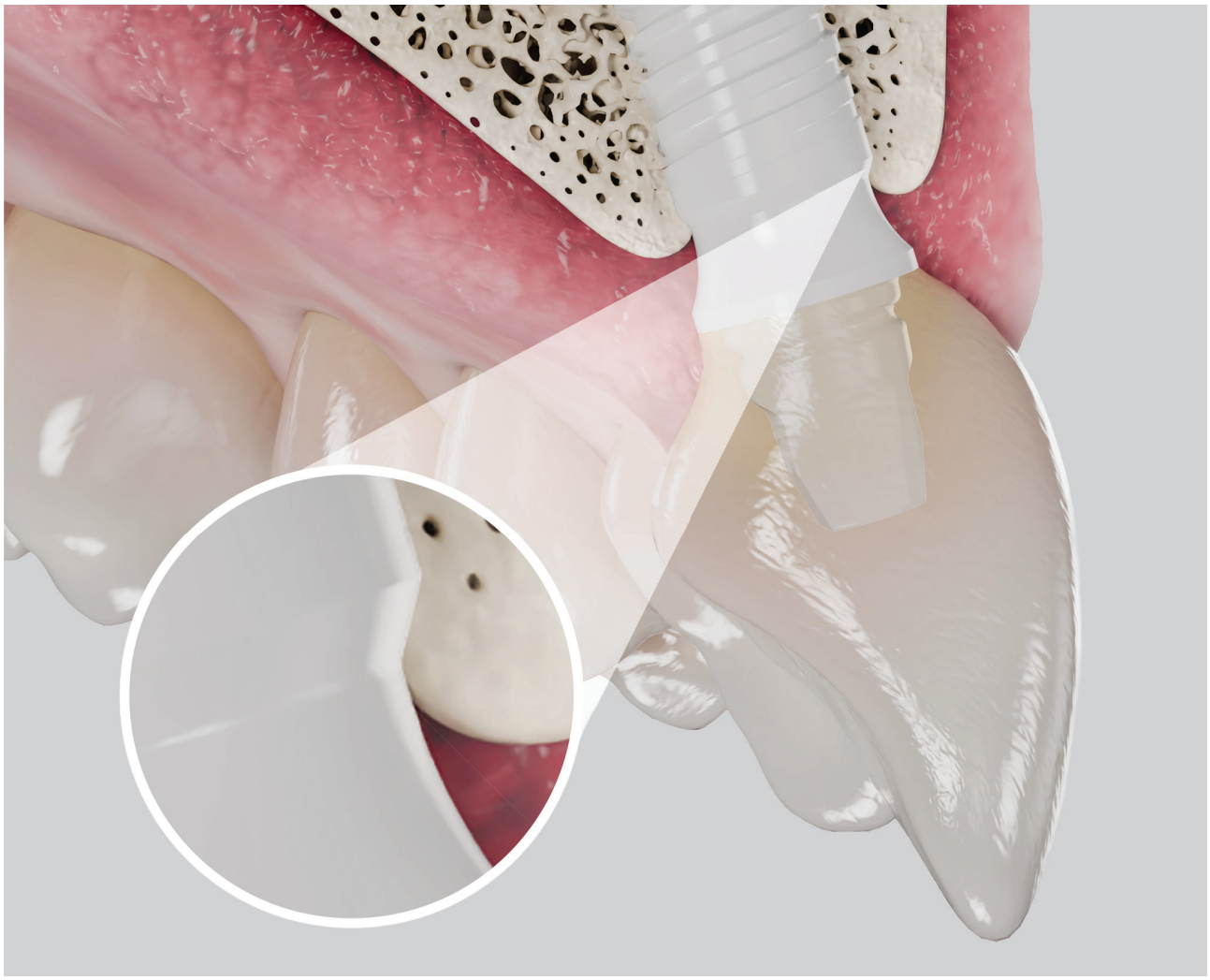
issn 1868-3207 Sondernummer · Vol. 10 · Issue 1/2026

CI ceramic implants

1/26

international magazine of **ceramic implant technology**



quintessence

CLEAN IMPLANT FOUNDATION

Become a CleanImplant Certified Dentist.

You choose quality.
You choose safety.
You choose independently tested and CleanImplant-certified implant systems.
Now let patients choose you.

- **Attract quality-conscious patients**
- **Join an elite professional network**
- **Differentiate your practice**
- **Receive marketing and digital support**

The CleanImplant Foundation independently evaluates implant surface quality and recognizes systems that meet its consensus-based scientific standards.

BTI BIOTECHNOLOGY INSTITUTE
SWISS DENTAL SOLUTIONS
CHAMPIONS IMPLANTS
SLH DENTAL IMPLANT
MEDENTIS MEDICAL
RITTER IMPLANTS
BREDENT MEDICAL
DENTSPLY SIRONA
BIOTECH DENTAL
NOBEL BIOCARE
IZEN IMPLANT
STRAUMANN
NUCLEOSS
GLOBAL D
MEGAGEN
LYRA ETK
DENTIUM
BIOTEM
DENTIS

Choose to be different.
Apply now.
www.cleanimplant.org

Excellence
deserves visibility.
www.mycleandent.com

Shepard DeLong, DMD

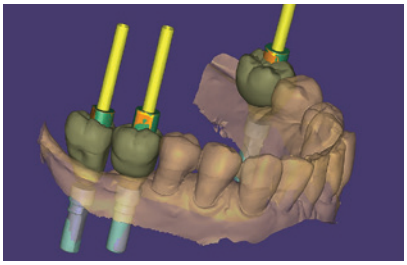
The Overview Effect

Artemis II recently circled the back side of the moon. A small blue, green, and white sphere floating in space appeared, our home. The crew experienced "The Overview Effect," struck with awe, wonder, connection, a feeling of how precious life is, and a desire to preserve the health and vitality of this small planet.

We must take a leap of faith and try promising solutions in dental medicine and ceramic implantology. A bold vision can cause a sea change, altering institutional and societal constraints that have kept human life limited to disease, managed by a broken healthcare system. The belief that wellness exists within has informed medicine from the start, however, we have the obligation to perform physical procedures, tooth by tooth. What a paradox. We listen to patient stories; the cost, hours, and pain, but also appreciation, hope and desire to be well. To heal the connection between systemic and dental health, we must use all technology available today, guided by the human heart.

Early adoption of ceramic implants lacked support, but evidence has shown favourable biological interaction and clinical success. Surgical technology has evolved. Static computer-aided guides to the X-guide, with a game-like workflow, and now robotics; add the operating microscope and surgery becomes ultra-precise, and ergonomic. Novel things happen when multiple apex tech-

CONTENT



▼

nologies merge. Like magic, previously unknown benefits appear. Something new is born when robotics are combined with the biocompatibility of ceramic implants.

Data shows that robotics improves surgeons' quality of life and length of career, decreasing institutional costs, procedure times and patient morbidity. To successfully treat the global population, we must follow other surgical specialties and push forward the parallel advancement of biomaterials, prosthetic design, robotics and dynamic navigation. Full-arch reconstruction is often the best treatment and is analogous to total joint arthroplasty, however most systems in dentistry are still titanium specific. The development of efficient, machine-assisted full arch solutions for zirconia implants may reduce costs and improve global oral and systemic health.

The biological dentistry and bio-hacking trends are making bloodwork standard practice. Vitamin D, HbA1c, CRP, LDL, cortisol levels, and other biomarkers help us understand real health and healing capacity. Platelet rich fibrin, nutrition, probiotics, hygiene protocols and complimentary therapies like hyperbaric oxygen, sauna, and red light, reduce inflammation, improve surgical outcomes, and more importantly, help patients maintain true health for life. Artificial intelligence can accelerate and correct this path using analytics, super cognition and predictive modeling, circumventing the traditional scientific method.

What is our highest aim? What lies beyond disease and surgery? We can share a new dream that short circuits perceived limits and make a quantum leap to a new reality. Artemis III is preparing for its next mission and there will be resistance, but it will launch. We must keep going. Let's shoot for the moon! If we fall short, at least we'll be amongst the stars.

Yours sincerely
Shepard DeLong, DMD
Owner, Lotus Dental Wellness/
Ceramic Dental Implants of Oregon

Cover image courtesy of
bredent medical GmbH & Co. KG
www.bredent-implants.com

CONTENT

AWI

Albus WITAR Implants

www.witar.de

Robotic facilitation of ceramic implants in compromised alveolar ridges

Digital restorative workflow and one-year follow-up

Shepard DeLong DMD, USA

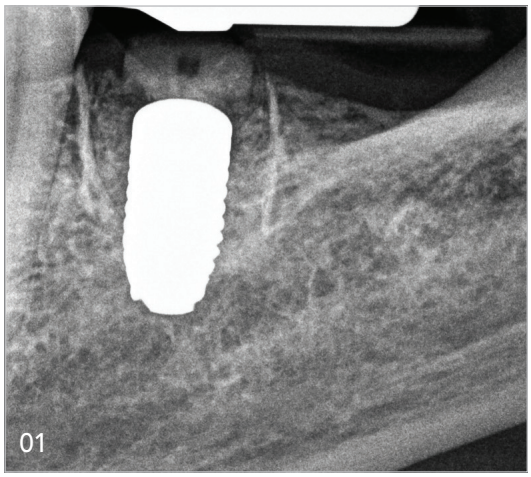
Introduction

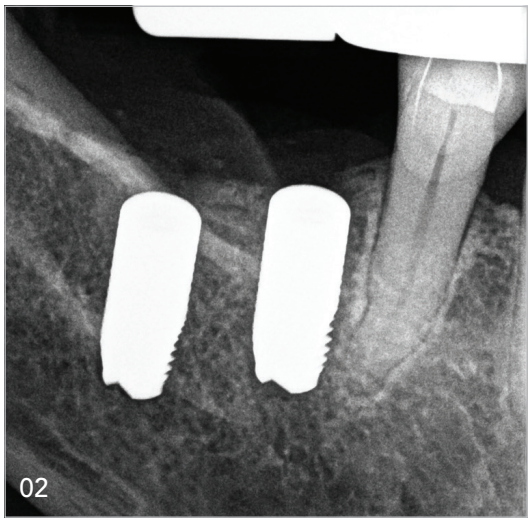
This case report follows the previously described surgical placement of ceramic implants in a 79-year-old healthy female patient with severely atrophic posterior mandibular ridges. The initial procedure utilised the Yomi robotic system by Neocis to facilitate precise, minimally invasive ridge splitting and placement of two implants on the right and immediate implant insertion on the left using bone-level zirconia implants by Z-Systems[1] (Figs. 1+2). Five months post-surgery, the patient returned for restoration with a fully digital workflow. To the author's knowledge, this represents the first documented digital restorative workflow for robotically placed ceramic implants.

Z-Systems was the first commercially available ceramic implant system in the United States and remains the only truly bone-level ceramic implant.[2] This design positions the implant-abutment junction at the bone crest, facilitating surgical and restorative protocols familiar to clinicians experienced with titanium bone-level implants.

Various approaches to implant placement include freehand surgery, static surgical guides, dynamic navigation, and robotic assistance. Static guides offer predefined trajectories but lack intraoperative adaptability. Dynamic navigation allows realtime tracking and adjustments but requires optical registration. Robotic systems, such as the Yomi, provide pre-programmed haptic boundaries that constrain drill motion within a planned volume, combining the precision of static guidance with the flexibility of freehand surgery. All three methods for accurate implant placement can facilitate good patient outcomes.[3]

This report details the restorative phase and one-year follow-up of robotically placed ceramic implants; emphasising the integration of a digital restorative workflow with scan bodies for bone level ceramic implants, intra-oral scanning and CAD/CAM fabrication of all ceramic screw retained restorations.





01
Periapical radiographs day of placement and ridge split #30, #31.

02
Periapical radiograph at time of immediate placement #19.

white SKY T.L. ZIRCONIA IMPLANT

TISSUE LINE

white SKY

Backtaper & Biology – SLIM where it matters.

The reverse tapered shoulder creates space for soft tissue where it is most important biologically and functionally.

German Quality Implant • Made in Germany • bredent group

TRUSTED QUALITY 2025 - 2027 CLEAN IMPLANT bredent medical • whiteSKY

bredent medical | bredent group

bredent medical GmbH & Co. KG · Weissenhorner Str. 2 · 89250 Senden · Germany · T: +49 7309 872-440 · info-medical@bredent.com · www.bredent-medical.com

03
Minimal full-thickness flap reflection uncovery, preserving keratinised mucosa, and placement of digital scan bodies at sites #30 and #31.

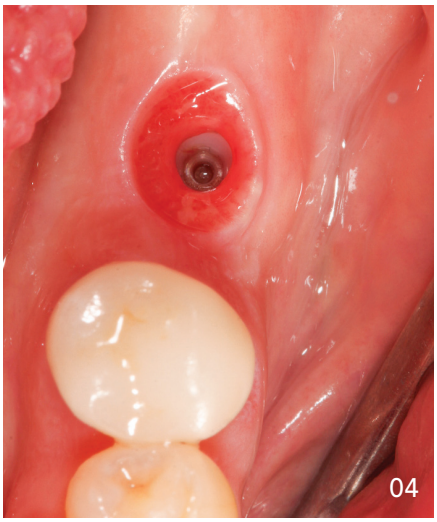
04
Removal of healing abutment at site #19 and view of peri-implant soft tissue health.

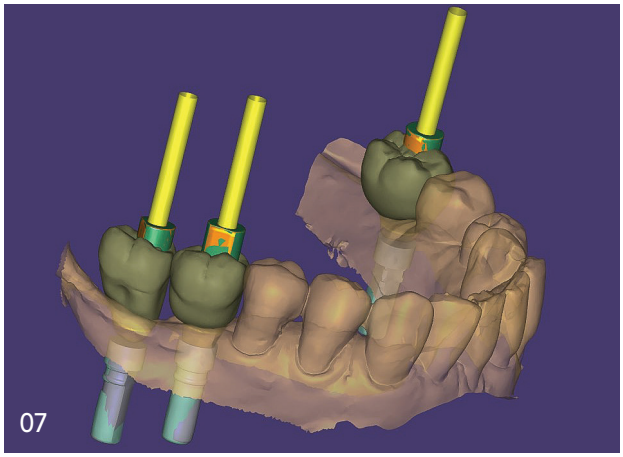
05
Shade selection using a VITA Shade guide (A3.5) adjacent to implant site for accurate crown fabrication.

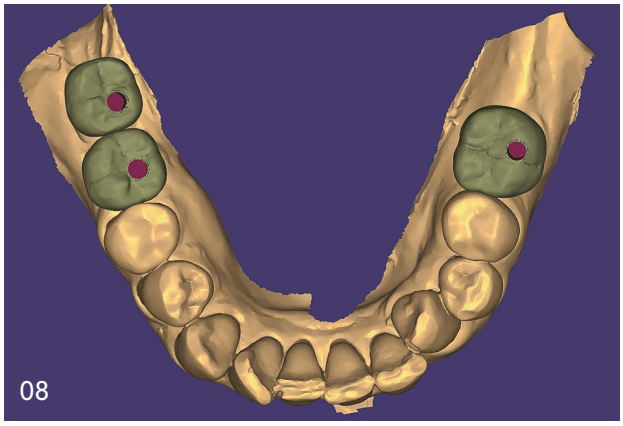
06
Intra-oral photograph with PEEK healing abutments in place, exhibiting healthy soft-tissue contours.

07
Prosthetic design using exocad software, note the scan bodies, digital implant analogs, abutments, crowns, and planned screw access channels.

08
Digitally designed, screw retained, zirconia crowns on Z-Systems' zirconia abutments.







Clinical report

At five months post-placement, periapical radiographs demonstrated excellent bone–implant contact and bone density around all implants. Soft-tissue healing was uneventful: the implant at site #19, which had a PEEK healing abutment placed at extraction and immediate implantation, was surrounded by healthy, non-inflamed mucosa with adequate keratinised gingiva. Implants #30 and #31, which were buried following a ridge split, exhibited complete soft-tissue coverage.

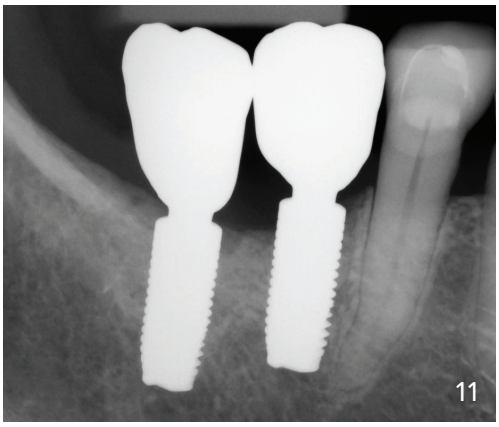
Local anaesthesia with 4% articaine (Septodont) containing 1:100,000 epinephrine, was administered and a full-thickness crestal incision was made at sites #30 and #31. The flap was positioned to ensure at least 2 mm of keratinised mucosa remained buccal to the implants. Cover screws were removed, and Z-Systems bone-level digital scan bodies were inserted and hand-tightened. (Fig. 3) At site #19, the healing abutment was removed, (Fig. 4) and a scan body placed similarly.

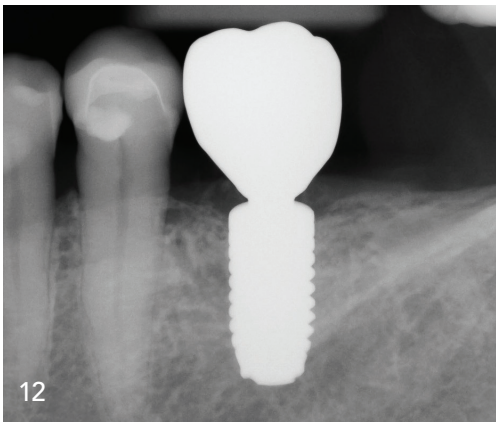
09
CAD/CAM fabricated full-contour, screw-retained, zirconia crowns on Z-Systems proprietary abutments, ready for delivery.

10
Use of the Z-Systems fracture controlled torque driver and final zirconia prosthetic screw.

11
Periapical radiograph #30, #31 showing final implant crown seats.

12
Postoperative periapical radiograph confirming proper seating of the crown #19 with no interface gaps.





An intra-oral scan was captured using the Primescan 2 (Dentsply Sirona), including complete scan-body data, adjacent teeth, opposing arch, and bite registration. Digital files and photos were forwarded to the laboratory with a prescription for full-contour, screw-retained zirconia crowns in VITA Shade A3 (Vita North America; Fig. 5) with unglazed gingival contact areas and Z-Systems proprietary zirconia abutments.

Healing abutments were placed, and the flap at sites #30 and #31 was closed with 4/0 PTFE sutures. Four weeks later, the patient was ready for delivery of the final restorations (Fig. 6). The restorations were designed and fabricated using exocad and milled from Noritake STML A3 zirconia (Kuraray North America; Figs. 7+8).

Healing abutments were removed, and the crowns were seated following verification of interproximal contacts and occlusal harmony (Fig. 9). The restorations were torqued into place using the Z-Systems torque-control hand driver, which fractures at 10 Ncm to prevent over-tightening and potential damage to the ceramic screw or implan. (Fig. 10). Complete seating of all prosthetics was confirmed with radiographs (Figs. 11+12). Final buccal photographs demonstrate appropriate contour and aesthetics in a patient with a reduced periodontium (Figs. 13+14), and the restorations blend well with the patient's remaining natural dentition (Fig. 15).

Discussion

The combination of robotic surgical precision and a fully digital restorative workflow offer distinct clinical advantages. Robotic placement is now known to be highly accurate. It can ensure high-fidelity reproduction of the planned implant position, with haptic guidance.[4] This provides an optimal foundation for subsequent digital restorations. Scan bodies enable accurate capture of implant angulation and spatial relationships without the inaccuracies inherent in conventional impression materials. A digital approach eliminates physical impressions, reduces patient discomfort, laboratory processing errors, and potential distortion.[5,6]

The bone-level design of Z-Systems implants facilitates restorative protocols analogous to those used with titanium systems, including straightforward scan body placement, scanning and digital restoration. Zirconia's biocompatibility further supports favourable soft-tissue responses, with reduced bacterial ad-

13
Final buccal view of restored #30, #31.

14
Final buccal view of restored #19

15
Occlusal view of the restored implants at sites #19, #30, and #31, showing ideal aesthetic and functional prosthetics.

hesion and plaque accumulation compared to titanium.[7] In the evolution of general medicine and surgical technology, both the method for accurate surgical outcomes and the optimisation of implanted biomaterials should be advanced; Zirconia dental implants, robotic/haptic guidance, and digitally fabricated all-ceramic restorations combined, stand at the forefront of oral implantology and prosthetic rehabilitation today.

One-year post-loading, the restorations remain fully functional without complications, including no implant mobility, screw loosening, or peri-implant inflammation. Probing depths are stable at 2–3 mm with no bleeding on probing, and radiographs show maintenance of crestal bone levels. These outcomes align with clinical data demonstrating high survival rates and low peri-implantitis prevalence with zirconia implants.[8] This approach leverages the accuracy of robotic placement to support subsequent digital protocols, potentially improving overall treatment predictability.

Conclusion

This case demonstrates the successful restoration of robotically placed bone-level ceramic implants using a fully digital workflow, resulting in stable, complication-free outcomes. By combining the precision of Yomi robotic assistance with the efficiency and accuracy of intra-oral scanning and scan bodies, this treatment sequence provides a streamlined, metal-free solution for posterior implant rehabilitation in compromised ridges. The familiarity of bone-level implant protocols, coupled with the advantages of digital workflows, supports the broader adoption of robotics and ceramic implants in multiple clinical scenarios.

Acknowledgement: I would like to thank Kyle Kuhns, CDT at Ceramica, for designing and fabricating the restorations.

In vitro and *in vivo* studies demonstrate superior implant positional accuracy with robotic assistance compared to freehand placement, static guides, and dynamic navigation.

References

Shepard DeLong

Shepard DeLong, DMD
Lotus Dental Wellness,
Private Practice
Five Centerpointe Dr., Suite 260
OR 97035 Lake Oswego, USA
+1 503 6844174
drdelong@lotusdentalwellness.com

ICBI

International Circle for Biological Implantology

Sponsor:
ISMI | INT. SOCIETY OF METAL FREE IMPLANTOLOGY

1st ICBI Global Congress 2026

October 23–24, 2026
The Circle, Zurich Airport, Switzerland

Key topics:
- Artificial Intelligence for patient communication, marketing, and social media
- The scientific state of ceramic implantology, including the first presentation of the results of the 2025 ICBI Consensus Conference on Ceramic Implants held in Nice.

Pre-congress workshops (October 21–22, 2026):
- Create Your Personal AI Avatar Workshop
- Scientific Methodology Workshop

Join the circle. – www.icbi-foundation.org

Congress Registration

ICBI

The ICBI is an international association of dental professionals specializing in biological dentistry with a focus on ceramic implants with the intent to advance and spread scientific and clinical knowledge. Discover the future of ceramic implantology with advanced knowledge, global networking and patient-centered solutions.

International Circle for Biological Implantology • Circle 6 • CH-8058 Zürich • Switzerland

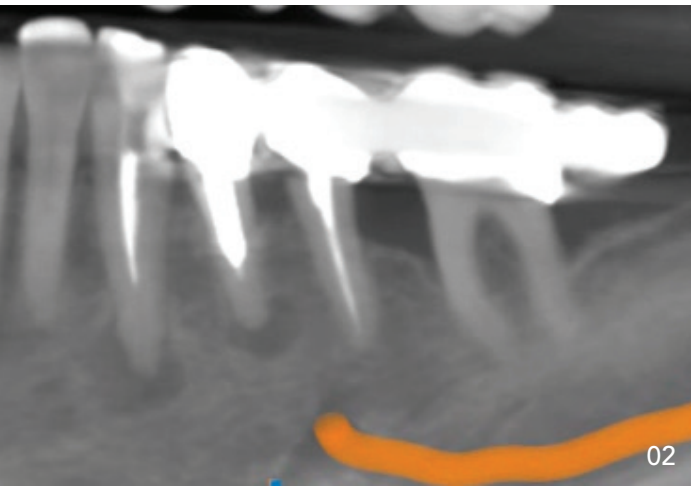
ISMI

The International Society of Metal Free Implantology (ISMI) aims to promote metal free implant dentistry as an innovative and particularly future-oriented direction within implantology. In this context, ISMI supports its members with training & education opportunities as well as with regular expert and market information. In addition, ISMI campaigns in their public relations, i.e. in circles of experts as well as in patient communication, for a comprehensive establishment of metal free implant treatment concepts.

ISMI e.V. • Bücklestraße 5a • 78467 Konstanz

Immediate implantation with two-piece ceramic implants in the mandibular premolar region

Dr Nalat Wongwatjana, Thailand



01
Preoperative clinical view showing secondary caries beneath existing crowns on teeth #34–36.

02
Periapical radiograph revealing large periapical lesions and fenestration defects at teeth #33, #34, and #35.

Abstract

A 65-year-old female patient presented seeking a metal-free dental implant solution to replace infected root canal-treated teeth #33, #34, and #35. The patient expressed concerns about possible immune or allergic reactions to metallic materials. This case demonstrates the use of a fully digital workflow, from diagnosis and guided surgical planning to immediate placement of two-piece AWI G-Line zirconia implants and provisional restoration. The treatment highlights the system's biocompatibility, mechanical stability, and natural aesthetic integration.

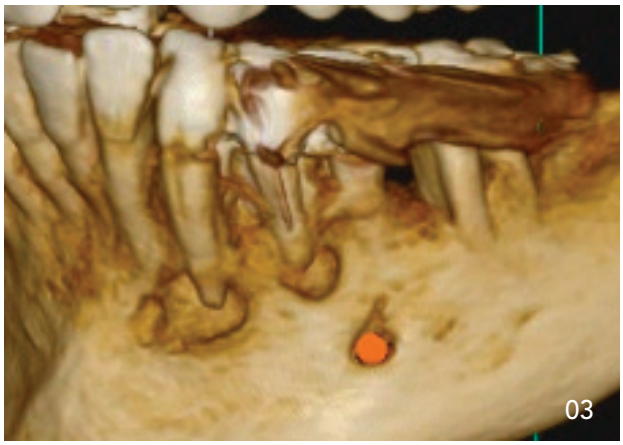
Case description

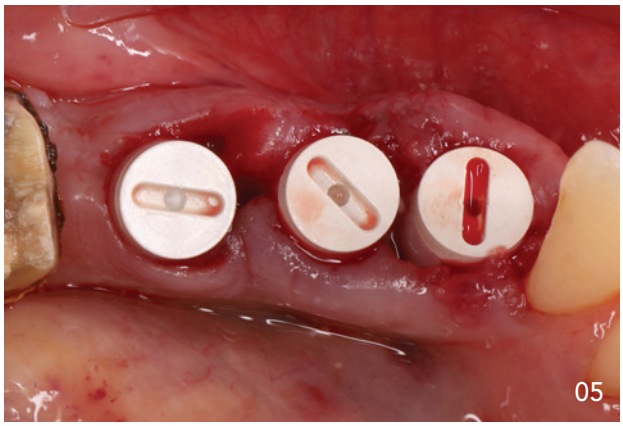
A 65-year-old woman presented with discomfort and swelling in the lower left mandibular region. Her chief complaint was discomfort around the existing splinted bridge and a desire to replace it with a metal-free restoration due to allergy concerns. She was otherwise in good general health with no systemic disease but reported a history of metal sensitivity.

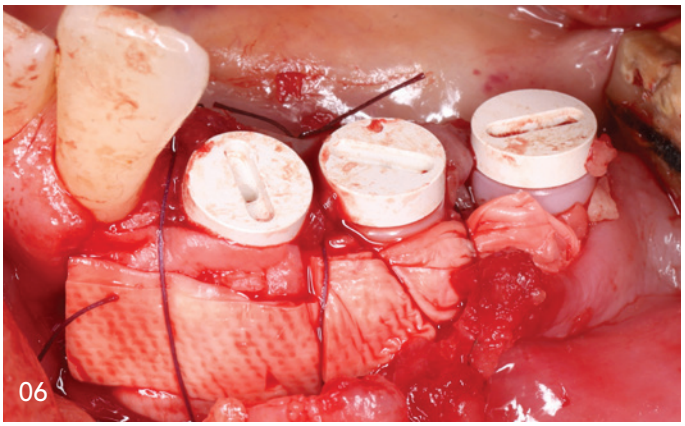
Clinical and radiographic examination revealed that teeth #33, #34, and #35 had previously undergone root canal treatment. Tooth #33 presented a large periapical lesion with buccal fenestration, while teeth #34 and #35, which were splinted together with #36 under a single bridge, also showed large periapical lesions and fenestration-type bone defects. Tooth #36 was a vital natural tooth, acting as the distal abutment for the old bridge that extended as a cantilever to #37.

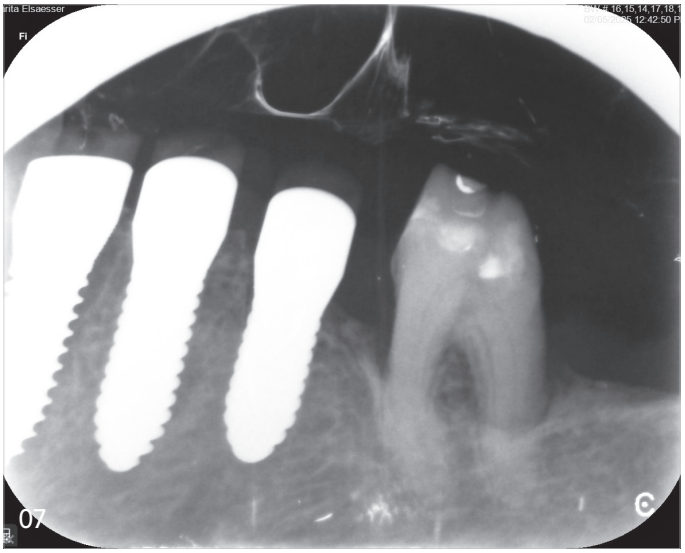
Digital planning and surgical preparation

All diagnostic data—including CBCT, panoramic radiograph, and a 3D intra-oral scan (TRIOS, 3Shape)—were integrated into 3Shape Implant Studio for digital guided implant planning. Radiographic analysis showed limited bone height between the apical socket and the inferior alveolar nerve, especially in the premolar area. Therefore, the treatment plan aimed to achieve









primary stability from the intact socket walls rather than extending apically.

A prefabricated PMMA temporary bridge was digitally designed, supported by a temporary abutment on tooth #36 and a wing extension to tooth #32. The temporary was designed with a 2 mm gingival clearance to minimise disturbance to soft- and hard-tissue healing and maintain functional occlusal anatomy.

Surgical procedure

On the day of surgery, the existing crowns on teeth #34–36 were removed. Teeth #33, #34, and #35 were extracted atraumatically, with particular care taken to preserve the alveolar socket walls. The extraction sockets were thoroughly curetted and degranulated using a round diamond degranulation bur and curettes to eliminate granulation tissue and residual infection.

Under digital guidance three AWI G-Line two-piece zirconia implants were placed immediately into the extraction sockets—#33 (3.9 × 10 mm) and #34, #35 (3.9 × 12 mm). Each implant achieved an insertion torque of 35 Ncm, confirming excellent primary stability.

The residual bone defects were grafted with cortico-cancellous allograft and covered with an Osteobiol peritoneum membrane. An additional OSSIX Volumax collagen scaffold (GLYMATRIX® technology) was posi-

03
3D digital simulation showing buccal fenestration, apical lesions, and bone defect prior to planning.

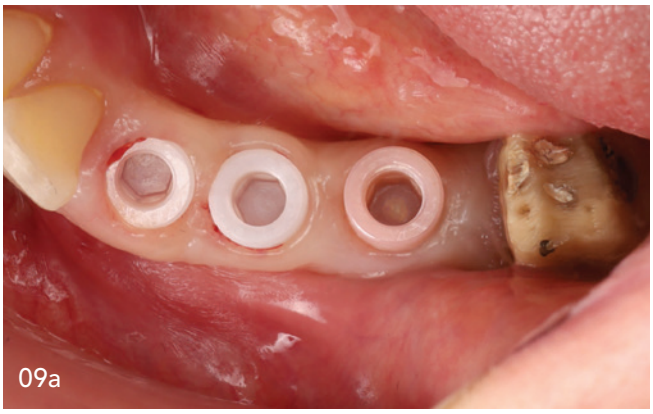
04
Clinical view after crown removal on teeth #34–36 before extraction.

05
Placement of two-piece AWI G-Line zirconia implants (#33–35) prior to grafting, illustrating immediate implantation.

06
Surgical site after placement of cortico-cancellous bone graft, Osteobiol peritoneum membrane and OSSIX Volumax collagen scaffold, followed by suturing with nylon 4/0 and PGA 5/0.

07
Prefabricated PMMA temporary bridge fixed between implant #33 and tooth #36 using TempBond Clear, designed out of occlusion.

08



09a

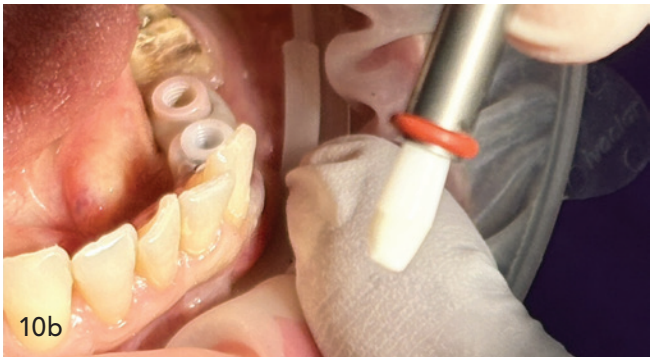
09b

08
Three-month follow-up demonstrating healthy soft-tissue maturation and contour development.

09a+b
Six-month follow-up after cover-screw removal, showing excellent peri-implant tissue health.

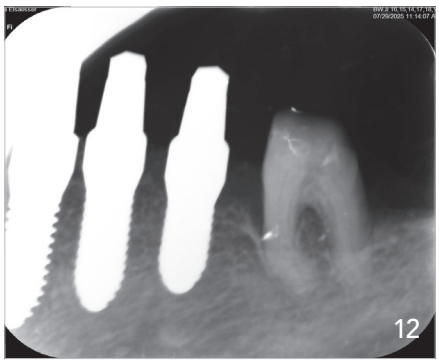
10a+b
Application of mixed 3M Ketac GI cement on abutments prior to final fixation.

10a



10b

11



12

11
Prepared abutments before digital scanning, showing precise margins and emergence profile.

12
Radiograph after final fixation of the abutments and prior to intraoral preparation.

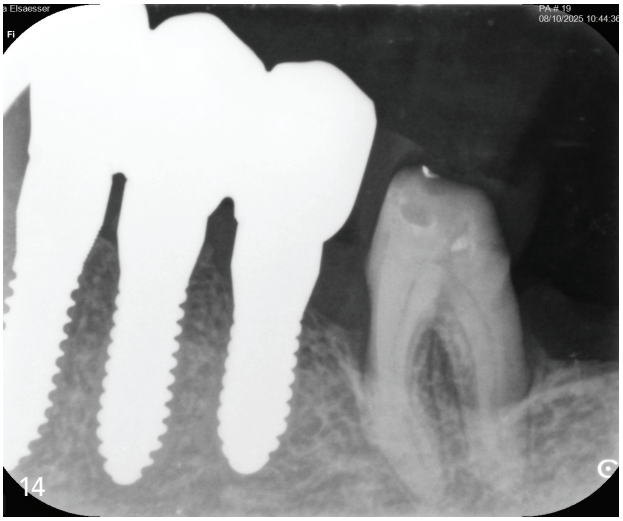
tioned over the grafted area to enhance volume stability, support soft-tissue regeneration, and promote gradual ossification.

The implant fixtures were covered, and the soft tissue was sutured using nylon 4/0 and PGA 5/0 sutures. A prefabricated PMMA temporary bridge was then fixed between implant #33 and tooth #36 using TempBond Clear (non-eugenol temporary cement). The temporary restoration was designed to remain out of occlusion to minimise loading and allow undisturbed healing during the osseointegration phase.

Healing and final restoration

After six months, clinical and radiographic evaluation confirmed uneventful healing, stable bone levels, and healthy peri-implant soft tissue. The temporary bridge was removed, and the definitive abutments were cemented using 3M Ketac Glass Ionomer Cement, torqued to 15 Ncm as per manufacturer guidelines.

13a+b
Final zirconia crowns on implants #33–35 and tooth #36, demonstrating natural colour harmony and healthy gingiva.



14
Postoperative periapical radiograph confirming successful osseointegration and stable bone levels.

The abutments were prepared using a fine red diamond bur, and a digital impression was recorded with the 3Shape intra-oral scanner. Final monolithic zirconia crowns were fabricated and cemented with GI cement. The final prosthetic phase included zirconia crowns on implants #33–35 and a new zirconia crown on the natural tooth #36, restoring function and aesthetics while maintaining a fully metal-free workflow.

What impressed me most was the ability to prepare the implant fixture and abutment just like a natural tooth, allowing for precise margin control and a beautifully natural emergence profile. The pink-white harmony of the zirconia implant base blended seamlessly with the gingiva, avoiding the gray shadow typical of metal implants.

Discussion

This case demonstrates the predictable functional and aesthetic results achievable with AWI G-Line two-piece zirconia implants following immediate extraction. The system's biocompatibility and colour stability promoted natural tissue integration, while digital planning ensured accuracy and reduced surgical trauma. The use of OSSIX Volumax collagen scaffold supported both bone regeneration and soft-tissue architecture, contributing to a stable, healthy peri-implant profile.

For patients with metal allergies or sensitivities, zirconia implants represent a safe, biologically harmonious, and highly aesthetic alternative to titanium systems, offering long-term stability and optimal integration.

Conclusion

This case highlights the successful use of immediate implantation with two-piece AWI G-Line zirconia implants in the mandibular premolar region, demonstrating the effectiveness of a fully digital, metal-free workflow. The outcome achieved excellent aesthetic integration, soft-tissue stability, and patient satisfaction—offering a reliable solution for patients seeking metal-free, biocompatible implant rehabilitation.

Information about the author

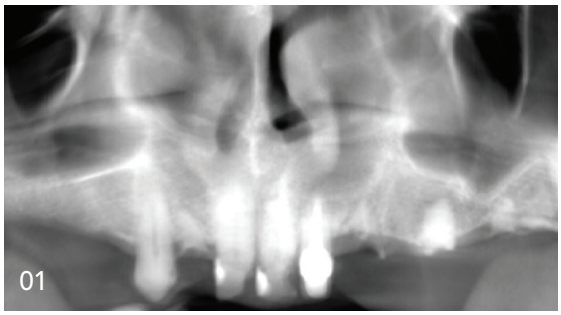
Dr Nalat Wongwatjana
Smile and Shine Dental Clinic1338/940
Supalai Prima Riva, Rama 3 Road
Chong Nonsi, Yannawa
10120 Bangkok, Thailand
contact@ssdc-dental.com

Multiple tooth extractions, immediate Z7 monoblock implants—a challenging case

There are times in our profession, as in the rest of Medicine, when we must receive patients with a very large deterioration, the result of bad previous experiences, bad results in some treatments, but above all, due to apathy or negligence on the part of the patient. We reach a point of difficult return, entering a vicious circle, where going to the dentist is loaded with great stress, and a feeling of guilt and immobilising shame.

Dr Enrique Reinprecht, Argentina

That bar, difficult to break, is the main objective, when meeting with the patient, in search of achieving a degree of trust, which can unlock the professional–patient relationship, and thus achieve a planning according to the patient's needs. In this case report, we will show a summary of the mentioned case, with a rehabilitative vision, but understanding that the greatest success achieved, without a doubt, has been to be able to move forward, leaving behind fears, shame and mistrust. Without a doubt, a challenging case!


01


02

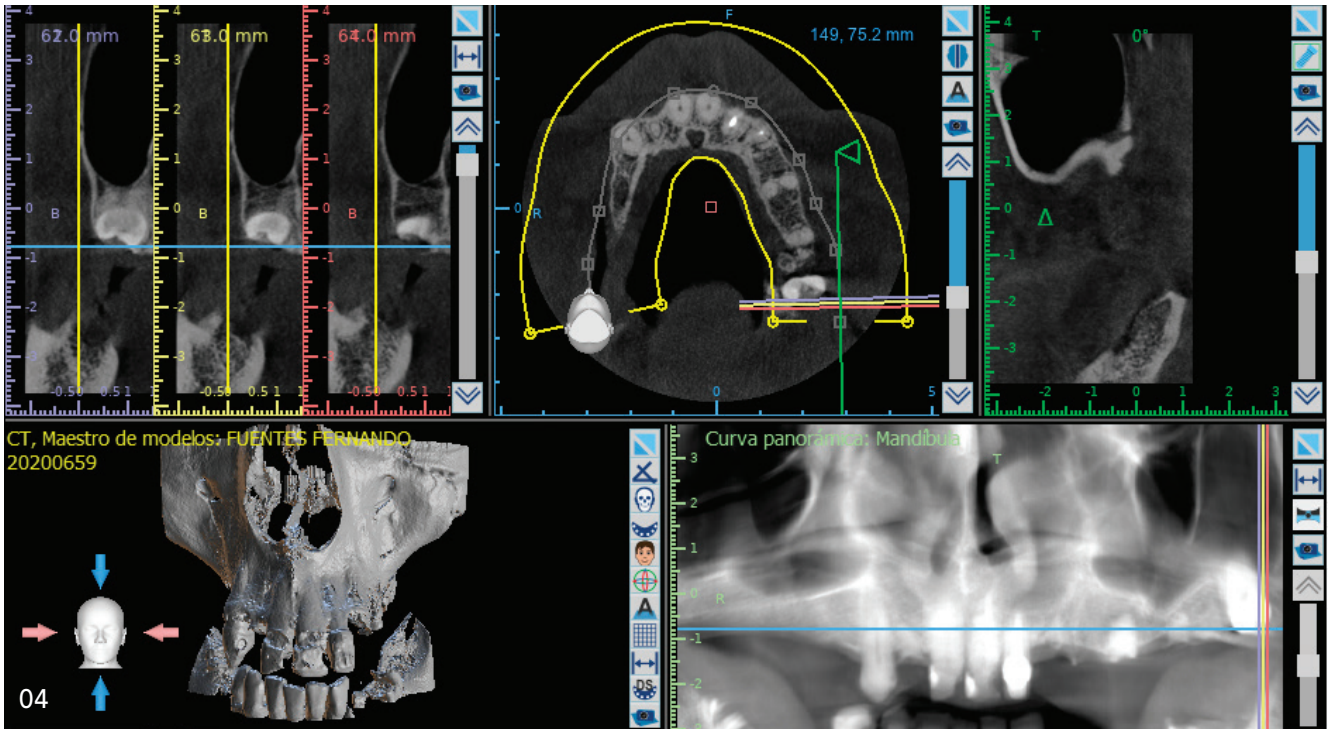

03

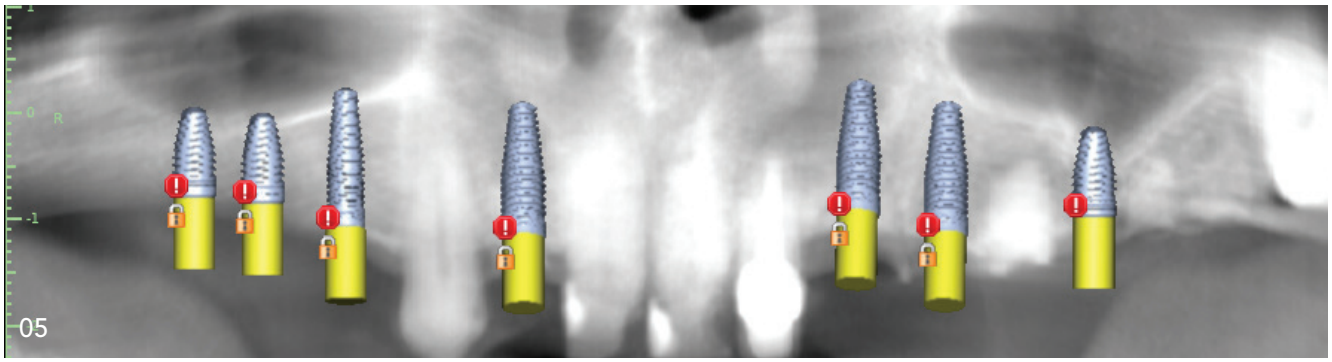
Case presentation

The male patient is presented, 52 years old, with a very neglected oral condition, having made his last consultation approximately 15 years ago; now with the urgent desire and need to return to normality of his oral cavity. The patient does not present any systemic pathology that would endanger any dental treatment, nor any medication that he receives periodically. It was decided to begin by treating the upper jaw, with a fixed implant-assisted prosthesis, and initially, the lower jaw with a removable acrylic prosthesis. Continuing after finishing the upper jaw, with the fixed implant-assisted prosthesis, of the lower jaw.

Initial clinical examination

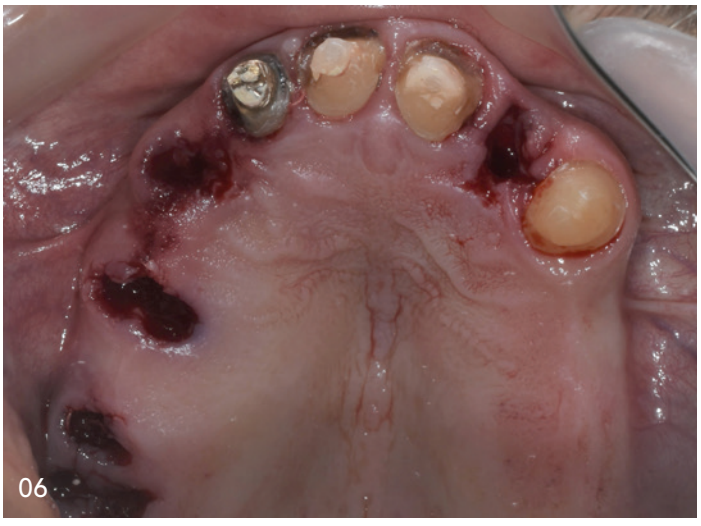
When we first examined the patient, we observed multiple teeth to be extracted, surrounding inflammatory processes, slight apical processes, and some teeth to be kept, trying to help us with the reception of the provisional fixed prosthesis. The oral condition is very poor (Figs. 1–3). The general state of health does not indicate that progress in the treatment is impossible. The patient does not take any medication, and obviously has a soft diet, in accordance with his oral condition.





Treatment plan

A detailed diagnosis is made (Figs. 4+5), the patient is consulted, and it is decided to perform a single surgical intervention, in which multiple extractions will be performed, elimination of septic foci, and the immediate placement of Monoblock ceramic implants, from the Z7 Implant System line. To improve the patient's appearance, and therefore their self-esteem, the possibility of placing a fixed temporary prosthesis, attached to the previously prepared teeth, and some of the immediate implants placed, is discussed. For the lower jaw, only a temporary removable prosthesis is made.



Surgical procedure

After local anaesthesia, an intracrevicular incision was made around the teeth to be extracted, and they were removed without major inconvenience. After removing the roots, the extraction sockets were carefully curetted to completely remove any fibrous tissue (Fig. 6).

The osteotomy was prepared according to the implant manufacturer's drilling protocol and cooled with sterile saline solution. In some cases, the fresh socket location was used, and in other cases, a previously healed area of bone tissue was used. In the latter case, it was possible to perform it without flap elevation, minimising postoperative discomfort. The monobloc zirconia implants from the company Z7 Zirconia Implants System were then placed (Figs. 7+8).


07


08

After finishing the placement of the implants, a temporary splint is adapted for the upper jaw, cemented with a provisional Eugenol-free cement (Fig. 9).

After approximately four months from the placement of the implants and having undergone routine check-ups, it is decided to move on to the prosthetic stage of the upper jaw. The first step is to place the healing caps on the implants. Approximately 25 days are allowed for the mucosa to form around the implant platform (Figs. 10+11).

We remove the healing caps, place impression caps, trim the stumps of the remaining teeth, compact retraction cords, and take the final records with closed trays and silicone by addition. When removing the impression from the mouth, we assemble the implant analogs within the caps incorporated in the impression and send them to the laboratory to continue processing the final crowns (Figs. 12+13).

The design of the prosthesis already incorporates the future lower crowns, making future treatment of the lower jaw simpler. Through AI and the experience of the Laboratory Technician, the requested work for the upper jaw can be quickly resolved. The idea was always to work without metals, at the explicit request of the patient (Figs. 14+15).

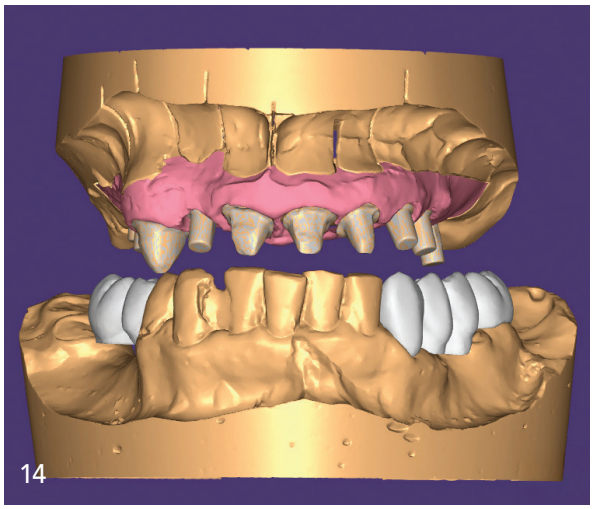

09

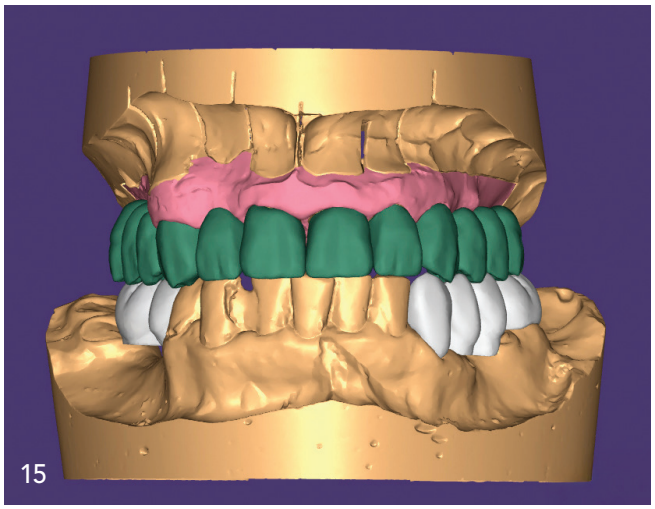

10


11


12


13


14


15


16

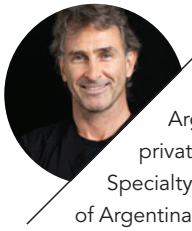

17


18

Once the tests were carried out and the necessary corrections were made, the patient was given an appointment to place the entire upper jaw rehabilitation. All crowns, on teeth or implants, were cemented with dual cement. During photopolymerisation, the excess cement was removed to avoid future complications, with the possibility of peri-implantitis, around the implants. During follow-up, the soft tissue conditions were considered healthy and stable, and the treatment result was considered satisfactory from an aesthetic and functional point of view (Figs. 16–18).

Conclusions

The change, not only aesthetic, achieved with the patient has been wonderful. His self-esteem is different, starting together with a nutritional and psychological treatment, to be able to maintain it over time, and to be able to advance, with the lower jaw. In the meantime, he is monitored every six months. The fact of incorporating ceramic implants, within the planning, telling him about the real benefits of them, has been another help, so that the patient is more aware of his local and systemic health. On their own, they will not make a difference, but they have been helpful, such as being able to break the barrier, and re-educate an adult with serious problems. A grain of zirconia.



About the autor

He received his degree from the Faculty of Dentistry of the University of Buenos Aires (UBA) Argentina in 2001, and since then he has had his private practice in Buenos Aires. He completed the Specialty in Oral Implantology at the Catholic University of Argentina (UCA). Since then, he has worked with a rehabilitative vision, based on implants. His interest in ceramic implantology for several years has made him a reference in the region, being also president and founder of the Argentine Society of Ceramic Implantology (SADIC), an entity whose objective is to promote this practice in the region. He belonged, for more than ten years, to the teaching staff of the Specialty of Oral Implantology (UCA), in addition to being a speaker at national and international congresses. Director of different courses, oriented to training in ceramic implantology, in Argentina and in the region. His experience in the subject has served him to be different consultants in new technologies in ceramic implantology.

Dr Enrique Reinprecht
reinprechtenrique@gmail.com
Instagram: @enriquereinprecht
Instagram: @odontometalfree

Information about the author

A modern approach to implantology with the TBR Z1 hybrid implant

Dr Fabrice Baudot, France

Introduction

A clinical case illustrating a modern approach to implantology is presented. This educational case describes a clinical protocol and materials perfectly aligned with a new approach to implantology. This is a simplified, minimally invasive method that integrates modern imaging tools and the most recent advances in tissue engineering and biology.

Beyond the simple osseointegration of implants, today we seek an immuno-integration that reinforces the long-term stability of peri-implant tissues in the area of the implant neck, which is the site of a significant conflict to establish a balance between the immune system and the host's microbial flora.[1,2] Consequently, stable and healthy peri-implant tissues lead to the aesthetic appearance of the implant restoration. It is a comprehensive approach that allows you to secure your restorations and improve your results to meet the growing demands of your patients.

The concept of a comprehensive minimally invasive approach

Today, implantology has undergone a paradigm shift with the advent of osteoimmunology and the elevation of peri-implant aesthetic standards.[16]

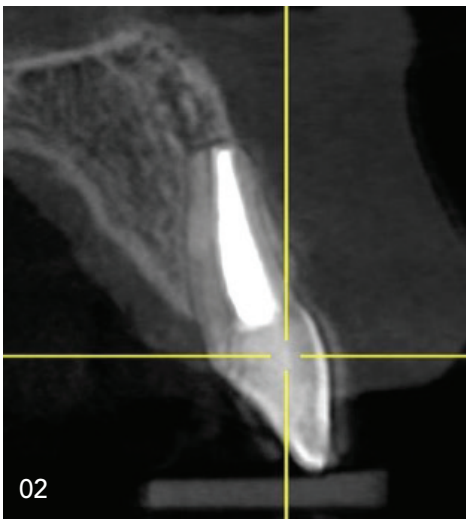
It is no longer simply a matter of replacing a missing tooth with an implant and accepting progressive bone loss over time as normal, with biological and aesthetic consequences. The quality standards of prosthetic restorations on implants and the success criteria of implant treatments have evolved. The notions of "survival rate" and "success rate" are obsolete today and no longer meet the expectations of our patients, who demand more from their implant restorations, particularly in the anterior sector.

The concept of peri-implant health goes beyond the fundamental notion of implant stability. We are no longer just looking for implants capable of simply remaining in the mouth, but implants that are biologically stable and situated in an aesthetic and functional tissue environment that is perfectly in harmony with nature over the long term. These are reconstructions on implants that have a positive impact on the physical and mental health of our patients. Today, our implant restorations should be evaluated according to the PROMs recommended by an ITI consensus group in 2018.[3]

The immuno-integration of our implant restorations supersedes simple osseointegration. This concept, which is the true paradigm shift in implantology, requires the mastery of a strict protocol and adapted materials. It is a reasoned

01
Modern implantology using minimally invasive surgery: simplicity serving sophistication for optimised implant restorations closer to the natural tooth.

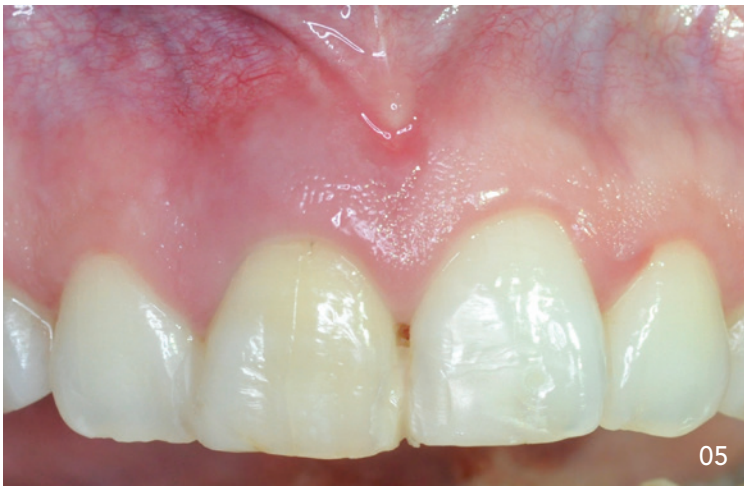
02
3D preoperative examination objectifying the horizontal coronal fracture and the available bone volume for the indication of immediate extraction/ implantation.

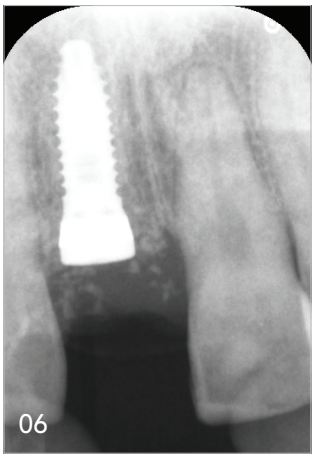


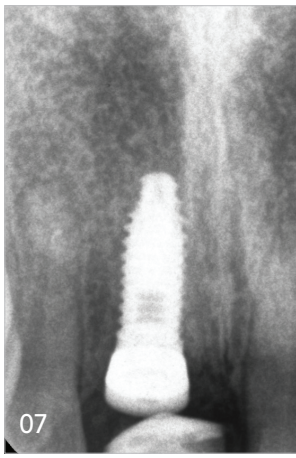
03
Clinical view before extraction.

04
Clinical view after extraction and implantation.

05
View of healing one week after implantation.







06+07
Postoperative control radiograph of the placed implant and the filling, and integration of the implant and bone reconstruction at two months postoperative: establishment of an optimal biological space.

approach to implantology where simplification is at the service of sophistication.

Operative protocol

A patient presents to the pre-implant consultation with a recent subcrestal horizontal corono-radicular fracture. The cortical bone and the periodontium are not yet affected by an infection.

The preoperative 3D examination shows a very thin, almost non-existent bone cortex. A biological examination evaluating the inflammation indexes SII, SIRI, and vitamin D is performed before making the indication for reconstructive implant surgery.[4,5] Any deficiency or defect in the inflammation index values is corrected prior to intervening to guarantee the patient's healing capabilities.

The initial therapeutic objective is the replacement of the tooth by an implant while preserving tissue volume for an aesthetic integration of the prosthetic restoration. With this in mind, the indication for immediate postextraction implantation is made alongside an alveolar preservation technique.[6,7] It is also decided to temporise with the natural tooth bonded to the adjacent teeth so as not to risk immediate loading and to favour the stability of the periodontal tissues around the natural tooth.

Temporisation with the natural tooth to increase soft-tissue stability

During planning, the peri-radicular crestal bone volume is sufficient to consider freehand placement without a surgical guide, allowing more operative freedom in this simple case where the adjacent teeth guide us perfectly in the 3D placement of the implant. To begin, or for more security, a guided or navigated approach can be considered. The entire intervention will be performed under a surgical microscope for a perfect analysis of the operated anatomical structures.

1. The tooth is extracted in an atraumatic manner by sliding an ultra-thin syndesmotome via progressive reptation along the alveolo-dental ligament of the root.

2. Alveolar cleaning is done by tissue microablation using the anti-inflammatory and bactericidal properties of the Er:YAG laser. This microsurgical tool allows us a selective cleaning of the wound, primarily targeting inflammatory tissues and biofilms associated with the root fracture. Furthermore, it also eliminates hydroxyapatite debris which can constitute foreign bodies that slow down healing. Wounds treated by Er:YAG laser irradiation heal faster and the inflammatory reaction is reduced in the very short term, as can be observed on the clinical views at six days.[8]
3. Preparation of the implant site for the placement of a 4/11.5 TBR Z1 implant. The pointer drill is positioned on the palatal wall of the socket at the level of the apical 1/3 and in the prosthetic axis to have the emergence of the prosthetic screw on the palatal face of the future prosthesis. The pilot drill allows establishing the position of the implant in both the palato-vestibular and mesio-distal dimensions. This step is crucial for the rest of the treatment; it requires good 3D vision guided by the final prosthetic goal and a strong analysis of the preoperative 3D planning.
4. The socket will be filled with a mixture of autogenous plasma/porcine xenograft.[9,10] The filling is packed around a stent formed by the last drill used for the preparation of the implant site before the placement of the implant.
5. The position of the implant is determined by the position of the alveolar crests and the cementoenamel junctions (CEJ) of the adjacent teeth 11. Here we use a tissue-level implant with a zirconia neck. The prosthetic margin is supracrestal and ideally located at the level of the CEJs. Zirconia is generally strictly supracrestal with this type of hybrid implant, but in this postextraction case, we take a small safety margin by positioning a portion of the zirconia neck in an infracrestal situation. The implant stabilised perfectly with a torque of 32 Ncm.

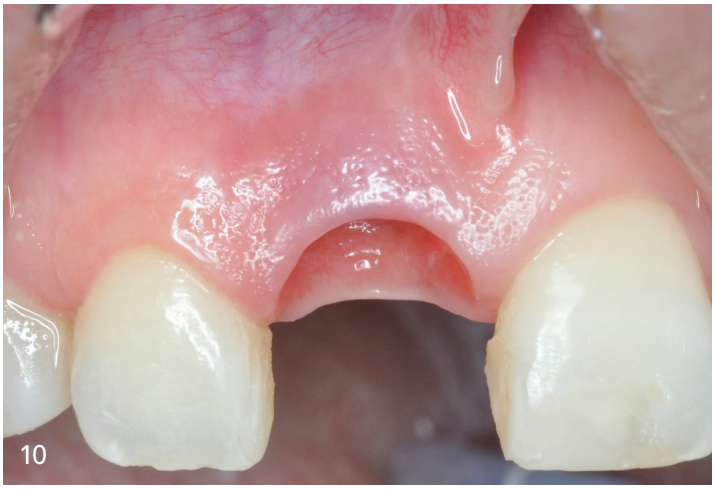
Technical platform and understanding of modern implantology

The interest of this case lies in illustrating a modern approach to implantology, where it is no longer merely about replacing a tooth using protocols and implants showing a good survival or success rate. Today, driven by the more demanding requests of our patients, we go further; we have a comprehensive approach that integrates the immune, aesthetic, and psychological dimensions of the patients into the therapeutic success. The ultimate goal of our therapies is to sustainably improve the quality of life of our patients.

This modern evolution in implantology is centred around four key points:
– A preoperative consultation focused on the patient's immune profile: on their capacities to heal from our interventions and to maintain our implant restorations in biological balance over the long term.

08 Stage 2 microsurgical Er:YAG laser by selective microablation.

09 Quality and stability of the implant tissues obtained around the zirconia neck of the Z1 TBR implant.



10 Quality of peri-implant tissues before atraumatic and non-compressive digital impression taking.

All images: © Dr Fabrice Baudot

Introducing the next generation of aesthetic implantology.

CUTTING EDGE PERFORMANCE

DESIGNED FOR AESTHETICS

The new SDS Aesthetic and Anatomic Series of ceramic dental implants are now available.

SDS SWISS DENTAL SOLUTIONS AG
Konstanzerstrasse 11
8280 Kreuzlingen | Switzerland

Hotline +41 71 556 36 70
info@swissdentalsolutions.com
www.swissdentalsolutions.com

SDS SWISS DENTAL SOLUTIONS

– Meticulous planning of the intervention integrating the analysis of soft tissues, aesthetics, and bone volume in three dimensions. This preliminary analysis leads to the implant indication and the operative protocol that will be implemented.
– Interventions adapted to each situation, keeping in mind the optimisation of the most minimally invasive operative protocols possible. Operating under optical aids to respect tissue integrity and vascular structures in order to preserve healing potential, improve the patient's operative comfort, limit postoperative complications, and make results more reliable: the whole art of microsurgery.
– Using surgical materials that are respectful of the patients' biology to secure the result of our interventions. Tissue engineering with the use of autogenous plasma 12 and the titanium/zirconia hybrid implant are foundations of this therapeutic strategy.

We cannot describe here all the protocols of digital planning and the advantages of implant microsurgery; the focus instead is on the implant material. The use of the Z1 TBR titanium/zirconia hybrid implant perfectly aligns with this comprehensive modern approach to implantology, whose long-term objective is to guarantee healthy, stable, and aesthetic implant restorations.[13,14]

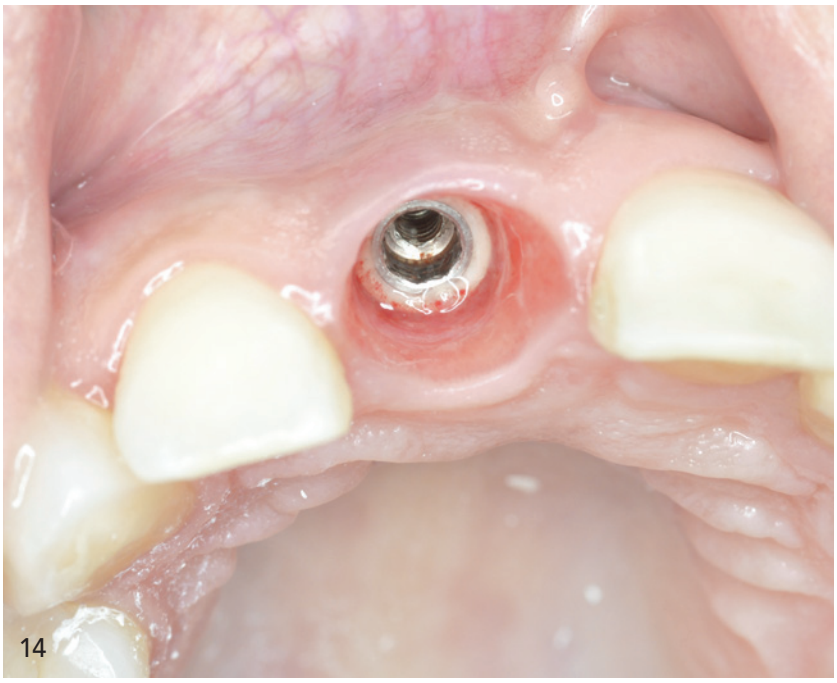
The hybrid implant allows benefiting from the advantage of the two materials that compose it: the biological properties of zirconia in the transmucosal zone and the mechanical resistance of titanium for the body of the endosseous implant.[15]

Titanium for the implant body (in patients who are not intolerant to metals) allows us to use small-diameter implants (3.5 mm diameter), which remain resistant and usable in premolar or canine zones under significant functional loads. The second advantage of being able to use small diameters is leaving space for a larger bone volume to favour vascular supply around the implant: a fundamental aspect for optimising long-term immune balance.[15,16]

The use of small implant diameters fits into the minimally invasive approach by authorising us to limit the indications for surgical augmentation of peri-implant bone volume.

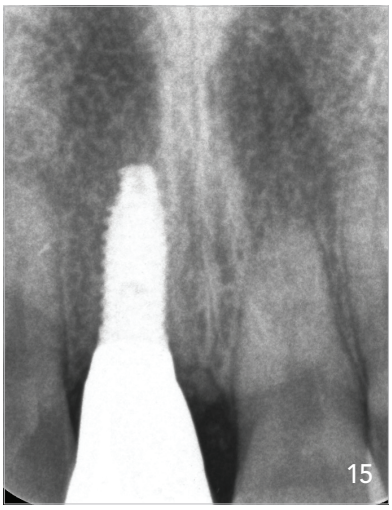
Transmucosal zirconia, a critical zone where a major immune conflict occurs between the host and oral biofilms,

11+12
Presentation of the laboratory work on digital models. Private laboratory of Dr Baudot, laboratory technician David Ruiz.



13+14
Screw-retained prosthetic connection in a biological space developed and secured by the zirconia neck of the implant.

15+16
Bone and gingival integration of the Z1 TBR hybrid implant. Functional and aesthetic biological stability of the implant-supported prosthetic restoration.



helps regulate the biological balance: an aspect that is also fundamental to long-term stabilisation of the immune and aesthetic equilibrium of our implant restorations.[17,18]

The "tissue level" concept of the Z1 TBR implant combined with polished zirconia in the transgingival zone reduces the formation and accumulation of biofilms in the coronal periimplant zone, the entry point for peri-implantitis.[19]

Transgingival zirconia favours the establishment of an interaction via hemidesmosomes with peri-implant soft tissues. This type of tissue connection and the light colour of the zirconia contribute to improving the stability of peri-implant soft tissues and the aesthetics of our prosthetic restorations on implants by re-establishing a peri-implant biological space close to the natural tooth.[20]

The quality of the peri-implant tissue interface is a key point in peri-implant stability. The zirconia neck of the Z1 TBR hybrid implant is a major asset in this perspective and proved to be decisive in the success of the clinical case presented in this article.

Conclusions

This illustration of modern implantology, of the paradigm shift in our implant restorations with the advent of osteo-immunology, is presented in an educational clinical case. The concept here is to obtain the best result biologically and aesthetically through a simple, non-invasive protocol, without major postoperative complications. The focus is placed on the patient's experience during the therapeutic phase and on improving their quality of life. PROMs must supersede simple "survival rates" or "success rates" when evaluating our implant restorations. The minimally invasive approach is a form of simplification serving sophistication to improve operative ergonomics, and to respect vascularisation and the integrity of operated tissues to make the results of our interventions more reliable. This approach relies on the tools of modern implantology: 3D imaging for intervention planning, the use of the surgical microscope to operate and extract the tooth atraumatically, the Erbium:YAG laser to clean the wound in its micrometric dimension, tissue engineering for alveolar preservation, the Z1 TBR hybrid implant to benefit from the advantages of the two materials that are titanium and zirconia, and finally the prosthetic laboratory integrated into the clinic for the creation of high-quality provisionals placed on the day of stage two of the implantation protocol to obtain optimised tissue maturation.

References

Information about the author

Dr Fabrice Baudot
Impasse des Trois Pointes 65
34980 Saint-Gély-du-Fesc, France
+33 4 9906 0060
dr.baudot34@orange.fr
www.dr-baudot-fabrice-chirurgiens-dentistes.fr

dental synthesis profile

Website Institut de Microchirurgie Parodontale

Advancing periodontal health together

A presidency focused on collaboration, innovation, and care

Prof. Mia Rakić has been appointed president of the European Federation of Periodontology (EFP), succeeding Prof. Spyros Vassilopoulos, with a focus on strengthening research collaboration and building stronger evidence base for periodontal health policy in Europe. As she begins her term as president, she reflects on the priorities shaping the federation's work in a rapidly changing world.

As you take on the role of EFP president, what will be your top priorities for the coming year?
We are living in an unpredictable world, which makes the responsibility of a large organisation like the EFP even greater. As a federation uniting national societies and professionals across Europe and beyond, we know that global events inevitably affect healthcare, education, and professional life.

The EFP has an ambitious strategic plan, and today's uncertainty requires flexibility. A clear example was Perio Master Clinic in Baku, where difficult circumstances just days before the congress created major challenges for the organising committee and the EFP board. Thanks to dedication, coordination, and responsible decision-making, the event was held successfully. This showed the EFP's strength, driven by excellence, determination, and solidarity. As EFP president, I sincerely thank the team and all attendees for their trust.

This experience highlighted the resilience of our community. Going forward, we will continue to monitor developments, adapt where needed, and support colleagues and healthcare professionals, especially in affected regions. The EFP does not take political positions; our role is to support the periodontal and wider healthcare community.

Recent developments in Spain have brought renewed attention to the recognition of periodontology as a specialty. How can the EFP support national societies where recognition is still evolving?
Recognition of periodontology as a specialty has long been a key priority for the EFP because it ultimately serves patients, colleagues, and healthcare systems.

However, the regulatory landscape in Europe is complex. Each country has its own legal and professional framework, alongside European regulations. While the EFP provides guidance, advocacy, and statements at the European level, much of the work must happen nationally.

Some countries already recognise periodontology as a specialty, and their experience can provide valuable support for others working toward recognition. Spain is currently seeing significant progress after many years of effort. The Spanish Society of Periodontology (SEPA) and other dental organisations have played a major role in advancing this process, and their experience may inspire similar efforts elsewhere.

Periodontal diseases remain highly prevalent yet under-recognised in health policy. How can the EFP elevate gum health on European and global health agendas?
Raising awareness of periodontal health has always been a core priority of the EFP. It is a complex task because it requires collaboration across many levels: within dentistry, with other healthcare professions, and with policymakers and public health authorities.

The federation addresses this through education, public awareness initiatives such as Gum Health Day, and collaboration with the medical community. Work-

shops with other medical societies help strengthen the links between dentistry and medicine.

Another key contribution is the development of scientific recommendations, guidelines, and consensus reports. These help organise the available evidence and make it easier for clinicians and policymakers to understand and apply it.

Ultimately, the message is simple but powerful: oral health has a direct impact on overall health. Preventing periodontal disease and ensuring appropriate treatment benefits patients, healthcare systems, and society. The key now is perseverance.

Collaboration is central to the EFP's work. How do you plan to deepen partnerships within the periodontal community and beyond?
My overall approach is to harness the full potential of our community.

When I first became involved in EFP leadership, one of my responsibilities was Gum Health Day, which included engaging younger generations. I strongly believe that young professionals will play a crucial role in the future of periodontology.

During my presidency, I would like to explore ways to involve them more directly in collaborations with medical societies. Younger professionals are often particularly effective at communicating complex information to diverse audiences, including healthcare professionals, policymakers, and patients.

They can also play an important role in prevention initiatives and public health outreach. This may not yet become a fully structured programme during my term, but it is an area I care deeply about.

In a rapidly evolving environment shaped by digital innovation and AI, how should the federation approach new technologies while safeguarding scientific rigour?
Digital technologies and artificial intelligence have enormous potential to improve many aspects of healthcare. However, the role of the EFP is to carefully assess both their opportunities and limitations.

Artificial intelligence can analyse large datasets and detect patterns with remarkable speed, which may be particularly useful in areas such as diagnostics, where multiple variables interact.

These technologies may also support diagnostic workflow, surgical planning and other clinical stages. But it is essential to understand the core principles of this approach and to recognise their limits. They should assist clinicians, scientists, and educators, not replace critical reasoning.

The final judgement must always remain with the clinician, researcher, or teacher. Educational initiatives, such as webinars and explanatory materials to help periodontal professionals understand how these technologies work and how to use them responsibly will be released by EFP in the coming months.

Environmental sustainability is becoming a priority in healthcare. What role can periodontology play in sustainable dentistry?
For me, the most sustainable approach in dentistry is very simple: preserving healthy natural teeth. Periodontology is, by definition, the most sustainable branch of dentistry as periodontists investing their knowledge and skills to preserving teeth over the long term. We should not forget this core principle of periodontology.

"During my presidency, I aim to strengthen the involvement of younger professionals in collaboration with medical societies. [...]"

Sustainable periodontology focuses on two main priorities: promoting good oral hygiene across the population and reinforcing the importance of preserving natural teeth within the dental community, exhausting every possible option before considering their replacement.

At the same time, good oral health contributes to better overall health, indirectly reducing the burden on healthcare systems.

As a young woman leading the EFP, what does leadership mean to you today?
I am proud to lead a federation that has long been committed to diversity and inclusion. The EFP actively promotes gender balance and encourages the involvement of younger generations across its activities, from workshops to major congresses such as EuroPerio and the Perio Master Clinic.

Personally, it is a great honour to serve as president. I am also the youngest president in the federation's history, which reflects the EFP's commitment to equal opportunities.

Thank you for your time!

Source: EFP

Soft tissue first: Rethinking implant design

Peri-implant soft tissue determines stability, aesthetics and long-term success. But why do slim implant geometries, one-piece concepts and zirconia open up new biological opportunities—and why is perfect aesthetics always the result of sound biological function?

Interview with Dr med. dent. Holger Scholz, Implant Dentist

Dr Scholz, peri-implant soft tissue is at the centre of modern implant concepts. Based on your clinical experience, why is it crucial today to design implant geometries consistently from the perspective of the soft tissue?
Implant geometry is relevant for both bone and soft tissue. The geometric modifications in the osseous area have been extensively optimised, including those of ceramic implants, so I see limited further development potential in that regard. In the field of soft tissue, however, numerous innovations have emerged in recent years. I had the opportunity to accompany one particularly exciting development from the very beginning.

In my perception, implant diameters have tended toward smaller dimensions in order to preserve more vital bone and thereby enhance stability. bredent has taken a comparable step for the soft tissue with its Tissue Line implant design. The slim transmucosal profile creates space for healthy and stable soft tissue. Combined with the advantages of a one-piece zirconia implant, the result after healing is stable soft tissue firmly attached to the implant surface in the sense of a pseudo-attachment which is nowadays called mucointegration of the soft tissue. Particularly in immediate implant cases, I regularly observe an attachment gain of one to two millimetres.

In which indications do you particularly benefit from the additional soft-tissue space created by the slim Tissue Line of whiteSKY, and how does this specifically affect stability, healing, and aesthetic outcomes?
In short: More space for soft tissue results in more stable tissue. The absence of a microgap in one-piece implants eliminates potential bacterial niches and subsequent infiltration. Zirconia shows the best soft-tissue attachment among all dental materials—again referring to the concept of pseudo-attachment or mucointegration.

As a result, after the healing phase we often see rather an excess than a deficiency of soft tissue—a luxurious situation for achieving optimal aesthetics. After approximately five years of observation, the outcomes compare very favourably with other implant designs.

“Implant geometry is relevant for both bone and soft tissue. The geometric modifications in the osseous area have been extensively optimised, including those of ceramic implants, [...]”

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

What role does zirconia play in combination with implant design, particularly with regard to soft-tissue attachment, absence of inflammation, and long-term peri-implant health?
Various studies demonstrate that zirconia is currently the most favourable material in the soft-tissue environment, both in terms of tissue attachment and aesthetics. The stronger and more stable the soft-tissue attachment, the lower the risk of peri-implantitis and the better the long-term prognosis of the implant.

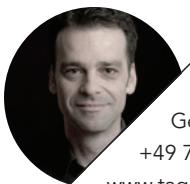
Reflecting on your clinical experience with whiteSKY: What key message would you like to share with colleagues working in the aesthetic field who wish to align their surgical concepts more closely with sustainable soft-tissue mucointegration?
As you may have noticed, fully metal-free restorations are, from a dental perspective, my great passion. My second focus is the holistic health of patients—not only oral health. Inflammation represents one of the epidemics of the 21st century, with dramatic consequences for both general and oral health.

Zirconia is currently the most biocompatible material available, associated with the lowest inflammatory reactions. Perfect aesthetics is merely the consequence of biologically healthy conditions—because, as we know: form follows function.

Thank you for this insightful interview.

This interview was originally published in German in pip – Praktische Implantologie und Implantatprothetik, Issue 1/2026.

bredent company profile



Dr Holger Scholz Zahnarzt
Lohnerhofstr. 2
78467 Konstanz
Germany
+49 7531 94539-0
www.tagesklinik-konstanz.de
info@tagesklinik-konstanz.de

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

EACim 2026 highlights

Recap of the Barcelona conference and the upcoming ADF congress in Paris

This year, the EACim is demonstrating its dynamism by organising two major European events that bring international dental professionals together around the field of ceramic implantology.

EACim/Fabrice Baudot

BARCELONA 2026: EACim/SCOI

On 5 and 6 June 2026 and in cooperation with SCOI (Spanish Society of Oral Implantology) EACim held a congress in the beautiful city of Barcelona. With support of numerous partners from science and industry, EACim organised a Friday afternoon workshop and a main session on Saturday, centering on the theme of "Integrative implantology". Eleven renowned international speakers presented on this modern approach to implantology, which integrates the three pillars of implant restorations: biology, function, and aesthetics.

Through these events, the EACim is actively developing joint partnerships with scientific societies such as the SCOI in Spain and the SOPIO in Portugal. The congress, which was introduced by EACim President Prof. João Caramês, was deemed a resounding success. EACim is planning further events in this context in the future. Especially their European activities promise outstanding research and scientific findings.

PARIS 2026/ADF 2026

Alongside the renowned ADF (Association Dentaire Française) congress and exhibition, the EACim is organising a scientific day for the third consecutive year to promote ceramic implantology among attendees. This year's scientific day will feature an international scope focused on the zirconia implant, featuring four speakers from science and practice.

Events of this nature serve as an opportunity for debates and exchanges intended to advance the practice of ceramic implantology, and professionals are encouraged to attend.

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

Already, EACim is in full preparation for their 5th International Congress. The 5th International Congress of EACim will be held in June 2027 in Portugal, the home country of the EACim president, Prof. João Caramês. This event will gather global experts to present the latest advancements in ceramic implantology.

More information about EACim and its activities are at www.eacim-ceramic-implantology.com.

EACim website

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

Vienna emerged as a hub for the future of oral regeneration

Looking back at the International Osteology Symposium Vienna 2026

From 23 to 25 April Vienna became the international center of attention for oral regeneration. Bringing together more than 90 renowned experts and over 3,000 attendees from across the globe, the International Osteology Symposium offered a prestigious platform for scientific exchange, advanced clinical education, and fresh perspectives on the future of the field.

From the very start, the event made clear what sets this symposium apart: its rare ability to bridge scientific excellence with real-world clinical relevance. At the heart of the programme were the latest research findings, evidence-based insights, and, above all, their practical significance for day-to-day clinical work. The symposium did not simply present cutting-edge science at the highest level; it also translated that knowledge into meaningful applications clinicians could readily bring back into practice.

That same commitment to applicability was reflected in the hands-on programme. Across 18 practical workshops, participants were introduced to both well-established and emerging surgical techniques in a format designed to be structured, accessible, and immediately useful. These sessions gave attendees the chance not only to observe methods in detail, but also to strengthen and refine their own clinical skills. Just as importantly, the symposium fostered an interdisciplinary perspective, encouraging participants to look beyond the boundaries of their individual specialties and reinforcing a broader, more holistic approach to patient care.

Dialogue between clinicians and industry

Industry innovation was also a prominent theme throughout the meeting, underscoring the close relationship between scientific progress and commercial development in the field of implant dentistry. The symposium provided an ideal international platform for companies to present their latest products, technological advances, and strategic innovations to a highly specialised professional audience. In this way, the event not only facilitated academic exchange but also highlighted how industry is actively responding to the evolving clinical and aesthetic demands of modern practice.

Among the companies drawing particular attention was Geistlich which celebrated 175 years of company history and used the occasion to introduce its enhanced collagen membrane, Geistlich Bio-Gide® Forte, to the European market. This product launch represented more than the debut of a single innovation; it formed part of a wider global strategy aimed at expanding and strengthening the company's regenerative portfolio. In addition to new product development, this broader expansion includes the

integration of emerging technologies, the formation of strategic partnerships, and carefully targeted acquisitions designed to reinforce Geistlich's position within the field of regenerative dentistry and biomaterials.

SDS likewise took advantage of the symposium's international visibility to present an early preview of its forthcoming SDS Aesthetic and Anatomic Series. These new implant designs were developed in direct response to the increasing aesthetic and anatomical expectations that now shape contemporary implantology. As clinicians face more complex cases and higher patient demands—particularly in visually sensitive areas—the need for implant systems that combine functional reliability with refined aesthetic adaptability has become ever more important.

The new SDS series expands the company's existing implant portfolio by introducing additional implant shapes and geometries specifically intended for cases in which aesthetic considerations are especially critical. By offering greater flexibility in treatment planning and implant selection, the series aims to help clinicians better adapt to individual anatomical conditions while achieving more harmonious and natural-looking soft-tissue outcomes. Importantly, these innovations have been designed to integrate seamlessly into established surgical and prosthetic protocols, allowing practitioners to benefit from enhanced aesthetic possibilities without requiring substantial changes to their familiar workflows.

Experts spotlight the future of oral tissue regeneration

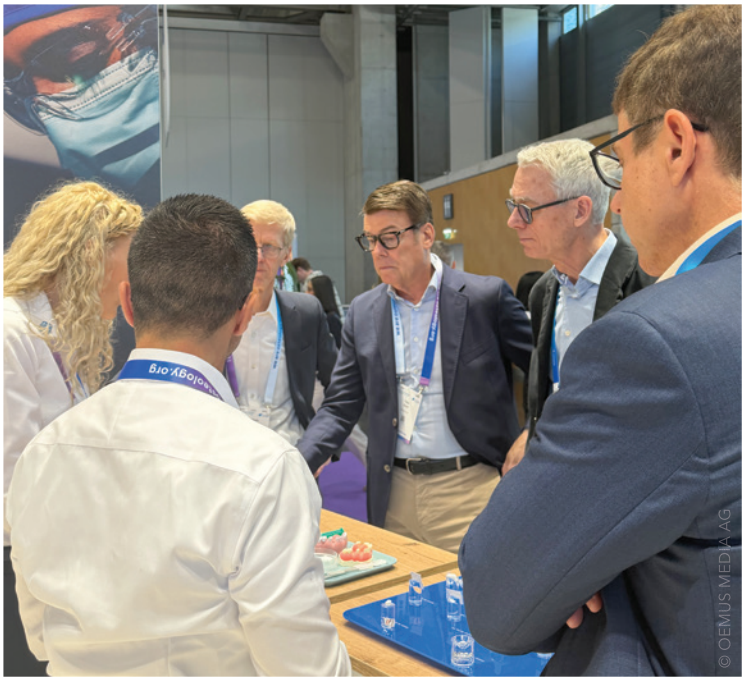
One of the core features of the symposium was its strong scientific programme, particularly the state-of-the-art lectures and case-based discussions. These sessions focused on current developments, novel treatment approaches, and the latest scientific advances in oral tissue regeneration. At the same time, the event made it clear that this is a discipline very much focused on what lies ahead. Technological innovation and emerging trends featured prominently throughout the programme, underscoring the speed and dynamism with which the field continues to evolve.

Beyond the lectures and workshops, it was the international exchange of ideas that gave the event much of its distinctive atmosphere. The symposium created numerous opportunities for participants to engage with leading voices in the specialty and to deepen conversations with colleagues from around the world. Interactive formats such as panel discussions and debates contributed to a lively and open culture of dialogue. Clinical challenges were discussed in depth, but so too were broader questions shaping the direction of the profession as a whole.

Vienna provides the perfect backdrop for a forward-looking symposium

The setting itself also played an important role in the symposium's appeal. With its rich cultural heritage and international character, Vienna proved an ideal host city for a meeting that brought together scientific rigor, personal interaction, and professional inspiration in such a compelling way. Even before the event began, scientific co-chair Lisa Heitz-Mayfield had noted that few things are more inspiring than an outstanding professional conference when it comes to bringing fresh ideas back into everyday clinical practice. Over the course of the symposium, that sentiment was powerfully affirmed.

In retrospect, the International Osteology Symposium Vienna 2026 was far more than a conventional professional congress. It stood out as a comprehensive educational experience—one that successfully combined scientific discovery, clinical application, international networking, and a forward-looking vision for the future of oral regeneration.



DRESDEN IMPULSES

NEW AND PROVEN APPROACHES IN ORAL IMPLANTOLOGY

55TH ANNUAL CONGRESS OF DGZI

13–14 NOVEMBER 2026
MARITIM HOTEL & INTERNATIONAL CONGRESS CENTER DRESDEN

Scientific leader: Dr Georg Bach

DGZI
Deutsche Gesellschaft für Zahnärztliche Implantologie e.V.

OEMUS MEDIA AG
Holbeinstraße 29 · 04229 Leipzig · Germany · Phone: +49 341 48474-308 · event@oemus-media.de

1st ICBI Global Congress 2026

Artificial intelligence and evidence-based ceramic implantology in Zurich

The International Circle for Biological Implantology (ICBI) has released the official programme for the 1st ICBI Global Congress, taking place on 23 and 24 October 2026, at The Circle Convention Center at Zurich Airport. Together with the sponsoring partner International Society of Metal Free Implantology (ISMI), the ICBI Global Congress is bringing together the world's leading minds in biological dentistry, the inaugural congress explores two transformative forces shaping the future of the field: the latest scientific advancements in ceramic implantology and the practical integration of artificial intelligence (AI). Immersive pre-congress workshops will run on 21 and 22 October 2026.

The two-day congress is uniquely structured. Day 1 focuses on closing evidence gaps in biological dentistry, while day 2 equips attendees with cutting-edge AI tools for the modern era.

"One delivers proof. One builds the future," states the ICBI. By combining scientific evidence with practical AI applications for marketing, patient communication, and research, the congress aims to propel biological implantology into mainstream medicine.

The programme features dynamic keynote sessions, panel discussions, and the global debut of highly anticipated clinical research: ICBI Board Members—Prof. Dr Jörg Neugebauer, Dr Amerian Sones, Dr Alex Guo-Hao Lin, and Dr Paul Henn—will present the exclusive outcomes of the 2025 ICBI Consensus Conference on Dental Ceramic Implants held in Nice.

The debut of five-year retrospective multicentre study data tracking 360 immediately loaded ceramic implants, presented by Dr Gregor Hočevar, Dr Robert Bauder, and Moritz Kneer. The congress will also launch a new prospective multicentre protocol. Dr Richard Cheng (Shanghai/USA) will explore how nutrient status, redox balance, and microcirculation determine surgical healing outcomes.

On the second day of the congress, Dr Mario Parra and Dr Fabian Langenbach will lead sessions diving into the epistemic challenges and practical applications of AI in dentistry. Additional insights on the AI-driven practice and the future of work will be provided by Prof. Dr Klemens Skibicki and financial expert Marc Friedrich.

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

Ahead of the main event, ICBI offers two specialised, hands-on workshops designed to amplify practitioners' professional and academic capabilities:

1. **Create your personal AI avatar workshop (at AVA Studios):** Attendees will use private green screens and sound booths to generate their own professional AI avatars, allowing them to "Create Once, Communicate Everywhere" for future marketing and patient communication.
2. **Scientific methodology workshop (at Circle Convention Center):** Guided by Dr Alex Guo-Hao Lin and Dr Paul Henn, participants will learn how to conduct clinical studies for ceramic implants in the "AI generation." The workshop covers using AI responsibly for literature searches, structuring PICO questions, and transforming clinical observations into publication-ready evidence without hallucinations.

The congress features networking events, including an Aperitif Reception and Congress Dinner at Leon's Bodega. The event takes place at The Circle at Zurich Airport, with exclusive room allocations available for attendees at the adjacent Hyatt Regency Zurich Airport The Circle.

Dental professionals, researchers, and forward-thinking practitioners are invited to the 1st ICBI Global Congress 2026. Full details on the congress programme and ticket bookings—including four-day bundles for workshops and the main congress—can be found on the official ICBI website.

Both the International Circle for Biological Implantology (ICBI) and the International Society of Metal Free Implantology (ISMI) are global organisations dedicated to advancing biological dentistry and promoting the widespread use of metal-free, ceramic implants. They share a remarkably similar mission to empower dental professionals worldwide by providing continuing education, supporting scientific research, and fostering professional networks to improve patient-centered care.

International Circle for Biological Implantology

International Circle for Biological Implantology (ICBI)
info@icbi-foundation.org
www.icbi-foundation.org

International Society of Metal Free Implantology

International Society of Metal Free Implantology (ISMI)
office@ismi.me
www.ismi.me

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

Ideal solution for all indications

AWI ceramic implants from WITAR offer superior aesthetics, stability, accuracy and healthy osseointegration. A sophisticated design combined with modern materials make for an ideal solution for all bone classes and indications. Made of zirconium dioxide, AWI dental implants are metal-free and thus fully biocompatible. The cemented zirconia abutment allows an individual design. The transgingival shoulder has an ideal surface for interacting with soft tissue for any type of indication. The conical micro-thread allows great primary stability and axial loading. Studies have shown that the thread roughness of 1.7 µm leads to optimal osseointegration. Also, the surface is coated with a bioactive BIOVERIT I nano-coating. This surface-thread combination enables superior osseointegration for all bone classes. The self-tapping implant tip provides space for bone chips and low-compression insertion. AWI ceramic implants are now available in gingiva colour too, which leads to even better aesthetics and optimised risk areas.

WITAR Consulting GmbH
www.witar.de

ZiNova & Z7 ceramic implant systems— a new biological approach to implantology

ZiNova (USA) and Z7 (international markets) represent a next-generation ceramic implant platform developed by MABB—Bioengineering & Biomaterials, focused on biologically driven, metal-free implantology.

Manufactured using advanced ceramic injection molding (CIM) technology and yttria-stabilised zirconia (Y-TZP), the system combines high mechanical strength, tissue stability, and optimised biological integration.

A key differentiator is its proprietary 3D native surface technology, generated directly during the CIM manufacturing process without sandblasting or aggressive acid etching. This approach aims to preserve surface integrity while reducing potential contamination risks, supporting favourable biological behaviour for both hard and soft tissues, while also contributing to a more sustainable manufacturing philosophy with lower environmental impact.

The implant philosophy is centered on tissue-level concepts, aiming to reduce micro-movements, bacterial infiltration, bio-tribocorrosion-related risks, and long-term peri-implant inflammation commonly associated with metallic systems.

The Z7 platform currently includes:

- FDA-cleared one-piece zirconia implant system in the United States under the ZiNova brand
- one-piece and two-piece systems approved in Argentina (ANMAT)
- regulatory expansion activities ongoing in Brazil (ANVISA)
- CE certification process currently underway in Europe

Today, more than 300 clinicians are actively using Z7 systems in South America, supported by growing clinical evidence, international collaborations, and presentations at scientific meetings such as the Z7 & ZiNova Experiences and the Global Ceramic Implant Summit held in Buenos Aires and to be programmed in the US, Brazil, Europe and Asia.

The vision behind ZiNova/Z7 is simple: to help drive implant dentistry toward a more biological, aesthetic, tissue-friendly, and metal-free future.

ZiNova (USA)
www.zinovaimplants.com

Z7 (International Markets)
www.z7implants.com

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

Cutting edge performance—designed for aesthetics

More than implants: a new dimension of aesthetically and anatomically oriented implantology. With the SDS Aesthetic and Anatomic series, SDS SWISS DENTAL SOLUTIONS presents a system that consistently combines design, function, and clinical requirements.

In the anterior region, the SDS Aesthetic series offers oval and new triangular implant shapes that are aligned with natural tooth contours. They deliberately create interproximal space to preserve the papillae and support a consistent emergence profile. At the same time, the geometry enables precise positioning and supports efficient surgical workflows.

In the posterior region, the SDS Anatomic series complements the concept with a quadrilateral design and a further developed Balcony+ approach. This shape supports both effective coverage of the alveolar space and peri-implant hard- and soft-tissue healing, while allowing flexible adaptation to different anatomical conditions.

The new implants follow a clear principle: implant design aligned with natural anatomy, creating the foundation for reproducible, functional, and aesthetically demanding outcomes.

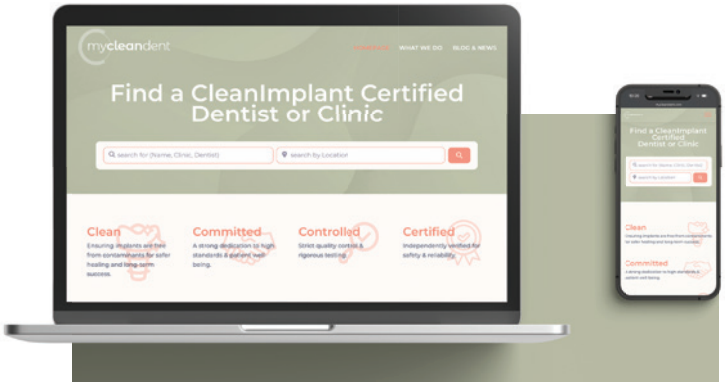
Further information on the SDS ceramic implant system can be found at www.swissdentalsolutions.com.

SDS SWISS DENTAL SOLUTIONS
www.swissdentalsolutions.com

CleanImplant Foundation expands digital visibility for certified practices

As patients increasingly seek transparency, orientation, and trustworthy quality standards in implant dentistry, digital visibility has become an essential factor for modern dental practices. To address this growing demand, the CleanImplant Foundation has launched mycleandent.com, a new patient-focused platform designed to connect patients with independently quality-certified implantology providers.

As part of the expanded CleanImplant membership programme, every CleanImplant Certified Dentist receives an individual landing page that is locally optimised, search-engine supported, and editorially maintained by CleanImplant. This allows certified practices to strengthen their online presence precisely where patients actively search for reliable information and quality-oriented treatment providers.



Excellence deserves visibility: CleanImplant Certified Dentists work with award-winning implant systems and demonstrate a clear commitment to uncompromising product quality. Through mycleandent.com, patients gain access to a trusted platform that supports informed treatment decisions and highlights practices dedicated to independently validated quality standards in implant dentistry.

The benefits for participating practices extend beyond enhanced digital visibility. CleanImplant also provides high-quality communication and marketing materials that support consistent patient engagement and strengthen trust-based consultations. These include personalised quality certificates, acrylic reception displays, and educational patient brochures for waiting and consultation areas.

In addition, certified members benefit from access to a practice-oriented expert network, professionally designed social media templates, and reliable analytical data on dental implant systems.

Further information is available at cleanimplant.org.

CleanImplant Foundation
info@cleanimplant.org
www.cleanimplant.com

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

Activate the bone. Redefine implantology.

Modern implantology does not begin with implant placement. It begins with understanding bone.

The MERIDIAN Implant System is based on a distinctive material concept combining silicon dioxide, calcium oxide, magnesium oxide and potassium oxide. This bioactive glass-ceramic was not developed simply to be white. It represents a new approach in ceramic implantology: moving beyond purely mechanical anchorage toward a material-oriented concept that rethinks the relationship between implant surface and bone.

At the center of this concept is Activating Bone Intelligence. MERIDIAN is not simply placed—it follows a specific activation protocol. This protocol prepares the implant, the bone site and the surgical workflow so that the surface can unfold its full potential. A key aspect of this concept is the targeted activation of the M2 phase of macrophages, which are associated with tissue regeneration and healing. The goal is to create a favourable biological environment during the early healing phase and to support the interaction between implant and bone in a targeted way.

For dentists, this means that ceramic implantology becomes not only material-driven, but protocol-driven. Clinical success is not determined by implant design alone, but by the interaction of planning, bone management, activation, insertion and prosthetic strategy.

This is exactly what we teach in our hands-on courses. Participants do not only learn about the implant itself, they learn the complete clinical workflow and how to influence biological healing processes through activation protocols, including strategies aimed at supporting the M2 macrophage response. From case planning and activation to safe implementation in daily practice, the focus is on translating biological principles into predictable clinical outcomes.

MERIDIAN Implant—not only placed, but activated.

STEINSOHN Sp. z o.o.
steinsohnceramics.com

High primary stability and aesthetic appearance

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

Optimal conditions for soft-tissue attachment and high mechanical stability

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

bredent medical GmbH & Co. KG
info@bredent.com
www.bredent-implants.com

*The articles in this category are provided by the manufacturers or distributors and do not reflect the opinion of the editorial team.

OE EDIA AG
Holbeinstraße 29 · 04229 Leipzig · Germany
Phone: +49 341 48474-0 · info@oemus-media.de

Events

Imprint

Publisher
Torsten R. Oemus
oemus@oemus-media.de

Board
Ingolf Döbbecke
Lutz V. Hiller
Torsten R. Oemus

Editorial Council
Dr Michael Gahlert (Germany)
Dr Sofia Karapataki (Greece)
Dr Franz-Jochen Mellinghoff (Germany)

Editorial Management
Timo Krause
t.krause@oemus-media.de
Dr Alina Ion
a.ion@oemus-media.de

Executive Producer
Gernot Meyer
meyer@oemus-media.de

Product Manager
Timo Krause
t.krause@oemus-media.de

Art Director
Alexander Jahn
a.jahn@oemus-media.de

Designer
Aniko Holzer
a.holzer@oemus-media.de

Customer Service
Bob Schliebe
b.schliebe@oemus-media.de

Published by
OEMUS MEDIA AG
Holbeinstraße 29
04229 Leipzig
Germany
Phone: +49 341 48474-0
Fax: +49 341 48474-290
kontakt@oemus-media.de

Printed by
Silber Druck GmbH & Co. KG
Otto-Hahn-Straße 25
34253 Lohfelden, Germany

Note on the use of AI
Our editorial content is written by people—for people. We use artificial intelligence as a supportive tool, for example for research, transcriptions, and early drafts. However, every piece of content we publish is carefully reviewed and fact-checked by our qualified editors. Editorial responsibility and the highest standards of quality remain our top priorities.

CI ceramic implants

www.ceramic-implants.info

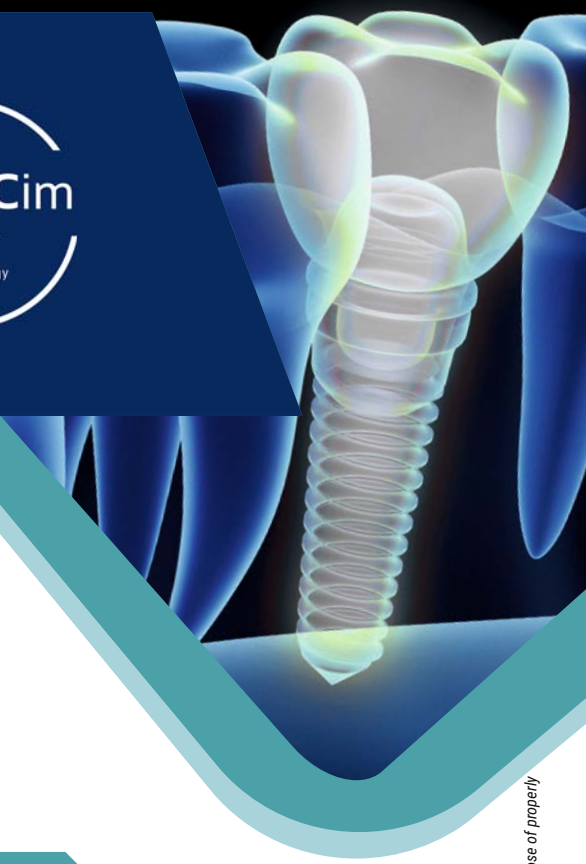
Ceramic implantology

SCIENTIFIC DAY

Hôtel Hyatt Regency Paris

NOVEMBER 25, 2026

EACim
European Academy of Ceramic Implantology



CERAMIC IMPLANTOLOGY

CERAMIC IMPLANTOLOGY IS NOT LIMITED TO BEING AN ALTERNATIVE TO TITANIUM; IT REPRESENTS A COMPREHENSIVE RESPONSE TO THE BIOLOGICAL, AESTHETIC, AND FUNCTIONAL CHALLENGES OF CONTEMPORARY DENTISTRY.

♻ *Please dispose of properly*

Afternoon Program

Presented by the European Academy of Ceramic Implantology, this exceptional half-day event brings together experts in ceramic implantology.

1:30 pm Welcome coffee for participants

2:15 pm Dr Olivier Henry Savajol / Full arch Immediate loading on zirconia implants : Is this a reality ?

3:00 pm Dr Elodie Marchal / Bio-digital evolution with ceramic implant

3:45 pm Coffee break

4:30 pm Dr Laura Constantini / Optimizing Patient care through the 4P approach

5:15 pm Dr Frederic Maccario / One piece zirconia implant :my choice after 13 years of clinical experience.

6:00 pm Champagne and networking moment

MODERATORS : Pascal Valentini & Fabrice Baudot




Fees & Registration

Practitioner rate : 80€ / Student rate : 50 €
Free for EACim members

IMPORTANT : Attendance at this day is free of charge for all current EACim members, as well as for dentists and students who join EACim.

EACim
Scientific day

INFORMATION & REGISTRATION

Contact Karine +33 07 77 05 91 37 - eacim-ceramic-implantology.com - officead@eacim-ceramic-implantology.com

MERIDIAN
IMPLANT

The Meridian way full-arch **EDUCATION**

A new full-arch philosophy in ceramic

STEINSOHN

BIO INTEGRATIVE INSTITUTE