

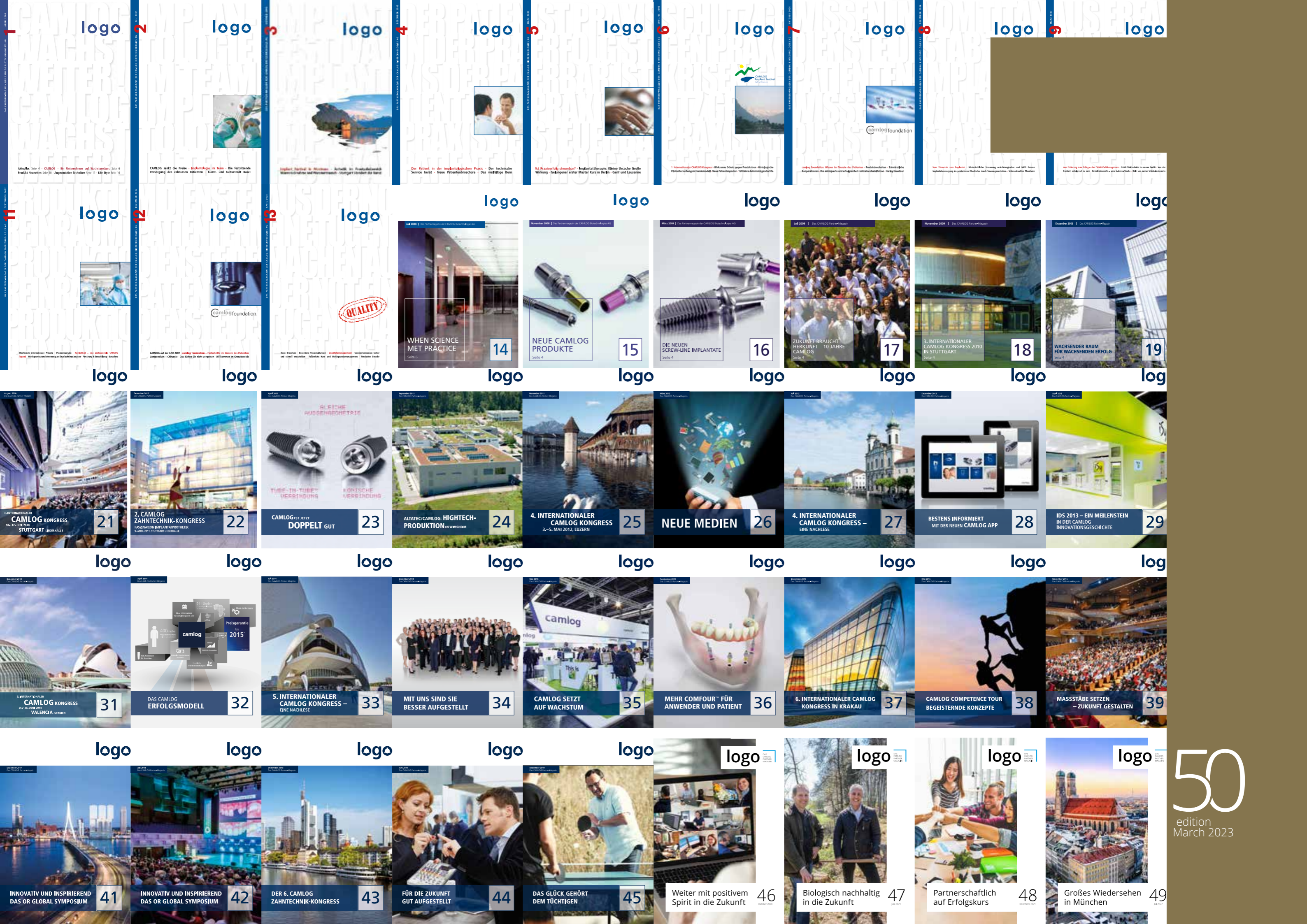
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Quo vadis Implant Dentistry?

50
edition
March 2023



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Human resources strategy - the most important responsibility in 2023



Dear readers

Recent years proved to be difficult times for the dental industry. The Corona virus turned the world upside down. 2020 and 2021 were dominated by uncertainty, outside influences and changing framework conditions. There was no textbook, no empirical data, no blueprint for that. Quick responses and communication were needed, along with leadership, to provide the team with guidance.

But it also provided opportunities to differentiate, to change and to take on responsibility. Companies with a good team and operating in a market which recovered quickly (such as the dental market) were able to experience strong growth, particularly from 2021 onwards, and felt positive about 2022.

In February 2022, the world order changed with the Ukraine conflict causing instability across all sectors. The tense supply of energy, inflation and aggravated personnel situation added challenges for the industry.

Instability seems to be the new normal, and something we have to deal with. There are no short-term solutions for this situation, however, there are empirical values from business management. Long-term strategies are required, in particular agile human resource management. All companies in the dental market need to take their responsibility for human resource management seriously. Too many qualified workers have migrated to other sectors and are now lacking.

Not only do we wish to provide our customers with excellent products and constantly improve their safe use, we also wish to support entrepreneurial development at all stages. The cooperation with OPTI health consulting GmbH has expanded our range of business management training and services for the practice. You are more than welcome to contact us. In the Camlog Business Club, the experts from Camlog and OPTI pass on their know-how in the field of personnel management, analyze personnel development, identify personnel strategies and discuss practical approaches to implementation.

Human resources strategies also include the continuous analysis and targeted improvement of employee satisfaction. Our expert Andrea Stix will be sharing valuable tips with you in this issue of logo.

Professional further education in implant dentistry remains an integral aspect of Camlog's work. We had the opportunity to showcase this through the combined Oral Reconstruction Foundation International Symposium and our Dental Technology Congress in Munich. With the Oral Reconstruction Global Symposium in Rome, we are looking forward to adding yet another highlight.

A roadshow will be making stops in 13 cities in Germany, Austria and Switzerland, where renowned experts will share many positive lessons learned from the use of human bone substitute materials. The most likely largest dental congress in Germany in 2023 will be the EAO Congress in Berlin at the end of September. As one of the main sponsors, we will be present there with an international team.

As managing directors of Camlog, Martin Lugert and myself are convinced that we differentiate ourselves through our employees and their competencies. We have aligned our human resources strategy accordingly. Our aspiration is and remains: WE ARE IMPLANT DENTISTRY!

Take on the challenges of 2023, as we do too!

Sincerely

Markus Stammen
Managing Director



We are Implantology

Combined forces. Accelerated evolution.

Inspired to achieve excellence in oral reconstruction, we use our combined forces to accelerate evolution within global implantology. Since 2016, BioHorizons and Camlog have been strategically joining forces under the umbrella of the Henry Schein Global Oral Reconstruction Group.



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Roma

COVER STORY

Quo vadis Implant Dentistry?

» All roads lead to Rome, also in implant dentistry! From May 18-20, 2023, the BioHorizons Camlog family will be meeting in the Eternal City at the invitation of the Oral Reconstruction Foundation. The OR Global Symposium will be addressing the topic of "Quo vadis Implant Dentistry?" and discussing it with numerous users from all over the world. Don't miss this event!

After Rotterdam in 2018, the second OR Global Symposium 2023 will be held in Rome. With its top-class scientific program, it will continue the long success story of the international Camlog congresses as well as the more recent history of the OR Foundation Symposia, which took place in Munich 2022 (see page 40 ff.).

The new president of the OR Foundation, Dr. Luca Cordaro, who was elected last year, brought the Global Symposium to his home country of Italy. So it is only natural that he took over the chairmanship of the congress at the same time and thus heads the scientific committee, which also includes Juan Blanco (Spain), Dehua Li (China), Michael Stimmelmayer (Germany), Irena Sailer (Switzerland), Anton Sculean (Switzerland) and Homa Zahed (USA) as members. They have put together a differentiated, groundbreaking program aimed at dental professionals from all areas of implant dentistry. The close to 30 world-renowned speakers will be presenting in English. Simultaneous translation into German will be provided.

Location: Auditorium Parco della Musica

The Auditorium Parco della Musica, designed by star architect Renzo Piano, was chosen as the location. All the colors and materials used to build the auditorium reflect Roman architectural tradition, ranging from white travertine to red bricks and the lead-gray of the most famous domes such as the Pantheon. Usually a venue for music and other artistic genres, the cultural complex will provide a particularly beautiful and tasteful setting with its strong expressive character.

Workshops

At the beginning of the symposium on Thursday (Ascension Day), a number of different practical and theoretical workshops will be offered in the morning. Participants can sign up for workshops based on their preferences, where they will learn many hands-on techniques which they can incorporate into their daily professional lives immediately after the weekend.



Practical Workshops:

- » Digital prosthetic workflow in full-arch restorations (Vincent Fehmer, Matteo Cordaro)
- » One-crown one-time concept (Joao Pitta, Christina Zarauz)
- » The digital approach in autogenous bone augmentation procedures: from the computer guided bone harvesting to the computer guided Khoury's technique (Luca de Stavola)
- » Soft-Tissue Augmentation around implants in day-to-day practice (Andres Pascual)
- » Guided Bone Regeneration – pushing the limits in day-to-day clinical practice (Frank Schwarz)

Theoretical Workshops:

- » Grafting with acellular dermal matrix: science and techniques (Gerhard Iglhaut, Pat Allen)
- » Optimizing space for implant therapy with clear aligners (Homa Zadeh)

Pre-Symposium

The workshops will be followed in the afternoon with a pre-symposium entitled: "Technical innovation helps the clinic". The pre-symposium is included in the registration fee.

Topics and Speakers:

- » Success factors in the treatment of gingival recession defects (Katja Nelson)
- » Update Augmentation – new techniques and materials (Markus Schlee)
- » Predictable and high-quality bone regeneration (Massimo Simion)
- » Digital and guided surgery (Nick Fahey)
- » Is full-arch implant dentistry the panacea for life? (Fazeela Khan Osborne)
- » Stick with me! Utilizing L-PRF for enhanced hard and soft tissue oral regeneration (Mia Geisinger)
- » Modern Wound Management – the use of autologous growth factors in everyday dental practice (Marc Quirynen)
- » Novel aspects of tissue engineering for bone regeneration (Siddharth Vivek Shanbhag)

Main Scientific Program

The main program is divided into eight sessions according to the focus topics. For example, different options for hard and soft tissue augmentation, including guided bone regeneration with blocks or shells, or computer-assisted bone augmentation will be discussed. The speakers will discuss topics such as to whether or how bone and soft tissue healing around implants can be influenced, discuss options in treatments for gingival recession, as well as the use of autologous bone or allogeneic, xenogeneic, or synthetic bone substitute materials, membranes, and soft tissue matrices. The question as to when is the right time for implant placement and what are the advantages of digitization will be discussed, as will prosthetic solutions for older, and also edentulous patients. Young researchers whose studies are supported by the OR Foundation will be presenting their latest findings in a separate session on the main podium on Saturday morning. The best researcher will receive the OR Foundation Research Award. In addition, the symposium will feature a poster exhibition. The best abstracts will be presented on the main stage on Friday afternoon.

Session 1: Treatment planning in the digital era (Katja Nelson, Dehua Li)

- » Digital planning in the esthetic zone (Florian Beuer)
- » The ABCD Algorithm: A comprehensive philosophy in treatment planning for full arch cases (Udatta Kher, Ali Tunkiwalala)
- » Analogic planning – is it still viable? (Sergio Piano)

Session 2: Timing in implant treatment (Homa Zadeh)

- » Post-extraction socket development (Mauricio Araujo)
- » Delayed placement (Ronny Jung)
- » Immediate placement (Ramón Gómez-Meda)

Session 3: Treatment of soft tissue defects: do we have relevant innovation? (Mariano Sanz)

- » The role of keratinized mucosa (Ignazio Sanz Martin)
- » Is peri-implant tissue management using CTG still golden standard? (S. Marcus Beschmidt)
- » Soft-tissue defects treated with heterologous materials (Anton Sculean)

Session 4: CAD/CAM implant supported restoration – are they a must? (Irena Sailer)

- » CAD/CAM fixed dental prosthesis: state of the art (Jan Frederik Güth)
- » One-crown one-time concept (Christina Zarauz, João Pitta)
- » Digital Workflow or analog approach? (Julián Conejo)

Session 5: Young OR Foundation Researchers and Research Award

Session 6: Can we influence bone and soft tissue healing around implants? (Luca Cordaro)

- » Can we increase soft tissue dimensions in the long-term? (Hom-Lay Wang)
- » Ideal abutment emergence profile anatomy (Ana Torres)
- » Aggressive implant macrodesigns (Marius Steigmann)

Session 7: Do digital technologies really help the implant surgeon? (Juan Blanco)

- » Efficient modern treatment plans: 5.0 immediate loading (Tiziano Testori)
- » Controlling errors in guided surgery (Tali Chackartchi)
- » Computer-assisted bone augmentation techniques (Bilal Al-Nawas)

Session 8: Hard tissue augmentation with the conventional approach (Michael Stimmelmayer)

- » Principles and Long-term Results of Hard Tissue Grafting with Autogenous Bone (Fouad Khoury)
- » Block Grafts: Are they a must or becoming obsolete? (Tara Aghaloo)
- » Guided Bone Regeneration (Juan Blanco)

Over the roof-



The Board Members of the OR Foundation: President Luca Cordaro, Irena Sailer, Past-President Mariano Sanz, Executive Director Martin Schuler



Over the rooftops of Rome

Italian elegance is called for at the Dolce Vita Night on Friday evening. The OR Foundation has booked the noble Villa Miani on Monte Mario. A breathtaking view over Rome and an exclusive ambience of frescoes and marble characterize this location, charmed by the international audience of the OR Symposium. Enjoy an unforgettable congress weekend in the Eternal City with groundbreaking impulses for your everyday practice and that very special flair.



Go to the information and registration:



SCIENCE

Camlog and science - concise in one brochure

» Clinicians and patients expect medical devices to perform their function and comply with safety requirements. Manufacturers, on the other hand, are compelled by directives and regulations to thoroughly test and document products before placing them on the market. Even more important are scientific data which confirm the performance of the products preclinically and clinically.

Camlog has supported studies and their publication in collaboration with universities and clinicians right from the beginning. The brochure "Camlog and Science" will be republished shortly and contains a summary of the current scientific evidence for the CAMLOG® and CONELOG® Implant Systems with the objective of strengthening the confidence of dentists and dental technicians in our systems on the basis of facts and science.

The importance of science

For the benefit of the patient, a restoration with a dental implant should ideally last a lifetime. Numerous factors and parameters are responsible for a successful outcome, including the choice of implant system. A prerequisite for predictable clinical outcomes in dental practice is scientific data, in other words, evidence-based implant systems. Preclinical and clinical studies and the knowledge gained help to understand and optimize the interface between the dental implant and the surrounding oral tissues.

For Camlog, science represents a cornerstone in the development of its implant systems. In addition, efficacy and safety of the products are continuously supported by long-term clinical data. In collaboration with universities and clinics, new product features, such as the introduction of the Platform Switching concept, were first investigated in preclinical and ex-vivo studies and finally the positive effect was verified in clinical trials. Over the years, this commitment to science has led to numerous publications and their number continues to increase.

New edition of "Camlog and Science"

Due to new product lines such as the PROGRESSIVE-LINE, the availability of long-term data and new findings in the digital field, the time has come for a

new edition of our well-known customer brochure "Camlog and Science". The new documentation in English will provide a clear presentation of key study results on the CAMLOG® and CONELOG® Implant Systems. Emphasis is also placed on the clinical benefits of the scientific results for applications in dental practice.



The new "Camlog and Science" brochure will be published in English

"Camlog and Science" is designed to help our customers understand the evidence-based benefits of the CAMLOG® and CONELOG® Implant Systems, despite the high volume of publications. Questions regarding the effect of the Promote® Implant surface, the precision of the implant connection, the behavior of oral tissue surrounding implant restorations and the different clinical therapy concepts are substantiated with numerous data and summarized in a topic-specific manner. The document will be ideally suited for reference purposes and to assist in the selection of treatments. Furthermore, it assists dentists, clinicians and dental technicians to stay abreast of the latest scientific developments and to effectively apply the derived knowledge in clinical practice.

Delivering science to customers

"Camlog and Science" is part of an initiative to bring science and its implications for clinical practice in implant dentistry closer to our customers. The intention is to differentiate between the different needs of customer groups in terms of science and to present the content in a comprehensible manner. Specific questions and areas of interest should be easy to access. Depending on the needs, the information ranges from brief summaries to full publications. In future, the "Camlog and Science" brochure will be supplied

periodically with new study results. And of course, Camlog as a company will continue to invest in ongoing and future research in implant dentistry.

Summary

The CAMLOG® and CONELOG® Implant Systems are evidence-based and new products and properties are investigated continuously in scientific studies. The new edition of the "Camlog and Science" brochure summarizes the most important studies on the safety and performance of the two systems and highlights their benefits for patient treatment. The document will soon be available in the Media Center at www.camlog.de. Send an e-mail to marketing.de@camlog.com and we will inform you as soon as it is available. A printed version can also be requested using the same address.



Preclinical and clinical study results with the CAMLOG® and CONELOG® Implant System - a documentation of clinical success



Peter Thommen
Clinical Research
Associate Camlog

PRACTICE

COMFOUR® in the edentulous jaw- a patient-centric solution also for patients with dental anxiety

» The primary focus of implant therapy in the edentulous jaw is the patient's satisfaction with the course of therapy. Due to the clinical and time requirements as well as the cost burden, treatment concepts with extensive augmentative measures entail the risk that the patient will switch to alternative restorations, which may, however, bear certain risks from a longer-term perspective. For example, pressure exerted by the denture can cause incorrect loading of the jawbone and lead to bone loss over the course of time. In contrast, bone recession does not occur with implant-supported restorations. Here, the COMFOUR concept with distally angled implants offers a convincing solution which is also patient-oriented in terms of cost. It generates an esthetic and long-term stable result with reduced invasiveness, less surgical effort and shorter treatment times.

The etiology of dental anxiety, fear, or phobia is complex and multifactorial [2]. In the current S3 guideline [3], dental anxiety is interpreted "as an intense emotional reaction to elements of the dental treatment situation which causes suffering for the person affected and which appears excessive in view of the actual dangers in the situation." Nevertheless, such patients are more likely to accept intraoral defects and the risks of organic sequelae instead of necessary treatment. This is accompanied by social withdrawal, as people are ashamed of their supposedly poor tooth structure. Only when the pain becomes unbearable is a dentist consulted. Various studies suggest to openly address these obvious fears in such patients even before treatment begins, to allow them to participate in the therapy decision and give them the opportunity to influence treatment. In this context, empathy of the entire treatment team, free of prejudice and reproach, plays a decisive role for sustained therapeutic success with a permanent commitment to compliance on the part of the patient, as well as for long-term patient loyalty. Even patients suffering from "dental anxiety with a disease status" generally show good follow-up behavior after successful therapy, which is comparable to non-sufferers. This positive development can be reinforced by good communication skills and a treatment team trained in dealing with anxious patients. In the present case, the 50-year-old female patient had avoided making dental appointments for years due to her "dental phobia". However, her physical and psychological suffering had meanwhile increased to such an extent that therapy became unavoidable.

On the one hand, her greatest wish was to be able to "laugh carefree and chew without pain" again as quickly as possible. On the other, there were strong reservations about augmentative interventions and a limitation on the part of the costs. The COMFOUR method succeeds in reconciling both aspects.

Workflow

The various treatment options available after the necessary extraction of all remaining teeth were discussed in great detail with the patient during the preliminary consultation, taking into account possible consequences, and the anticipated course of treatment was described to her in detail. In this context, the patient's desire for fixed dentures became apparent based on her painful experiences with her massively dysfunctional dentition.

After assessing the various aspects, the patient opted for a restoration in the upper and lower jaw on four implants each using the COMFOUR method. In this technique, the distal implants are placed in an angled position to achieve sufficient stability even in a vertically reduced alveolar ridge without augmentation. For the patient, this procedure offered the advantage that extraction, implant placement and interim restoration could be performed painlessly under intubation anesthesia within a single day.



Dr. Maximilian Wienke
Dentist



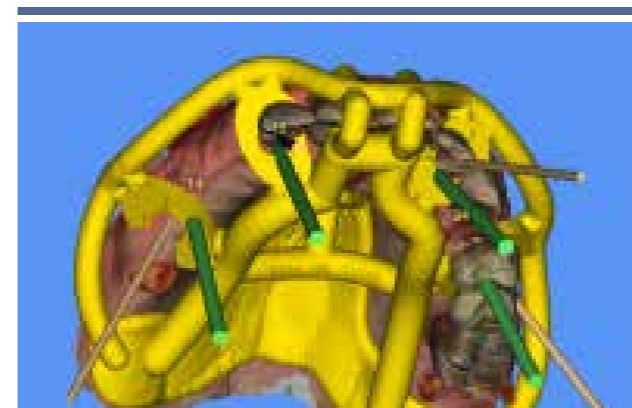
Sandra Kirchmaier
Dental technician



1. Clinical examination of the initial situation had already revealed the desolate intraoral situation with root remnants, destroyed crowns, posterior tooth losses in four quadrants, massive calcified deposits (calculus) on all remaining teeth, as well as severely inflamed soft tissue.



2. The X-ray confirmed the impression gained during clinical examination. The massive loss of hard tissue made any form of tooth preservation impossible and demonstrated the necessity of extracting the tooth fragments as well as the remaining teeth in a manner that was also comprehensible for the patient.



3. Following extraction of the residual dentition, the site was disinfected by means of antimicrobial photodynamic therapy (aPDT) and four 3.8 mm Conelog® Progressive-Line implants were inserted via SMOP drilling templates. While the implants in the upper jaw healed under a covered implant denture due to the soft bone substance, the lower jaw was immediately restored with an interim denture.



4. The Progressive-Line® Implant with its typical sawtooth thread and deeply engaging thread flanks compresses the soft bone and optimally distributes axially acting forces. Due to the conically tapered apex, insertion is also possible in sites with reduced bone volume.



5. Scans of the initial situation and printed situation models formed the basis for the further digital workflow, such as a slotted mandibular orientation template for rechecking the alignment of the implants as well as a prefabricated full denture made of a milled dental arch and manually applied pink plastic as interim restoration of the upper jaw.

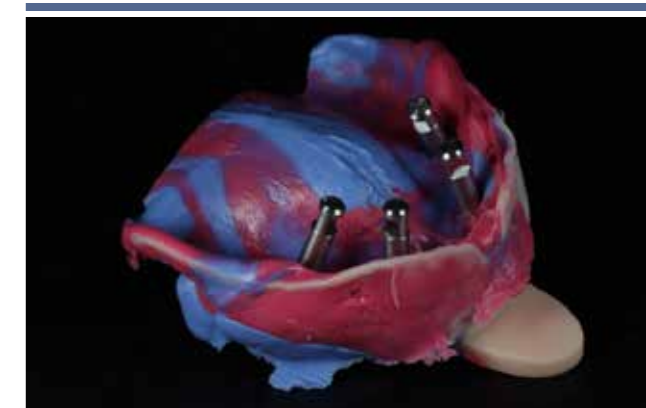


6. X-ray control image of the titanium caps screw-retained on the distally 30 degree angled COMFOUR bar abutments (for the bar abutment for bridges) for retention of the interim temporary in the lower jaw.



7. While the implants in the upper jaw healed under the mucosa-supported full denture, the patient's lower jaw was restored with the interim provisional milled from a multichromatic PMMA blank.

8. Four months later, the upper jaw had healed without inflammation and with sufficient soft tissue volume, so that the COMFOUR bar abutments could be screw-retained on the implants after disclosure.



13. The precise transfer of the oral situation to the model and the check for a tension-free fit of the final temporaries as full-arch frameworks on angled implants was performed intraorally with autopolymerized splinted impression posts.

For open impression taking of the implants at abutment level in the upper jaw, a FU tray was printed digitally on the basis of a new scan. Impression taking itself was performed according to the Landsberg concept for an optimum esthetic result as an analog impression using the double-mix technique.



9. The lower jaw also revealed a well-healed soft tissue situation around the implants after removal of the interim provisional. The angled COMFOUR bar abutments are clearly visible distally.

10. After an intraoral scan at abutment level and a squeeze bite, the functional and esthetic work for the planned prosthetics was started. To do this, an initial digital setup was made, which was also the starting point for subsequent blocking of the open impression taking and served as the basis for the digital centric registration.



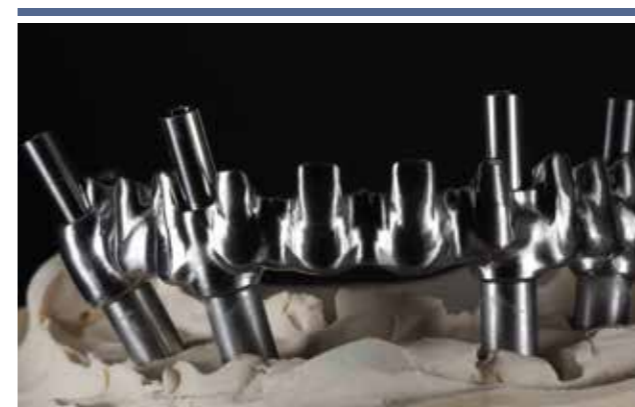
15. Plastic temporaries designed along the principles of esthetics, phonetics and function for a trial run of several months for acceptance or correction by the patient. For this purpose, the first set-up of interim temporaries was uploaded as in-situ models and adapted to the new situation via matching.

The patient wore the final temporary restoration for two months on a trial basis. After she had no correction requests and "coped very well" with the temporary restoration, fabrication of the final restoration could commence. To this end, the temporary restoration was digitally reduced and sent as an STL file to DEDICAM® for milling a titanium framework.



11. Using the scans of the upper and lower jaws, a centric registration was created digitally with the Centric Guide® (theratecc, Chemnitz) as a basis for planning and milling the temporaries designed according to the planned final restoration.

12. X-ray check of the impression posts in the upper jaw for a gap-free fit prior to open impression taking for the esthetic-functional final temporaries. COMFOUR bar abutments are screw-retained in the lower jaw.



17. After an initial check of the fit on the duplicated master cast, DEDICAM® returned the materials to the laboratory where, after rechecking the fit, the titanium bases were CAD/CAM bonded tension-free to the framework on the master cast.

18. The designed superstructures were first milled from plastic and connected to the metal framework for try-in. As there were no problems whatsoever in terms of fit, fabrication of the ceramic crowns could be started by scanning the final wax-up again.



19. The sintered crowns were personalized with stains and bonded in blocks of three to the opaque frameworks according to the manufacturer's processing instructions, after having previously visualized their surface structures with texture powder for esthetic optimization.



20. After layering and characterizing the soft tissue structures with pink composite, the optical impression of natural single crowns was created as intended and hoped for by the patient.



21. and 22. The finalized superstructures for the upper and lower jaw in situ and in the X-ray control image after their final insertion.



Final photos of the visibly relieved patient. Even though the lip and cheek appearance may not meet esthetic ideals, it still reflects the patient's regained individuality and self-confidence.



24. After many years of suppressing her smile, it still looks a bit tense, but it is the first time she proudly shows her teeth again.

Discussion / Summary

CAD/CAM-fabricated, screw-retained bridge constructions according to the COMFOUR procedure can meanwhile be considered a clinically evaluated, evidence-based implant prosthetic restoration in the edentulous jaw [1, 4, 5, 6]. CAD/CAM fabrication guarantees a high accuracy of fit here, particularly in the area of the angled screw channels. This, in turn, significantly expands the range of indications for implant-supported rehabilitation, even in cases where augmentation surgery is not indicated or is rejected by the patient. Any necessary repairs and hygiene measures such as PTC can also be performed more easily and thoroughly with partially removable superstructures, which in turn reduces the risk of peri-implantitis. However, the success of an immediate complete implant prosthetic restoration

in patients who have a desolate dental status in the upper and lower jaw as a result of marked dental anxiety is strongly influenced by other factors, such as sustained and committed compliance and regular recall to support continued oral health. This requires a participatory therapy decision in advance, based on the professional as well as communicative competence of the entire treatment team. Given a suitable bone structure, a COMFOUR restoration, even with only four implants per jaw, can restore positive self-esteem in such, not so motivated patient who will then have teeth that match his/her personality and with which he/she can "simply live normally again".

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PRACTICE

Success factor of an implant restoration - the Personalized Tissue Support Concept

» From the patient's point of view, the success of an implant restoration is evaluated by the appearance of the dental crown and, above all, by a harmonious profile of the peri-implant soft tissue as well as the natural color transition from the white to the red zone [1]. A natural clinical appearance of an implant restoration in the anterior tooth region can be realized predictably by virtue of digital preplanning during surgery using the Personalized Tissue Support Concept.

Using an immediate temporary prosthetic restoration which mirrors the submucosal contours of the extracted tooth at the time of implant placement is the basis for promoting peri-implant soft tissue healing. An anatomically shaped individual gingiva former or the temporary implant crown assume the function of the soft tissue wound closure during immediate implantation. Both forms stabilize the blood coagulum and thus contribute to tissue preservation during immediate implantation.

In the Personalized Tissue Support Concept the focus is on the "transition zone" - the transition area from the circular implant shoulder to the emergence profile of the restoration from the gingiva. Information on the tooth root and the gingiva profile, which can be transferred from the DVT into an STL data set, is essential for the design of the individual gingiva former.

Virtual implant positioning as well as the commissioning of a drilling template for guided implant surgery is performed on the basis of 3D X-ray diagnostics and the digital recording of the clinical oral situation. Taking biological criteria into account, the individual PEEK gingiva formers are designed on this basis and manufactured by DEDICAM. Impression posts for open or closed impression taking are manufactured from the same data set to be able to transfer the anatomically shaped soft tissue precisely to the master cast. The fact that the impression post is fabricated from the same data set is crucial for the controlled preservation of the gingival geometry. The gingival geometry as well as the undulating profile of the healed gingiva are thus optimally communicated between the dentist and the dental technician.

An essential part of the concept is that the implant abutment is fabricated with the same submucosal contour to avoid an uncontrolled gingival change due to over- or under-contouring. Over-contouring of the "transition zone" generally leads to uncontrolled apical positioning of the gingival margin and thus to an optically extended crown. Under-contouring creates a gap into which the gingiva collapses, which also results in apical positioning of the gingival margin. When designing according to biological criteria, a zone is created in which the connective tissue can

attach to the suprastructure - the connected tissue zone. The decisive factor here is the concave shape of the suprastructure from the implant shoulder in direction of the epithelial attachment, which creates sufficient space for the formation of a stable mucosa cuff. The exact copy of the root geometry is essential in the area of the epithelial attachment (approximately 1mm) of the so-called "critical contour" [2]. This promotes primary wound closure as well as stabilization of the blood coagulum.

The sulcus influences the level of the gingival margin, gingival color and architecture of the facial emergence profile as well as papilla height and is controlled by the prosthetic structure. During the healing phase, manipulation in the sulcus region could negatively alter the undulating gingival profile. In nature, the gingiva is situated at the enamel-cement border. The design of this border zone should only be completed during the final restoration to be able to define the shape of the sulcus.

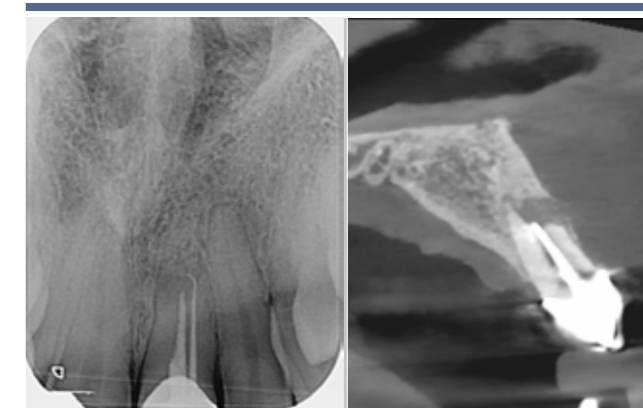
Highly esthetic implant solutions have been fabricated for years with customized gingiva formers created in the laboratory. The shaped profiles are then transferred to impression posts, which in turn are used for the accurate transfer to the master cast.

With the objective of optimizing surgical procedures as well as predictable esthetic and functional implant restorations, patient-specific gingiva formers and impression posts as well as temporary restorations with the same emergence profile can now be fabricated in collaboration with DEDICAM via digital planning based on backward planning and taking into account the biological criteria of soft tissue support.

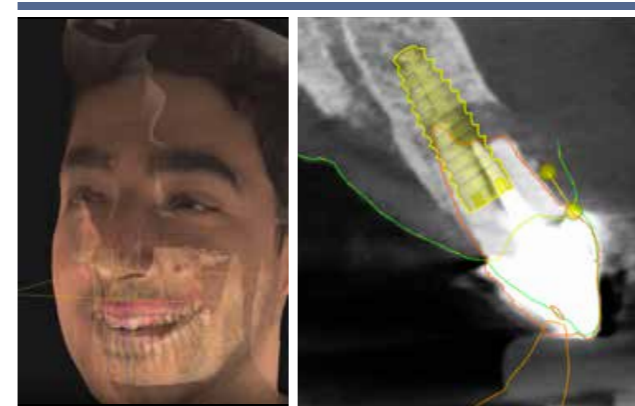
The following patient case describes an immediate implantation with a fully digital solution approach from fully-guided implantation, the use of the customized DEDICAM PEEK gingiva former to preserve the soft tissue contour up to the final restoration.



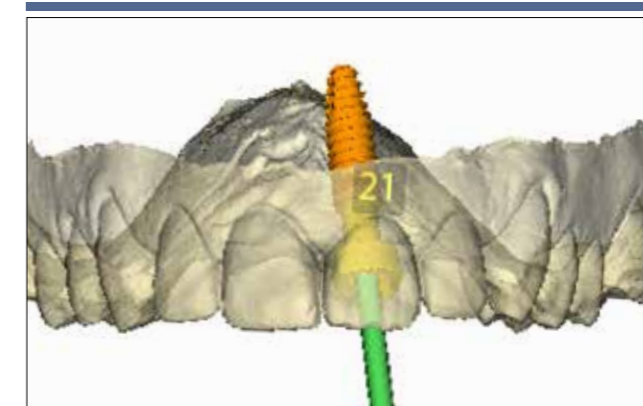
1. Arian, a 26-year-old student, presented in the practice with pain in the area of the central incisor as well as a persistent fistula. Resulting from an anterior tooth trauma during childhood, multiple root canal treatments, two apicoectomies and restoration with a metal-ceramic crown followed.



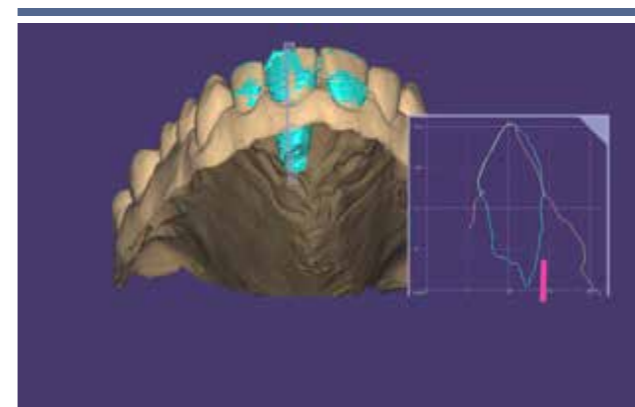
2. Due to the apicoectomy, the root of tooth 21 was shortened. A further revision attempt had a poor long-term prognosis. As the tooth had to be extracted, an immediate restoration protocol was discussed by the interdisciplinary team. The cross-sectional image of the DVT revealed sufficient bone volume apical to the tooth for immediate implantation. Fenestration due to the fistula did not represent a contraindication.



3. Pre-surgical planning includes digital volume tomography (DVT), a facial scan and the digital wax-up. The exact tooth position, alignment and length can be defined with the aid of the superimposed data. This forms the basis for optimal implant positioning - slightly oriented towards palatal to ensure palatal screw-retention of the restoration and sufficient space for peri-implant augmentation.



4. Taking into account all the biological criteria for hard and soft tissue preservation, the implant was placed correctly three-dimensionally. Based on the defined temporary restoration, a drilling sleeve is positioned for the fully-guided drilling template. Attention must be paid here to ensure that the edges of the sleeve do not touch the soft tissue structures to avoid traumatization when inserting the drilling template.



5. The natural tooth root acts as a model for the submucosal design of the abutments/gingiva formers. The root of tooth 21 was extracted from the DVT data set by surface rendering, converted into an STL data set and merged with the data from the scan of the upper jaw. A reliable method to achieve the basis for an exact anatomical crown emergence profile which corresponds to the natural tooth.



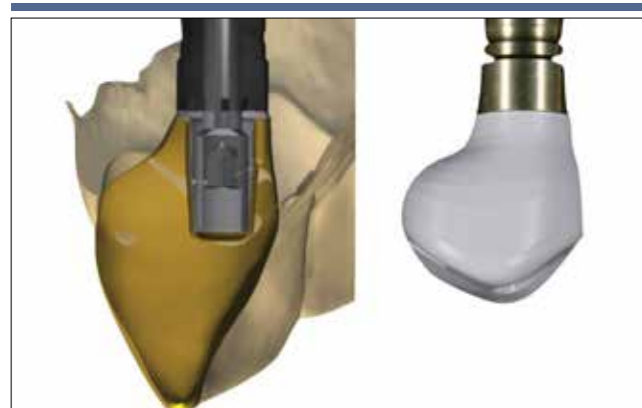
6. The submucosal design of the temporary restoration is intended to support the existing gingival margin and papilla height. The anatomical emergence profile of the original clinical tooth crown should be preserved accurately here. The design areas of the transition zone are divided into the biological areas and geometric shaping.



Dr. Michael Berthold
Oral surgeon



Otto Prandtner
Master dental technician



7. The Personalized Tissue Support Concept envisages that the customized gingiva former or temporary restoration ensures preservation of the existing soft tissue architecture, avoids compression of the soft tissue and leaves sufficient space for stable tissue regeneration. [2]. The subcritical concave designed area offers space for a stable blood coagulum as well as a possibly required connective tissue graft.



8. The digital design was passed to the DEDICAM manufacturing service. There, the models were manufactured using the 3D printing process, as were the drilling template, gingiva former and impression post, as well as the temporary implant crown. These were delivered after four days and were available for surgical intervention in the dental practice. The deep-drawn splint with acrylic tooth was on hand for temporary restoration in case primary stability proved insufficient.



9. On the day of surgery, the anterior tooth was gently extracted. To retain the surrounding tissue structures, extraction was performed minimally invasive. Due to the fistula, the vestibular lamella was fenestrated. After removal of the ceramic crown, the focus was placed on preserving the intact soft and hard tissue structures. Tooth 21 was removed with a microscalpel, periostomes and desmotomes, and the fistula tract was freshened with the microscalpel.



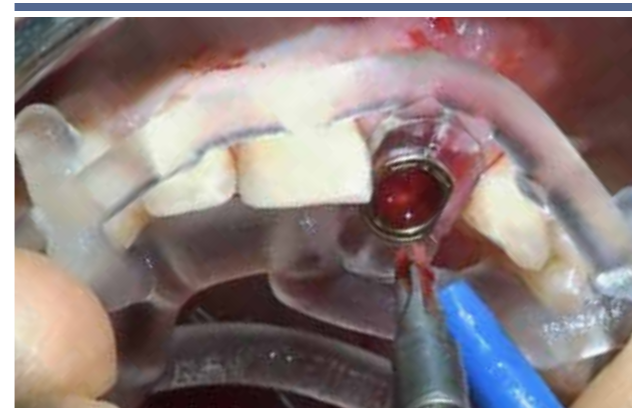
10. During root extraction, the inflammatory tissue adhered to the root tip, also no bone fragments were visible on the surface - suggesting that the buccal lamella had remained intact. In the case of late implantation, the root would be cleaned and sent to the dental laboratory for adaptation of an anatomical emergence profile to explore measures for tissue support in the analog world.



11. De-epithelialization of the alveolus was performed with diamond balls as well as with the scalpel blade. This is critical for complete healing of the tunnel connective tissue graft.



12. The printed SMOP drilling template was inserted and stability of the position was checked. The skeletonized design and the intricate construction provide a good overview of the surgical site. This permits using a minimally invasive surgical technique, does not interfere with the cooling process and does not exert pressure on the soft tissue due to the previously selected positioning of the sleeve.



13. The implant site was prepared according to protocol using the drills of the PROGRESSIVE-LINE Guide System. And although the drill is guided very well in the drill sleeve, care should be taken to align the drill with the palatal alveolar wall, especially in the case of immediate implantation. Autologous bone chips can be collected with careful preparation and subsequently used for augmenting the buccal gap.



To provide correct three-dimensional placement, the implant was inserted through the drilling sleeve until the insertion post was seated on the sleeve. Due to the apically conical implant area, the implant achieved a sufficiently high primary stability of 35 Ncm in the residual bone. This allowed the concept of temporary immediate restoration to be pursued further.



15. Precise alignment of the inner implant geometry is essential for the correct fit of the individual components fabricated prior to surgery. This is done by aligning the orientation line on the insertion post/insertion instrument with the marking on the drilling sleeve.



16. The jumping distance - the cavity between the buccal bone wall and the implant - was filled with autologous bone (collected during implant bed preparation with the guide drills) for resorption protection and stabilization of the vestibular lamella as well as for supporting the soft tissue.



17. To support peri-implant tissue healing and dense stabilization of the blood coagulum, the treatment protocol called for thickening of the soft tissue. For this purpose, a connective tissue graft was removed from the palate at region 24/25 and de-epithelialized extraorally based on the technique according to Zucchelli [3].



18. With the aid of positioning sutures, the graft was pulled into a previously prepared envelope and placed precisely in the position envisaged beforehand in the subgingival design of the suprastructure.



19. Immediately after tissue thickening, the individual PEEK gingiva former was placed for demonstration purposes. With its specific design, this promotes the natural attachment of the peri-implant mucosa while supporting the interdigital papilla at the same time. In immediate implantation it provides the same soft tissue support as the temporary crown, and reduces the risk of overloading to protect implant healing.



20. If primary stability proved to be too low for immediate prosthetic restoration, a splint with integrated acrylic tooth would provide sufficient protection against overloading as an interim solution. This represents a compromise for an esthetic temporary solution.



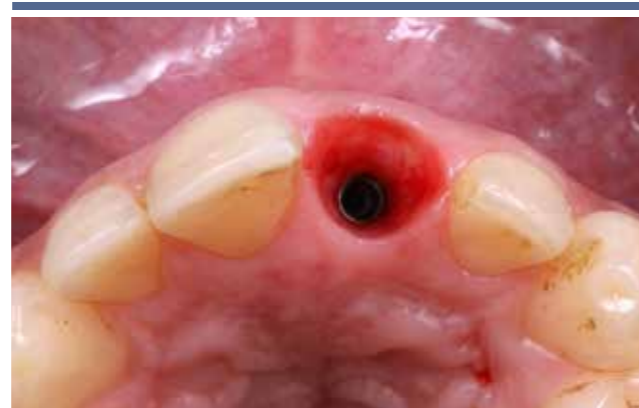
21. In the presented case, the treatment team decided to insert a screw-retained temporary implant crown. This was largely excluded from function. The proximal contacts were also removed so that the adjacent teeth do not transfer any movement to the implant restoration during function. Close recall intervals were maintained during the healing phase.



22. One week after the surgical procedure, the soft tissue was free of irritation and created naturally. Due to the inserted connective tissue graft, the gingiva will attach to the connected tissue zone in a controlled manner.



23. The further measures for definitive reconstruction were able to be performed three months after surgery.



24. Removal of the temporary restoration revealed a stable and anatomically shaped soft tissue cuff. The concave shaped submucosal area is visible in the occlusal view. Minimal bleeding emphasizes implementation of the biological criteria for connective tissue accumulation in the area of the connected tissue zone.



25. The individual design of the PEEK impression post served to transfer the absolutely identical soft tissue situation to the master cast. In a three-dimensional study, Galibourg et al demonstrated that the soft tissue volume of the emergence profile collapses significantly when deprived of its support for 30 seconds [4].



26. In his approach to perfect esthetics, Otto Prandtner, MDT, Munich, invested considerable time in analyzing the initial situation based on digital images according to the concept of "Digital Smile Design". This includes checking the tooth shade of the zirconium crown framework with so-called polarization filters. In this process, the chroma of natural teeth, the internal play of light and the characteristics are reproduced precisely [5,6].



27. Four months after the surgical procedure, the definitive hybrid crown was placed. The crown design met all esthetic criteria, such as shape, shade, light guidelines and gingival adaptation. The chosen procedure contributed to maximum structural preservation without any scarring and an excellent esthetic outcome.



28. Emotion at its best. Arian was delighted with the successful esthetic implant reconstruction, the patient information and the competent care provided during the entire treatment process.

Discussion

Immediate restoration concepts are becoming increasingly popular and can be implemented successfully if certain criteria are taken into account. They represent a minimally invasive approach and are valued by patients due to fewer treatment sessions as well as a reduction in surgical procedures. Digital technologies improve diagnostics, analysis, planning and clear communication in the collaboration with tight deadlines between surgeons and dental technicians. Another advantage of immediate restoration concepts is the preservation of the peri-implant hard and soft tissue contours, also by employing pre-surgically fabricated customized temporary components with controlled healing.

need for repeated surgery and time-consuming conditioning of the mucosal contour [7]. The concave submucosal design of the abutments is absolutely essential to provide sufficient space for the tissue to form a new biological width.

Immediate restoration concepts require proactive planning. The surgical procedure should provide the framework for natural red and white esthetics. This means preserving the papillae and providing the required soft tissue support.

The macrodesign of the implant system used should achieve predictable primary stability. Especially if the implant only attaches via the lower third in the residual bone and if there is only palatal bone contact.

The individual PEEK gingiva formers can offer a new innovative approach by designing according to biological criteria, which eliminates the



Arian's Story
lively.

View the patient case, filmed by rezotto production.

Conclusion

We already define the treatment goal at the planning stage and have developed structured procedures as a team. By applying clearly defined procedures and using the same geometry for each treatment step, teaches one to work in an interdisciplinary manner and to avoid mistakes. Digital tools promote minimally invasive, biological and functional implant dentistry. They are efficient and economical and are therefore regarded by us as being an essential basis.

In implant dentistry, this structured detailed advance planning is always unbeatable compared to spontaneous creative procedures on the patient. To achieve a long-term stable esthetic outcome, the focus is on soft tissue management during the surgical phase and on the design of the prosthetics in the submucosal critical area.

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- » Advanced dental training and senior physician at the private dental clinic Schloss Schellenstein (Prof. F. Khoury)
- » Since 2015 Research Associate, Polyclinic for Dental Prosthetics, LMU Munich (Prof. D. Edelhoff)
- » Practice and inclusion in the list of specialists in England, Luxembourg as well as in Germany
- » 2021-2022 Master studies Soft tissue management around teeth and implants, Università di Bologna (Prof. Giovanni Zucchelli), Italy
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Arian's story – the Personalized Tissue Support Concept



Tutorials online!

Be inspired by Arian's patient story and see how Arian's aspirations for his dental health and esthetics were met through an innovative treatment approach with immediate implantation in the anterior maxilla.

Arian's story is a lively professional publication and emotional patient story, which was filmed by rezotto production and documented in a comprehensible manner in the form of multi-part video tutorials.

www.camlog.de/patientengeschichte-arian



Find out here how it's done.



PRODUCTS

High biological regenerative capacity - MinerOss® A, the human bone substitute material

» In October 2022, BioHorizons Camlog launched an allogeneic bone substitute material on the German market under the brand name MinerOss A. The cancellous and cortico-cancellous granules as well as the blocks and plates of botiss biomaterials GmbH have been used successfully in clinical applications for many years. With the expansion of the biomaterial portfolio, Camlog offers a comprehensive range of products for virtually all requirements needed for the regeneration of hard and soft tissue deficits.

MinerOss A is manufactured from human donor bone and is an allogeneic alternative to autologous grafts. MinerOss A is predominantly derived from human femoral heads from living donors following hip surgery. The cortical plate and uncortical block are harvested from the diaphysis of tissue donors post-mortem and processed. The human donor bone is processed by Cells+Tissuebank Austria (C+T-BA), which is responsible for processing and providing the human tissue for medical restoration, according to a stringent serological screening protocol in a multi-step purification process for safe use.

MinerOss A enables reliable and predictable results for the regeneration of bone defects. Scientific studies show that allografts are most similar to the patient's autologous bone in use and integrate quickly (Fig.1). [1-5] They therefore represent an excellent alternative to bone harvesting from the patient. In

addition, the dimensions of the extraction socket can be optimally preserved by applying MinerOss A. Due to its natural composition, the allogeneic biomaterial exhibits a high biological regenerative capacity with a natural remodeling behavior and supports controlled tissue remodeling through its osteoconductive properties. [4] For vertical or horizontal alveolar ridge defects, the use of a membrane is recommended to protect the graft. To preserve soft tissue volume or thicken tissues, combining MinerOss A with an acellular dermal tissue matrix, such as NovoMatrix®, is a predictable treatment option.

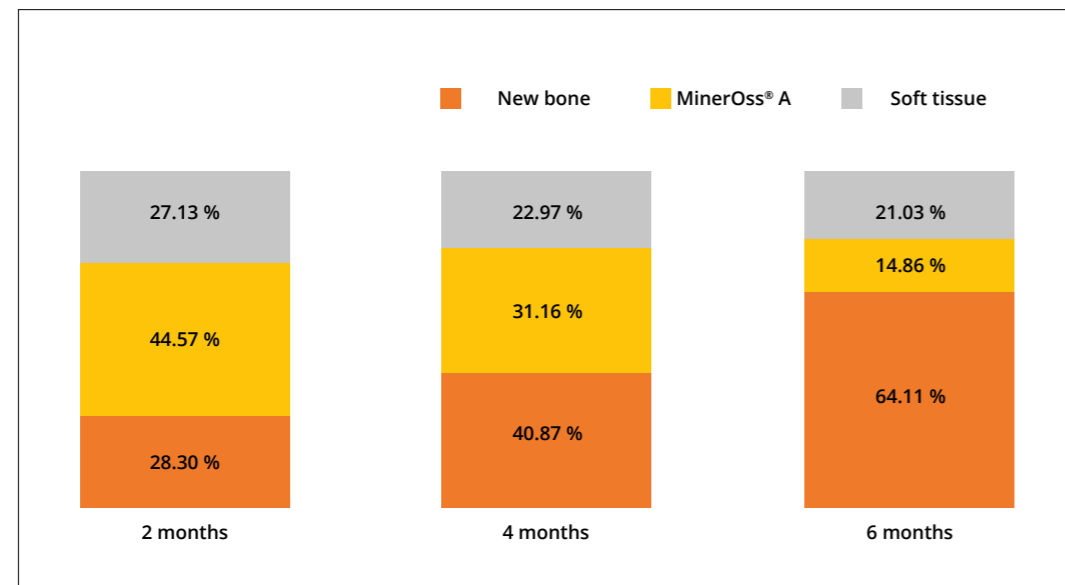
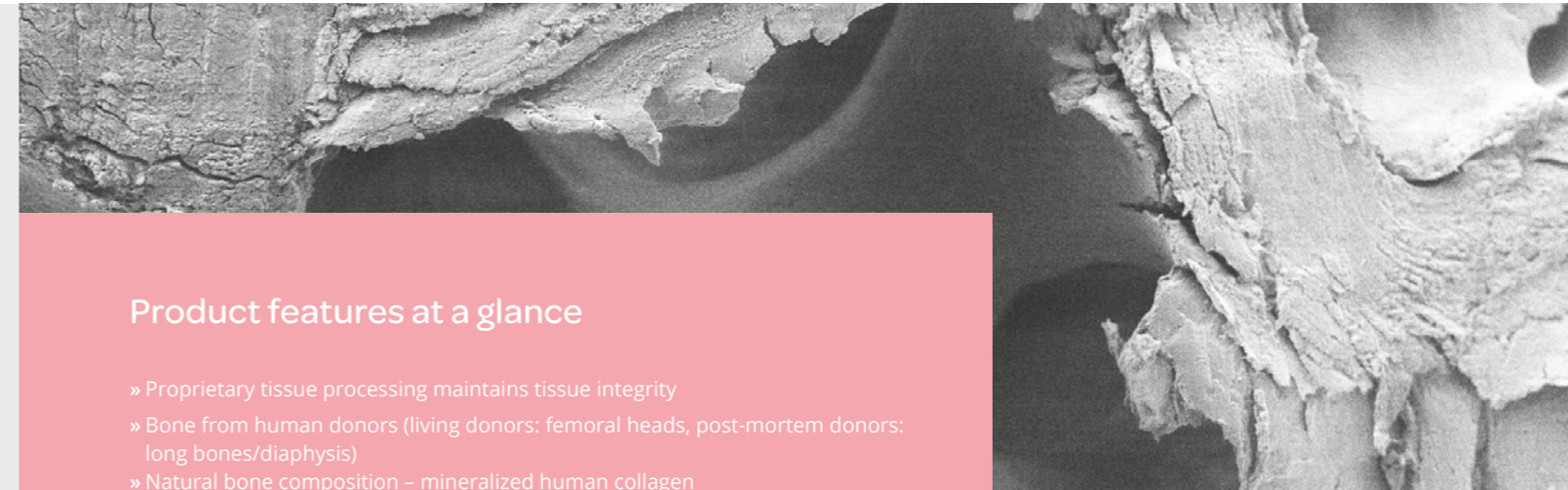


Fig. 1: Clinical evaluation - controlled regeneration of vital bone



Product features at a glance

- » Proprietary tissue processing maintains tissue integrity
- » Bone from human donors (living donors: femoral heads, post-mortem donors: long bones/diaphysis)
- » Natural bone composition – mineralized human collagen
- » High biological regeneration capability and natural remodeling [4]
- » Osteoconductive properties support controlled tissue remodeling
- » 5 years shelf-life at room temperature (5–30 °C)

MinerOss A is available as cancellous and cortico-cancellous granules, blocks as well as cortical plates. It is used in guided bone reconstruction (GBR) techniques in the jaw.

MinerOss A is ideally suited for the following indications

- » Regeneration of periodontal osseous defects, even after cyst or root tip resections
- » Regeneration of extraction sockets and gaps between the alveolar wall and dental implants
- » Sinus floor augmentation
- » Horizontal augmentation of alveolar ridges
- » Three dimensional (horizontal and/or vertical) augmentation of the alveolar ridge

Go to mandatory information



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B.AWARE



On the journey to becoming a climate-neutral company

» Public and personal awareness of environmental relevant issues and sustainable management is increasing all the time. Resource-saving manufacturing has meanwhile advanced to become a core issue for the industry. This can be witnessed not only by the countless events and training courses on environment-friendly production, but also by the commitment of many companies.

In 2022, the "Earth Overshoot Day" on July 28th. This is the day when mankind has "used up" the natural resources available on Earth, which were regenerated within one year. This Earth Overshoot Day not only urges politicians, but also everyone in the world to do something to protect the climate and resources.

The Camlog Group bundles all activities relating to the three aspects of sustainability under the b.aware initiative: social, economic and ecological. Based on our conviction and motivation to offer you as well as your patients the best and most sustainable products or services, we have set ambitious goals which will help us become a pioneer in our industry as a climate-friendly company. Our sustainability strategy b.aware and the resulting work are based on the six central UN Sustainable Development Goals (SDGs): SDG 3, SDG 4, SDG 9, SDG 12, SDG 13 and SDG 17.

Some facts about the Wimsheim site:

- » Uses 100 percent green electricity
- » Only uses LED lamps
- » Suppliers are selected according to economic and, above all, also ecological criteria
- » Reduction of paper resp. printing on predominantly 100 percent recycled, FSC-certified paper
- » Online services are being promoted
- » Promoting health and motivation to reduce fuel consumption by offering job bicycles
- » Reforestation initiatives in the region (7,000 trees have been planted since 2021, of which around 2,000 trees with the help of our customers)

Top award for sustainable production

Sustainable production has always been a top priority for ALTATEC GmbH, the manufacturer of Camlog products, for many years. Since March 2019, the company with its two sites in Wimsheim and Tübingen has been certified according to ISO 14001. Furthermore, Altatec is validated according to EMAS. EMAS stands for Eco-Management and Audit Scheme and is considered to be the premium standard among European environmental management systems. In this system, Altatec commits itself to continuously improving its environmental performance and reports this to the public in an environmental

declaration. Legal compliance also verifies that the company complies with applicable environmental laws and obligations.



What is planned?

Camlog is also aiming for EMAS certification in Germany in 2023. To meet these high audit requirements, numerous measures have been implemented and processes optimized in recent years so that certification can proceed.

Altatec's current extension, which is scheduled to start in spring 2022, is aiming for the gold certificate of the German Association for Sustainable Building (DGNB). The DGNB certification system is considered the most advanced in the world and is recognized as an international benchmark for sustainability in building.

In this process, the overall concept of the building structure is evaluated in line with various criteria. In addition to the economic, technical, process and location-oriented characteristics, the environmental characteristics as well as the socio-cultural and functional aspects are also taken into account. In other words, in addition to properties such as the use of resources, biodiversity or the ecological balance of the building, health, comfort, user-friendliness and functional aspects of the building are also assessed.



B.AWARE

Tree sponsors take responsibility for climate protection in the region

» The Alltec Dental tree-planting campaign - sponsoring old tree species for the Lippizaner stud farm in Piber - was welcomed with open arms by both customers and employees alike. Many customers felt the need to do something responsible for the environment in the region.

With every promotional offer sold, Alltec Dental donated a tree to the Piber stud farm. In just eight months, this resulted in 214 trees - wonderful old fruit varieties and cultural trees - that were planted in the meadows and avenues of the stud farm. A really big thank you to all the tree sponsors who, together with the company, had taken responsibility in protecting the climate.

With the tree donation and the reforestation project, each individual "tree sponsor" made their contribution to climate protection. The planted trees are already so large that they can absorb CO2 from the air right from the first year and use it as an energy supplier for their roots, leaves and needles. Owing to its natural function, a large tree converts approximately 22 kilograms of CO2 into oxygen annually through photosynthesis. The trees' transpiration cooling as well as providing shade also play an important role in improving the climate. In simple terms: trees make our lives healthier.

"The team is the star" - a quote by Berti Vogts, the former coach of the German national soccer team, who early on recognized the dynamic value of team spirit in a functioning team.

With this in mind I am pleased that together we have been able to make a valuable contribution to climate protection," says Pierre Rauscher. After the campaign took off, everything went like clockwork and every month the Lippizaner stud farm in Piber was notified of an impressive number of trees which could be planted there starting in the fall. The planting campaign also worked because everyone felt they had been addressed and



"We are, of course, aware that our trees are a mere drop in the ocean as far as the Austrian ecosystem is concerned, but we still take pleasure in every tree we plant. The harvested apples and chestnuts would be great for our office, but it's a bit of a long haul from Styria to Vorarlberg," adds Astrid Hechenberger. We live our values and look forward every day to continue our active influence. Good deeds are still better than good thoughts.

« A big thank you to every tree sponsors. »

Go to environmental statement



B.AWARE

Social commitment

» Taking on responsibility and improving people's quality of life is part of our philosophy. For many years now, we have been involved in specific social projects. Not only in the Pforzheim region, but all over Germany, Camlog supports different projects we feel strongly about with donations in cash and in kind.

To be more precise, we support selected projects throughout Germany which are aimed at families as well as children and young people in various life situations. In addition, we encourage our employees to engage in volunteer work.

Our donations are allocated in different ways. Some are used for projects in the Pforzheim region; for example, a substantial amount goes to the Sternensinsel Kinder- und Jugendhospizdienst Pforzheim und Enzkreis e. V. This outpatient children's and young people's hospice service accompanies families as they deal with the issues of illness, dying, death and mourning. With the help of our donation, their many volunteers can support families with children suffering from life-limiting illnesses. During the Corona peak phase in particular, we were able to provide the charity with FFP2 masks as well as disinfectants to enable the best possible care for the families even

during this exceptional situation. Furthermore, we also support the Deutsche Cleft Kinderhilfe e. V. [German Cleft Childrens Aid], which offers comprehensive help to children with a cleft lip and palate worldwide.

The other part of our funds is made available to our colleagues in our eight sales regions in Germany. They are on the road every day, live there and therefore know best where help is needed in their environment.

It is important to us that we give something of our business success back to those who miss out in society. Also thanks to you, our customers, we were able to support more than 16 facilities nationwide in 2022.



NEWS

The shell of the building is erected

» The new production and logistics building of ALTATEC GmbH, the manufacturer of Camlog implants, is impossible to miss in the Maybachstraße in Wimsheim. A lot has happened since the groundbreaking ceremony in the spring of 2022. The shell of the building is largely complete and the work on the interior has begun. As of the second half of 2023, production will be expanded by 6,500 sqm.

After the first expansion of production in 2009 and the new marketing & sales building in 2018, the current construction represents yet another milestone in the company's history. The growing demand for Camlog implants makes this investment a necessity. At present, products are already being distributed from Wimsheim to more than 80 countries around the world.

More and more people are willing to invest in their dental health. Those who lose teeth, want good replacement teeth which should look as natural as possible and restore the function of their dentition. During this decision process, many patients opt for dental implants - the popularity is increasing worldwide. To be able to satisfy the increasing demand for

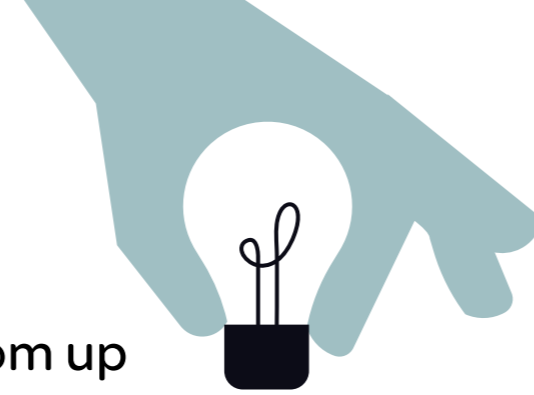
implants and prosthetics in the future, production capacities need to be expanded.

Next to additional workplaces, the extension will also provide more space for the assembly and secondary packaging areas as well as for the main warehouse, the clean room and future-oriented technologies such as the modern 3D printing area. At the same time, the laboratory where surface finishing of the implants is performed and which is currently located in Tübingen, will move to the new building. This will allow production processes to be further optimized and production capacities to be expanded. In addition, travel distances are also reduced in the interests of sustainability.



NEWS

Learning from the bottom up



» For many young people, vocational training is the first step into an independent and "serious" life. Training marks the beginning of an exciting time for them, during which they will learn a great deal and develop their skills further.

Altatec and Camlog place considerable emphasis on training their own specialists, which is why they continue to adhere to their training concept. The reason being that over the years, the trainees have come to appreciate the company's philosophy and know they can rely on Altatec and Camlog even in difficult times.

Every year, an average of six new apprentices start their careers at our site in Wimsheim to pursue a profession as industrial clerks, industrial mechanics, machining mechanics, machine and plant operators, materials testers, warehouse logistics specialists or event organization administrators.

To ensure that the students feel at home during their training period at Altatec and Camlog, gain extensive practical work experience and further develop their knowledge, a far-reaching training concept has been developed within the company which complements the vocational school curriculum and optimally prepares the trainees for their future jobs.

Learning from the experts

During the training period, the trainees pass through different departments of the company, where they are assigned their own tasks and are actively involved in projects. During this process they become acquainted with the entire organization and build up their personal network within the company. This promotes social interaction as well as the exchange of experience and ideas between the experts and the young talents.

Right at the outset, there is an intensive four-day communication, presentation and team training course as well as project management for the newcomers with the objective of promoting key skills and equipping them with the necessary tools for their professional future.

Trainee excursions and various employee events provide the necessary variety to the daily work routine and strengthen the family spirit.

Attractive benefits

In addition to future-proof prospects, the trainees at Altatec and Camlog can also look forward to attractive company benefits. In addition to their appren-

ticeship pay, they receive a vacation and Christmas bonus, capital-building benefits and an allowance for the fitness center. Furthermore, trainees receive numerous benefits via the employee benefits platform.

Promoting young talent

Altatec and Camlog have allocated eight training positions for the 2022/23 school year. Overall, there are 16 trainees at the site, three of whom are preparing for their final winter exams. There are still training positions available for 2023 - so it pays to be quick.



Elif Guezelkaya, Kamila Zurakowska, Melih Cetin, Sergio Dianella, Veronika Brunner

Muhammad-Rasul Nazar, Diana Stolz, Mehmet-Can Islenmis, Laura Widmann, Justin Franke, Alexander Petri

Justin Franke (industrial clerk)

» What I particularly enjoy about the training is that I get to pass through different departments at Altatec and Camlog, which gives me a better understanding of the context of the processes. In addition, I was allowed to "get a feel" for the laboratory at the Tübingen site and spend some time with the sales force. I am actively involved in the day-to-day business and my colleagues are very helpful. Whenever I have a question, they take the time to explain things in detail.

Kamila Zurakowska (industrial clerk)

» What I like most about the training is that one gets a great overview of all departments and therefore gets to know many colleagues and also understand the procedures in the company better. Through the autonomous work and the trust placed in me, I was able to further develop myself professionally as well as privately. Altatec and Camlog attach great importance to the trainees being involved in the day-to-day business and providing their input. This gives me the feeling that my work is important. I am happy that I can do my training here.

Muhammad-Rasul Nazar (industrial mechanic)

» I enjoy that I am allowed to perform my tasks independently but can still count on the help of my colleagues. I am fortunate in that a lot is explained and shown to me, which motivates me a lot.

Melih Cetin (machining mechanic)

» What I particularly like about my training as a machining mechanic is that it broadens my horizon every single day. The seminars and projects make you grow together as a team.

Jona Ehrhardt (industrial mechanic)

» What I particularly like about my training is that I can plan my tasks independently and put them into practice. And on top, the diverse and varied activities never make training boring.

Elif Guezelkaya (industrial clerk)

» Already during my training at Altatec and Camlog I find the friendly attitude and willingness to help each other great. I feel very well looked after in this company, everyone is available to help me with any questions or other concerns. Our instructors supervise us throughout the entire training and provide sufficient feedback on our performance.

Diana Stolz (event administrator)

» Even during my probationary period, I was allowed to work at a large congress and symposium as well as represent Camlog at a training fair for the profession of event management. I feel listened to and appreciated here.

Leon Brattke (event logistics)

» I am very grateful that I was given the opportunity to be trained here. I like the way that I have been warmly welcomed in every department and that I can learn and understand the context as well as the background of my activities.

To the apprenticeship positions for 2023:





This year we will be present at the following major events and look forward to seeing you.

- AEEDC (UAE International Dental Conference and Arab Dental Exhibition)
Dubai, UAE 7.-9. February
- Osteology Foundation Symposium
Barcelona, Spain 27.-29. April
- Oral Reconstruction Foundation Global Symposium
Rome, Italy 18.-20. May
- SEPA + FIPP National Congress
Sevilla, Spain 31. May-3. June
- EAO + DGI
Berlin, Germany 28.-30. September
- SEPA Regenerative Community Symposium
Lisbon, Portugal 19.-21. October

INTERNATIONAL

An unbeatable team at the EAO 2022

» The 29th European Association for Osseointegration (EAO) Congress was held from 29. September to 1. October 2022 in Geneva. After two years of digital further education, the EAO offered a blended learning format of face-to-face and digital. All interested participants were offered a wide range of further education courses under the motto "Uniting nations through innovations", which reflected the organizations' goals for global cooperation. The focus was on new digital technologies, which are changing the way we communicate as well as bringing benefits to everyday practice routines.

The application of digital technologies has an impact on all areas of implant dentistry. Current digital techniques were compared with conventional techniques and clinically relevant recommendations for the dental practice were presented.

In its role as diamond sponsor of the EAO, BioHorizons Camlog designed two outstanding educational formats in the corporate forums with renowned experts. **Dr. S. Marcus Beschmidt**, DE, and **Dr. Ramón Gómez Meda**, ES, presented their views on immediate implantation and loading with CONELOG PROGRESSIVE-LINE implants and different restorative approaches. In the digital evening session, **Dr. Orlando Alvarez**, EAO Ambassador and renowned trainer from Chile, shared his expertise on guided surgery with BioHorizons short implants.

In addition, we offered a comprehensive program with a mix of short presentations and practical workshops in our Expert Lounge on Thursday, Friday and Saturday. In a special area of the BioHorizons Camlog stand, interested visitors were able to learn how to use the products during hands-on exercises and to interact directly with experts **Dr. Debra Cohn**, USA, and **Dr. Orlando Alvarez**, CHL. Here, fundamentals and complex restoration options were discussed.



The workshop held by **Prof. Frank Schwarz**, DE was booked solid. He discussed immediate implantation and loading with 3D planning and guided surgery in challenging indications, including a simultaneous approach with sinus lift, lateral access, and bone augmentation. **Dr. Gómez Meda**, ES, also addressed a packed room and demonstrated soft tissue augmentation around implants with NovoMatrix®, an acellular dermal tissue matrix of porcine origin, in a hands-on workshop.



On Saturday, Dr. Andres Pascual from Barcelona hosted an interactive and entertaining EXPERT Champion Quiz on regenerative solutions which attracted a large crowd of young clinicians to the stand and gave the team the opportunity to interact.





PRACTICE MANAGE-

Indifferent or loyal? Lessons learned

» **The fact is: satisfied employees are dedicated, productive and also take a greater interest in the future of a practice. This does not necessarily have to go hand in hand with genuine loyalty - but certainly with quality of work, stability and harmony in the team, because satisfied employees also consider themselves as being part of the company in the future. And vice versa, dissatisfied employees influence the future viability of a company. Particularly in the medical services sector, it is the team that shapes the corporate**

A problem of our times

In its current training report, the German Federation of Trade Unions (DGB) states that among 25 possible training options, the profession of dental assistants ranks second to last. Since 2016, training to become a dental assistant has already been ranked under the heading of "occupations with the worst ratings". And even within this sector, the popularity of an apprenticeship in this profession has declined steadily in recent years. In the survey conducted as part of a study by the Association of Medical Professions, 30 percent of DA trainees in their third year of training responded with a clear "no" to the question of whether they would like to continue working in this profession after completing their training; 42 percent were undecided. Only 27 percent of respondents envisaged themselves continuing in the profession after completing their training, compared with an average of 61 percent at the start. The Statistical Yearbook of the German Dental Association 21/22 substantiates these figures: across all apprenticeship years, there is in fact a discontinuation rate of 38.3 percent. However, this not only

includes discontinuations, but also changes in employers. This high rate epitomizes how disillusioned or demotivated young career starters apparently feel during training and raises the question of what distinguishes them from previous generations.

Reflections on generations

Generation Z - the population cohort born between 1995 and 2010 - is growing up under significantly different economic, cultural and political conditions compared with earlier cohorts. According to the study "Youth in Germany 2022", Generation Z shows little confidence in the future. However, if the outlook for future prospects is lacking, this will have serious consequences for commitment to the present. A German meta-study from 2021 confirms that the generation, also known as post-millennials, stands out on the labor market as being security-conscious, success-oriented, inquisitive, digitally oriented and autonomously educated. However, it is also the most sensitive and anxious cohort measured to date. In 2019, the "Journal of Abnormal Psychology" presented a study according to

which depression has greatly increased in this generation and describes young people as having low mental stability, being strongly influenced by social, hedonistic and materialistic values and with a high need for self-determination, fulfillment of purpose and self-realization.

Status quo

Consequently, post-millennials represent a generation which finds it harder to commit to an employer, is demotivated more quickly and therefore looks for more reasons other than an adequate salary to commit to a company long-term. This poses the question of how a practice should position itself these days to find suitable young staff. However, the situation has changed considerably and not only with regard to trainees - who represent the potential of tomorrow. The apparent increasing shortage of skilled staff also clearly affects all dental practices. While the ratio of dentists in general practice to employees has remained relatively stable over the past 10 years, increasing from 4.5 to 5, the market has nevertheless become an employee's market over the same period. Baby boomers, the cohort born between 1955 and 1969, are already having an impact on employment figures. The largest decline in personnel in the Federal Republic is therefore forecast for the coming years. One important measure will be, to start focusing specifically on qualified and loyal practice personnel now.

Emotional proximity as a benchmark

According to the 2020 Gallup study, 61 percent of respondents in a variety of industries stated they plan to stay with their current employer in the future, down from 73 percent for the same period last year. In this study, 83 percent confirmed little or no emotional commitment to their current employer. Feeling being

burned out was experienced by 35 percent of respondents, which is nine percent more than in the previous year's survey. Same as in the AOK Absenteeism Report 2022, the study highlights the causality between employee loyalty as well as socially oriented management and absenteeism. In addition to absences due to training, there are absences due to illness as well as motivational absences. A high level of sick leave could therefore be an indicator of emotional detachment from the company.

Employee loyalty through benefits

Promoting healthy and motivating conditions in the company helps to reduce absenteeism. And it also strengthens health-conscious behavior: in a good working atmosphere, employees are more willing to compensate for absences by working extra hours. An important task for management is therefore to take a close look at absenteeism, analyze employee satisfaction and then draw conclusions. Benefits - whether rational or emotional - are essential in dentistry today, as they are the reason why potential employees are interested in a practice and why employees remain loyal to their practice long-term. In my next article, I will therefore take a closer look at various options for enhancing employee loyalty.



Andrea Stix, M.Sc., MBA
Strategic consultancy



PD Dr. Markus Schlee speaks in front of an almost full auditorium at the ORIS in Munich

EVENTS

More biological, faster, less invasive

» Practical concepts with a broad scientific foundation were presented in Munich at the International Symposium of the Oral Reconstruction Foundation (ORIS).

Finally, the time had come again: on October 14 and 15, 2022, some 1,000 colleagues working in implant dentistry met near Munich to attend a major international congress. Hosted by the Oral Reconstruction Foundation, current evidence-based research on important clinical issues was presented on the one hand. On the other, the congress offered numerous practical details on proven and new clinical methods much to the liking of the participants. The common thread was biological principles and options for treating patients in a minimally invasive and thus tissue-sparing manner.



Dr. Jan Hermann Koch
Dentist

Abutment connection and crown material

Studies as well as daily experience have proven: the peri-implant bone level can be stabilized in an epi- or subcrestal implant position with conical connections and Platform Switching [1]. CONELOG® Promote® plus implants with their optimized implant shoulder and clearly defined insertion depth in relation to the bone offer extensively documented advantages here [2]. Add to this the high manufacturing precision of the abutment connection, with a significantly better rotational and very good vertical positioning reliability compared to other leading implant systems, even after repeated assembly [3].

In a recent study involving a total of 310 implants, **Dr. Arndt Happe**, who is based in Münster, Germany, also demonstrated minimal bone remodeling for CAMLOG® Promote® plus with a Tube-in-Tube® connection. This was significantly lower than for a comparator product [4]. Single crowns and bridges on titanium bases CAD/CAM, in combination with zirconia abutments or abutment crowns were included. According to an in vitro study sponsored by the OR Foundation, hybrid abutment crowns made of lithium disilicate proved to be mechanically more resilient than those made of zirconia (**Dr. Joao Pitta**, University of Geneva, Switzerland) [5]. Further clinical studies are still required here.



Dr. Ilaria Franchini gave a lecture on the subject of delayed implant dentistry

Platform Switching and abutment change

At the same time, Dr. Happe stressed that deep bone positioning is only suitable for implants with a conical connection and horizontal offset of the abutment (Platform Switching). Here, the implant diameter also influences the emergence profile, which should be designed slender in the apical section in keeping with biological requirements [6-8]. Based on the literature and clinical experience, there was predominant agreement in Munich that the concept is proven and can be recommended when CONELOG® implants are used [9,10].

The question of how often the gingiva former, abutment or temporary abutment crown are changed after implantation is also of biological significance [11-13]. A randomized controlled study presented by **Dr. Ana Molina** (Complutense University of Madrid, Spain) in the Young Clinicians' Research Forum showed that immediate definitive fixation of the abutment on CONELOG® SCREW-LINE implants results in approximately 50 percent less bone loss than when simply changing the abutment (0.7 vs. 1.4 mm after 12 months, publication in preparation).

Thickening and widening soft tissue

If the soft tissue is initially to be shaped with temporary components, then CAD/CAM gingiva formers and impression posts made of PEEK from DEDICAM® have proven effective. In combination with intraoperative position determination using an intraoral scanner, a natural emergence profile can thus be achieved in a minimally invasive manner and with little effort (**Dr. Claudio Cacaci** and **Uwe Gehringer**, dental technicians, both Munich). This can also be used later on for the final CAD/CAM restoration. **Dr. Anette Strunz** (Berlin), **Prof. Vyngandas Rutkunas** (Vilnius, Lithuania) and **Prof. Benedikt Spies** (University of Freiburg) presented the current status of digital workflows including recommendations for 3D planning.

To avoid peri-implant bone loss, **Dr. Michael Stimmelmayr** (Cham) recommends Platform Switching and a soft tissue thickness of 3-4 mm above the implant platform [14]. The thickest possible tissue should be aimed for, particularly if an abutment change cannot be avoided. Furthermore, the attached buccal soft tissue should be 4 mm high. While vestibuloplasties require autogenous mucosal grafts, an acellular dermal matrix can be used successfully for thickening the soft tissue (for example NovoMatrix®) [15, 16]. This eliminates the need for an additional surgical procedure with corresponding stress for the patient [17]. However, according to **Prof. Katja Nelson** (University of Freiburg), the crucial factor for success is that the matrix is covered as completely as possible.



Prof. Katja Nelson and Prof. Frank Schwarz moderated the eight sessions in a masterly and lively manner



PD Dr. Arndt Happe discussed *Implant therapy in the esthetic zone - implant position and emergence profile as success factors*



Dr. Peter Randelzhofer addressed the new aspects of soft tissue management



Prof. Sönke Harder moderated the session *Mastering Hard- and Soft Tissue Outcomes* with speakers Prof. Michael Stimmelmayer, Dr. Jan Klenke and Andreas van Orten, M.Sc., M.Sc. (from the left)

PRF with great potential

Scientific evidence is available for autologous blood-derived platelet rich fibrin (PRF), primarily for alveolar ridge preservation [18,19]. Hamburg dentist **Dr. Jan Klenke** additionally recommends PRF for the preparation of "sticky bone", for example in combination with porcine bone substitute material (Miner-Oss® XP). According to **Prof. Juan Blanco Carrión** (University of Santiago de Compostela, Spain), the blood product has also proven effective for defects with a significant bone deficit when used in conjunction with allogeneic bone blocks. Other indications for PRF presented in Munich include the promotion of wound healing and guided tissue regeneration (GBR), for example in combination with a porcine bone substitute material and an acellular dermal matrix (NovoMatrix®).

Other minimally invasive and thus biologically oriented techniques such as punching prior to implant exposure in the presence of sufficient soft tissue (**Dr. Peter Randelzhofer**, Munich), flapless implantations (**PD Dr. Markus Schlee**, Forchheim), and the socket

shield technique with buccally remaining tooth shards in the anterior of the upper jaw (**Andreas van Orten, M.Sc., M.Sc.**, Waltrip) were demonstrated using clinical examples. According to **Prof. Stimmelmayer**, the more difficult the case is, the more important autologous material becomes.

Immediate implantation without alternatives?

Expedient and minimally invasive protocols require fewer surgical procedures, reduce treatment costs, and thereby promote patient satisfaction. According to the literature review by oral surgeon **Dr. Ilaria Franchini** (Milan and Stuttgart), the success rates are good, however only if the indication is correct and if there is sufficient clinical experience [20-22]. Franchini recommends delayed protocols when patient cooperation is poor, the esthetic prognosis is uncertain, or when acute inflammation or unfavorable defect configurations are present [23]. Each one of these factors would suffice as a contraindication. A number of the patient cases presented in Munich were solved with PROGRESSIVE-LINE implants optimized for immediate implantation.

For lecturer **Dr. Markus Schlee**, immediate protocols in the anterior region of the upper jaw [15-25] are without alternative if indicated. As the implant axis and emergence profile have a decisive influence on the resulting soft tissue thickness [24], these factors are more important than the phenotype. Here, too, CAD/CAM abutments offer decisive advantages, according to Schlee. **Dr. S. Marcus Beschnidt** (Baden-Baden), too, regards immediate protocols as being more than a trendy topic as well as being of great benefit for patients. The prosthodontic specialist in private practice presented a restoration with 3D-guided implantation and immediate definitive abutment fixation to be followed by at least three months of soft tissue maturation [25].

Edentulous patients and case presentations

In a special session, **Dr. Malin Stranding** and **Dr. Sabrina Maniewicz** presented the University of Geneva's concept for elderly and edentulous patients. A study sponsored by the OR Foundation shows that patients should be involved in the decision-making process for successful restorations [26]. For example, digital esthetic analyses proved suitable as a means of communication. Patients are satisfied with both fixed and removable solutions when their expectations are managed appropriately, with removable prostheses performing significantly better in terms of function, phonetics, and esthetics [27]. According to **Dr. Mario Beretta** (University of Milan), trends in full restorations involve fewer implants, more screw fixation and more frequent immediate loading. He recommends the production of bars without models with subsequent intraoral verification; models should only then be printed for fabricating the denture [28].

Three outstandingly solved complex case presentations with subsequent discussion provided a worthy conclusion to the congress. Here, too, minimally invasive concepts were the focus, including a fixed implant restoration with a high smile line (**Dr. Duygu Karasan**, University of Geneva), extensive bone gain through magnetic extrusion [29] (**Dr. Frederic Hermann**, Zug, Switzerland), and flapless immediate implantation simultaneously with a combined tuber graft (**Dr. Ramón Gómez-Meda**, Ponferrada, Spain).



The eighth session was anticipated eagerly. Experts presented their complex cases for discussion in front of the broad audience. Moderators of this session: PD. Dr. Gerhard Ighhaut and Prof. Mariano Sanz

Conclusion

The motto of the Munich ORIS Congress was "Dreams & Reality – Treatment Concepts and Trends". Experts from academia and dental practice impressively demonstrated which methods improve the regenerative and prosthetic outcome and make implant restorations successful, also long-term. In addition to clinical expertise, meticulously developed and documented products play an essential role here. For those who could not join us in Munich or wish to learn even more about the latest developments, then attend the Oral Reconstruction Global Symposium in Rome from May 18-20, 2023.



The event location at the Nockherberg was the scene of a lively party on Friday evening.





EVENTS

Pre-congress workshops at the ORIS - practical and inspiring

» The pre-congress workshops are a permanent fixture at the Oral Reconstruction Foundation's congresses or symposia. In familiar fashion, they were held on Thursday and offered a broad range of topics in the areas of clinical issues and product application.

In the workshops held by **PD Dr. Gerhard Ighaut**, Memmingen, and **Prof. Anton Sculean, M.Sc.**, University of Berne, the participants were taught techniques and therapeutic concepts for the management of soft tissue around the tooth and implant which will enable predictable results to be achieved. Promising techniques such as the modified coronally advanced tunnel (MCAT) or laterally closed tunnel (LCT) in combination with a subepithelial connective tissue graft or the NovoMatrix® could be trained during hands-on exercises on a pig's jaw. To reduce patient morbidity, the use of an acellular dermal matrix is advantageous when compared to a connective tissue graft.



In the full-day workshop, **PD Dr. Peter Gehrke**, Ludwigshafen, and **DT Carsten Fischer**, Frankfurt a. M., explained how, on the sound basis of "analog knowledge", the use of computer-assisted manufacturing technologies for the fabrication of implant-supported dental restorations can become a daily reality for many users in both the laboratory and dental practice. The speakers described the application-oriented advantages of using these and implementing them safely.

They demonstrated process-relevant steps, decision criteria as well as communication channels which are necessary for a forward-looking strategy and a holistic understanding of all therapeutic areas to achieve the desired treatment success.

Dr. Michael Berthold and **MDT Otto Prandtner**, both Munich, focused on soft tissue support in the workshop. Not only does the precise planning of the implant position play an important role, but also the predictable placement of an esthetic suprastructure in terms of backward planning. The shaping of the transgingival area is essential for the guided tissue healing of an immediate restoration with consideration for the biological criteria and is easily and conveniently achieved with the individual CAD/CAM fabricated PEEK gingiva formers from DEDICAM. Decisive for the success of this concept are a primary stable inserted implant, a precise transfer of the implant position as well as the digitally planned and pre-surgically created suprastructure.

"My first implant" - in the introductory workshop for assistant physicians and newcomers to implant dentistry, **Dr. Jörg-Martin Ruppin**, Penzberg, gave the participants comprehensive insights into the practical techniques and methods of modern treatment concepts - fundamental knowledge for implant dentistry, so to speak. Assisted by **Melvin Albert**, application consultant at Camlog, the practical cases shown were combined with surgical and prosthetic hands-on exercises in a comprehensible manner for all participants.



Exclusively for dental students and assistant dentists, , Forchheim, held a workshop on the topic "from a newcomer to a professional in implant dentistry". In order to implement implant dentistry as an important discipline in the practice and thus become a major contributor to the success of the practice, he discussed the esthetic aspects of implant dentistry as well as incision and suture techniques, autologous tissue grafts and alternative products, planning for implant positioning, prosthetic outcome and bone augmentation techniques. In parallel, the participants applied what they had learned directly in their hands-on exercises.

Bregenz, sees numerous opportunities for the COMFOUR® concept in treatment therapy when patients' financial constraints influence their decision to have implants. At this workshop, the speaker presented a simple and safe way for patients with edentulous and partially edentulous jaws to regain their vitality. He explained in detail the surgical and prosthetic procedures and used specific patient cases to illustrate the concept and planning for directly screw-retained bridges and bars. The participants took the opportunity to learn about the components of the COMFOUR® System and apply them to models.

Personality is the key - Camlog, explained that knowledge of one's own personality leads to success and allows conclusions in a number of ways. "Those who can read personality structures are able to exploit their individual performance potential more efficiently and recognize that of others." Using the central instrument of motivation-oriented personality research, the participants learned to recognize what a person strives for and what is really important to him or her. The decisive factor for performance and success is the balance between the expression of the motives and the possibility of realizing them. The insights are not only applicable to one's own well-being in the workplace, but can be applied in a targeted manner to the success of the practice as a whole.

In his workshop, Frankfurt a. M., focused on augmentation and corrections for the prevention and treatment of peri-implant diseases. Soft tissue grafts to establish a keratinized mucosa and adequate soft tissue thickness have become important surgical procedures in the prevention of peri-implant disease. The speaker mainly pointed awareness to areas exhibiting a reduced width of keratinized mucosa (i.e., < 2 mm) or thin soft tissue phenotypes. In the four-hour course, participants learned different flap designs for soft tissue augmentation procedures around implants, connective tissue graft harvesting and handling, as well as the clinical management of mucosal recessions.



Prof Frank Schwarz



Andrea Stix, M.Sc., MBA



EVENTS

Fascination implant prosthetics 7th CAMLOG DENTAL TECHNOLOGY CONGRESS on 15 October 2022 in Munich

» Having speakers on the stage with all the participants listening attentively, as, without exception, they are being offered something highly worth knowing, is not so easy. However, at the 7TH CAMLOG DENTAL TECHNOLOGY CONGRESS on the topic of "Fascination Implant Prosthetics" this was certainly the case.

After **Martin Lugert** and **Markus Stammen**, the Managing Directors of CAMLOG Vertriebs GmbH, had welcomed the more than 400 congress participants, this was followed by presentations that certainly delivered what the congress theme had promised: fascinating solutions for satisfied patients. The topics ranged from patient-oriented concepts to esthetics, functionality and cost efficiency to innovative digital workflows and were expertly moderated by the team of Bayreuth implantologist **Dr. Martin Gollner** and Munich master dental technician **Otto Prandtner**.

Participants and moderators alike saw these demands fulfilled in every presentation.

PD Dr. Peter Gehrke (Ludwigshafen) and **MDT Carsten Fischer** (Frankfurt), stood in for Oliver Brix, who fell ill at short notice, and explored the advantages of the digital dental workflow from various angles while at the same time emphasizing that it is not possible to do without "analog" know-how. This becomes evident, for example, in the prosthetically aligned positioning of implant analogs, in the lab-side realization of a bonding gap of only 25-30 µm, or in the manual perfection of CAD/CAM components industrially manufactured by the DEDICAM Scan and Design Center before being delivered. On the other hand, the individual shaping of peri-implant soft tissue with individual healing abutments would not be achievable without the precision of digital tools.

The best prerequisite for a functionally and esthetically successful implant-supported prosthetic restoration is teamwork between the dentist and dental technician at eye level. Innovative digital tools and concepts would make the restorative workflow more efficient and also more effective, yet the prerequisite continues to be profound analog knowledge. Par-



Michael Mitteregger
Specialized journalist

However, to be able to successfully apply the synergy of different materials in terms of function, esthetics and soft tissue, the dental technician needs sufficient information and knowledge about the case-specific clinical context.

Conclusion of the speakers

- » A digital workflow without analog knowledge and skills is not successful.
- » CAD/CAM is not an automatic seal for quality
- » Dental technicians and their know-how are needed more than ever!

Dr. Monika Bjelopavlovic, M.Sc., (Mainz) and **Dr. Maximilian Blume** (Mainz), together with **MDT Alexander Müller** (Wörrstadt), demonstrated the challenges as well as the opportunities, which are associated with creative and inspiring cooperation, by presenting impressive case studies of screw-retained as well as cemented restorations ranging from single crowns to long-span implant bridges for the edentulous jaw. "Failing to plan is planning to fail" – joint case planning as a team is greatly simplified in its processes via the digital channels and thus increases the chances of success. However, the basics for the fabrication of tension-free structures in the edentulous jaw are still individual analog steps such as the separation and intraoral joining of pattern resin control bars. In the cases shown, the tactile acquisition of the final model by the DEDICAM Scan and Design Service and the precision-milled framework fabrication are important manufacturing components. Such outsourcing provides the dental technician with precisely fitting frameworks and allows him/her to concentrate on finishing the restoration.



DT Andreas Nolte



MDT Ilka Johannemann



One of the highlights at the dental technology congress: the talk show on the subject of *cooperation at eye level – what are the mutual expectations?*

Oral surgeon **Dr. Alexander Volkmann** (Eisenach/Jena) and **MDT Sebastian Schuldes, M.Sc.**, (Eisenach) presented a number of impressive cases to demonstrate how immediate restorations, be it for single teeth or edentulous jaws, can achieve the planned functional esthetic goal in a short space of time when working as a team. Whereby their work is strictly aligned with current scientific findings. Accordingly, immediate implantation has established itself as a therapeutic concept over the past few years and, with strict indication, provides highly predictable esthetic results with survival rates of 96 to 97 percent. The original mucosa and bone situation are also preserved in the best possible manner with immediate implantation. However, a prerequisite for the successful immediate loading of immediate implants is high primary stability of the implants. Another advantage is patient satisfaction, which is significantly higher for immediate implantation at 95 percent than for delayed implantation at 84 percent.

Dr. Benedikt Schebiella (Oberschleißheim) and **MDT Bastian Wagner** (Mindelheim) focused on the numerous benefits of innovative digital tools for interdisciplinary collaboration. This begins with the intraoral scanner by providing optimal documents for backward planning, to industrially precision-manufactured individual gingiva formers from the DEDICAM Scan and Design Service for an esthetically perfectly shaped soft tissue, through to the AI-supported software "eLAB" for an optimized analysis and reproduction of tooth shades. The software determines the exact color values and gradients over the entire tooth surface on the basis of digital photos and calculates the individual mixing ratio of the colors for the reproduction. The results of such tools are realistic visualizations, optimized planning, more effective and thus more efficient treatment procedures, and the optimal congruence of the implant position and the patient-specific prosthetic restoration.

For **MDT Ilka Johannemann** (Münster), the individuality of the patient comes first. A treatment team

needs sufficient empathy with the patient and an understanding of his or her wishes and needs. She therefore plans the restoration on the basis of situation models and wax-ups as a matter of principle. The reason being that this would also be an excellent way to determine whether any useful esthetic gum corrections should possibly be discussed with the dentist from a technical point of view. Adding on to this, the passion for the detailed elaboration of patient-specific distinctive features such as tooth shade, the angular feature between the two incisors or the profile of the incisal edges of the upper anterior teeth in congruence with the smile line. Her motto: "Doing is like wanting, only more blatant".



MDT Otto Prandtner and Dr. Martin Gollner moderated the 7th CAMLOG DENTAL TECHNOLOGY CONGRESS

DT Andreas Nolte (Münster) focused on the perfect design of a central incisor. At the same time, he provided a number of practical tips for daily work: fluorescent abutments could be used to achieve fluorescence corresponding to the natural adjacent teeth for a thin gingiva type and light tooth shade. Retzius lines, marginal ridges and curvatures can be evaluated more readily if they are viewed at the workstation under different light incidence. The adjacent incisor is suitable as a template for the restoration of a central incisor by rotating it and placing it in the position of the tooth to be shaped. However, it is important not to create "an identical twin", because only "Imperfection creates individuality. Individuality creates value". This also applies to the reproduction of structural defects. Ultimately, however, it is always the patient's satisfaction that counts.

The talk show on the subject of *cooperation at eye level – what are the mutual expectations?* turned out to be a true highlight. To this end, the moderators had asked the congress participants in advance in writing about various topics and were able to evaluate over 100 (!) questionnaires. Among other things, they asked: *Are you satisfied with the dentists' planning prior to starting treatment?* On the seven-digit rating scale, more than half of the dental technicians rated the collaboration as positive, although the planning competence of the dental technician had not yet registered with all dentists. *Do you discuss the patient's esthetic requirements in the interdisciplinary team prior to treatment?* This question was also answered with a clear "yes" by a large majority.



The answer to the question *"As a dental technician, are you satisfied with the implant position?"* came as a bit of a disappointment. Only close to one third wanted to fully confirm this, which corresponded with the desire for optimized planning to avoid later corrections as well as for a clinical function protocol. However, there was "considerable praise" for the dentists for the question: *Are the treatment records sent by the dentists/treatment providers complete?* This had improved noticeably - as had the positions of the inserted implants - and thus allow correspondingly good technical dental work. The participants of the talk show themselves all reported good and result-oriented cooperation at a high level and with great mutual trust.

During the closing, Martin Lugert and Markus Stammen bade farewell to the participants and made the promise to continue the tradition and to hold what will then be the 8TH CAMLOG DENTAL TECHNOLOGY CONGRESS in two years' time. The applause of the participants not only expressed joyful anticipation of the next event, but was also a call to fulfill their expectations at the same time. One can already look forward to the topics and the speakers!





Dr. Stefan Helka



Michael Ludwig

EVENTS

The CAMLOG BUSINESS CLUB – further education with a "network"

» With its focus on "Human Resources and Employee Management", the CAMLOG BUSINESS CLUB has truly struck a nerve, welcoming over 250 participants in six cities so far. The series of events led by speakers Michael Ludwig, Christian Henrici, Dr. Michael Kann and Dr. Stefan Helka is devoted in depth to the topics of the labor market, corporate strategy and culture, human resources development as well as the challenge of recruiting personnel.

What can you expect?

As the former Managing Director of CAMLOG Vertriebs GmbH, **Michael Ludwig** knows the challenges in the dental market and has developed a flair for focusing on the right topics. In his presentation, he addresses the changes in the framework conditions of the labor market and outlines the changing expectations that you, as an employer, will face. He explains honestly and authentically how important leadership culture really is.

Why good staff is more valuable than ever before, how companies need to adapt to the generation change to "GenZ" and what this implies for a dental practice, is backed by **Christian Henrici's** many years of experience in the dental industry. He clears up any uncertainties surrounding employee surveys and outlines how they can be used to increase employee satisfaction.

Dr. Michael Kann reports directly from the everyday practice routine. He presented his very personal concept for success, which challenges he faces every

day as a practitioner and entrepreneur, and how he tackles them with his team. He speaks openly about how he finds and retains good staff - but also about inevitable separations and how to master them.

Dr. Stefan Helka likes to break new ground when it comes to recruiting and motivating employees. He took over his mother's dental practice eight years ago - then with five employees, now with sixty. He would like to share with you how he achieved this, how he encourages and develops his team further, and how he thinks outside the famous box.

There is plenty of time left for networking afterwards. All open questions can be answered at the exclusive dinner with colleagues, speakers as well as one of Camlog's managing directors. The joint exchange is a valuable complement to the presentations and a successful finale on the Friday evening.

Christian Henrici

Good news! You would like to be a part of it?

Due to high demand, the CAMLOG BUSINESS CLUB on the topic of "Human Resources and Employee Management" will be continued and will make stops in five more cities.

2023-09-08 in Essen
Michael Ludwig, Christian Henrici and Dr. Michael Kann

2023-09-15 in Hamburg
Michael Ludwig, Christian Henrici and Dr. Stefan Helka

2023-10-06 in Hanover
Christian Henrici and Dr. Stefan Helka

2023-11-10 in Chemnitz
Michael Ludwig, Christian Henrici and Dr. Stefan Helka

2023-11-17 in Freiburg
Michael Ludwig, Christian Henrici and Dr. Michael Kann

2023-11-24 in Ingolstadt
Michael Ludwig, Christian Henrici and Dr. Michael Kann

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