic role and for allegedly hindering Czermak's career progression, Prague united in defence of Purkyně. Both the press and the student body defended Purkyně vehemently. Although Czermak had played no part in any of these disputes, he was increasingly seen as persona non grata in Prague. Realising that he had no future there, he accepted a professorship at the University of Jena, where he spent five years.

He then moved to the University of Leipzig, where he established a new institute of physiology at his own expense. It included a large lecture hall that was designed not just as an auditorium but also as a spectatorium, allowing images to be projected during lectures—a novel concept at the time. In Leipzig, Czermak primarily focused on his lifelong interest:

the physiology of the senses. He became widely known for his final area of study: the hypnosis of animals. He hypnotised chickens, turkeys, ducks, geese, pigeons, songbirds and even a swan. He was the first person to demonstrate that, like humans, animals can be hypnotised.

A European par excellence

In 1873, Czermak spent his holiday in Karlsbad, where he diagnosed himself with diabetes during a routine self-examination.

His health deteriorated rapidly, and after his return to Leipzig he died there on 16 September. He bequeathed the spectatorium to the university and was buried in the Alter Johannisfriedhof cemetery. The original building no longer stands, but the adjacent street is still known as "Czermaks Garten".

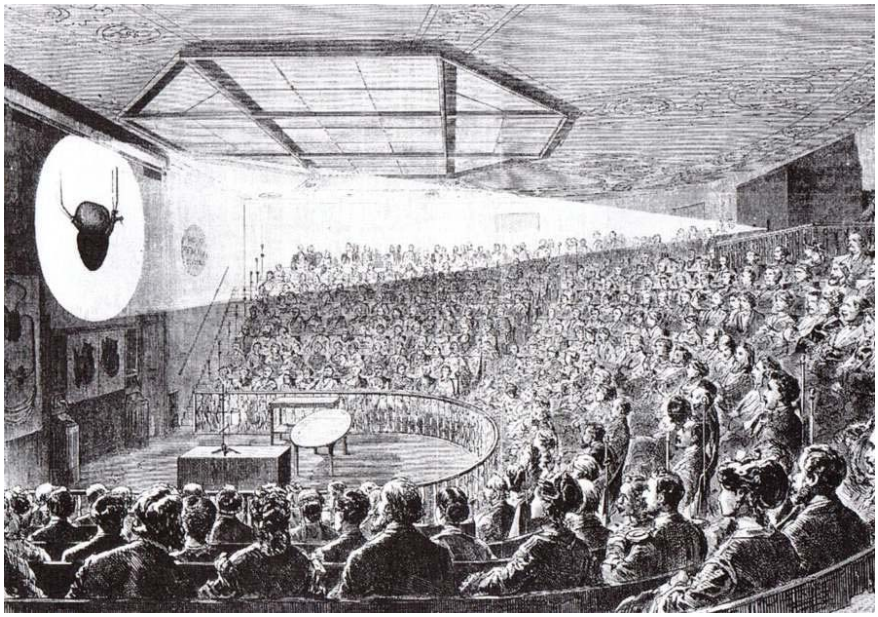
Czermak advanced the field of physiology through scientific achievements such as the Czermak lacunae and the laryngoscope, and he contributed to the training of countless doctors and scientists through his lectures and the institutions he established.

Despite his many successes and the recognition he received across Europe, he was disappointed by the circumstances he encountered and was ultimately unable to fulfil his lifelong ambition of becoming a professor in his native Prague. He studied in Prague, Vienna, Breslau and Würzburg, held academic appointments in Prague, Graz, Krakow, Pest, Jena and Leipzig, and delivered lectures in other countries including France and England.

Even in the 19th century, Czermak embodied an identity that transcended his place of birth—that of a true European.

Doc. MUDr. Otakar Brázda, CSc.
Prague

The author would like to thank MDDr. Maximilian Rudolf Woellersdorfer for his assistance in writing the German text.



A lecture in Czermak's Spektatorium in Leipzig.

The author

Otakar Brázda, MD, PhD, Associate Professor, is regarded as one of the most prominent Czech and Czechoslovak dental professionals. Born in Prague in 1932, he attended grammar school before studying at the faculty of medicine at Charles University, graduating in 1956.

In 1959, he began working as a junior doctor at the Second Dental Clinic in Prague. In 1964, he was appointed clinical assistant and began lecturing on all aspects of conservative dentistry. In 1990, he received his venia legendi and became an associate professor of dentistry.

Dr Brázda's academic and scientific career has been both rich and distinguished. He is the co-author of several textbooks on dental propedeutics, conservative dentistry, caries and endodontics, fluorides and caries, and the life and work of J. E. Purkyně. He frequently spoke at international congresses on all continents, and his outstanding language skills and high professional standards earned him wide recognition.

From 1990 to 1991, he served as Scientific Secretary of the Czech Dental Society (ČSK). From 1991 to 1996 he was chair of the society. He has served on the editorial boards of several journals, including *Česka Stomatologie*, *Stomatologické Zprávy*, *FDI Dental World* and *Asklepios*, and currently serves on the editorial board of *Praktický lékař*.

In 2022, he was awarded the prestigious prize of the *Živa journal*, the oldest Czech journal on natural sciences, founded in 1853 by Jan Evangelista Purkyně. Each year, the journal honours outstanding contributions with publication prizes.

Dr Brázda received the award in recognition of his work on the history of Živa and its connection to Purkyně and other notable figures in the history of science and medicine.

Global dentistry goes digital

Highlights from FDI 2025

The FDI World Dental Congress 2025, held in Shanghai from 9–12 September, brought together dental professionals from around the globe to address pressing challenges and innovations in oral health. Here are the key findings and highlights from the event.

A central focus was the integration of digital technologies in dental practice. This included advancements in intra-oral scanners, digital imaging, and virtual simulations for diagnosis and treatment planning. The congress emphasised the importance of interoperable and secure electronic health records to streamline patient care and improve outcomes. The role of fluoride in preventing dental caries was reaffirmed, with discussions on optimising its use in public health initiatives.

Policy statements

The FDI general assembly adopted eight new policy statements, including a significant one on digital dentistry. These statements aim to guide global dental practices and influence health policy at national and international levels. The most notable being:

FDI's general assembly ratified a series of forward-looking policy statements that reflect the evolving landscape of dentistry. These statements are designed to address emerging technologies, public health priorities, and ethical standards in clinical practice.

1. Digital dentistry

This landmark statement outlines the ethical integration of digital tools such as artificial intelligence, CAD/CAM systems, and 3D printing. It emphasises:

- equitable access to digital dental care
- continuous education for practitioners
- data privacy and cybersecurity in digital workflows

2. Electronic Health Records (EHRs)

FDI advocates for standardised, interoperable EHR systems that:

- improve continuity of care
- facilitate global data sharing
- protect patient confidentiality through robust consent protocols

3. Fluoride use in caries prevention

Reaffirming fluoride's role in oral health, this statement supports:

- community-based fluoride programmes
- research into optimal fluoride levels
- public education on fluoride safety and benefits

4. Oral health and systemic disease

This policy highlights the connection between oral health and systemic conditions such as diabetes, cardiovascular disease, and Alzheimer's. It calls for:

- integrated care models
- cross-disciplinary collaboration
- increased funding for oral-systemic research

5. Sustainable dentistry

FDI urges the dental community to adopt environmentally responsible practices, including:

- reducing single-use plastics
- promoting green procurement
- educating patients on sustainable oral hygiene

6. Workforce development

Addressing global disparities in dental care, this statement promotes:

- investment in dental education
- support for rural and underserved communities
- international exchange programmes for skill development

7. Patient-centered care

FDI emphasises the importance of empathy, communication, and shared decision-making in dental treatment planning.

8. Ethics in dental innovation

As new technologies reshape the field, this statement sets ethical guidelines for:

- AI-assisted diagnostics
- genetic screening
- commercial partnerships in research

These policy statements are more than symbolic—they serve as strategic tools for national dental associations, universities, and health ministries worldwide. By aligning clinical practice with global standards, FDI aims to reduce oral health inequalities and improve patient outcomes across borders.

Congress and exhibition

The congress served as a platform for international collaboration, with over 100 CE-accredited academic sessions led by renowned experts. A massive 60,000 square meters exhibition showcased cutting-edge dental technologies and products from more than 700 exhibitors. Co-hosted by the Chinese Stomatological Association (CSA), the event marked a significant milestone in China's dental industry development and its role in global oral health discussion.

The most discussed innovations from the FDI World Dental Congress 2025 in Shanghai were the AI-driven diagnostics. New is that AI tools are now capable of detecting early signs of oral cancer, caries, and periodontal disease with high accuracy. 3D printing for same-day dentistry was another topic. Advances in biocompatible materials and chairside 3D printing allow for same-day crowns, bridges and dentures. Teledentistry is expanding. The integration with mobile apps and wearable tech enables remote consultations, monitoring, and triage. New-generation dental lasers offer more precise, painless procedures for soft- and hard-tissue treatments. The seamless integration of intraoral scanners, CAD/CAM systems, and cloud-based planning plattforms within the digital workflow was one of the big topics.

Sources: FDI, zm Germany

President of FDI 2025 to 2027: Asst. Prof. Nikolai Sharkov, Romania

Stefanie Tiede's role within the FDI

Taking on international responsibility

Since June 2025, Stefanie Tiede has been a member of the extended Executive Board of BDIZ EDI, bringing the association closer to the global dialogue on oral health and dental policy through her active involvement in the Fédération Dentaire Internationale (FDI).

In this interview, she discusses her responsibilities and their importance for Europe and beyond.

You are President of the Chamber of Dentists of Mecklenburg-Western Pomerania and a member of the BDIZ EDI Executive Board, as well as holding an international position within the FDI. What exactly are your tasks and responsibilities as head of the German delegation to the FDI?

I have led the German Dental Association (BZÄK) delegation to the World Dental Federation (FDI) for the past three years and also serve as the appointed National Liaison Officer, the official contact person between the FDI and our national association. These roles are similar and closely linked. On the one hand, I facilitate the exchange of information and enquiries between the BZÄK, the FDI and other national dental associations. On the other hand, I represent and explain the German position on various topics at an international level, acting as the first point of contact for all related matters. As delegation leader, I also coordinate Germany's contribution to FDI Policy Statements and help to organise the activities surrounding the annual FDI General Assembly.

Which topics and challenges are currently most relevant for dentistry in Europe?

There are numerous ongoing debates and challenges facing the dental profession across Europe. One key issue is the increasing digitalisation and integration of artificial intelligence in dentistry. Equally important is the fight against non-communicable diseases, including oral diseases, which is gaining greater recognition in international health policy. The FDI plays an active role in all these areas, helping to shape global health policies in line with a progressive and prevention-oriented approach to dentistry that focuses on patient welfare.

What developments in international dentistry do you foresee in the coming years, and how could the European dental community benefit from them?

The challenges and emerging trends mentioned above also point the way forward for dentistry in Europe. If we proactively and responsibly help shape these developments, keeping patient well-being at the centre of our efforts, we can benefit. By doing so, we can ensure that dentistry remains a strong and respected profession that provides high-quality care and promotes prevention. This is precisely what I aim to support through my work at an international level.

Thank you for your interesting contributions.

Interview by Milan Fries

BDIZ EDI and its multifaceted work

We want YOU!

At IDS 2025 BDIZ EDI is relaunching its "We want you" information campaign. The aim is 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 and recently started in the south of Germany. 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. Some partner associations have adopted, and adapted, the modules for their countries: Greece, Serbia, Poland and 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 will be taking place in Stockholm, Sweden.

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

Long term bone volume maintenance

Transcrestal sinus lift with autologous bone and PRGF-Endoret

Dr Eduardo Anitua, Spain

In recent decades, the maxillary sinus lift technique has undergone a significant evolution, leading to a paradigm shift in the surgical approach to the atrophic posterior maxilla.[1–3] Traditionally, the lateral window sinus lift was considered the method of choice for increasing subantral bone volume, particularly in cases with minimal residual bone height. However, the development of less invasive techniques, coupled with advances in implant design and a deeper understanding of osseointegration processes, has positioned the transcrestal sinus lift as a predictable, safe, and clinically efficient alternative.[1–5]

Currently, the transcrestal approach is considered the first-line technique in most clinical situations, especially when a residual bone height of at least 4–5 mm is available to ensure adequate primary implant stability. In contrast, the lateral window approach remains the technique of choice in more complex cases, such as when residual bone height is less than 2 mm, when broad sinus visualisation is required, in the presence of antral septa, or when primary implant stability via the crestal approach is not achievable.[6–11] Implant survival rates are comparable between both techniques: long-term survival rates range from 90 to 98% for the lateral approach and from 92 to 98% for the transcrestal technique.[9–18]

Regarding grafting materials, a wide range of options is available, including allografts, xenografts, synthetic biomaterials (e. g. hydroxyapatite, β-tricalcium phosphate), and combinations with platelet-rich plasma.[17–20] Nevertheless, autologous bone remains the gold standard due to its osteogenic, osteoconductive, and osteoinductive properties, which promote faster and more biologically integrated regeneration.[21–24] Comparative studies on transcrestal elevation have demonstrated success rates over 95% with biomaterials and 100% with autologous bone grafts within 12 months of follow-up, with no significant differences in marginal bone levels or subantral volume maintenance.[8–11,25–28]

In this context, the combination of autologous bone harvested during implant site drilling with plasma rich in growth factors (PRGF-Endoret®) represents a biologically advantageous strategy for bone regeneration in transcrestal sinus elevation. This mixture maximises the osteogenic potential of freshly harvested autologous bone, enhancing its handling and cohesion thanks to the biocompatible binding effect of PRGF. Moreover, the bioactive proteins and cytokines present in PRGF-Endoret® promote angiogenesis, cell proliferation, and early bone remodeling, all key factors for predictable osseointegration. Several studies have shown that the combined use of PRGF-Endoret® and autologous bone not only improves graft handling but may also accelerate the regeneration process and enhance the quality of newly formed bone, with implant survival rates comparable to or even exceeding those achieved with conventional biomaterials.[29–32]

This study presents a series of cases in which transcrestal sinus elevation was performed using PRGF-Endoret combined with particulate autologous bone obtained during drilling. The study evaluates the bone height achieved through this technique, the long-term maintenance of bone volume after loading, and implant survival rates.

Materials and methods

A retrospective selection was made of patients who had undergone transcrestal sinus elevation using autologous bone obtained during implant site drilling and combined with PRGF-Endoret as grafting material, with a minimum follow-up period of ten years after implant loading. All patients were evaluated preoperatively through diagnostic study models, intraoral examinations, and cone-beam CT scans analysed with dedicated software (BTI-Scan III). The preoperative medication protocol included 2 g of oral amoxicillin administered one hour prior to surgery and 1 g of paracetamol for analgesia. Postoperatively, patients continued oral amoxicillin, 500–750 mg every eight hours depending on weight, for a total of five days.

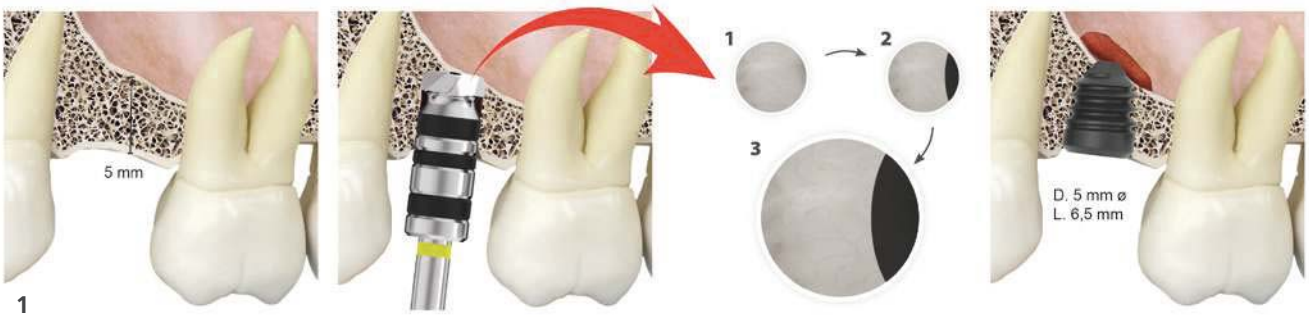


Fig. 1: Drilling technique for implant placement with transcrestal sinus lift using a frontal-cutting drill, which allows progressive removal of the sinus floor. The sequence demonstrates the gradual removal—partial to complete—as performed in the present cases, followed by implant placement and the insertion of autologous graft.

All patients were treated in a private clinical center in Vitoria, Spain, by a single surgeon using the same surgical protocol. The implant site was prepared using low-speed, sequentially larger diameter drills without irrigation (biological drilling). A frontal-cutting drill was used in the final phase to gently access the sinus floor and expose the Schneiderian membrane without perforation. Drilling was adapted based on bone density and residual volume to ensure optimal primary stability.

Once the membrane was exposed, it was carefully elevated through the osteotomy site, the graft was placed, and the implant inserted using a surgical motor set at 25 Ncm and 25 rpm, with final insertion torque measured using a torque wrench (Fig. 1).

After implant placement, a healing period of four to five months was allowed for osseointegration, depending on bone density and final torque. During second-stage surgery, multi-unit transmucosal abutments (Multi-im) were placed for screw-retained prosthetic rehabilitation. All definitive prostheses were screw-retained and splinted, connecting two or more implants via bridges to provide biomechanical stability and optimise load distribution, while maintaining a sealed interface to minimise bacterial infiltration.

Postoperative follow-up included scheduled clinical and radiographic evaluations every six months using standardised panoramic and periapical imaging to monitor implant stability and maxillary sinus morphology. Bone resorption and potential apical bone gain attributable to neoformation were assessed. Periapical radiographs were standardised using specific positioners. Panoramic radiographs were taken using a guided acquisition system with anatomical references and consistent foot positioning to reduce angular variations.

Digital images were calibrated using ImageJ software (NIH), with implant length as the reference to correct for radiographic magnification. Marginal bone loss was measured from the implant shoulder to the first visible bone–implant contact. Apical bone gain was measured perpendicularly from the implant apex to the new sinus floor at a 90° angle to the implant axis, enabling accurate volume estimation.

The primary variable was vertical bone growth in the apical region induced by the transcrestal technique. Secondary variables included implant survival, mesial and distal marginal bone loss, and long-term bone volume stability. Survival analysis was performed using the Kaplan-Meier method, and statistical processing was conducted using SPSS v15.0 (SPSS).

Results

A total of 22 patients met the inclusion criteria, receiving 31 implants. Of these, 64.5% were female, with a mean age of 69 years (±4.6). Most implants were placed in the position of tooth #27 (19.4%), with placements ranging from the second premolar to the second molar. Implant locations are illustrated in Figure 2. The mean

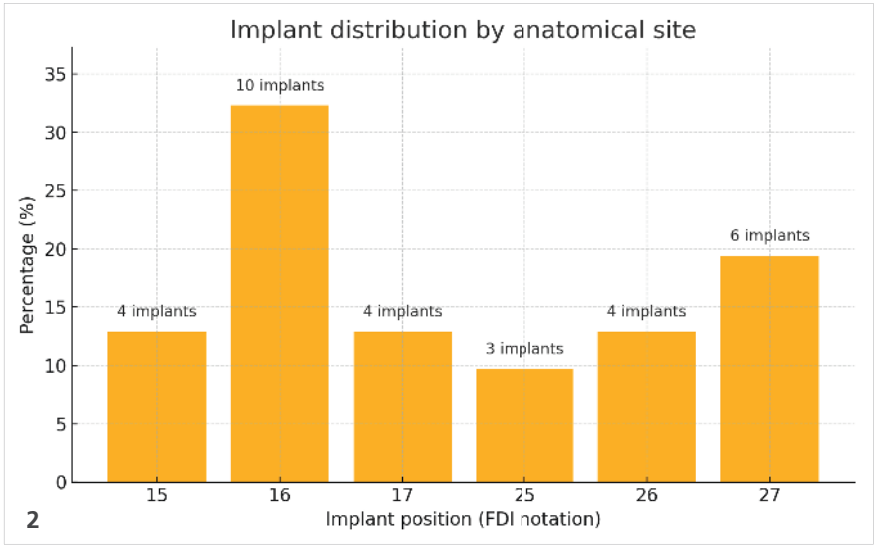
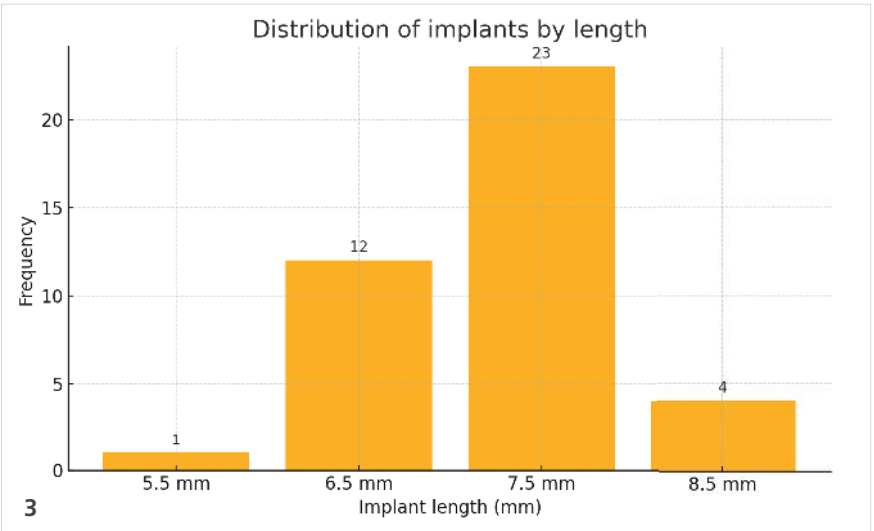
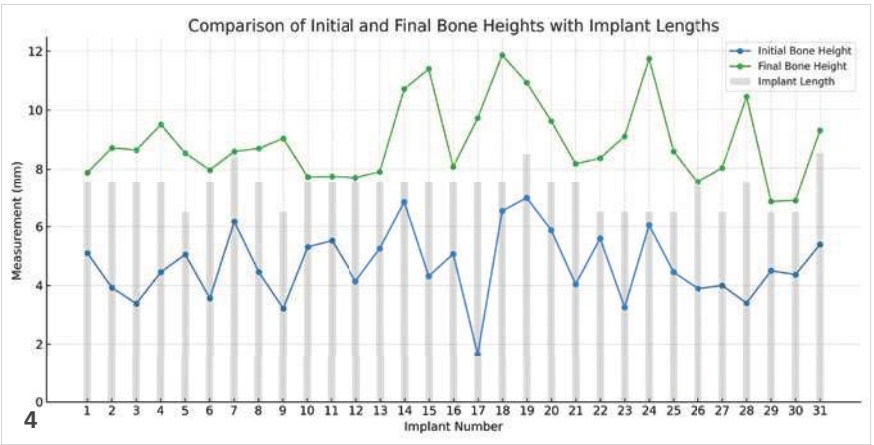
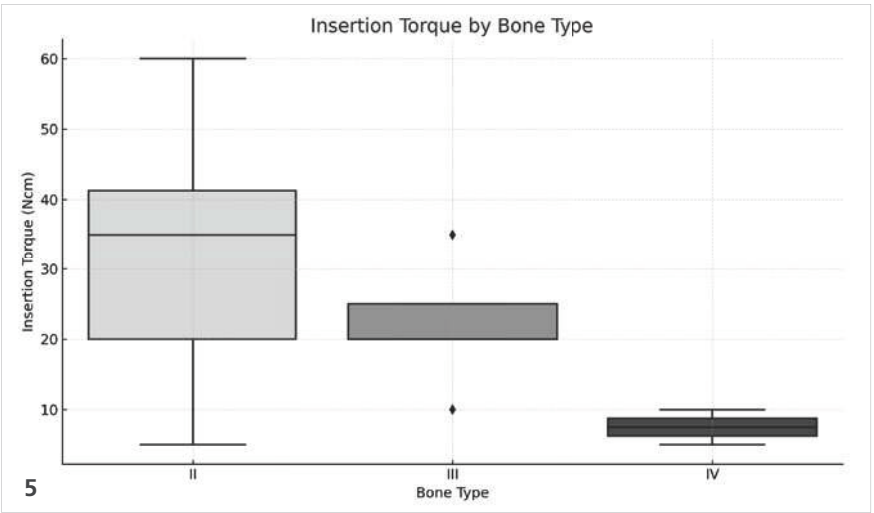


Fig. 2: Implant positions included in the study.

residual bone height at implant sites was 4.79 mm (± 1.27), ranging from 1.65 to 7.05 mm. Implant lengths ranged from 5.5 to 8.5 mm, with 7.5 mm being the most common (57.5% of cases). Implant diameters are shown in Figure 3. Postoperative analysis revealed a mean vertical bone gain of 3.09 mm (± 1.58 mm). Specifically, mean apical bone formation beyond the implant apex was 1.54 mm (± 1.42 mm). Initial and final bone heights, as well as implant lengths, are graphically represented in Figure 4.







Most implants were placed in type II bone (77.4%), followed by type III (16.1%) and type IV (6.5%). Mean insertion torque was 29.03 Ncm (± 14.68). Torque analysis by bone type showed lower values in types III and IV compared to type II: 45 Ncm (± 5.8) for type II, 36.8 Ncm (± 6.2) for type III, and 30.5 Ncm (± 7.1) for type IV (Fig. 5). All implants were rehabilitated within five to six months post-placement, with screw-retained, splinted prostheses using Multi-im abutments in 93.5% of cases. Only one case used a cemented bridge (the case with the longest follow-up: 14 years). Mean follow-up time was 10.71 years (± 1.18 years), ranging from ten to 14 years. No implant failures were observed, resulting in a cumulative survival rate of 100%.

Mean mesial bone loss was 0.63 mm (± 0.39), and distal loss was 0.68 mm (± 0.41). At ten-year follow-up, bone volume was stably maintained, with a mean difference of only 0.23 mm (± 0.26 mm) between final and ten-year measurements. Total cumulative bone gain from baseline to ten years was 4.44 mm (± 1.59 mm), confirming long-term stability. Figure 6 shows individual bone height changes over time: initial, postoperative, and at ten years. Figures 7–14 illustrate one of the included cases.

Discussion

The findings of this study confirm the efficacy and predictability of the transcrestal sinus lift using milled autologous bone graft and PRGF-Endoret® for the rehabilitation of the atrophic posterior maxilla. This surgical approach demonstrated significant vertical bone gain and long-term volume stability, with a 100% implant survival rate at ten years.[30–32] These results support the reliability of this minimally invasive and biologically optimised protocol.

Fig. 3: Lengths of the implants included in the study. – **Fig. 4:** Initial and final bone height for each implant, along with the length of the implant inserted in each case. – **Fig. 5:** Insertion torque values according to bone type.

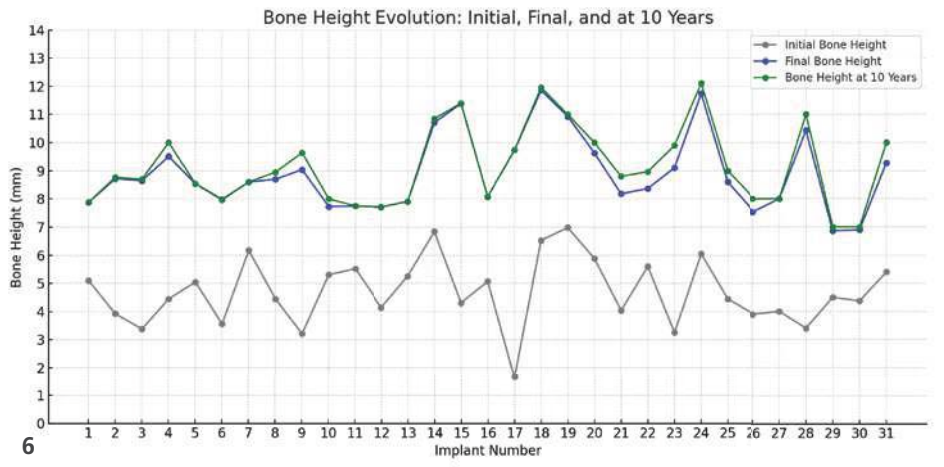
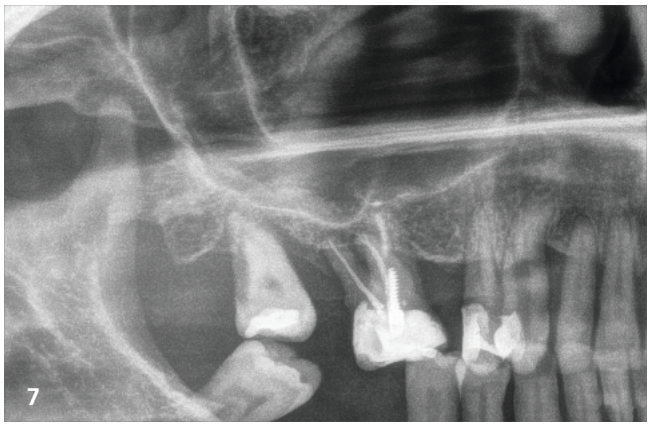
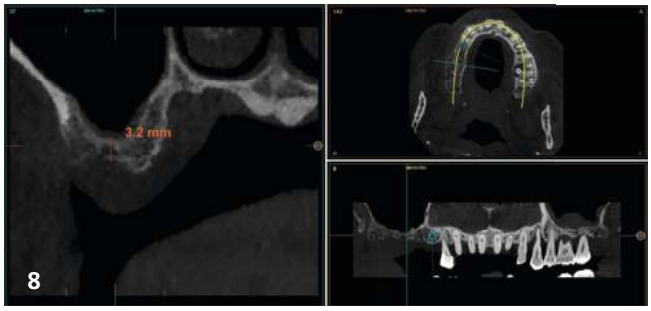
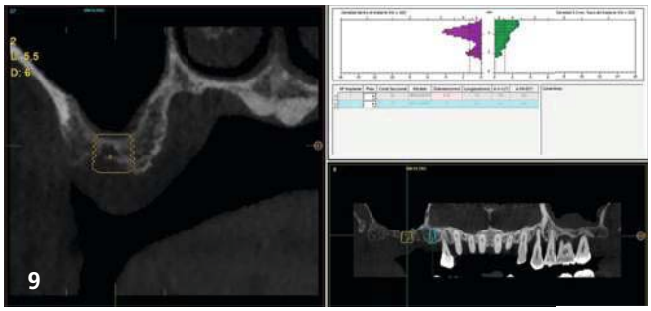
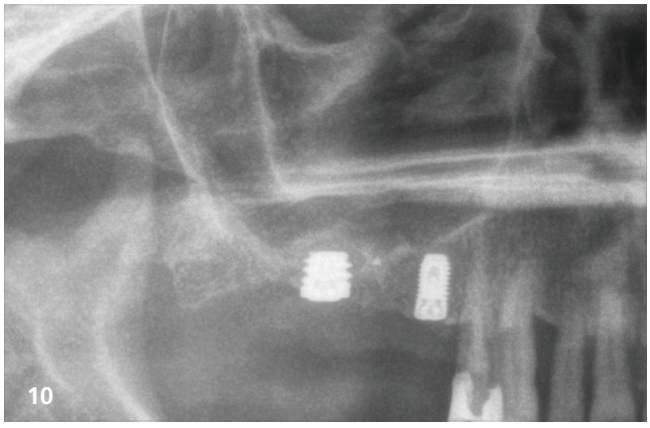


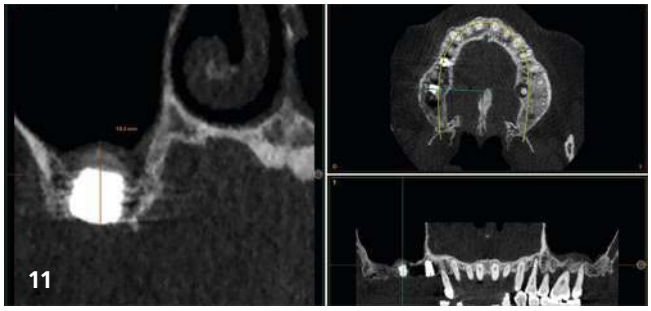
Fig. 6: Evolution of bone height from baseline, the gain achieved through transcrestal sinus elevation, and the maintenance of this augmented volume after ten years. As shown, the grafted height remains stable in all cases, with only minimal, clinically insignificant resorption.











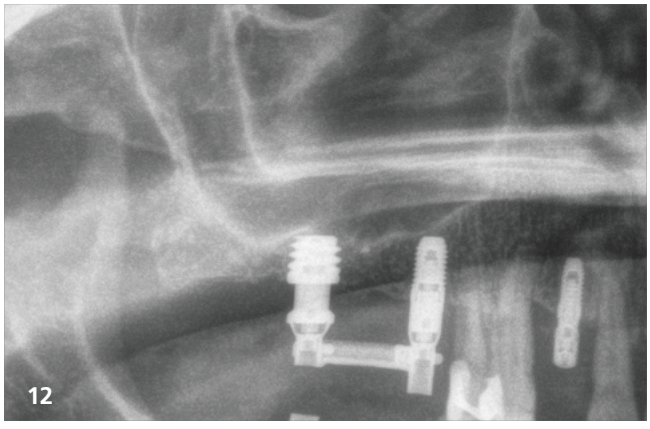
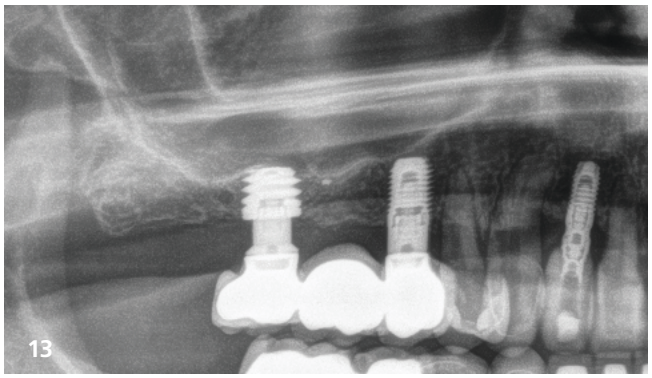


Fig. 7: Baseline radiograph showing teeth 16 and 18 with poor prognosis, indicating the need for extraction. – **Fig. 8:** Cone-beam planning slice showing vertical bone atrophy at the site of tooth 16, with a remaining height of 3.2 mm. – **Fig. 9:** Implant planning image. – **Fig. 10:** Postoperative radiograph showing the positioned implant and the clearly visible vertical bone gain achieved with the transcrestal elevation using autologous bone. – **Fig. 11:** Cone-beam control scan at six months, demonstrating graft consolidation at the time of implant loading. The crestal height increased from less than 4 mm to 10.5 mm. – **Fig. 12:** Radiograph showing the provisional loading prosthesis placed after the second surgical stage.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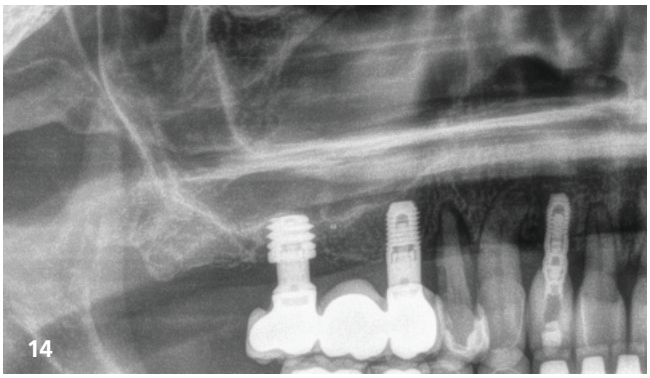
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Fig. 13: Radiograph with the definitive prosthesis in place, showing complete graft consolidation and evident bone gain beyond the implant apex. – **Fig. 14:** Radiograph at ten-year follow-up, demonstrating the long-term stability of the treatment, with sustained bone height gain, particularly noticeable in the distal region.

The use of a customised, low-speed drilling protocol and a frontal-cutting drill minimised the risk of Schneiderian membrane perforation, contributing to the high predictability of the technique. Even in challenging cases with low bone volume or density, implants were successfully stabilised and osseointegrated, validating the role of individualised drilling and autologous material in improving outcomes.

The addition of PRGF-Endoret® further enhanced the regenerative potential of the graft. In the sinus environment, where vascularisation is limited, PRGF acts as a biological modulator that accelerates healing and promotes efficient bone consolidation.[33–34] PRGF also acts as a natural binder, improving handling and cohesion of the autologous graft without requiring synthetic or exogenous materials, thus minimising immunogenic risks or fibrous encapsulation.[29,30,35]

The mean vertical bone gain of 3.09 mm, with 1.54 mm beyond the implant apex, is within the upper range reported for transcrestal techniques and surpasses some outcomes achieved with conventional particulate biomaterials or heterologous grafts.[36–38] Long-term volume maintenance was also notable, with minimal loss (0.23 mm) after a decade, indicating stable biological behavior of the graft.

Mean marginal bone loss was only 0.63 mm mesially (±0.39) and 0.68 mm distally (±0.41) after ten years—lower than in previous studies using autologous bone in transcrestal elevation. Zhang et al.[39] reported 0.92 mm of bone loss at five years using autologous grafts. In other long-term studies, transcrestal techniques—even without grafts—did not result in significantly higher marginal bone loss than more invasive procedures. Akin et al.[40] observed 0.93 mm (±0.34) loss after three years without grafting, and Nedir et al.[41] reported 0.94 mm (±0.38) at five years with short implants and no graft. The minimal crestal bone loss in our study likely reflects the biological advantages of biological drilling, autologous grafting, and PRGF-Endoret®, which together promote early healing, enhance local angiogenesis, and reduce long-term bone resorption.

Conclusions

This case series demonstrates that transcrestal sinus elevation with particulate autologous bone harvested through biological drilling, combined with PRGF-Endoret®, is a safe, minimally invasive, and highly effective procedure for treating the atrophic posterior maxilla. Significant vertical bone gain was achieved, with stable long-term volume maintenance after over ten years of follow-up. Implant survival was 100%, and marginal bone loss was minimal, supporting the long-term predictability and stability of the approach. These findings endorse the use of particulate autologous bone combined with PRGF-Endoret® as a biologically efficient alternative to other grafting materials in transcrestal sinus elevation.

Eduardo Anitua

References

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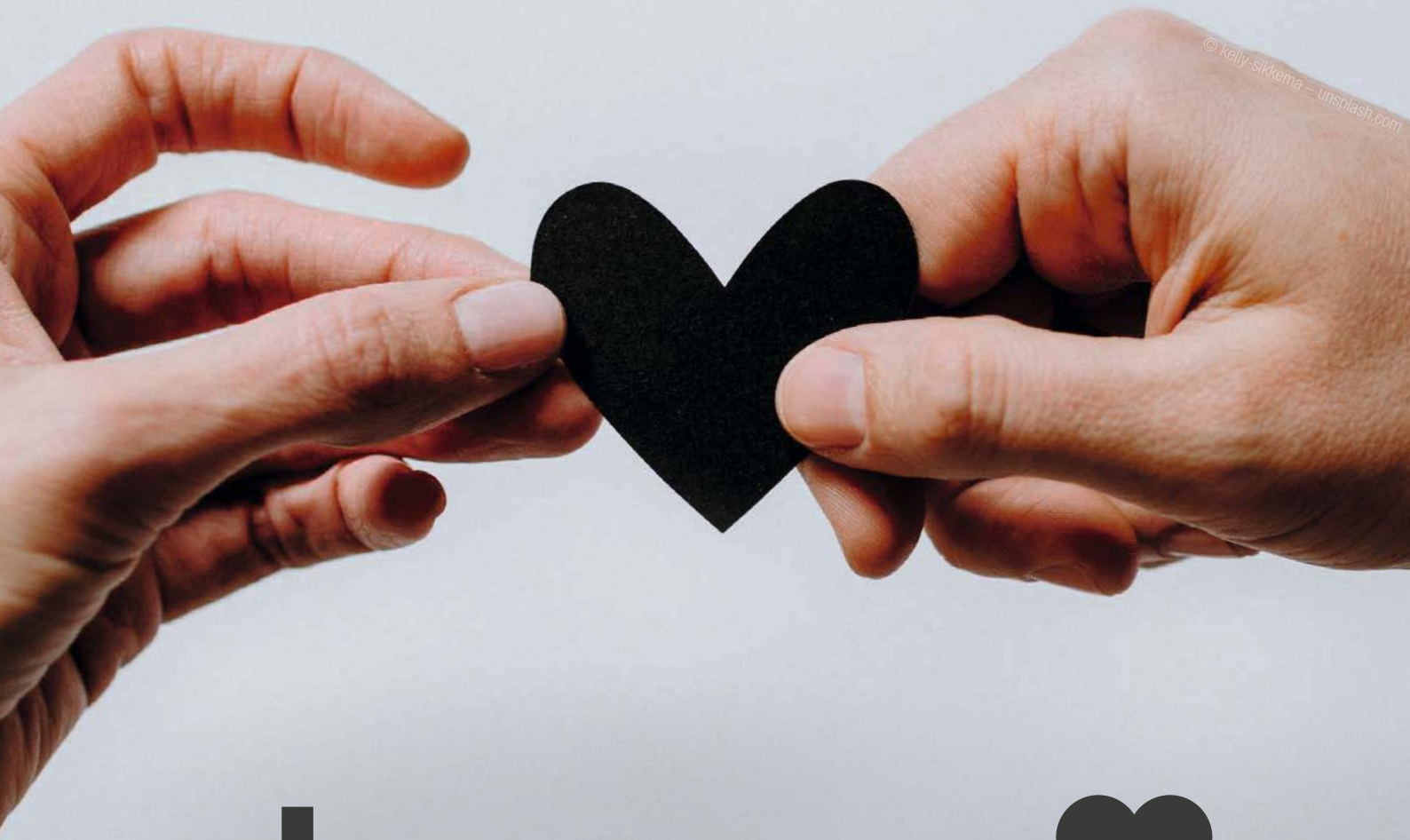

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Skeletal class III malocclusion case

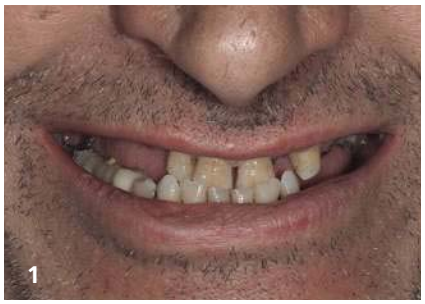
Anchorage optimisation using combined tissue-level and bone-level implants

Dr Carlos Gargallo Gállego, Spain

Managing skeletal class III malocclusion can be quite complex and typically requires an interdisciplinary approach to develop a comprehensive treatment plan. This condition has a multifactorial aetiology and is often associated with multiple dentoalveolar complications, including anterior and/or posterior crossbite resulting from maxillary retrognathism and mandibular prognathism, along with vertical and/or transverse problems.[1] These complications can increase the patient's susceptibility to dental caries, periodontal disease, edentulism and also have psychosocial ramifications.[2,3]

When orthognathic surgery is not an option, the restorative prosthetic project for a full-mouth rehabilitation becomes quite complex, often requiring an increase in the vertical dimension of occlusion (VDO).[4] Endosseous implants have proven effective in providing the necessary anchorage for modifying VDO and augmenting the interarch distance.[5–7] In many class III cases, partial or total edentulism is accompanied by jawbone atrophy. In these situations, regenerative approaches like guided bone regeneration and autogenous or xenogeneic connective tissue grafting are simultaneously employed to compensate for the loss of soft- and hard-tissue volume.[8] Additionally, post-extraction implant placement approach may be used, where feasible, to further minimise vertical and horizontal resorption, improving gingival tissue aesthetics.

Bone-level and tissue-level implant systems have comparable clinical outcomes.[9,10] Nonetheless, tissue-level implants may offer advantages in the management of periodontal disease and the restoration of posterior non-aesthetic areas. A single-stage tissue-level implant system with polished transmucosal collars and concave necks moves the microgap away from marginal bone, promoting optimum bone and soft-tissue health. Furthermore, these features also reduce bacterial buildup and the risk of peri-implantitis, thereby enhancing implant survival rates and preserving stable marginal bone levels.[11,12] Self-tapping implants have enhanced bone densification capabilities, permitting streamlined surgical techniques with less drilling. This facilitates primary stability which is critical for implant success especially in cases where immediate loading is desired.[13] The implant characteristics and protocols described above were pivotal in achieving the treatment goals of this clinical case, including: increasing VDO, volumetric augmentation, minimising lip protrusion and correcting anterior cross



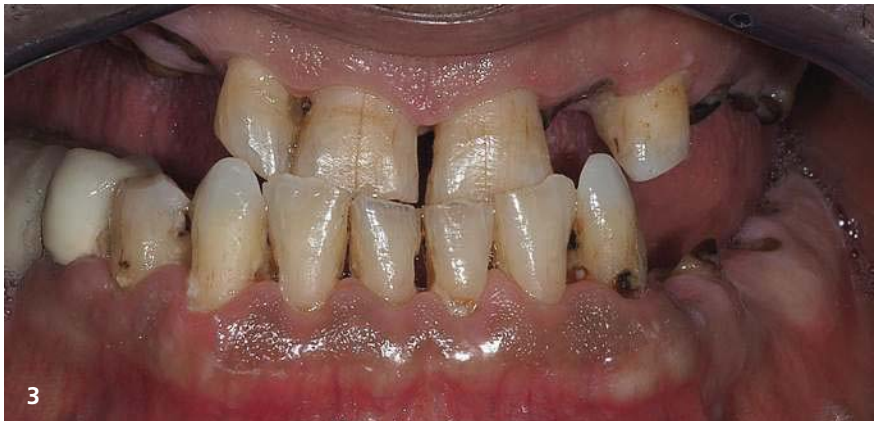


Fig. 1: Extra-oral smile showing lower lip profile and slight gingival exposure. – **Fig. 2:** Lateral extra-oral view demonstrating skeletal class III relationship with crossbite and a concave facial profile. – **Fig. 3:** Intra-oral view showing crossbite and occlusal collapse. The occlusal plane is decompensated due to collapse and wear. Multiple root remnants with associated lesions and caries are present.

bite, improving facial profile and rehabilitation of the functional occlusion with prosthetic rehabilitation.

Patient history and diagnosis

A 63-year-old male patient presented for consultation with the primary concern of restoring masticatory function and aesthetics. Clinical examination, supported by extra-oral and intra-oral photographs showed a skeletal class III malocclusion compounded by the loss of vertical dimension. The bite collapse generated an anterior crossbite that improved when the patient's vertical dimension was increased, although the bite planes remained unbalanced. Partial edentulism was observed in the posterior sector (Figs. 1–3) accompanied by multiple pathological findings, including lesions, root debris and loss of vestibular cortex (Fig. 4).

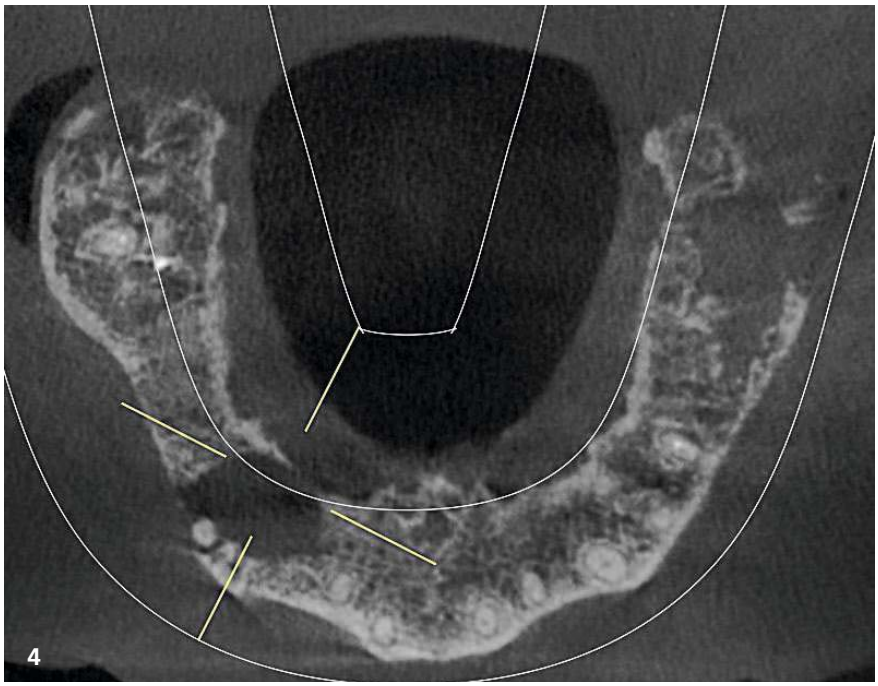


Fig. 4: Diagnostic Radiographs: Radiovisiography (Vistascan, Dürr Dental) and CBCT (Orthophos SL, Dentsply Sirona).

Treatment plan

DICOM and STL files were merged for surgical planning in coDiagnostiX®. Bite registration and a digital diagnostic wax-up (inLab Dentsply Sirona) were created to guide the entire restorative workflow (Fig. 5). The treatment plan included bimaxillary implantation of tissue-level implants with varying gingival heights (Fig. 6), a bone-level implant in position 46 at a later time point, and veneers on the remaining mandibular teeth.

Surgical procedures

Following the extraction of the remaining teeth and residual root fragments in the maxilla, flapless guided implant surgery was performed. A downsized drilling protocol was employed and depth control achieved using drill stop kit in accordance with manufacturer's guidelines. Axiom X3® tissue-level implants were placed along with multi-unit abutments of matching diameters. The Implant Stability Quotient (ISQ, Ostell) ranged between 65–72, indicating high primary stability and supporting the feasibility of early loading (Figs. 7–10).

The lesion at site 34 was grafted, and a slowly resorbable membrane (Straumann® Membrane Plus) was securely placed and fixed in position with pins (Fig. 11). A digital impression of the upper arch was then captured before initiating the healing phase by capping the multi-unit abutments to fully protect the fixtures. The provisional CAD/CAM restoration in PMMA was designed and digitally validated using exocad software, milled (Simeda), and precisely fitted five days post-surgery. The PMMA restoration was firmly affixed to straight titanium bases in the posterior region and to angled ones in the anterior zone for optimal alignment (Figs. 12+13).

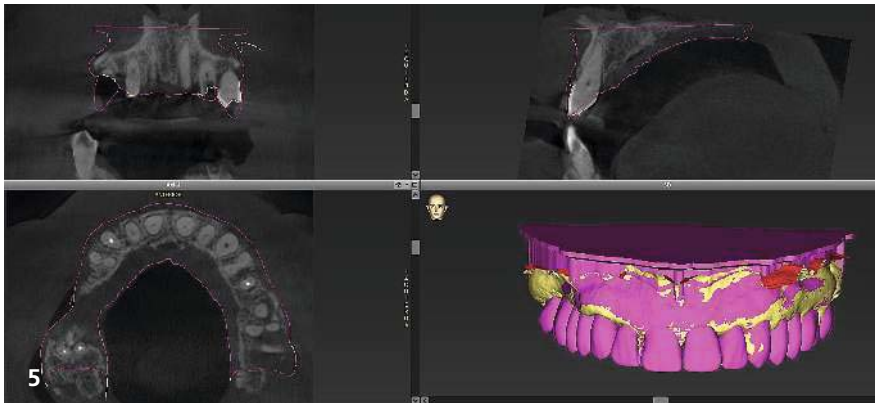
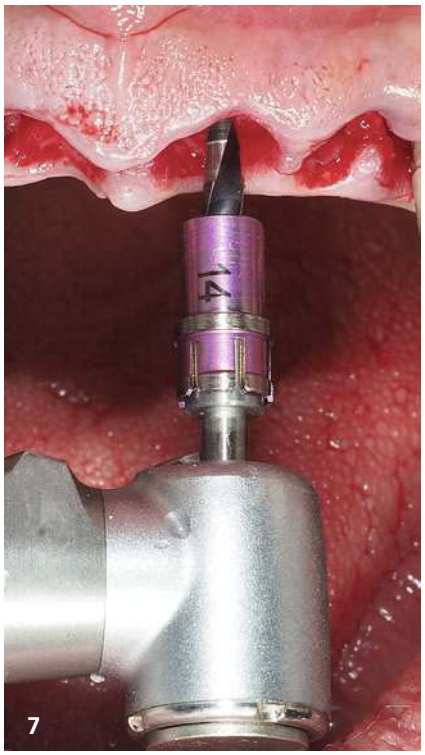


Fig. 5: Superimposition of the initial STL file and the digital design STL. The layers are virtually aligned: the yellow layer represents the initial condition, and the pink layer represents the virtual wax-up.

Fig. 6: Axiom X3® tissue-level implant. The implant coils and lateral chamber are visible; the transporter appears gold-coloured.



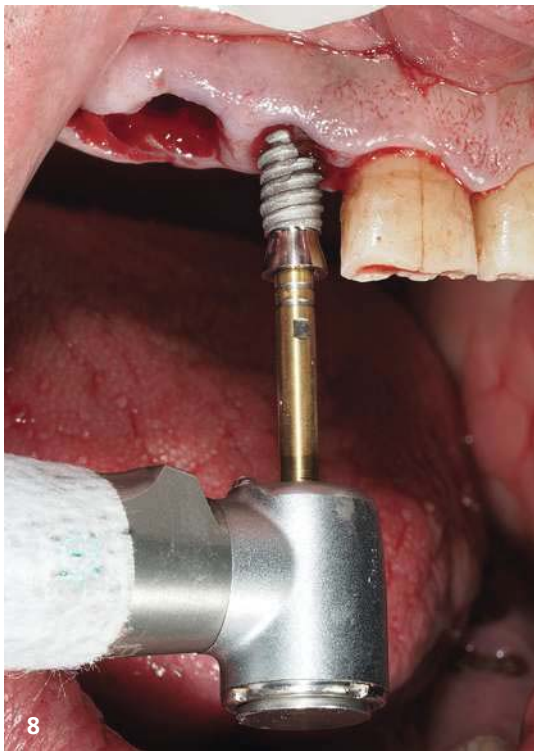
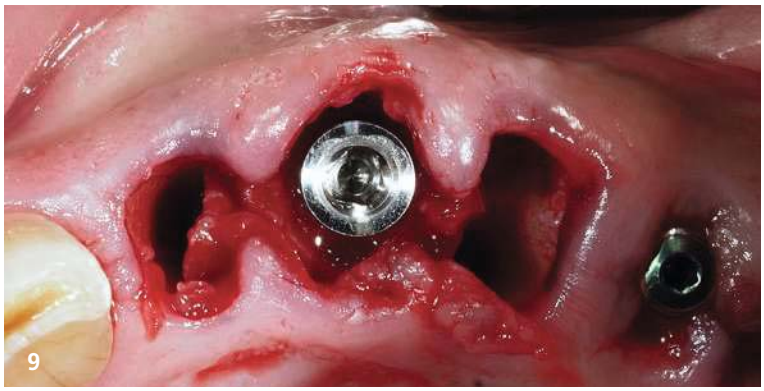
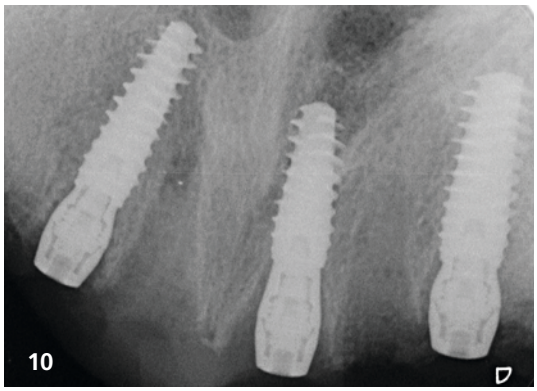
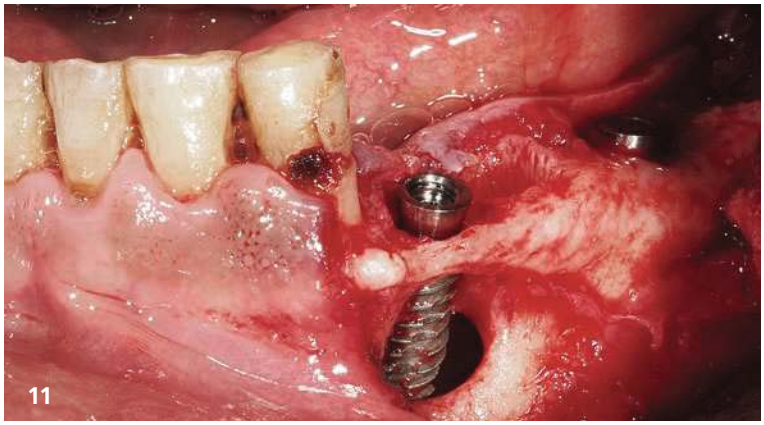
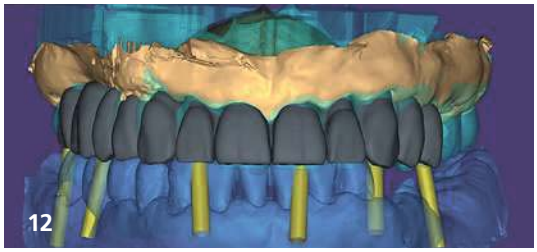


Fig. 7: Alveolar milling performed using colour-coded depth stops and laser markings. – **Fig. 8:** Implant insertion at low rotational speed. The surgical guide enables precise control of the insertion path. – **Fig. 9:** Occlusal view showing the polished collar. A distal multi-unit abutment and healing cap are positioned to prevent initial soft-tissue collapse and facilitate subsequent digital scanning. – **Fig. 10:** Radiograph of anterior–superior implants with multi-unit abutments following the "one abutment, one time" protocol and associated healing caps.









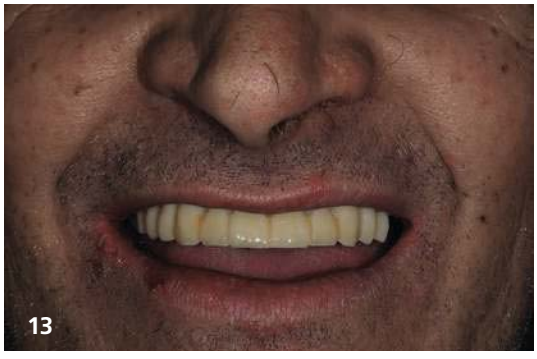
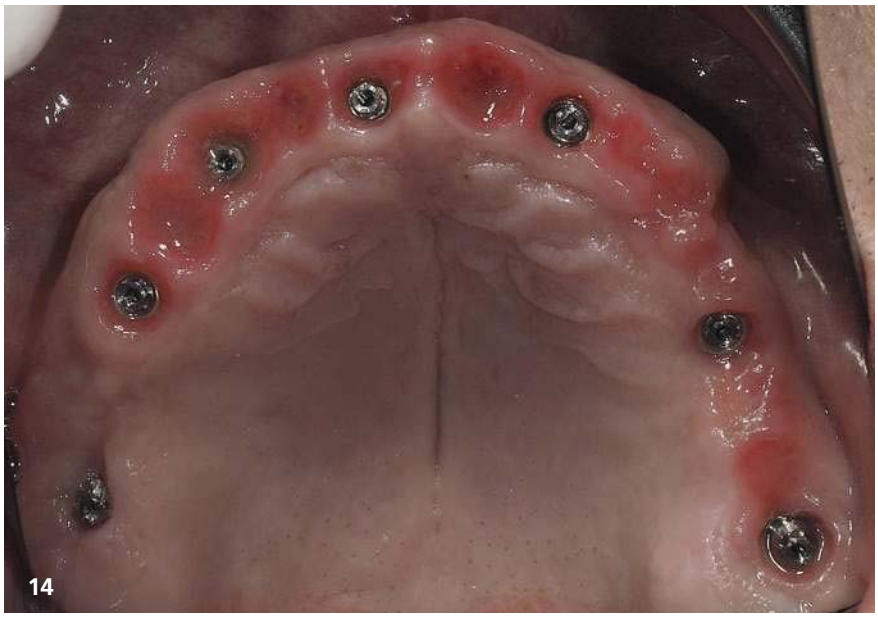


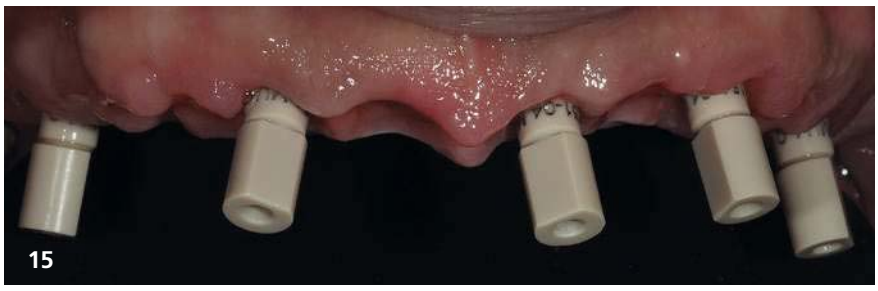
Fig. 11: Axiom X3® tissue-level implant positioned within the bony framework; posterior site prepared for defect regeneration. – **Fig. 12:** Design of the provisional restoration based on the digital wax-up, incorporating angulation correction. – **Fig. 13:** Early loading in place, following digital wax-up parameters for crossbite correction and vertical dimension restoration. Teeth 11–21 were not lengthened to preserve anterior guidance during crossbite correction.

At a later stage, undersized drilling and sub-crestal placement of an Axiom X3® bone-level implant in site 46 was done, achieving an ISQ value of 75. Subsequently, a healing abutment 5.0 x 3.5 mm gingival height was placed to establish an appropriate emergence profile for the prosthetic phase. Six months post-surgery, the PMMA load resulted in a satisfactory soft-tissue response, with well-contoured gingiva suitable for the final prosthetic integration (Fig. 14). The natural teeth were reshaped for full veneer crowns, and the PMMA provisional modified to achieve the desired new vertical dimension and favourable occlusal harmony with the upper temporary restoration. New ISQ confirmed succesful osseointegration of all implants. Optical scans were obtained using multi-unit scanpost in PEEK or titanium. A lower gingival height in 34 necessitated a direct connection on Axiom X3® tissue-level implant for optimal aesthetics (Figs. 15+16).

A passive fit test was then conducted to verify the accuracy of the CAD/CAM framework prior to the generation of a 3D-printed master model. This test involved a milled titanium bar to ensure the precision of the previous scan. Although it is the most expensive method, it is also the most accurate way to generate the final 3D model. Upon design validation in exocad, the fit was confirmed by the Sheffield test. If any stress points were identified, the bar was sectioned and repositioned using low shrinkage resin where possible (Fig. 17).

The ideal free vertical dimension was preserved by utilising temporaries as biocopies to create printed models and design the final restorations. The upper restoration consisted of a hybrid structure; an anodised titanium bar cemented to a (SINA XT-T) zirconia secondary structure, designed to mitigate potential tensions arising from the material's rigidity. The lower restoration utilised a screw-retained system with SINA XT-T zirconia crowns (Figs. 18+19). At site 46, the final restoration consisted of a CAD-CAM anodised titanium abutment featuring retentions and a zirconia crown (Fig. 20).





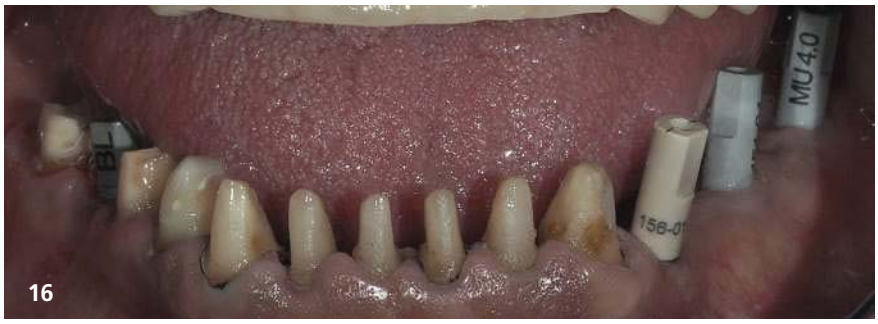
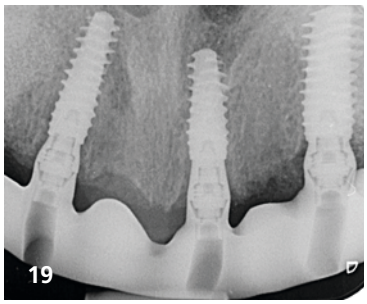
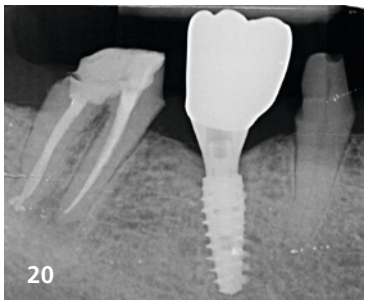
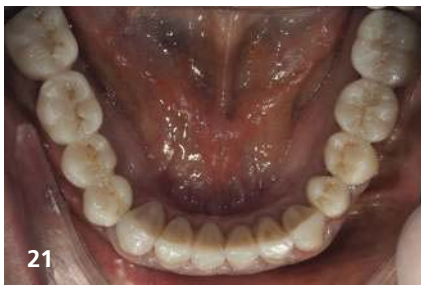
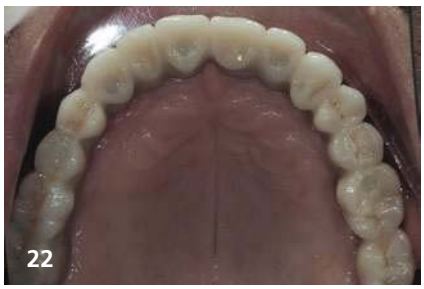


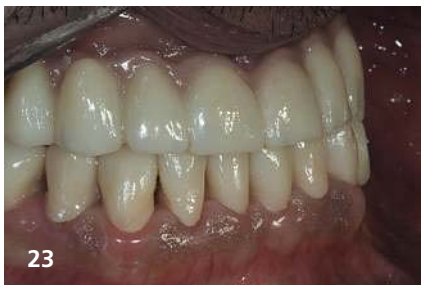
Fig. 14: Soft-tissue condition after osseointegration of the upper implants. – **Fig. 15:** Vestibular view showing upper scanposts and gingival contours shaped by the provisional restoration. – **Fig. 16:** Multi-unit digital transfers in titanium at positions 36–37, and PEEK digital transfers with direct tissue-level connection. In region 46, a titanium BL digital transfer is placed. – **Fig. 17:** Titanium-milled passivity test component prepared for verification.











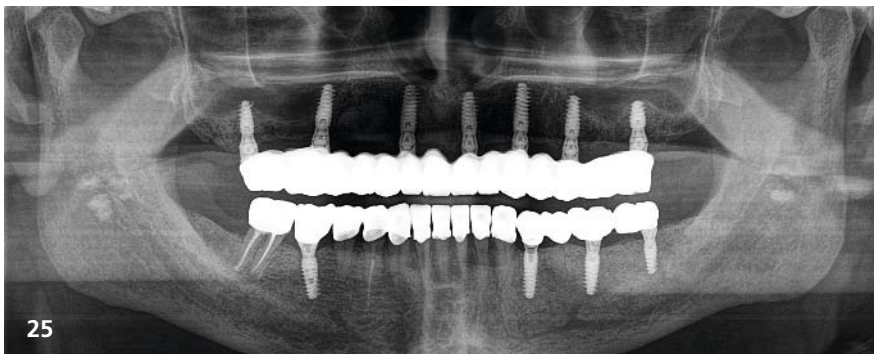


Fig. 18: Anodised, milled titanium primary structure and SINA XT-T zirconia secondary structure with angled screw access and screw-retained cementation. – **Fig. 19:** Radiographic verification of the intra-oral fit of the primary structure. – **Fig. 20:** The milled abutment presents subcrestal and gingival portions, forming the subcritical and critical contours without bone compression. – **Figs. 21–25:** Final outcome of upper and lower restorations showing occlusal rehabilitation and crossbite correction. Radiographic follow-up at six months.

The full veneer crowns were cemented using glass ionomer cement. Crown 46 was extra-orally cemented (3M™ RelyX™ Espe). The final outcomes of the case included restoration of the bite collapse, correction of the crossbite and restitution of the occlusal plane. A final radiographic evaluation was performed at six- and 20-months post-implantation (Figs. 21–25).

Conclusions

Strategic use of both TL and BL implants enabled optimal clinical outcomes. TL implants supported soft tissue stability, particularly in the context of pathology and multi-unit restorations, while BL implants offered enhanced control over emergence profiles and greater prosthetic flexibility in the single-unit site. Underscoring the need of adaptable and comprehensive implant and restoration systems. The outlined treatment strategy offers valuable insights for dental professionals managing analogous instances, highlighting the need of thorough evaluation, meticulous planning, and multiple validation phases of restorations to achieve aesthetically pleasing results. Moreover, the incorporation of a digital workflow in the treatment plan including digital imaging, virtual treatment planning, guided implant placement, and CAD/CAM prosthetic fabrication, enhances precision, efficiency, and predictability throughout the treatment process, reinforcing the value of technology-driven interdisciplinary care.

References

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Immediate anterior maxilla restoration

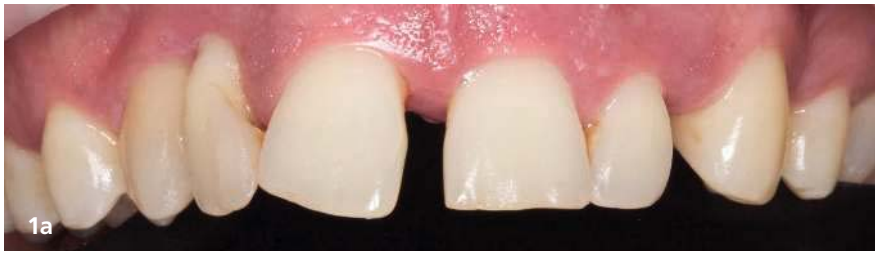
Integrating guided bone regeneration and digital planning for aesthetic results

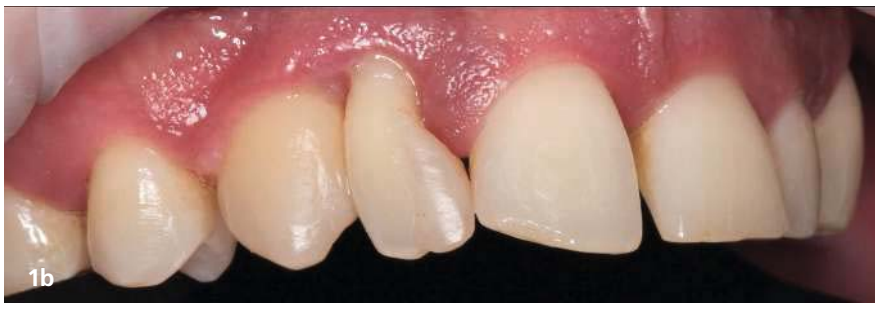
Dr Dalton Marques, Brazil

The following case report focuses on the rehabilitation of a 35-year-old male patient who presented with loose anterior teeth, a progressively widening diastema, and discomfort during eating. The patient desired a comprehensive solution to restore dental stability, improve oral function, and enhance his smile. His dental history included prior orthodontic treatment for an impacted canine, with no systemic conditions, smoking habits, or medication use influencing the treatment plan.

Restoration of the aesthetic zone in a young patient is particularly challenging due to the high expectations for natural-looking results and the functional demands placed on the anterior teeth. In addition to aesthetic considerations, these cases often involve compromised bone and soft-tissue conditions, requiring precise surgical and prosthetic planning. Immediate treatment options in such scenarios provide a clear advantage by reducing treatment time, preserving soft-tissue contours, and maintaining patient confidence during the rehabilitation process.

The use of Straumann® BLX implants was vital in addressing the complexity of this case. These implants offer optimal primary stability, even in situations with limited bone availability. Their design facilitates efficient osseointegration while supporting soft-tissue health, making them a reliable choice for restoring the aesthetic zone. The immediate placement approach minimised treatment duration and preserved the natural gingival architecture, contributing to an optimal aesthetic outcome.





Figs. 1a+b: Hopeless maxillary central and lateral incisors.

Guided bone regeneration (GBR) played a crucial role in the treatment due to the significant vertical and horizontal bone loss identified through radiographic assessment. cerabone®, a deproteinised bovine bone substitute, was employed to fill the gaps and support the osseointegration of the implants. Known for its excellent biocompatibility and structural stability, cerabone® helps preserve ridge volume and ensures long-term support for soft and hard tissues. Its slow resorption rate is particularly advantageous in the aesthetic zone, where maintaining ridge contours is essential for achieving natural-looking results.

Following a thorough clinical evaluation and classification of the case as complex for surgery and advanced for prosthodontics under SAC criteria, a digital workflow was integrated into the treatment plan. This approach allowed for precise planning of implant placement and prosthetic design, ensuring a functional and aesthetic restoration.

This report highlights the challenges of managing the aesthetic zone in a young patient and the advantages of combining

immediate implant placement, biomaterials, and digital technology. The integration of these elements highlights the potential to achieve stable, predictable, and natural-looking outcomes that meet both functional demands and the patient's expectations.

Initial situation

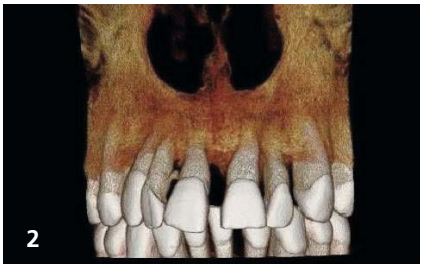
A 35-year-old male patient presented with the chief complaint of loose front teeth and pain, especially while eating. He expressed the desire to achieve a stable dentition, improve function, and have a more aesthetic smile. His dental history includes orthodontic treatment performed years ago due to an impacted canine. There were no reports of systemic diseases, smoking, or medication use.

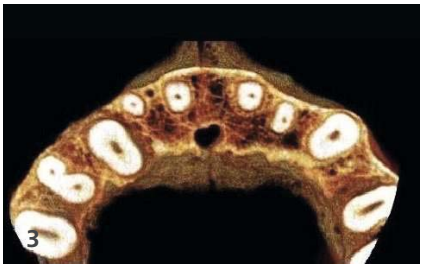
The patient presented a low smile line with no signs of local inflammation. There was mobility grade II in the front teeth and a diastema centralis, which, according to the patient, has progressively widened over time (Fig. 1).

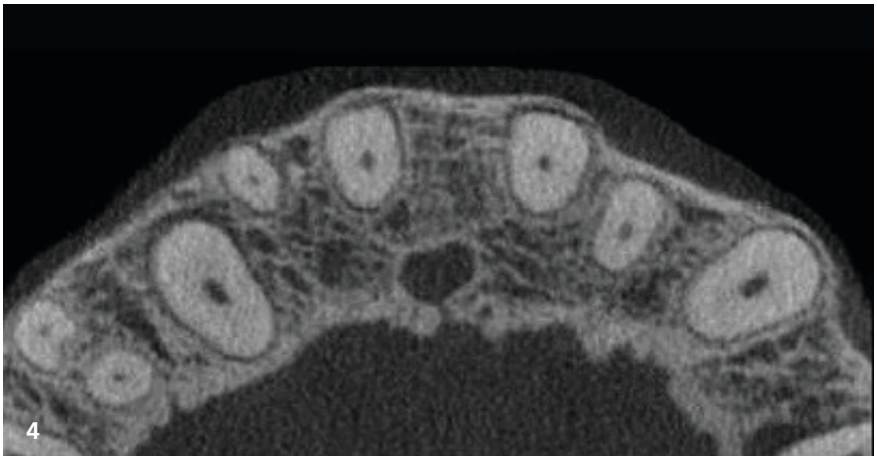
The radiographic evaluation showed loss of vertical and horizontal bone, as well as a thin buccal plate (Figs. 2–4).

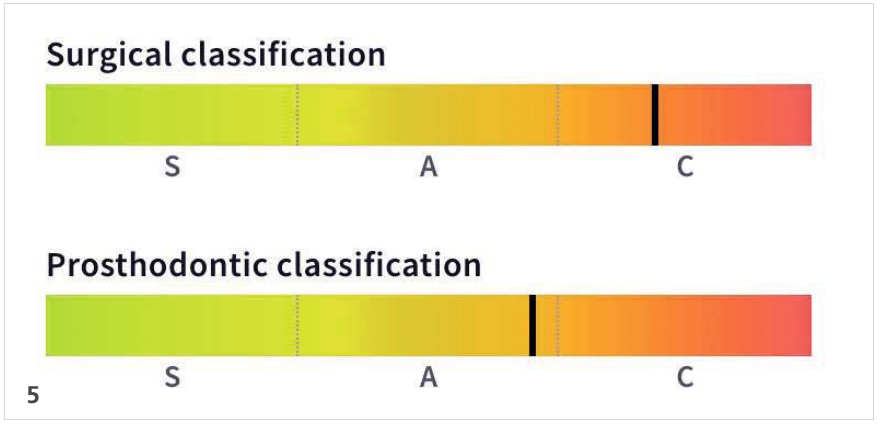
Based on the SAC classification, the patient's surgical case was categorised as complex, while the prosthodontic status was classified as advanced (Fig. 5).

The prognosis of the remaining teeth, based on clinical and radiographic analysis, was poor. Extraction of hopeless teeth was necessary as part of the treatment plan.









Figs. 2–4: Radiograph showing vertical and horizontal bone loss with a thin buccal plate. – **Fig. 5:** SAC classification.

Treatment planning

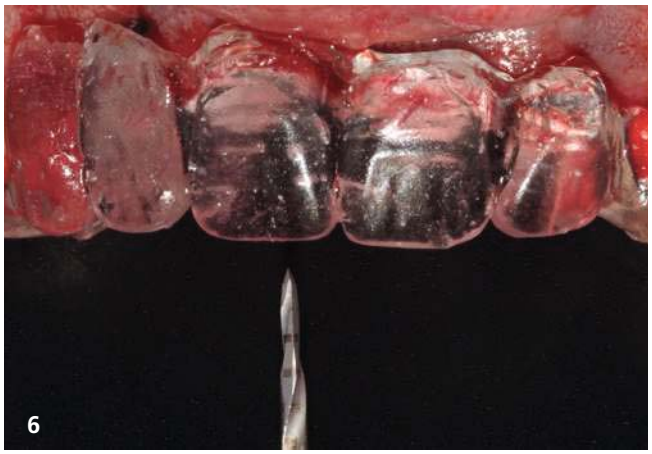
After discussing the treatment alternatives with the patient, including the advantages, disadvantages, risks, and complications, the decision was made to opt for:

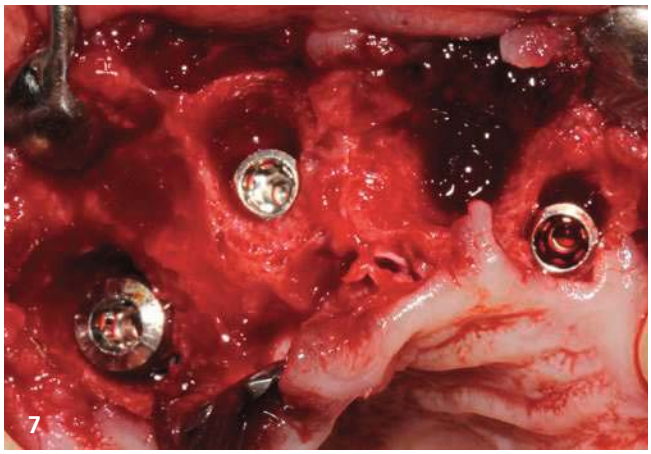
1. Digital planning of a fixed immediate rehabilitation on three implants.
2. Extraction of hopeless teeth #13, # 12, #11, #21 and #22.
3. Immediate placement of three Straumann® BLX Roxolid® SLActive® implants in positions #13 (5.0 x 10 mm), #11 (3.75 x 12 mm), and #22 (4.5 x 10 mm).
4. Bone grafting with cerabone® deproteinised bovine bone substitute.
5. Delivery of screw-retained temporary prosthesis.
6. Delivery of screw-retained definitive prosthesis.

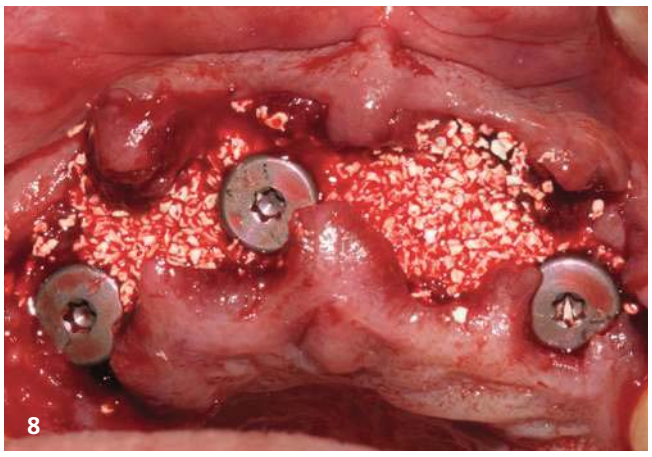
Surgical procedure

Local anesthesia with lidocaine 2% with epinephrine 1:100,000 was administered. The hopeless teeth #13, #12, #11, #21, and #22 were extracted atraumatically. A mucoperiosteal flap with a crestal incision was made, and a surgical stent was positioned to guide implant-site preparation following the extractions. The implant beds were prepared using the Straumann® BLX Surgical Cassette following the manufacturer's instructions (Fig. 6).

Immediate BLX Straumann® implants were placed in positions #13 (5.0 x 10 mm), #11 (3.75 x 10 mm), and #22 (4.5 x 10 mm; Fig. 7). The gaps and sockets were carefully filled with cerabone® deproteinised bovine bone substitute, small granules, to improve osseointegration and provide permanent structural support (Fig. 8).







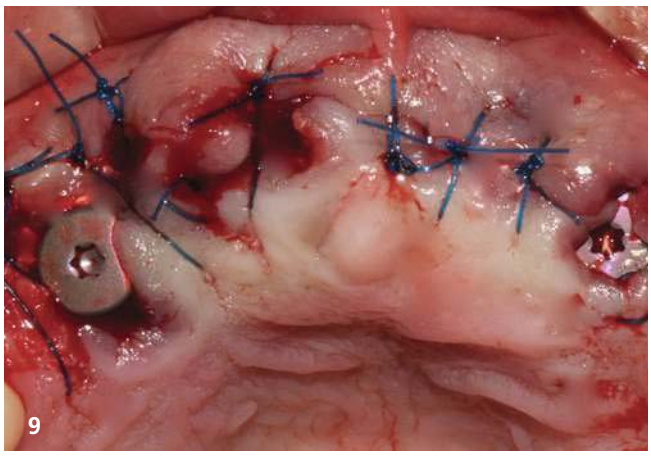


Fig. 6: Implant bed preparation following extraction of hopeless teeth. – **Fig. 7:** Immediate Straumann® BLX implants placed at #13 (5.0 × 10 mm), #11 (3.75 × 10 mm), and #22 (4.5 × 10 mm). – **Fig. 8:** Gaps and sockets filled with cerabone® granules. – **Fig. 9:** The flap is closed with sutures.

This bone substitute was selected for its excellent biocompatibility and its capacity to support soft tissue in the aesthetic area, helping to preserve the shape of the ridge.

Sutures were then placed to close the flap, promoting optimal healing conditions (Fig. 9).

Prosthetic procedure

Digital impressions were taken using the Straumann® Virtuo Vivo™ intra-oral scanner and a five-unit bridge was digitally planned (Fig. 10). Additionally, an occlusal view of the virtually planned five-unit bridge was generated to ensure precise alignment and aesthetics (Fig. 11).

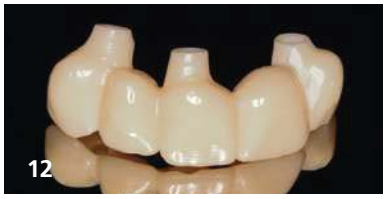
A temporary bridge was then fabricated using a milled resinous material on the Straumann® CARES® C series milling machine (Fig. 12). The screw-retained temporary bridge was then delivered to the patient, providing functional and aesthetic restoration while supporting tissue healing and adaptation (Fig. 13).

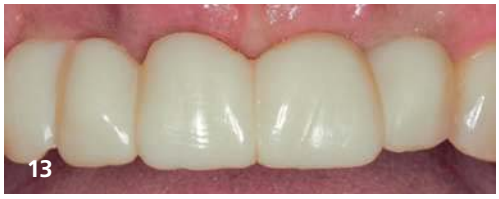
At the six-month follow-up, healing was uneventful. The final restoration was also digitally planned (Fig. 14). The final screw-retained bridge was delivered, occlusion was checked, and instructions were given. The patient was very satisfied with the results (Fig. 15).

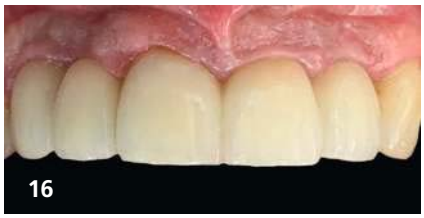
Treatment outcomes

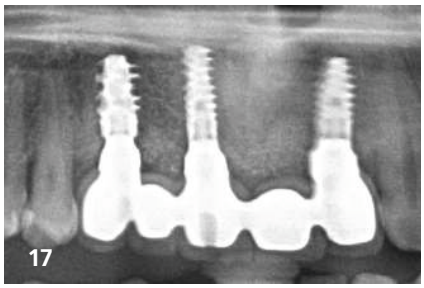
Eighteen months after delivery of the definitive prosthesis, clinical and radiographic evaluation demonstrated stable implants, healthy peri-implant bone, and satisfactory prosthesis integration (Figs. 16+17). At the three-year follow-up, these results remained stable, with no complications observed (Figs. 18–21).

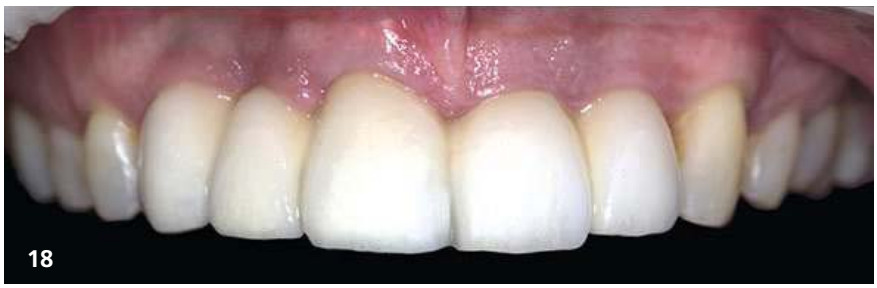
Fig. 10: Digital impressions with Straumann® Virtuo Vivo™ and five-unit bridge digitally planned. – **Fig. 11:** Occlusal view of digitally planned five-unit bridge.

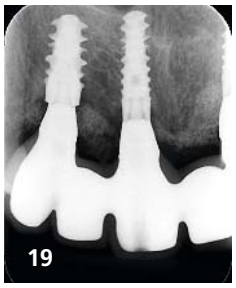


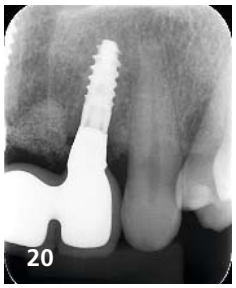












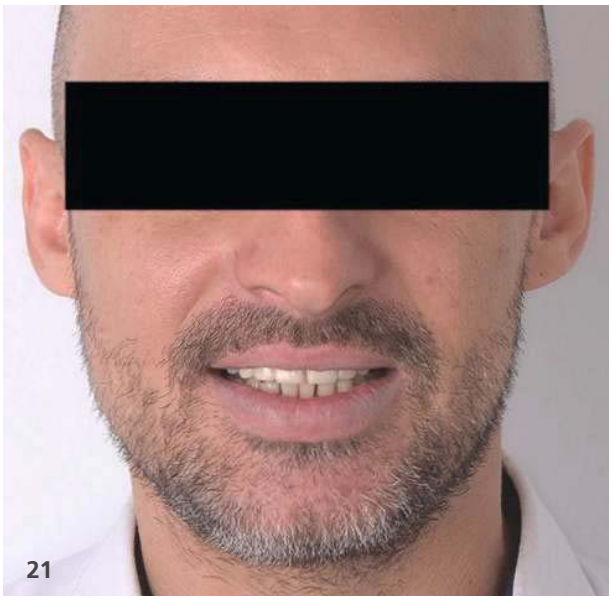


Fig. 12: Temporary bridge fabricated on the Straumann® CARES® C series. – **Fig. 13:** Screw-retained temporary bridge delivered. – **Fig. 14:** Digitally planned final restoration. – **Fig. 15:** Final screw-retained bridge delivered. – **Figs. 16+17:** Eighteen months follow up: clinical and radiographic evaluation showing satisfactory functional and aesthetic outcome. – **Figs. 18–21:** Three-year follow-up: stable clinical and radiographic results without complications.

The patient expressed high satisfaction, noting restored function, confidence in smiling and speaking, and a significant improvement in quality of life, highlighting the value of dental implant therapy in comprehensive oral rehabilitation.

Conclusion

Rehabilitation in the anterior area of the maxilla becomes a challenge due to the aesthetic and functional requirements. In cases with a complex aesthetic and functional deficiency, proper planning is a priority. The precision and efficiency of the digital workflow enable accurate prosthetic design, implant position, and determine whether additional surgical procedures are required.

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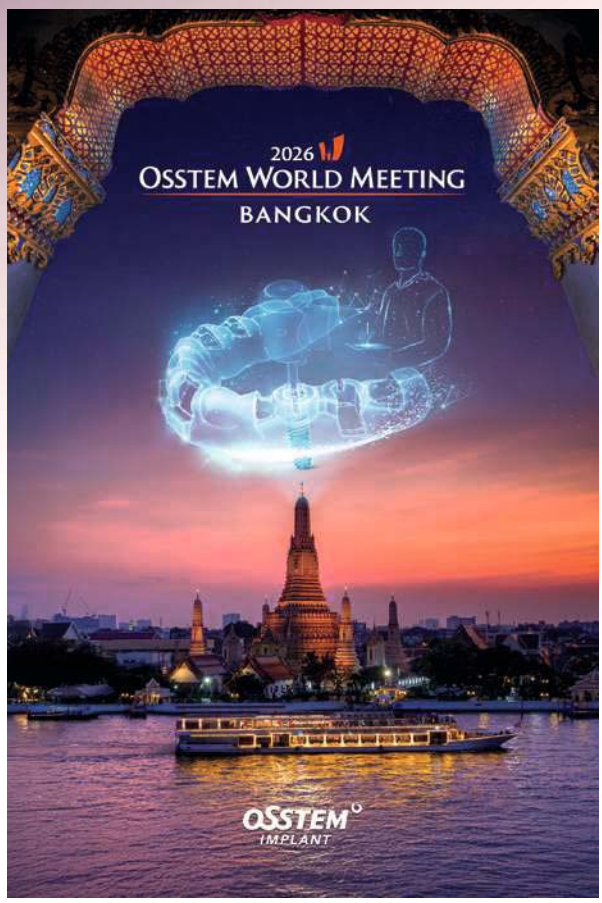
OSSTEM World Meeting 2026 Bangkok

A decade of digital innovation with OneGuide



The global dental community will gather at the Centara Grand Convention Center in Bangkok, Thailand, on 27 and 28 March 2026 for the OSSTEM World Meeting 2026. This prestigious event brings together clinicians, researchers, and industry leaders to share the latest academic findings, clinical experiences, and technological innovations that are shaping the future of implant dentistry and digital workflows.

The programme spans two days of diverse sessions. On Friday, 27 March, participants can join one of five hands-on courses to practice clinical techniques and the OSSTEM World Night, an evening of networking and cultural exchange. The following day, 28 March, the OSSTEM Meeting Symposium will take place under the main theme: "A Decade of Digital Innovation with OneGuide System."

OneGuide System—transforming implant surgery

Introduced more than a decade ago, OSSTEM IMPLANT's OneGuide digital surgery system has redefined implant placement. Based on precise 3D data and customised surgical guides, the system allows implants to be placed with minimal drilling steps while ensuring safety and accuracy. Specialised kits such as OneGuide, OneCAS (for sinus lift), OneMS (for narrow ridges), and One485 (for challenging mandibular molar sites) have expanded the scope of guided surgery, making procedures more predictable and less invasive. At the symposium, global experts will present clinical evidence and research outcomes accumulated over the past ten years, highlighting OneGuide's impact on everyday practice.

A complete digital dentistry ecosystem

Beyond guided surgery, OSSTEM IMPLANT has built a comprehensive digital dentistry platform that integrates hardware, software, and education.

- Intra-oral scanners and CBCT units: Devices such as the Medit i700/i900 scanners and the T2 CBCT provide high-resolution 3D diagnostic data for accurate treatment planning.
- Digital Library: Fully compatible with global CAD/CAM solutions like 3Shape and exocad, ensuring standardised workflows across clinics worldwide.

This synergy of hard- and software ensures greater safety and predictability for patients while boosting efficiency and productivity for clinicians.

Looking back—and forward

The Bangkok meeting will not only celebrate a decade of digital innovation but also set the stage for the next chapter in implant dentistry. As the company continues to redefine standards in digital dentistry, the OSSTEM World Meeting 2026 Bangkok will serve as a landmark event—sharing achievements of the past ten years while shaping a shared vision for the future.

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Implant Solutions World Summit 2026

Inspiration, knowledge and peer-to-peer networking

Dentsply Sirona is pleased to announce the return of its premier global education event, the Implant Solutions World Summit, taking place 25–27 June 2026 in Gothenburg, Sweden.

Following the success of the Implant Solutions World Summit in Athens, Greece in 2023 and Miami, USA in 2024, the 2026 edition will mark a powerful new chapter in Gothenburg—the birthplace of osseointegration and a hub for scientific and medical technology innovation—offering an inspiring setting for dental professionals to explore and be a part of the future of implant dentistry.

Gothenburg stands as a city of remarkable innovation, contributing globally in fields such as engineering, transportation, and technology. These enduring achievements, built on a foundation of rigorous research and development, reflect the same spirit of science and innovation that continues to drive advancements at Dentsply Sirona—improving practices, lives, and the world.

This assembly also celebrates the pioneering origins of implant dentistry. More than 60 years ago, in this northern Scandinavian city, the discovery of osseointegration gave birth to implant dentistry, transforming millions of lives around the world.

Ideas, innovation, impact

"We are excited to welcome the global implant community to Gothenburg in 2026—a location deeply rooted in the history and evolution of implant dentistry," said Rodrigo Canelhas, Group Vice President Implants and Prosthetic Solutions at Dentsply Sirona. "At the Implant Solutions World Summit ideas, experience, and inspiration converge. This event will yet again offer a dynamic space to exchange ideas, discover clinical breakthroughs, and connect with peers who are shaping the future of implant treatment."

The Implant Solutions World Summit will gather clinicians, researchers, and industry leaders for three days of world-class education, interactive experiences, and community building. From emerging digital workflows to advanced surgical techniques and prosthetic solutions, the programme will focus on delivering meaningful clinical insights and practical strategies that elevate patient care.

Details about the speaker lineup and scientific programme will be announced in the coming months.

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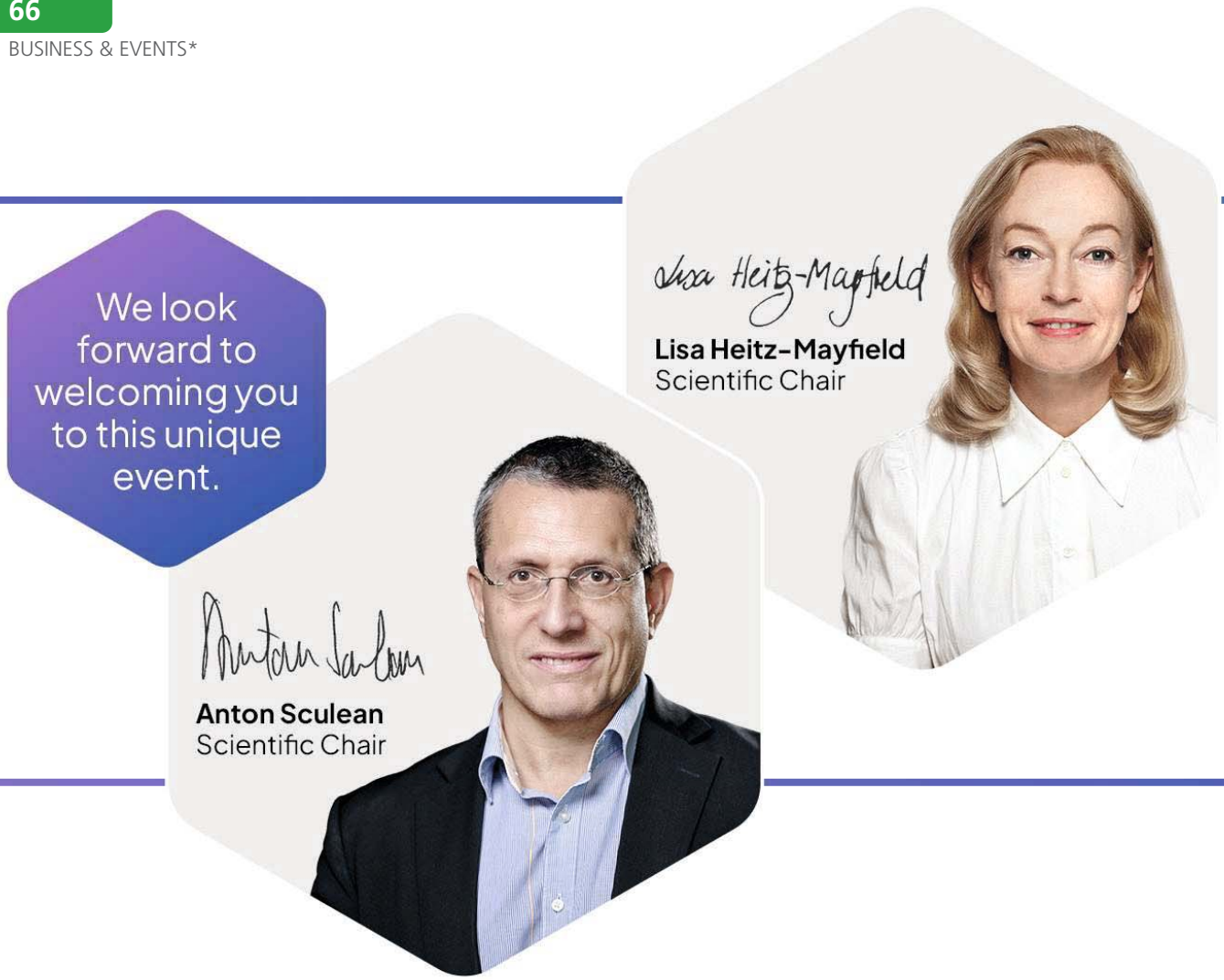

International Osteology Symposium 2026

Dentistry's next frontier

"BEYOND REGENERATION" is the motto of the next International Osteology Symposium in Vienna, 23–25 April 2026. It reflects the core focus on oral tissue regeneration while broadening the view to comprehensive patient care and long-term treatment success. Vienna promises a unique learning experience, with condensed, practice-oriented knowledge delivered by world-renowned experts alongside the rising stars of tomorrow.

We spoke with the symposium's scientific chairs, Lisa Heitz-Mayfield and Anton Sculean, about what participants can expect from this high-level programme.

The motto of the 2026 symposium is "Beyond Regeneration". What does this mean for the programme?

Anton Sculean: The Osteology Foundation has always been dedicated to oral tissue regeneration, but this motto reaches further. Ultimately, it's about one goal: better patient outcomes. The programme is designed to go beyond what you'd expect from a conventional congress and deliver on that promise.

Lisa Heitz Mayfield: Exactly. And we do this in several ways. First, we're putting a strong emphasis on engagement. Participants won't just sit through lectures; they'll be able to vote during sessions, take part in roundtables, or get hands-on experience in workshops. Second, we're ensuring clinical relevance. It's not just about technical skills, but also about drawing on interdisciplinary perspectives and the insights from our leading partner associations. The programme will even include consensus guidelines that distill the latest evidence into practical treatment recommendations. And finally, we're looking ahead by giving the next generation a real voice. Their workshops and sessions bring fresh topics and formats that keep us future-oriented.

Who should attend the symposium?

AS: The beauty of the programme is that it's inclusive. Periodontists, surgeons,

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osteology-vienna.org

orthodontists, general dentists, and anyone with an interest in oral tissue regeneration will benefit.

LHM: That's right. Whether you're just starting your career or you're an experienced clinician, there's something here for you. We'll cover cutting-edge techniques but also take time to discuss limitations and risks openly. And by combining interdisciplinary, patient-centred approaches with the latest digital tools, the content really speaks across all levels of practice.

How does the programme balance scientific insights with clinical applications? Will there be opportunities to practice what you learn?

LHM: Absolutely. Participants will receive condensed, evidence-based knowledge and then immediately see how it translates into practice. A highlight this time is the re-live surgery sessions. Real cases from daily practice will show comprehensive treatment planning where the patient's needs, not just the technical steps, take priority. Four sessions will take participants through the entire clinical process, reinforcing that patient-reported outcomes are the compass for every decision.

How is the next generation involved?

LHM: They've been active from the start. The Next Generation Team helped shape the programme, designing sessions and workshops specifically for early-career clinicians. And with Jeniffer Perussolo joining the Scientific Committee, their perspective is embedded in the programme's development.

AS: You'll see them on stage as well, co-moderating with senior experts. That mix sparks lively discussions and ensures fresh perspectives are part of the dialogue.

LHM: And we've made sure it's accessible too. With the Young Professional Fee, early-career participants can save up to 75% on registration—an unprecedented opportunity to engage with high-level education.

Is there a global perspective in the programme?

LHM: Very much so. More than 90 renowned speakers from all over the world will be joining us. We've also worked closely with global partner organisations like the EFP and AAP, who will present treatment guidelines and consensus papers. This means participants benefit from the latest science as well as internationally recognised recommendations across all indications in oral tissue regeneration.

Why attend a three-day congress when there are so many short online events?

AS: One word: community. Online events are valuable, but nothing replaces the energy of being in the same room, sharing ideas, exchanging experiences, and building networks. Oral tissue regeneration is moving to the centre of dental practice worldwide, and this congress offers a front-row seat to that transformation.

Thank you for the interview!

Perio Master Clinic 2026

Elevating clinical dentistry through periodontal and restorative collaboration

The European Federation of Periodontology (EFP) warmly invites oral health professionals from across the globe to attend Perio Master Clinic 2026, taking place in the vibrant and culturally rich city of Baku, Azerbaijan, on 6 and 7 March 2026. The 2026 edition will focus on the Perio-Restorative Interplay, underscoring the essential collaboration between periodontal and restorative disciplines in achieving outcomes that are not only predictable but also aesthetically refined and long-lasting—even in the most complex clinical situations.

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At Perio Master Clinic, delegates will immerse themselves in the latest evidence-based clinical techniques, spanning peri odontology, implantology, orthodontics, digital dentistry, and restorative care. The carefully structured programme emphasises a multidisciplinary approach, seamlessly combining periodontal and restorative strategies to elevate patient care and clinical results.

This two-day event represents a truly exceptional opportunity to learn directly from world-leading experts in periodontology, implantology, and restorative dentistry. Guided by the principle "what you learn over the weekend, you'll put

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into practice on Monday", the programme has been thoughtfully designed to integrate cutting-edge scientific evidence with practical, actionable techniques that clinicians can immediately apply in their daily practice.

Prof. Mariano Sanz, Scientific Chair, remarked: "The Perio Master Clinic is far more than a conventional congress. In 2026, we place special emphasis on the synergy between periodontal and restorative approaches, presenting sessions that extend well beyond theory to provide practical, evidence-based solutions. You can now explore the full programme on the EFP website."

First time in Azerbaijan

This edition is particularly momentous, as it marks the first time a Perio Master Clinic is being hosted in this region, offering a unique opportunity for participants from both Europe and Asia. Delegates will be welcomed into the dynamic and captivating city of Baku, where the UNESCO-listed Old City, with its labyrinthine streets and historic charm, coexists harmoniously with striking modern architecture—creating an inspiring and stimulating environment for learning, networking, and cultural exploration.

From the iconic Flame Towers to the historic grandeur of the Old City, Baku provides a setting that is as visually compelling as it is culturally enriching. When combined with the high-caliber scientific content of the clinic, this creates an experience that is truly unmissable for dental professionals seeking both intellectual and personal enrichment.

Prof. Cavid Ahmedbeyli, Congress Chair, stated: "It is an honour for us to welcome colleagues from around the world to this landmark event. Baku offers a unique blend of tradition and modernity, and we are thrilled to share not only the scientific programme but also the city's rich cultural heritage with the international dental community."

A world-class programme in an inspiring setting

The programme will feature internationally renowned experts, offering sessions that elegantly bridge theoretical knowledge with practical clinical application.

Prof. Spyros Vassilopoulos, EFP President, highlights:

"EFP Perio Master Clinics are designed to bridge the gap between knowledge and practice. In Baku, we will once again create an environment where clinicians can learn directly from leading experts, refine their skills, and immediately integrate new techniques into their daily practice. This is the type of transformative education that defines the EFP."

Perio Master Clinic 2026 promises to be an experience that is both scientifically enriching and personally memorable. For dental professionals, this is an unparalleled opportunity to learn, connect, and explore new horizons in clinical dentistry—an event that truly should not be missed.

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Dentaurum celebrates 30 years of implantology

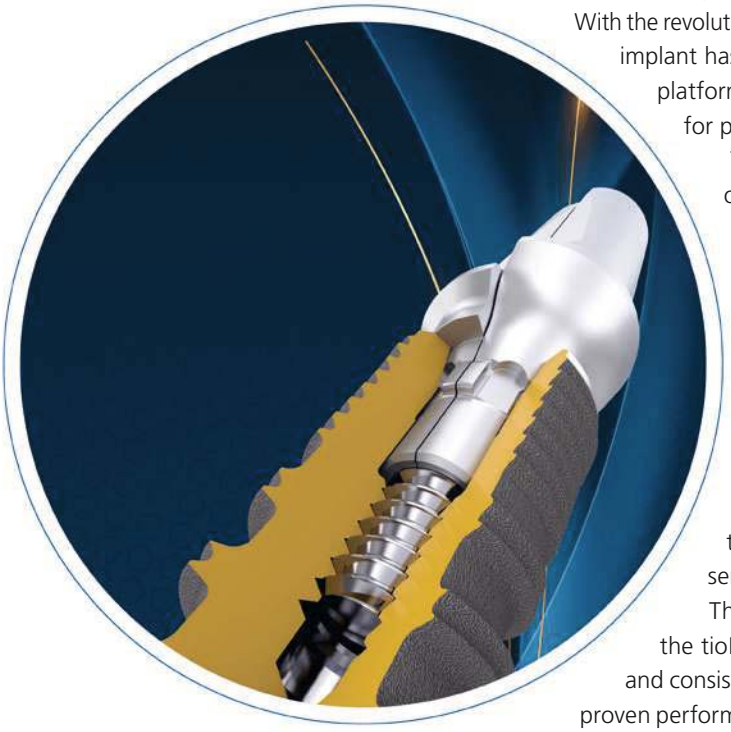
The connection of the future

To mark the 30th anniversary of TIOLOX®/tioLogic® implantology at Dentaurum, the focus of tioLogic® TWINFIT is on a state-of-the-art, high-quality look that combines proven clinical reliability with innovative connection technology. The unique connector geometry, with a choice between cone and platform, allows maximum flexibility in prosthetic restoration—while maintaining a stable connection at the same time. As a result, Dentaurum sets new standards for precise, long-lasting, and efficient implant solutions—both in everyday practice and laboratory work.

The tioLogic® TWINFIT revolution

The treatment teams in the practice and laboratory always have the right implant, regardless of whether a cone or platform connection is desired: implantologists and patients benefit from the freedom to switch between cone and platform at any time with every tioLogic® TWINFIT implant.

The tioLogic® TWINFIT implant system allows implantologists to choose flexibly between cone and platform connections depending on the treatment objective and patient situation—without compromising on impression-taking, restoration flexibility, or long-term stability. This facilitates advanced planning and allows for optimisation during the healing process.



With the revolutionary Abutment Switch, one and the same tioLogic® TWINFIT implant has two connector geometries for restorations—conical and platform. It is therefore adaptable to the changing oral situation for patients without the need to change the implant.

The patented implant system has much to offer users: not only safety and efficiency in handling, but also maximum flexibility during implant insertion, final restoration and in situations that change as the patient grows older.

With 30 years' experience, Dentaurum places great value as a digital partner on process sequences that are efficient and easy to follow, using materials that have been validated—from the planning and implementation of the tioLogic® TWINFIT implant position, through scanning, to manufacture. The systems offer solutions that are flexible, efficient and tailor-made for both the implantologist and the patient. Comprehensive services and a wide range of seminars round this system off.

The new visual look highlights the compelling strengths of the tioLogic® TWINFIT implant system with a high-quality, fresh, and consistent design across all communication channels, placing the proven performance of the Dentaurum products at the center of attention in a contemporary style.

tiologic® TWINFIT

Find out more about our seminars

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OSSTEM

Smart choices in regeneration: versatile biomaterials for reliable results

In dental regeneration, predictability and efficiency are key. With a growing demand for versatile, evidence-based solutions, OSSTEM offers a comprehensive portfolio of biomaterials designed to support successful bone and soft-tissue regeneration in various clinical scenarios.

A-Oss is a naturally derived xenograft made from bovine bone. Its slow resorption profile ensures long-term volume stability, making it ideal for ridge preservation, sinus lifting, and larger defect reconstructions. Its osteoconductive properties promote rapid integration with the host bone, providing a reliable scaffold for new bone formation.

Q-Oss+ is a synthetic, biphasic calcium phosphate bone graft (20% HA/80% β-TCP). With a balanced resorption rate and excellent handling characteristics, it is especially suitable for smaller defects and periodontal indications. As an aloplastic material, it also offers a safe and predictable alternative for patients who prefer non-animal products.

To protect and stabilise grafts, membranes play a crucial role. OssMem is a resorbable collagen membrane of bovine origin, offering easy handling, strong barrier function, and excellent biocompatibility. It is particularly useful in standard GBR procedures where predictable resorption and support for soft-tissue healing are essential.

OssCover, derived from porcine collagen, complements the portfolio with slightly different mechanical properties and a natural multilayered structure. Its firm handling and extended barrier function make it an ideal choice for clinicians who prefer a porcine-based membrane with excellent space maintenance.

For more complex or larger horizontal/vertical augmentation cases, OssBuilder, a preformed titanium membrane, provides strong mechanical stability and precise defect shaping. It is especially useful in GBR procedures where long-term structural support is required and offers superior space maintenance compared to collagen membranes.

OSSTEM's biomaterials are developed to work in synergy, giving clinicians the flexibility to adapt to various defect types, patient needs, and personal treatment preferences—without compromising on quality or clinical outcome.

Discover how OSSTEM biomaterials can support your regenerative success. Contact our sales through sales@osstem.eu and learn more about our product line-up.

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Straumann

Fast Molar Solution: efficient, effortless, aesthetic

Traditional implant workflows require multiple components—healing abutments, impression posts, scanbodies—all of which involve placing, removing, and replacing parts across multiple visits. This not only consumes time and may increase the risk of errors and biological complications. The Straumann® Fast Molar Solution eliminates extra steps by combining healing and scanning into a single component that remains in place from the day of surgery to the final restoration. Its streamlined procedures can save precious chair time and reduce the number of patient visits, increasing clinic efficiency and throughput.

Improved tissue preservation and healing

Multiple manipulation of the peri-implant soft tissue due to component changes can disrupt the healing site, delay recovery, and jeopardise the natural emergence profile. The Straumann® Fast Molar Solution's "non-removal" protocol allows soft tissue to form naturally around a contoured abutment that never needs to be removed. The anatomic shape supports an immediate soft-tissue seal, enhancing the stabilisation and preservation of peri-implant tissues ensuring a stable, well-shaped emergence profile—without additional surgical or prosthetic interventions. The results are: healthier soft tissue, less risk of complications, and more predictable aesthetic results with minimal intervention.

Greater predictability and digital compatibility

Inconsistent impressions and mismatched emergence profiles often lead to poorly fitting crowns that require time-consuming chairside adjustments. With the Straumann® Fast Molar Solution, clinicians can take intra-oral scans directly over the Straumann® Anatomic Healing Abutment, capturing implant position and the sub-gingival emergence profile from a single tissue-level scan — resulting in faster, more precise prosthetic outcomes thanks to fewer restoration adjustments, easier collaboration with labs, and seamless integration into digital workflows.

Improved patient experience and satisfaction

Long treatment timelines, repeated component changes, and multiple appointments can lead to discomfort and dissatisfaction. With the Straumann® Fast Molar Solution's fast turnaround and minimal interventions, patients benefit from a smooth and comfortable journey with excellent aesthetic and functional results. They can receive high-quality restorations faster and with less discomfort, improving overall satisfaction and trust.

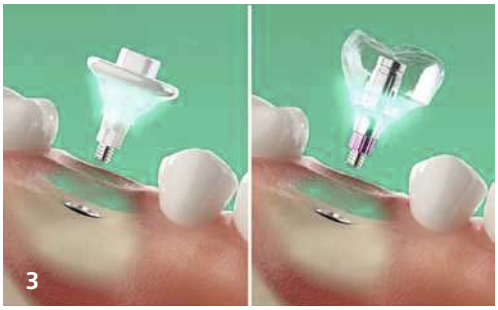

Fig. 1: PLACE—immediate soft-tissue stabilisation.
Fig. 2: SCAN—scan without removing the healing abutment.
Fig. 3: RESTORE—perfectly matching emergence profile.
Fig. 4: Straumann® anatomic healing abutment, healing abutment and scanbody—greater predictability and digital compatibility.

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Ziacom

Enhanced conical connection design

The ZM10 implant system by Ziacom is a high-performance conical connection implant designed to meet clinical demands for surgical precision, mechanical strength, and biological compatibility. It integrates a prosthetic-level conical connection with a unique macro and micromorphological body, enabling optimal primary stability, reduced crestal stress, and predictable long-term outcomes.

At the material level, the ZM10 is manufactured from Zitium, a proprietary extra high-strength Grade 4 titanium. This formulation significantly enhances the implant's yield strength and fatigue resistance, ensuring structural integrity under high functional loads, and increasing safety during immediate loading protocols or in compromised bone scenarios.

The implant body features a tapered macromorphology with a reverse conical design at the crestal region. This reverse taper reduces pressure on the cortical bone during insertion, minimising marginal bone resorption and preserving the crestal ridge. Additionally, the cervical region incorporates micro-rings that facilitate the guidance of new bone tissue, enhancing biological integration and improving the long-term anchorage of the implant.

The threading design is one of the most distinctive elements of the ZM10. It features a double-threaded, low-angle active thread with variable geometry. Coronally, the threads begin as wide trapezoidal profiles that maximise initial bone engagement. As the threads progress apically, they become narrower and V-shaped, enabling smoother insertion and better torque control. This configuration increases the bone-to-implant contact (BIC), which enhances primary stability and promotes efficient osseointegration, even in low-density bone or post-extraction sockets.

At the apical end, the implant includes an active, self-tapping, and atraumatic apex. This design element provides controlled advancement during insertion, particularly in soft bone, and helps prevent lateral or apical displacement. It contributes significantly to achieving primary stability, which is essential for both immediate and delayed loading protocols.

The internal conical connection, set at 11 degrees with a dual internal hex, provides a strong and stable implant-abutment interface. This minimises micromovements and bacterial microleakage at the connection, reducing the risk of peri-implantitis. Importantly, all implant diameters share a single prosthetic platform, simplifying component selection, reducing inventory, and streamlining prosthetic workflows—especially advantageous in busy clinical environments.

Clinically, the ZM10's combination of features—reverse conical neck, optimised thread design, atraumatic apex, and robust internal connection—offers numerous advantages. These include reduced marginal bone loss, enhanced mechanical stability, simplified restorative procedures, and long-term biological sealing. Together, these elements contribute to the reliability, efficiency, and predictability of implant treatments across a wide range of clinical scenarios.

In summary, the ZM10 implant system delivers high-level performance in implant dentistry, supporting optimal outcomes through a design focused on surgical control, biomechanical integrity, and long-term tissue preservation.

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	Event	Location	Date	Details/Registration
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1/26	AEEDC	Dubai	1–21 January 2026	https://aeedc.com

EDI Journal – Information for authors

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

Manuscript submission
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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Pages should be numbered consecutively, starting with the cover page. The cover page should include the title of the manuscript and the name and degree for all authors. Also included should be the full postal address, telephone number, and e-mail address of the contact author.
Manuscripts can be organised in a manner that best fits the specific goals of the article, but should always include an introductory section, the body of the article and a conclusion.

Illustrations and tables
Each article should contain a minimum of 20 and a maximum of 50 pictures, except in unusual circumstances. Our publishing house attaches great importance to high quality illustrations. All illustrations should be numbered, have a caption and be mentioned in the text.
The photos should have a size of 10 x 15 cm, the image or graphic files must have a resolution of 300 dpi. TIFF, EPS and JPG file formats are suitable. Radiographs, charts, graphs, and drawn figures are also accepted.
Captions should be brief one or two-line descriptions of each illustration, typed on a separate page following the references. Captions must be numbered in the same numerical order as the illustrations. Tables should be typed on a separate page and numbered consecutively, according to citation in the text. The title of the table and its caption must be on the same page as the table itself.

References
Each article should contain a minimum of 10 and a maximum of 30 references, except in unusual circumstances. Citations in the body of the text should be made in numerical order. The reference list should be typed on a separate sheet and should provide complete bibliographical information in the format exemplified below:
[1] Albrektsson, T.: A multicenter report on osseointegrated oral implants. J Prosthet Dent 1988; 60, 75–82.
[2] Hildebrand, H. F., Veron, Chr., Martin, P.: Nickel, chromium, cobalt dental alloys and allergic reactions: an overview. Biomaterials 10, 545–548 (1989).

Review process
Manuscripts will be reviewed by three members of the editorial board. Authors are not informed of the identity of the reviewers and reviewers are not provided with the identity of the author. The review cycle will be completed within 60 days. Publication is expected within nine months.

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MEMBERSHIP REGISTRATION FORM

I hereby apply for a membership in the BDIZ EDI
(European Association of Dental Implantologists)

Name: .....

First Name: .....

Country: .....

Zip Code / City: .....

Street: .....

Phone: .....

Fax: .....

E-Mail: .....

Homepage: .....

Date of Birth: .....

Practising implantology since: .....

Member of other Societies:

☐ ICOI ☐ BDO ☐ DGI ☐ DGZI ☐ DGMKG ☐ EAO

Continuing education Courses: .....

.....

Fellowship status / diplomate status in implantology

☐ Yes ☐ No ☐ Organisation .....

Entry in BDIZ EDI Directory: ☐ Yes ☐ No

(For information on BDIZ EDI Directory of Implant Dentists see overleaf)

The annual membership fee for:

FULL MEMBERSHIP

☐ Full member – clinical	EUR345.00
☐ Assistant dentist / young professional (up to 5 years after graduation)	EUR172.50
☐ Second membership / family member	EUR172.50

EXTRAORDINARY MEMBERSHIP

☐ Co-operative Member (Professionals without practice and dental technicians)	EUR165.00
☐ Students	non-contributory
☐ Supporting Membership (Companies etc.)	EUR530.00

Payment
Membership cannot be confirmed until payment is processed. Method of payment is by bank transfer. Please use the following banking account

Commerzbank Bonn

Account Number:	310 144 100
Bank Code:	380 400 07
IBAN:	DE96 3804 0007 0310 1441 00
BIC:	COBADEFFXXX

Membership cards will be sent upon receipt of the annual subscription fee.

City / Date: .....

Seal / Signature: .....

Please return the completed registration form to:
European Association of Dental Implantologists e.V.
Lipowskystr. 12 · 81373 Munich · Germany
Phone: + 49 89 7206-9888, Fax: + 49 89 7206-9889
E-Mail: office@bdizedi.org, Homepage: www.bdizedi.org

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