Special Edition for IDS 2025

MEGA'GEN: Beyond Products, Redefining Concepts

MegaGen is true to implantology
So MegaGen never stops..

for life time smiles



MegaGen Story

Solution for
Accelerated Loading

Solution for
Thin or Defective Ridges

Solution for
Full Mouth Rehabilitation

Solution for
Treatment Environment

MEGA'GEN
For Lifetime Smiles

Dear our valuable customers



New waves in implantology-
overcome all the difficulties easier, more chances of immediate/ earlier loading by new concepts and technologies.

MegaGen Implant: A Global Leader Driving the Fourth Innovation

The advancement of implant treatment goes beyond being merely a part of dental care—it has become a crucial technology that enhances patients' quality of life. MegaGen has taken a leading role in the implant field, presenting the future of treatment through innovative approaches that surpass the limitations of conventional technologies. MegaGen's implant technology continues to evolve with the goal of providing superior outcomes in any clinical setting, offering solutions for faster and easier recovery that benefit both patients and clinicians.

The Three Major Innovations in the Implant Industry

The dental implant industry has undergone three significant innovations over time. The first innovation came in 1965, when Dr. Brånemark discovered the ability of bone to integrate with titanium, leading to the introduction of threaded titanium implants for improved stability.

The second innovation occurred in 1986, when Paragon introduced the Screw-vent internal hex connection system enhancing implant stability by improving the connection between the implant body and abutment.

The third innovation took place in 1990, when Straumann introduced SLA (Sandblasted Large-grit Acid Etching) surface treatment technology, enhancing the implant's surface structure to strengthen its integration with bone.



These three key advancements have driven the evolution of implant technology and played a crucial role in making implant treatments more accessible and widespread. However, since the 1990s, the implant industry has been continuously striving to develop technologies that can adapt to various bone qualities and provide easier-to-apply solutions for clinicians. Despite these ongoing efforts, a fourth major innovation—one that could be considered a true breakthrough—has yet to emerge.

MegaGen's Innovative Challenge

MegaGen has continuously led the implant industry by providing implants with high initial stability, regardless of bone quality. In 2009, the company introduced the "AnyRidge" system, setting a new paradigm in implant technology. AnyRidge enabled stable and effective implantation even in narrow bone ridges, reinforcing MegaGen's position as a pioneer in implant innovation.

In 2011, MegaGen developed "Xpeed", incorporating nano calcium ion surface treatment technology to enhance faster and stronger osseointegration, making accelerated loading a viable reality.

Further advancing its technology, MegaGen launched "BlueDiamond" in 2018, inheriting the DNA of AnyRidge while boasting twice the strength. This breakthrough allowed for the application of a Ø4.1 implant in narrow bone ridges, demonstrating another remarkable innovation in implant technology.

Evolution Toward the Fourth Innovation

MegaGen is now providing solutions that make implant placement easier, even for challenging cases requiring GBR. The ARi and BD Cuff systems, launched consecutively in 2023 and 2024, offer simplified approaches for complex implant procedures. Meanwhile, the R2GATE system, introduced 12 years ago, has continuously evolved, integrating the latest digital technology and AI to become the QVD system. QVD is an innovative solution that enables clinicians to perform full-mouth rehabilitation quickly, accurately, and with ease.

Through these groundbreaking technologies, MegaGen is leading the fourth innovation in the global implant industry, a sector that has seen little transformative change in the past two decades. By creating an environment where clinicians can deliver faster, easier, and more precise treatments, MegaGen is solidifying its position as a global leader in the implant market, redefining the future of implant dentistry.



MegaGen Story

- Solution for **Accelerated Loading** 06 - 13
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- Solution for **Treatment Environment** 31 - 33



Escape from the prison that known as Knowledge & Perception

Escape from the Prison of Knowledge & Perception in Implant Dentistry

Breaking Free from Tradition: A New Era in Implantology

For years, implant dentistry has been shaped by established protocols, conventional wisdom, and deeply ingrained methodologies, guiding practitioners but also creating invisible barriers that restrict progress and innovation. While these principles have ensured consistency, they can also limit the adoption of new advancements that challenge outdated treatment timelines and rigid surgical approaches. The prison of knowledge and perception is real, and to advance, we must be willing to push beyond traditional boundaries.

The field of implant dentistry is undergoing a transformation, driven by technological advancements and innovative approaches that challenge long-standing norms. From rethinking treatment timelines to improving guided bone regeneration (GBR), early loading protocols, and full-mouth rehabilitations, new strategies are emerging that not only improve clinical outcomes but also enhance the patient experience. By questioning conventional limitations and embracing novel solutions, we open the door to more efficient, predictable, and patient-friendly treatments.

In the following sections, we will explore key advancements that are reshaping implantology, looking at how modern science and clinical expertise are breaking through perceived limitations. By embracing these changes, we are not just improving dentistry—we are redefining its future.

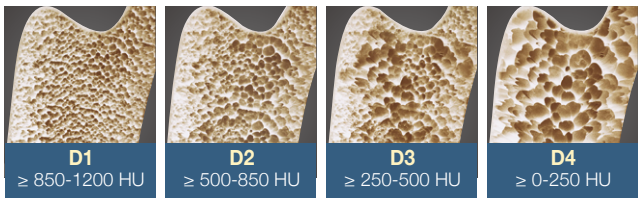


Perception
1

Why Would You Hesitate to do Early Loading?

Despite the many benefits of early loading, including increased patient satisfaction and improved clinical, dental management, and operational efficiency, hesitation often arises due to concerns about primary stability, bone conditions, traditional protocols, and the temporary drop in ISQ during the transition from mechanical to biological stability approximately 3 weeks post-surgery.

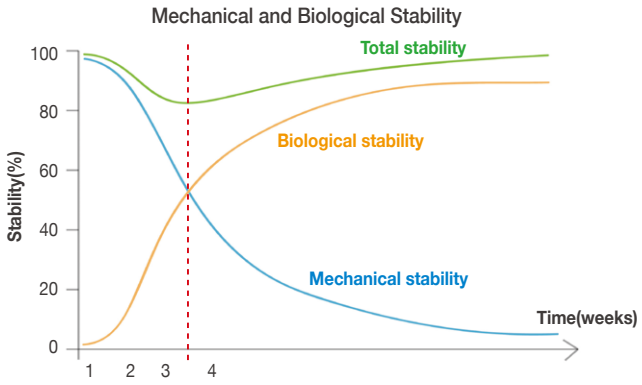
Designated loading Time	Required implant insertion torque	Prosthesis delivery time
Immediate loading	≥ 35Ncm	Within 1 week after Implant placement
Immediate loading With occlusal contact	**≥ 45Ncm**	**Within 1 week after Implant placement**
Early loading	25-35 Ncm	Between 1 week and 2months after implant placement
Delayed loading	< 25Ncm	After 2months of implant placement



Location	Mean ± Std. Deviation
Anterior Maxilla (n=100)	709.75 ± 122.63
Posterior Maxilla (n=100)	299.66 ± 73.09
Anterior Mandible (n=100)	1093.42 ± 109.42
Posterior Mandible (n=100)	599.45 ± 626.34

D3-D4

Table -I Region wise comparison of bone density.



These results highlight a key point that enables accelerated loading.

REDEFINING CONCEPT 1 check the next page

Recently, various research findings have demonstrated that MegaGen implants have successfully addressed the challenges faced in early loading.

1. Primary Stability Optimization by Using Fixtures with Different Thread Depth According To Bone Density: A Clinical Prospective Study on Early Loaded Implants/ Christian Makary 1, Abdallah Menhall 2, Carole Zammarie 3 /Materials (Basel) 2019 Jul 27;12(15):2398. doi: 10.3390/ma12152398. **2.** *The effect of implant macro-thread design on implant stability in the early post-operative period: A randomized, controlled pilot study. / McCullough J.J., Klokkevold P.R. /Clin. Oral Implant. Res. 2017;28:1218–1226. doi: 10.1111/clr.12945. - DOI -* **3.** *Universal implant surface structure and biological performance analysis, YJ Chae et al, Journal of Future Dentistry. 2023: Vol.3: No. 4: 16-19*

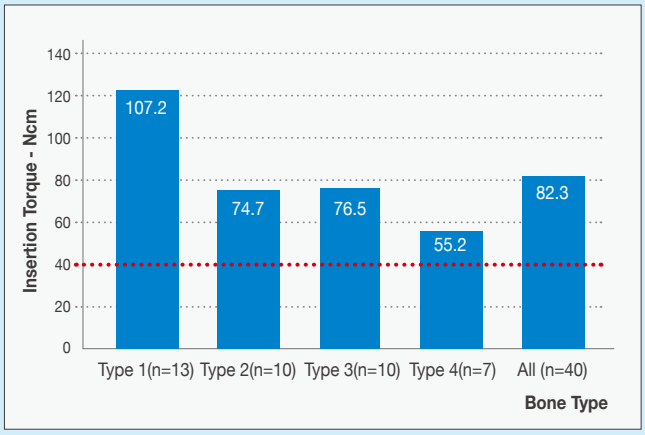
MegaGen Implant: Redefining Early Loading with Innovative Implant Design

Beyond Early Loading: Embracing Accelerated Loading

To overcome the risks of early loading, MegaGen Implant has developed an innovative design that enhances both mechanical and biological stability.

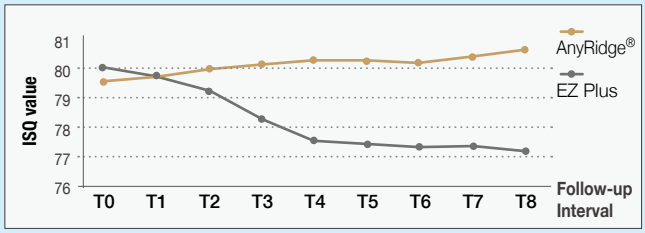
01 MegaGen implant presented ITV over 40Ncm, even in soft bone[1)]

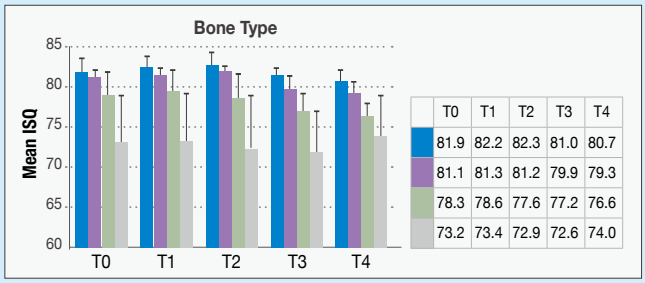
In this study, no implant presented ITV below 40Ncm, even in soft bone, hence remaining within the "comfort zone" mentioned earlier in that manuscript.



02 No drop in ISQ value[1), 2)]

Of 40 implants, 39 had ISQ above 70, ensuring a "comfort zone" for early loading.

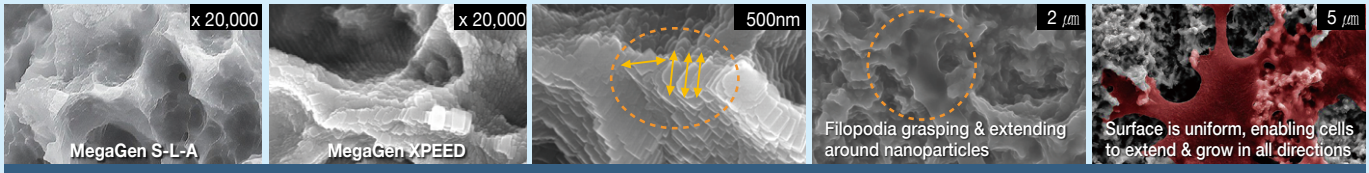


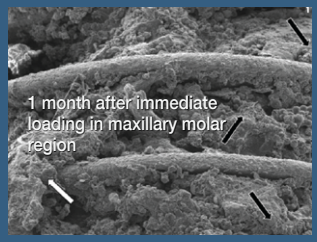


	T0	T1	T2	T3	T4
	81.9	82.2	82.3	81.0	80.7
	81.1	81.3	81.2	79.9	79.3
	78.3	78.6	77.6	77.2	76.6
	73.2	73.4	72.9	72.6	74.0

03 $CaTiO_3$(calcium titanate) nano structure Improved bone formation[3), 4), 5)]

CaTiO3 nanostructures enhance implant surface reactivity, promoting protein and cell adhesion. Cells grow on ~300nm particles with filopodia extending to grasp them. Ca^{2+} release activates osteoblasts, forming a Ca-ion bone matrix layer with PO_4^{3-} ions.



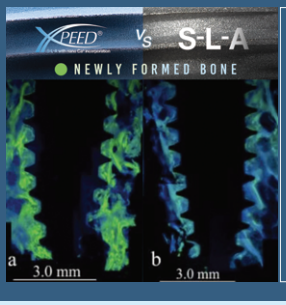


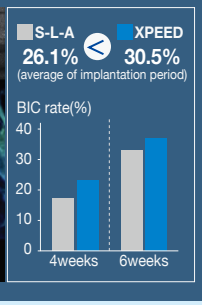
Early Loading Human Study
by Dr. Francesco Mangano

Black arrow:
Empty space between threads is en tirely filled with growing bone tissue

White arrow:
Bone traversing implant ridges

Scanning Electron Microscope (SEM) Evaluation of Interface between Nanostructured Calcium-Incorporated Dental Implant Surface and Human Bone.





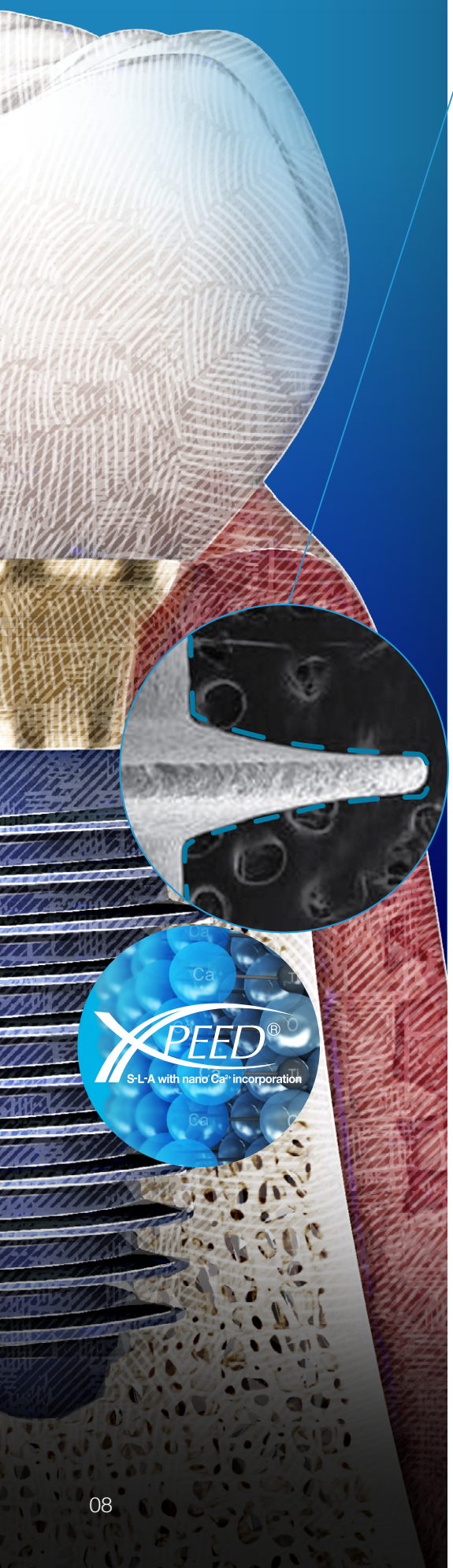
Human Study
by Prof. Christian Makary

(Left) Test for Mineral Apposition Rate (MAR)

(Right) Comparison of BIC values at 4 and 6 weeks of XPEED and S-L-A placed in soft cancellous bone of the maxillary molar region.

4. Nanostructured Calcium-Incorporated Surface Compared to Machined and S-L-A Dental Implants: A Split-Mouth Randomized Case / Double-Control Histological Human Study/ CChristian Makary1,, Abdallah Menhall1, Pierre Lahoud1, Hyun-Wook An2, Kwang-Bum Park3 and Tonino Traini, nanomaterials, 2023* ***5.*** *Evaluating the effectiveness of plasma-treated implants using a rabbit model / Daegu Gyeongbuk Medical Innovation Foundation (2022)*

Beyond Early Loading: Embracing Accelerated Loading
Learn more



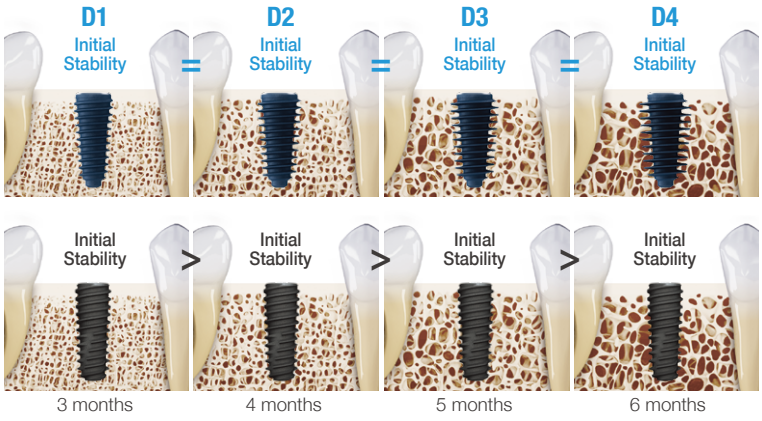
KnifeThread®

Guarantees sustained implant stability

- Stable stress dispersion due to buttress thread shape
- Easier insertion without cutting edge due to thread shape
- Increased surface area due to round-faced design

Same core diameter, but diffrent thread depth!

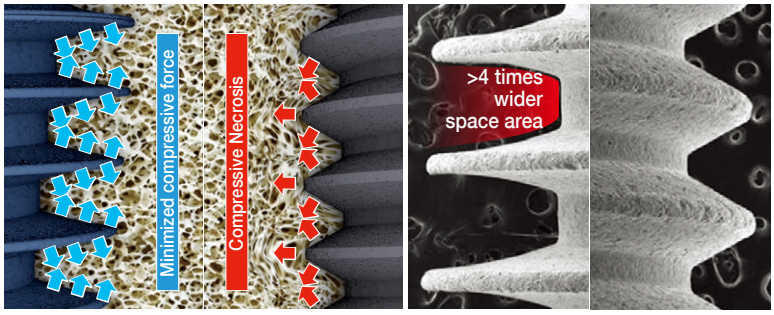
Same BIC, Same start for prosthetics



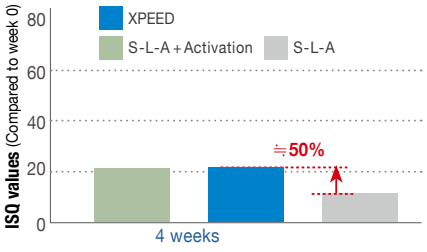
Core & Thread technology

Minimize a bone destruction & maximize BIC

- Minimized compressive force to bone
- Knife thread increase bone contact area
- Preserve bony structure



Promoting faster and greater new bone apposition[5)]



XPEED nanotechnology
Tested & proven
with 10 years of
F/U & scientific evidence
Learn more

HERE IS EVIDENCE

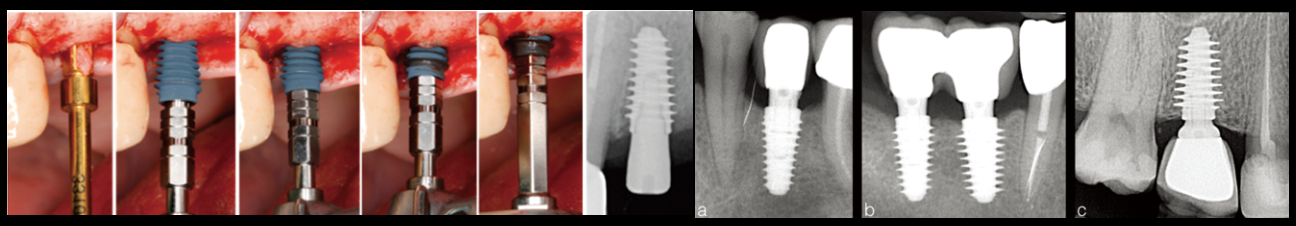
14 patients were treated with the insertion of 40 AnyRidge implants: Among them, 39 implants showing ISQ > 70 after 3 weeks of healing were loaded with provisional restoration.

_Courtesy of Christian Makary , Abdallah Menhall , Carole Zammarie , Teresa Lombardi , Seung Yeup Lee , Claudio Stacchi , Kwang Bum Park

After final 3.3mm bone preparation, a 4.5mm implant was placed using an electronic torque wrench, and final insertion torque was recorded. Four different thread diameters were used based on bone quality.

One-year post-loading X-rays showed implants with minimal thread depth (4mm) in hard bone to prevent excessive compression, while deeper threads (5.5mm) were used in soft bone to enhance primary stability.

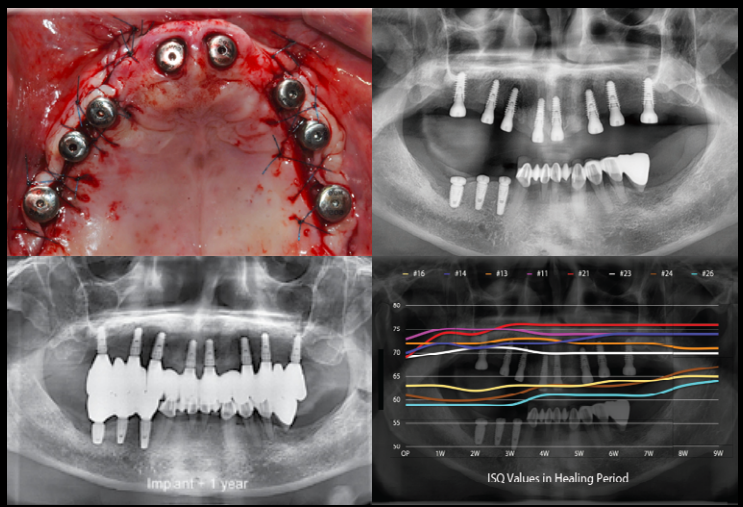




ISQ values were stable for all implants. Final prosthesis was loaded after 9 weeks when implant ISQ values in grafted area were close to 70.

_Courtesy of Dr. Chang-Hun Han

Immediate implantation was performed in the maxillary central incisor region, and all eight AnyRidge implants were placed using a one-stage surgical procedure. At that time, a combination of conventional RBM surface implants and XPEED surface implants was used.



No.	ITV (Ncm)	ISQ					
		Immediate	After 2w	After 4w	After 6w	After 8w	After 10w
#22	70	68	68	70	71	72	72
#24	70	67	68	70	70	71	72
#25	70	80	80	80	81	80	80
#26	45	80	80	81	81	81	81



ISQ values were stable even in soft bone. ISQ does not decrease.

_Courtesy of Dr. Kwang-Bum Park

4 BlueDiamond implants were placed in the maxillary molars.

Targeting zero fractures

Implant Fracture

Zirconia, replacing traditional materials, offers lower fracture risk, long-term stability, and superior aesthetics, making it ideal for implants and full-mouth rehabilitation.
However, its high strength transfers excessive occlusal forces to the fixture, causing implant and abutment fractures.
In particular, 11° Morse Taper implants experience a 'wedge effect,' increasing the risk of microcracks and fractures. This issue is more common in smaller diameter fixtures (3.5mm or 4.0mm), while larger diameter fixtures are less susceptible to these risks.

The Birth of the Bluediamond Implant

The AnyRidge implant system, despite its advantages, faced occasional fractures.
To address this, thicker cores (3.8mm, 4.0mm) and the S2 prosthetic lineup for single posterior implants were introduced.
However, a system capable of handling strong occlusal forces was still needed.
The BlueDiamond Implant was developed to meet this need, combining Knife Thread, Core and Thread, Xpeed AnyRidge, with enhanced strength, robust connections, and broad compatibility, providing a fundamental solution to these challenges.

Strong like a 'DIAMOND'

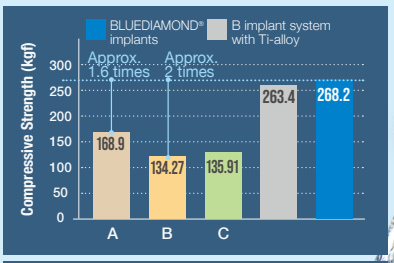
01 Biologic S-line
Beautiful & natural-looking esthetics

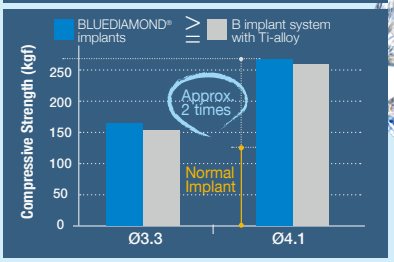
02 Designed for less bone stress
Maximum preservation of cortical bone

03 Higher initial stability in any bone condition
Deep thread & KnifeThread® design ensure high stability even in soft boneof cortical bone

04 Feel the X-FIT moment!
First with Octa, then with Keystone
More precise positioning & connection

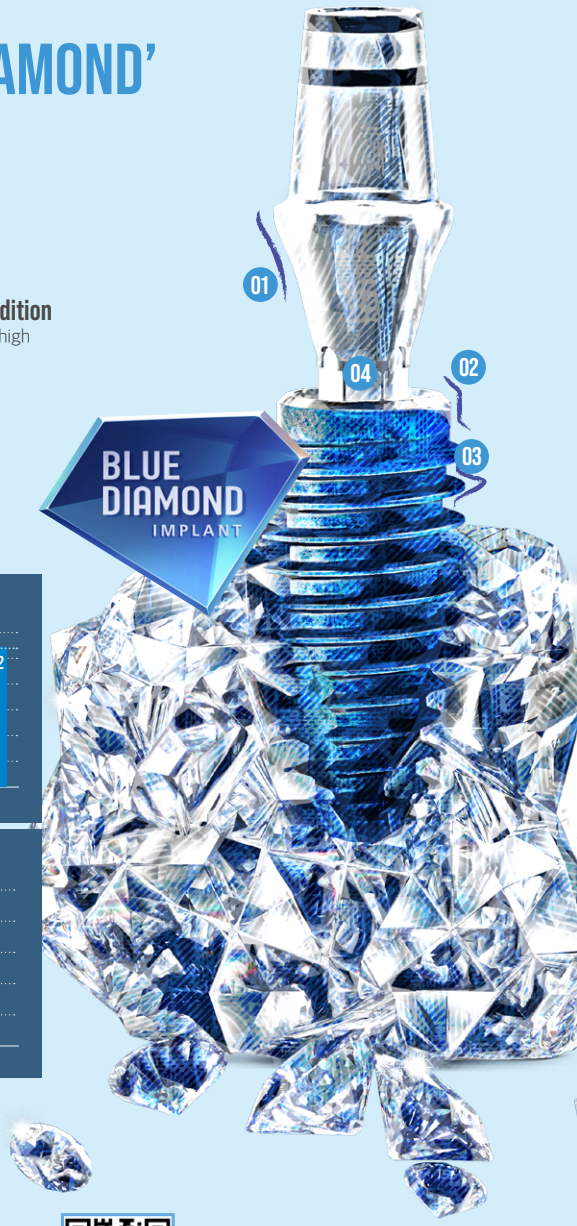
05 Targeting zero fractures
100% increase in compressive strength via scientific design





06 Pure titanium body
Long-term biological stability with over 20 years of clinical evidence

07 XPEED®
Nano bone matrix layer of Ca^{2+} incorporated S-L-A surface
Excellent, rapid & long-lasting osseointegration



More detailed information about BLUEDIAMOND IMPLANT
Learn more

CLINICAL CASE-❶ BLUEDIAMOND IMPLANT **Long-term follow-up cases**

BlueDiamond in the Mandibular Posterior Region

ø4.1 is twice as strong as ø4.0

Fig 1-1. 54-year-old male; bilateral maxillary and left mandibular posterior edentulism; severe periodontal disease in #34; significant bone loss in #44; bridge planned for #33-35 and #43-45; implants planned for remaining posterior edentulous areas.

Fig 1-2. Residual bone height ~3mm in bilateral maxillary posterior; window technique performed at #16, #17, #26, #27; Schneiderian membrane elevated; PRF used for sinus lifting; implants placed without bone graft materials.

Fig 1-3. Left mandibular posterior: conventional drilling; two BlueDiamond implants (4.1 × 10mm) placed; #36 – 70 Ncm, ISQ 82; #37 – 10 Ncm, ISQ 75.

Fig 1-4. ISQ values measured biweekly; #36 – stable at 82/82/83/83/83; #37 – increased from 75/77/79/80/80; final impressions taken at 8 weeks post-op.

Fig 1-5. Panoramic X-rays at 16 and 62 months post-final prosthesis confirmed all implants were well-maintained without bone loss.

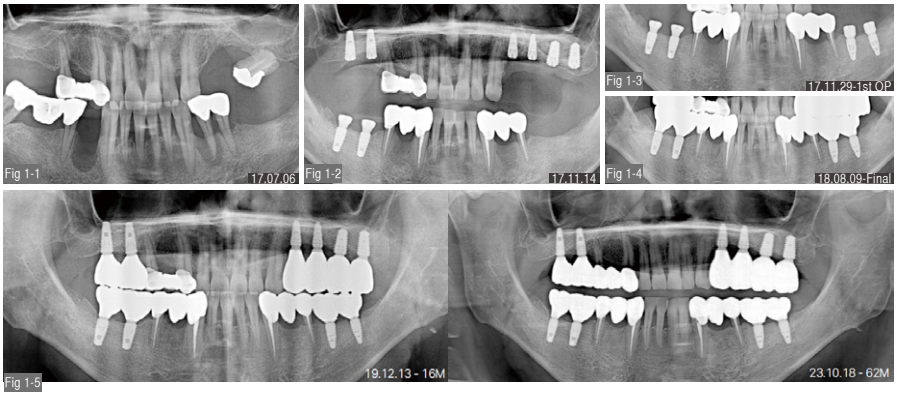
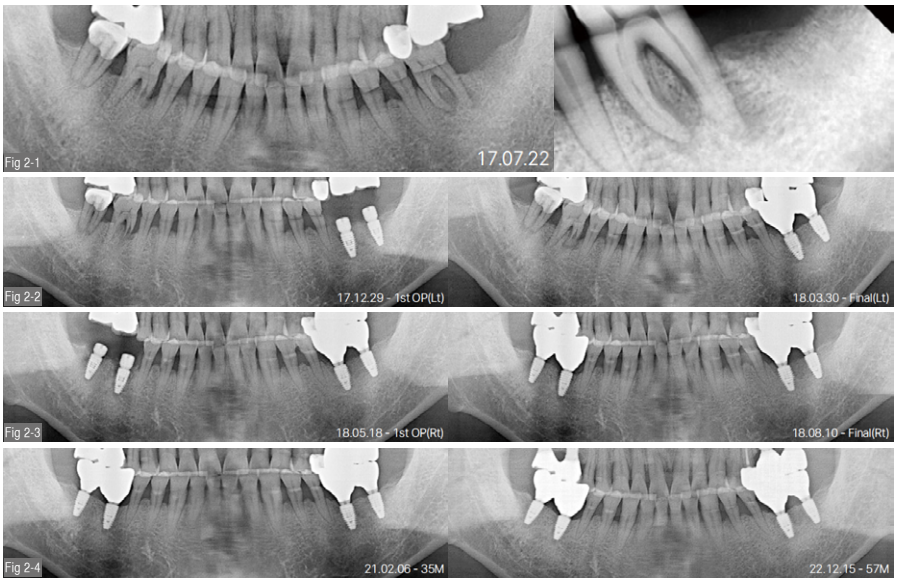


Fig 2-1. A 60-year-old male presented with discomfort in the mandibular posterior region. X-rays showed periapical lesions in #36, #26, and #27. Implants were planned for both sides, starting with the left.

Fig 2-2. After extracting #36, Blue Diamond 4.8x10mm implants were placed at #36 and #37. #36 had an initial stability of 35 Ncm and ISQ 75; #37i had 45 Ncm and ISQ 82.
3 months post-op, a customized zirconia abutment and full zirconia crown were placed.

Fig 2-3. #46 and #47 were extracted, and Blue Diamond 4.8x10mm implants were placed. #46 had 70Ncm and ISQ 85, while #47 had 70Ncm and ISQ 82, showing excellent initial stability post-extraction. 3 months post-op, a customized zirconia abutment and full zirconia crown were placed.

Fig 2-4. Panoramic X-rays taken 35 and 57 months after the final prosthesis placement show stable bone levels with no changes.



BlueDiamond in the Mandibular Anterior Region

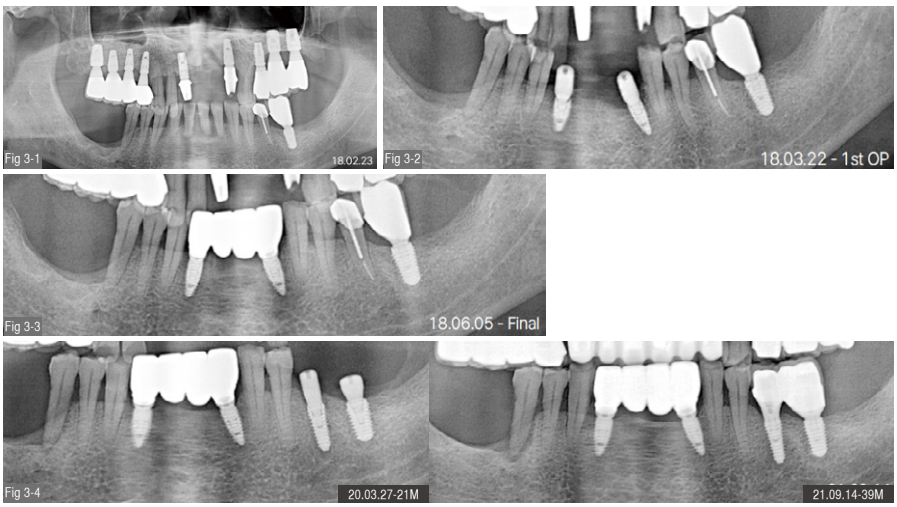
Use ø3.3 instead of ø4.0

Fig 3-1. A 44-year-old male patient presented with discomfort in the lower anterior teeth due to mobility caused by periodontal disease.

Fig 3-2. After extraction of the lower 4 anterior teeth, immediate implants were placed at sites #32 and #42. Conventional drilling was performed, and Blue Diamond 3.3x10mm implants were placed. The initial stability for implant #32 was 70 Ncm, with an ISQ of 72, while implant #42 showed 35 Ncm and an ISQ of 73.

Fig 3-3. After 8 weeks, with stable ISQ values, customized zirconia abutments and PMMA were placed, followed by the final prosthesis.

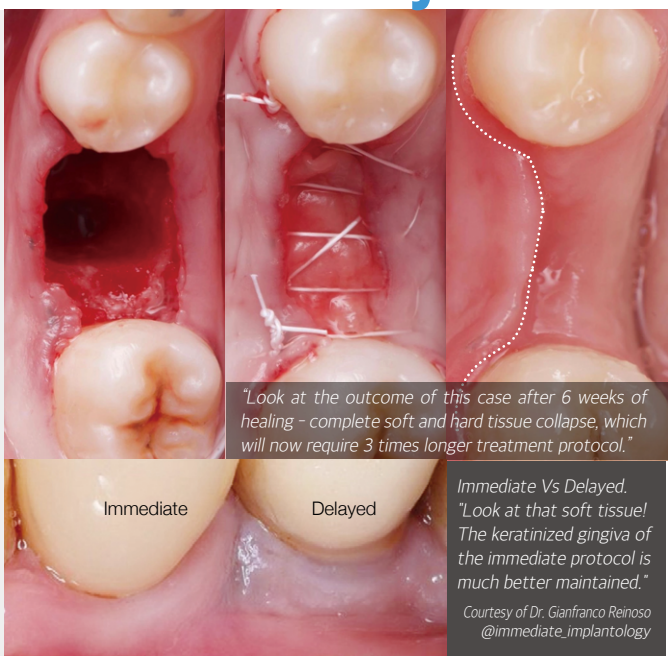
Fig 3-4. Panoramic and periapical X-rays at 21 and 39 months showed stable bone levels around the implants, with no bone loss.
The patient reported no discomfort or pain, and normal occlusion was observed.



Molar Extraction Site: **Immediate or Delayed?**

Immediate implant placement in molar extraction sites poses anatomical and biomechanical challenges due to wide, irregular sockets that hinder primary stability. Low bone density (D3-D4) in posterior regions, limited bone height near the sinus floor and IAN, and strong masticatory forces further increase complications. Additionally, thin buccal cortical bone is prone to resorption, risking implant stability.

Conversely, delayed loading can lead to bone and soft tissue resorption and longer treatment times, potentially reducing patient satisfaction and treatment efficiency.



"Look at the outcome of this case after 6 weeks of healing - complete soft and hard tissue collapse, which will now require 3 times longer treatment protocol."

Immediate Vs Delayed. "Look at that soft tissue! The keratinized gingiva of the immediate protocol is much better maintained."

Courtesy of Dr. Gianfranco Reinoso @immediate_implantology

Why do **immediate?**

Prosthetically driven immediate leverage the results :

- Outcomes are as predictable, using this technique, as with delayed implant placement
- Preserves bone volume
- Preserves soft tissue from collapse
- Treatment is more cost-effective for the patient
- Treatment is financially beneficial for the dentist
- Increases patient satisfaction thanks to shorter treatment and healing time And faster function and aesthetics
- Replicates the anatomical emergence profiles of natural teeth
- Saves inter proximal papilla & prevents food impaction
- Minimizes risk of peri-implantitis

Recent research shows that 90% of extraction sockets suitable for immediate implants are in the molar region.
To ensure predictable outcomes, considering biological factors is essential for informed decisions.

J Periodontal Implant Sci. 2021 Apr;51(2):100-113/ https://doi.org/10.5051/jpis.2005120256/pISSN 2093-2278·eISSN 2093-2286 / Jung-Ju Kim, Heithem Ben Amara, Ki-Tae Koo

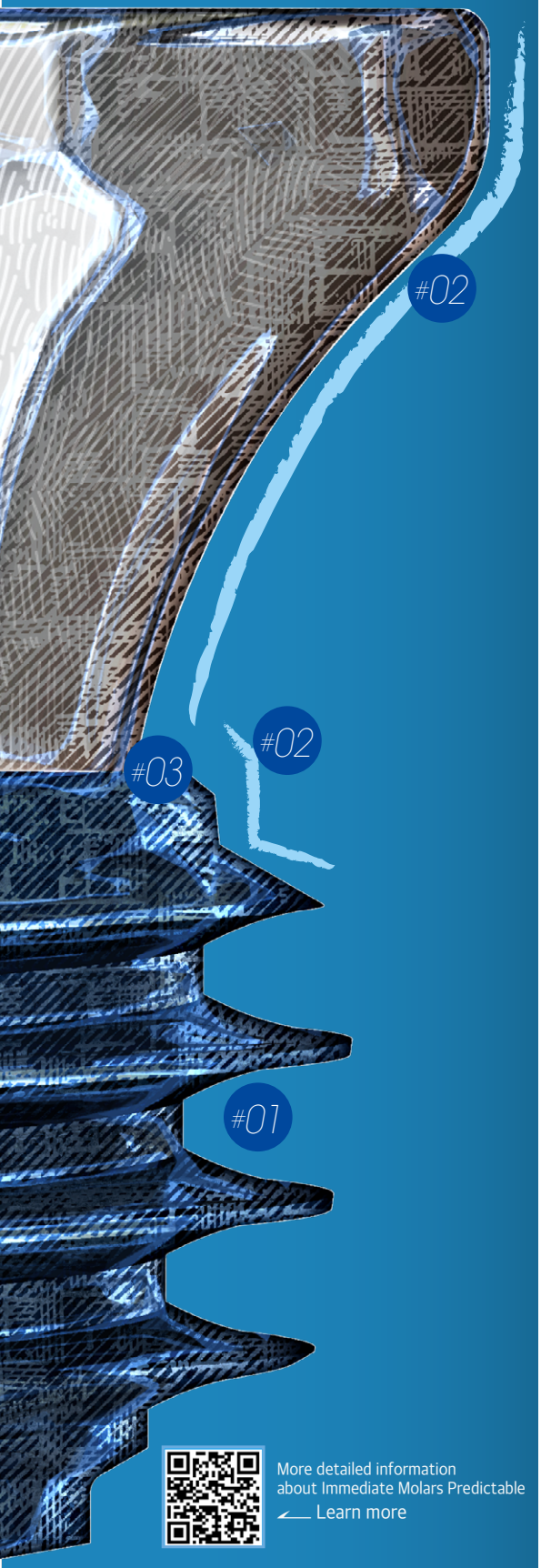
IMMEDIATE **MOLARS** PREDICTABLE?



Solutions for Successful Immediate Molar Implants:

- Implant Design
  - Utilize wide-diameter or tapered implants for enhanced primary stability
  - Employ optimized designs to improve bone engagement and osseointegration
- Surgical Techniques
  - Apply strategic under-drilling in softer bone to increase ITV without excessive compression
  - Use Guided Bone Regeneration (GBR) with bone grafting and membrane techniques if primary stability is insufficient
- Prosthetic Approach
  - Consider immediate provisionalization when stability conditions are met (ITV > 45 Ncm, ISQ > 70) for controlled loading

AnyRidge and BlueDiamond system
makes it easier!

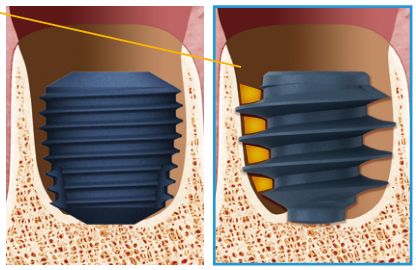


More detailed information about Immediate Molars Predictable
Learn more

Features to consider before prosthetically driven molar immediate

#01 Preserve the jumping distance for optimal bone remodeling

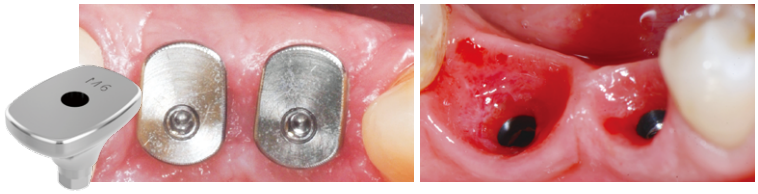
To facilitate effective bone remodeling with a proper blood supply around the implant, it is crucial to ensure adequate space.



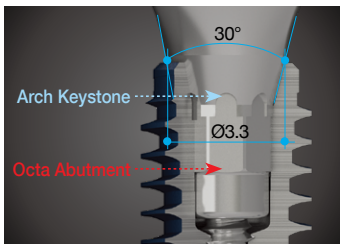
Other wide implants **MegaGen wide implant**

#02 A thread-less upper section of the fixture & an anatomical S-line prosthetic will promote better peri-implant biotype and a thicker mucosa

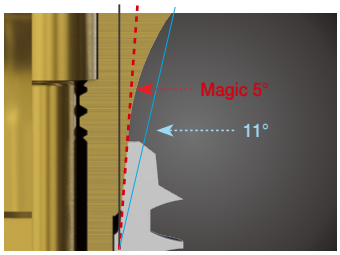
preserving an excellent emergence profile for a healthy and aesthetic gingiva



#03 A strong connection is essential to prevent failure due to movement and bacteria



BlueDiamond: unique X-FIT™ gives greater joint stability.



AnyRidge: unique Magic 5° connection gives a perfect hermetic seal.

Company	System	Connection	Mean ± SD(mm)
Dentsply Sirona	Astra Osseospeed	22°	0.53 ± 0.81
Dentsply Sirona	Ankylos	11.4°	0.13 ± 0.26
Nobel Biocare	Brånemark MK III, Nobel Replace, Nobel Speedy	External, 0°, External	0.94 ± 1.05 or >0.41 ± 1.11
	Nobel Active	26°	0.41 ± 1.11
Straumann	SLActive	-	0.57 ± 0.84
	SLA	-	1.26 ± 1.19

[Marginal bone loss after 1 year of loading for different types of implants]

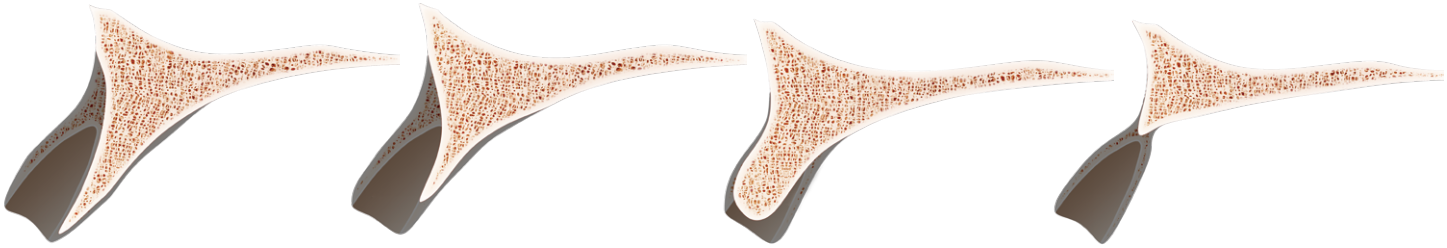
The less stable the connection, the more marginal bone loss (MBL).

Clinical Oral Implants Research/Volume 28, Issue S14/https://doi.org/10.1111/clr.253_13042



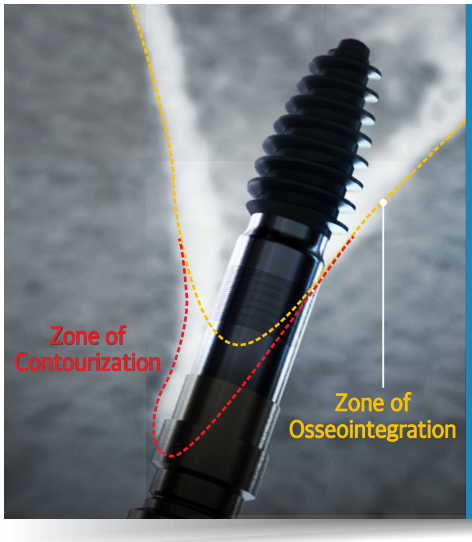
Perception 2

Rethinking Bone Graft: Adapting to Nature Rather Than Fighting It



Alveolar bone resorption is an inevitable biological process, particularly within the first 6 months after extraction. In more than 80% of cases (Class I resorption), labial bone loss occurs, leaving only the palatal plate, which complicates implant placement. Even with bone grafting, resorption continues, leading to peri-implant bone loss and instability.

For years, implant dentistry has focused on preserving alveolar bone through methods such as immediate implant placement, GBR, and ridge augmentation. However, none of these approaches can fully prevent bone resorption. Even successful ridge augmentation often results in continuous bone loss after 10 years, leading to complications.



REDEFINING CONCEPT 2

Wouldn't focusing on implants designed to align with physiological processes, rather than opposing nature, lead to higher predictability and long-term success?

It's better to utilize 'Existing bone' rather than 'Regenerating lost alveolar bone' for implant!

With this in mind, MegaGen has developed and adopted the use of basal bone, a stable human skeletal tissue that maintains its integrity over time, along with adaptive implant designs.

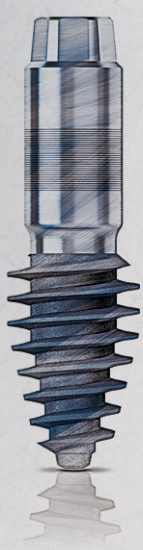
Redefining Anterior Atrophic Ridge Treatment:

- Acquires strong stability and osseointegration from unresorbed basal bone, not atrophied alveolar bone.
- Implant body design improves post-care effectiveness.
- Long-term stability is secured, even without the alveolar bone.



EASILY OVERCOME EXTREME DIFFICULTIES!

Yes, ARi® can!



01 Strong joint stability
10° external conical hex
provides strong bonding with abutment

02 Soft Tissue Friendly Design
Rapid regeneration of soft tissue by facilitating generation and proliferation of HGF*-cells and subsidence prevention function
(*Human Gingival Fibroblast)

03 Guaranteed strong initial stability from basal bone without bone volume restoration
· Deep thread & KnifeThread® design for smooth implantation without bone destruction
· Increased surface area
· Stable stress distribution

04 Favorable surface for prevention and management of peri-implantitis
Minimizes adhesion of foreign substances around implants, and easy removal of foreign substances if it occurs (Heights: 4/6/8/10mm)

05 High strength guaranteed even in narrow zones
200% (2-fold) improvement in strength
(compared to our implant system for the narrow zone), and straight body design without stress concentration

06 Effective prevention of peri-implantitis
Significantly lower possibility of exposure to oral bacteria due to deep placement of rough surface

07 XPEED® Strong osseointegration force in basal bone maintains stability even if alveolar bone is lost
Incorporating calcium ions that create bone on S-L-A surface increases rate of osseointegration by more than 15%.
Blue surface color is evidence of calcium ions!

More detailed information about ARi

Learn more

CLINICAL CASE-❶ ARi

ARi® enables implant placement in the desired location even in an extremely thin ridge anterior region without bone augmentation, and secures sufficient fixation and stability, so there is no concern about complication treatment.

Fig 1. A female patient in her early seventies, physically healthy, experienced instability with her upper denture.

Fig 2. Pre-surgery CBCT state / Flap detached. The anterior region showed a very thin ridge. Could implants really be considered in such a ridge? This case required accepting ridge augmentation, which involved a long treatment time and a very high risk of complications.

Fig 3. The plan involves placing 6 to 8 implants, evenly distributed across the available space.

Fig 4. It is always better to choose 'Palatal positioning' in the Upper Thin Ridge for long-term stability. In this case, 4 ARi (3.2) 4.5x7.0(6) implants and 2 BlueDiamond implants were placed, totaling 6 implants in ideal positions. The Knife Thread of the ARi implant smoothly integrated into the thin ridge without causing any damage, ensuring optimal stability and positioning.

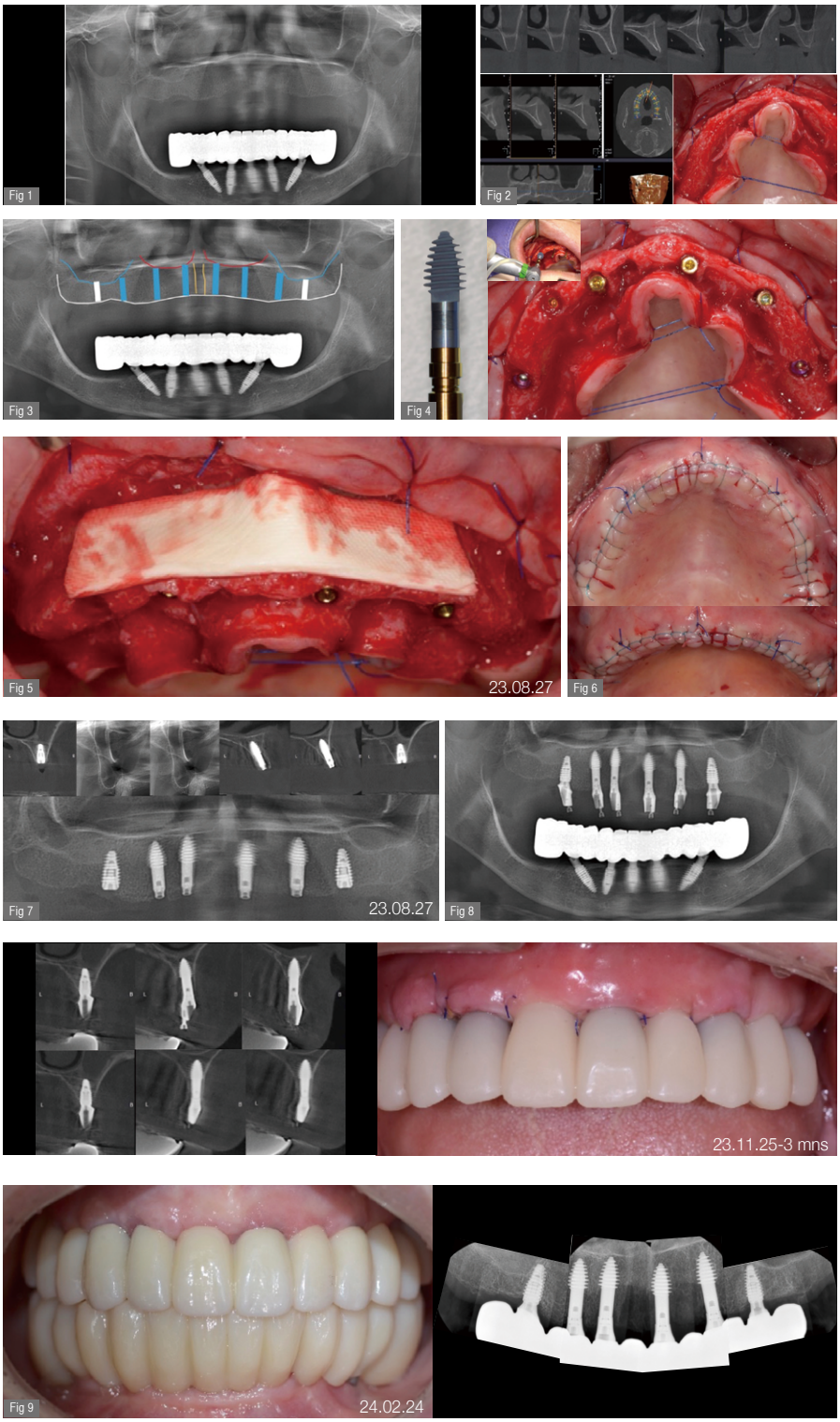
Fig 5. Ossix Volumax was used to create the contourization. This material ensures the desiredvolume and contour in the implant area. by performing the surgery in a simple manner, the chance of early complications caused by the surgery is almost eliminated.

Fig 6. Since only minimal augmentation (contourization) was performed using Ossix Volumax, the suturing could be done easily and simply without the need for a separate periosteal releasing incision.

Fig 7. Post-surgery panoramic and CBCT radiographs show that all implants in the posterior and anterior regions were placed in stable positions. Since the fixture threads of all implants were securely integrated into the bone, a secondary surgery was scheduled approximately 10 weeks later.

Fig 8. Custom abutments and PMMA temporary restorations were placed on the entire maxillary implants. The condition was stable both aesthetically and functionally.

Fig 9. Approximately 6 months after the maxillary surgery, the final prostheses were placed on both the upper and lower implants. The FP1 (Functional Prosthesis 1) was successfully achieved on a thin ridge, utilizing a minimally invasive approach and a short treatment period. This was accomplished without sacrificing the integrity of the thin ridge or requiring heavy GBR.



CLINICAL CASE-❷ ARi

ARi® in the Lower Anterior Extremely Thin Ridge in Full-Mouth Mandibular Implants.

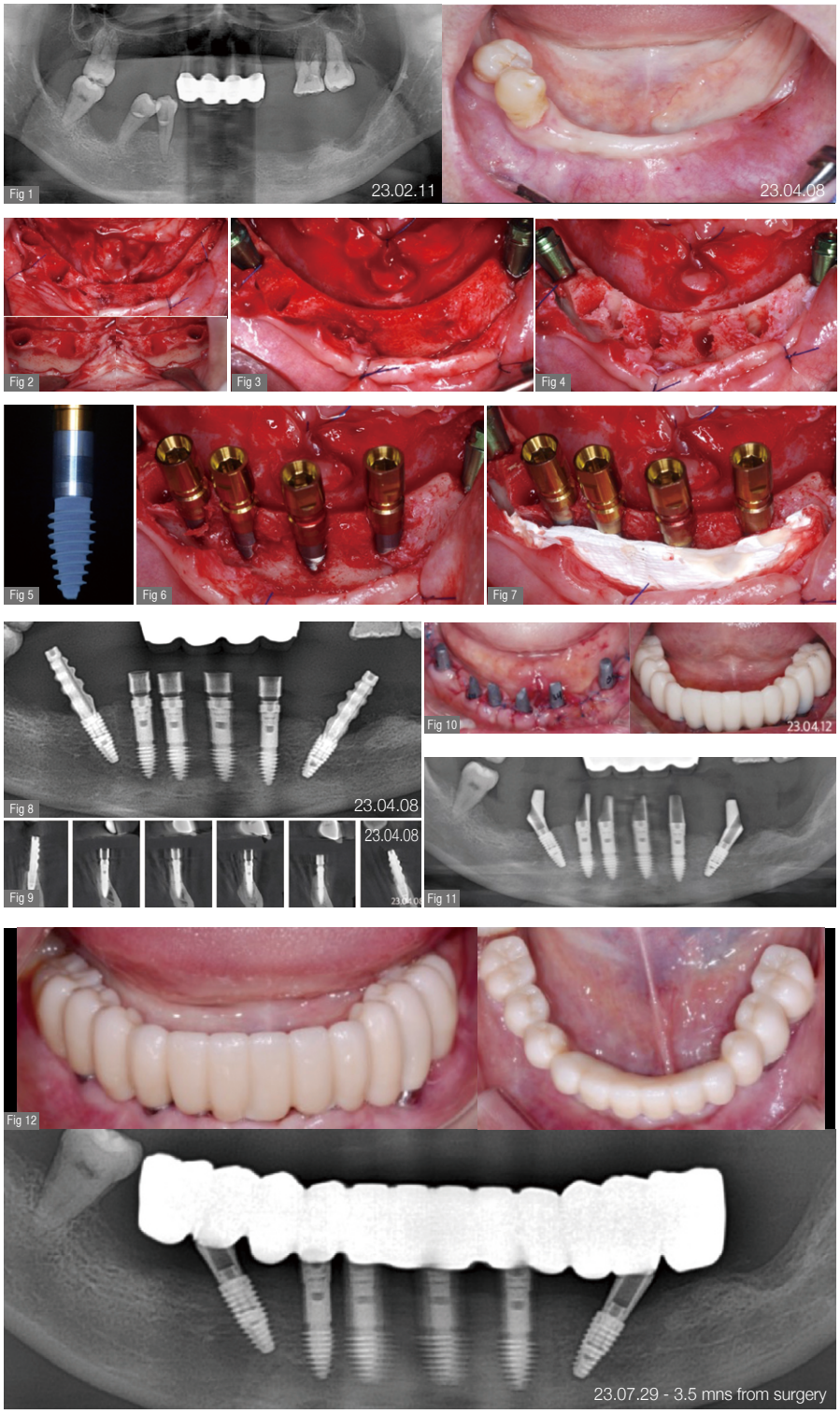


Fig 1. A woman in her late 40s presented with multiple tooth loss and chewing difficulties due to severe periodontal disease. The mandibular anterior region had a thin ridge, but vertical dimension was maintained in both jaws. The upper jaw was to be restored with a partial denture, while the lower jaw was treated with All-on-6 implants to address vertical dimension loss in the left posterior region.

Fig 2. The 2 right premolars were extracted, and a flap raised. Identifying the mental foramen location is key for All-on-X, after which placing tilted implants at 30-45° completes half the procedure.

Fig 3. One tilted implant was placed on each side (left and right).

Fig 4. 4 straight implants were placed between the two tilted implants. Due to the very thin alveolar ridge in the anterior area, a 3.5mm ARi fixture was chosen.

Fig 5. After drilling with a 3.3mm drill, the ARi fixture provided excellent initial stability. The bone density was D2, and an ARi (2.8) 3.5x9.0(6) fixture was placed to cover the labial defect.

Fig 6. Four ARi implant fixtures were placed. A 5-6mm dehiscence occurred on the labial side, but it was limited to the machined cuff.

Fig 7. To prevent potential visibility through the thin biotype gingiva in the future, a layer of Ossix Volumax (10x40mm) was placed.

Fig 8. Post-surgery panoramic radiograph. Immediately after the surgery, impressions were taken to prepare provisional prostheses.

Fig 9. Post-surgery CBCT radiograph. All ARi implant threaded parts were properly positioned within the alveolar bone.

Fig 10. Four days after the surgery, custom abutments and a PMMA bridge were placed.

Fig 11. Panoramic image when custom abutments and PMMA bridge were placed.

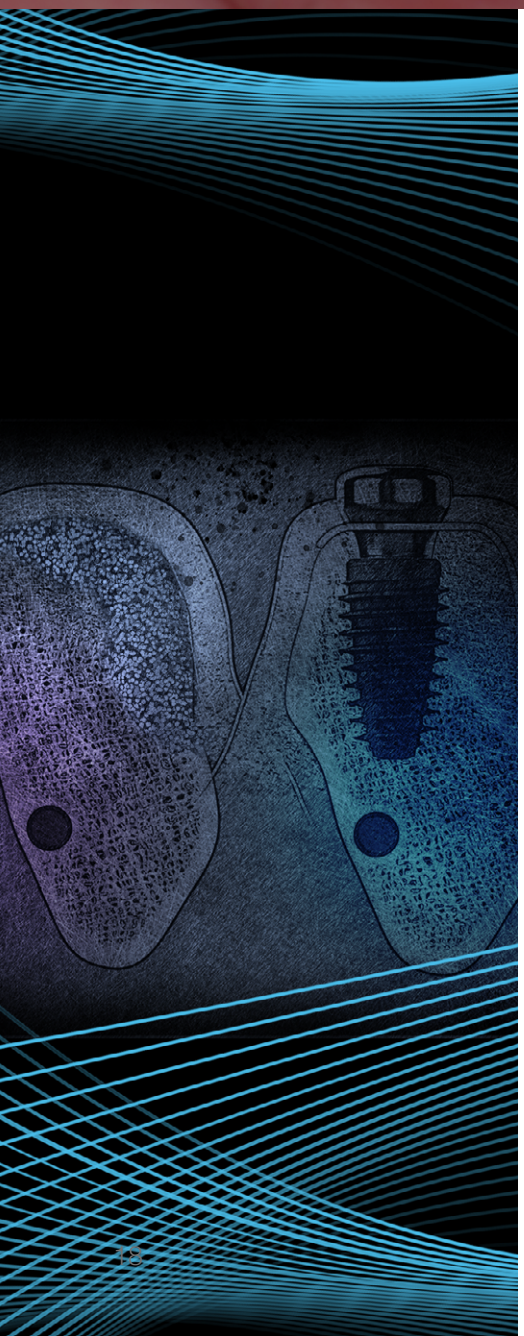
Fig 12. The final prosthesis was placed approximately 3 months later, after the soft tissue stabilized.



Perception 3

How Have We Traditionally Managed Ridge Defects?

(Thin Ridge or Socket Defect)



A Review of Conventional Approaches

Delayed Approach for Large Buccal Wall Defects

For significant buccal wall defects, a delayed approach is often used, allowing 6-8 weeks for soft tissue healing followed by GBR surgery (3-6 months of healing). This method typically requires three surgeries and extends treatment to 6 months or more.

Ignoring Small Defects

For minor defects, some clinicians skip GBR, assuming stability is sufficient. However, untreated defects may worsen over time, potentially compromising long-term implant success despite initial stability.

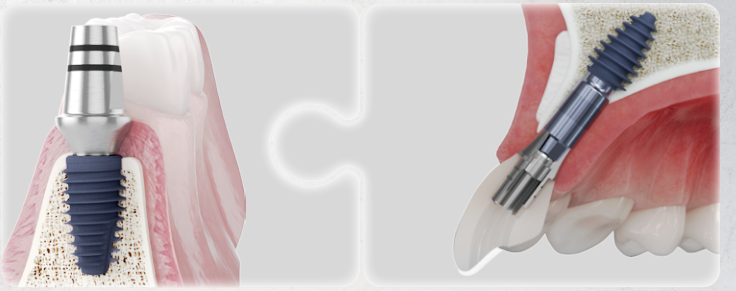
REDEFINING CONCEPT ❸

What if we rethought ridge defects by designing implants that minimize the need for extensive bone augmentation and reduce plaque buildup and bacterial infection in defect areas?

That's why MegaGen reimagined the solution. By combining the ARi concept for anterior atrophic thin ridges with the proven strength of Bluediamond, which is twice as strong, and collaborating with Prof. Tomas Linkevicius's ZBLC concept, we created a new implant specifically for defective posterior regions.

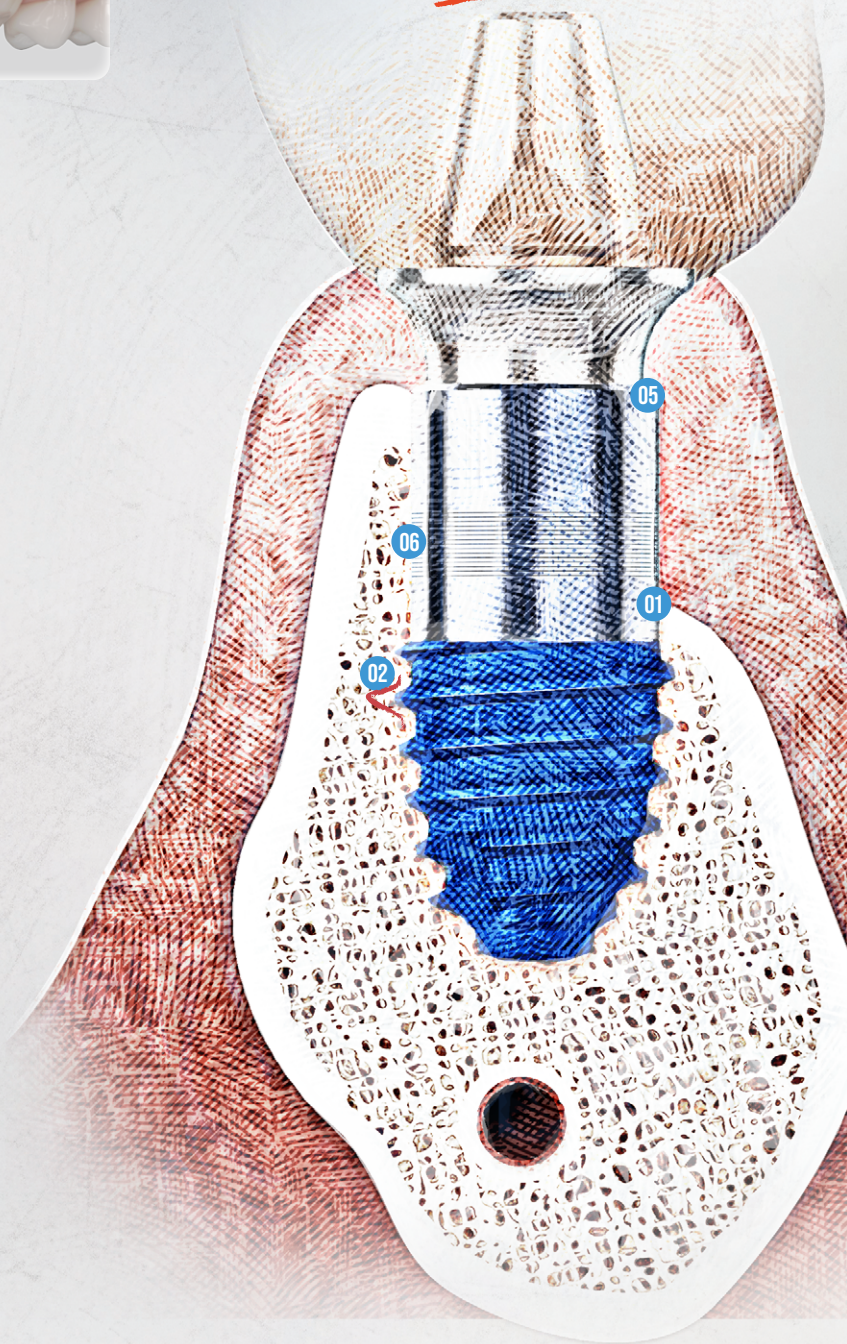
Redefinding Special Solution for Molar Defects:

Collaboration of BLUEDIAMOND implant strength & ARi implant concept!



SPECIAL SOLUTION FOR MOLAR DEFECTS!

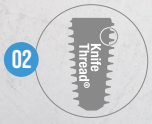
BD Cuff®





Minimizing bone loss

If the distance from the gingiva margin to the implant platform (Rough Surface)is 4 mm or more, crestal bone loss is minimized.



Higher initial stability without bone regeneration

Design ensure high stability even in soft bone



Effective prevention of peri-implantitis

Significantly lower possibility of exposure to oral bacteria due to deep placement of rough surface



Feel the X-FIT moment!

First with Octa, then with Keystone
More precise positioning & connection



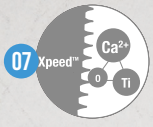
Targeting zero fractures

100% increase in compressive strength via scientific design



Soft Tissue Friendly Design

Rapid regeneration of soft tissue by facilitating generation and proliferation of HGF*-cells and subsidence prevention function
(*Human Gingival Fibroblast)



XPEED®

Strong osseointegration force in basal bone maintains stability even if alveolar bone is lost

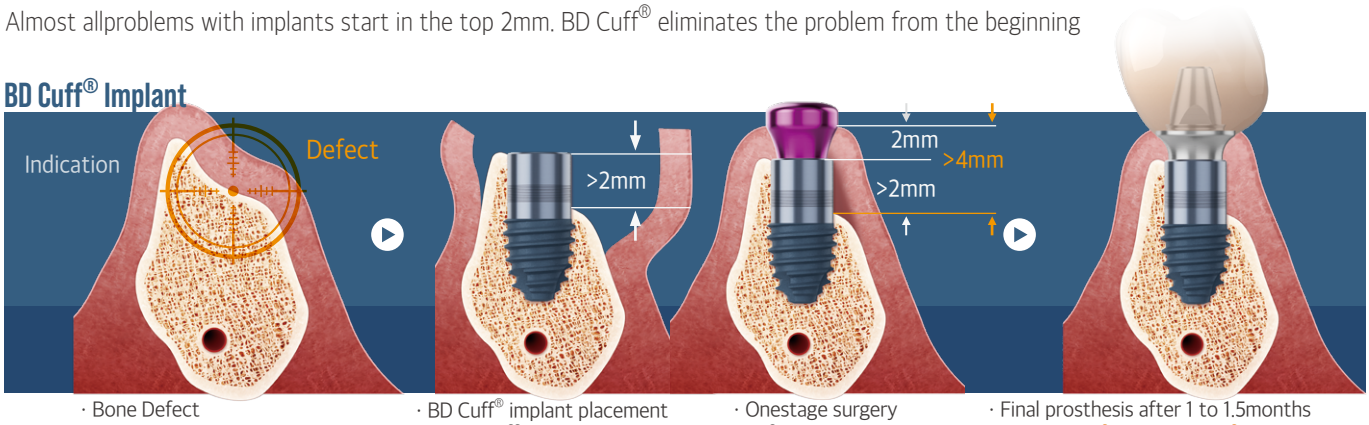
Incorporating calcium ions that create bone on S-L-A surface increases rate of osseointegration by more than 15%.
Blue surface color is evidence of calcium ions!

Special Solution for **Molar defects!**

Easier, Faster and More Comfortable from Complications in Lower Posterior

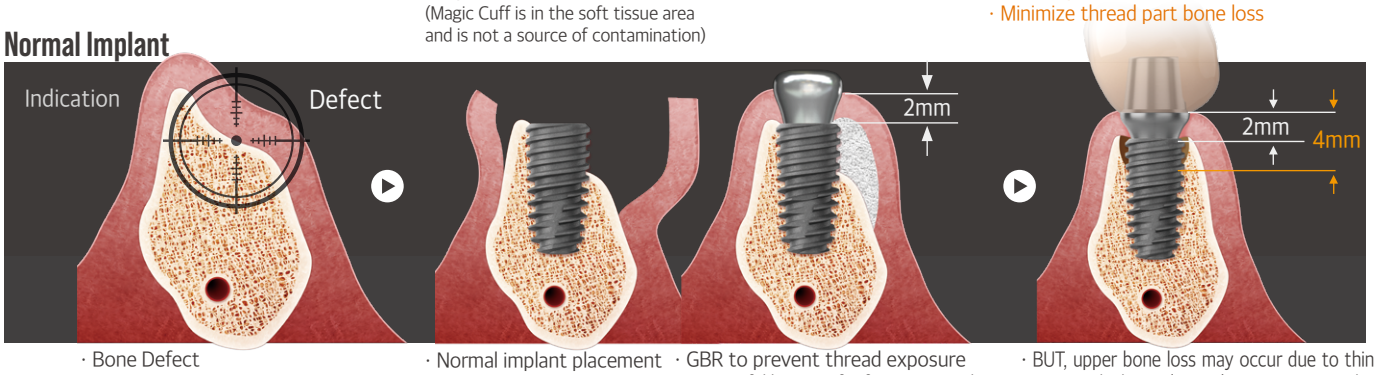
Almost allproblems with implants start in the top 2mm. BD Cuff® eliminates the problem from the beginning

BD Cuff® Implant



- Bone Defect
- BD Cuff® implant placement
- Magic Cuff > 2mm
  (Magic Cuff is in the soft tissue area and is not a source of contamination)
- Onestage surgery
- Soft tissue > 4mm
- Final prosthesis after 1 to 1.5months
- Securing soft tissue area of 4mm or more
- Minimize thread part bone loss

Normal Implant

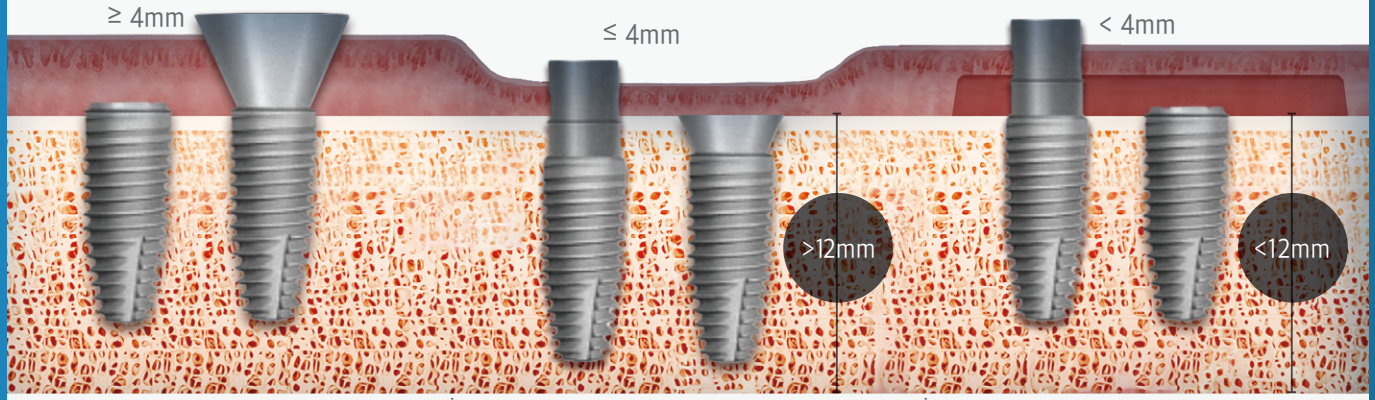


- Bone Defect
- Normal implant placement
- GBR to prevent thread exposure
- Successful bone graft after 5~6 months
- BUT, upper bone loss may occur due to thin Gingiva thickness (<2mm) in posterior teeth.
- After 5~6 months, successful bone graft
  → Causes thread part contamination and peri-implantitis

The BD Cuff design, based on the Zero Bone Loss concept by Prof. Tomas Linkevicius, features a 2mm machined cuff that creates a 4mm soft tissue zone when placed in 2mm thick gingiva, preventing bone loss beyond the threaded portion. This approach ensures long-term bone stability and aligns with the Zero Bone Loss principles without requiring deep subcrestal placement.

Another important indication **Zero Bone Loss Concept** (ZBLC) *- by prof. Tomas Linkevicius*

Crestal bone loss is minimized if the distance from the Gingiva Margin to the Implant Platform (Rough Surface) is more than 4mm!



INDICATION 1	Adequate vertical soft tissue	**INDICATION 2**	Inadequate vertical soft tissue and adequate bone height	**INDICATION 3**	Inadequate vertical soft tissue and adequate bone height
SOLUTION 1	Epicrestal placement	**SOLUTION 2**	Subcrestal placement	**SOLUTION 3**	Soft tissue augmentation and epicrestal placement

CLINICAL CASE-❶ BD Cuff

BD Cuff in Thin Ridge of the Mandibular Pontic Region

Fig 1. An elderly female patient in her mid-80s required implant treatment due to the loss of abutment teeth supporting the bridge in the right mandibular posterior region.

Fig 2. Intraoral and CBCT radiographic images revealed that the pontic area of the long-edentulous bridge site had developed a significantly thin ridge over time.

Fig 3. Upon flap elevation, it was confirmed that the first molar region also exhibited a significantly thin ridge condition.

Fig 4. In cases of thin ridges, immediate drilling can be challenging due to the risk of slippage. To improve drilling accuracy and stability, a small amount of bone can be removed at the drilling point using a rongeur or similar instrument, making the drilling process significantly easier and more controlled.

Fig 5. The osteotomy for three implants was completed, including the extraction socket of the second premolar. In the second molar region, the ridge had sufficient width, preventing dehiscence. However, in the extraction socket of the second premolar and the thin ridge area of the first molar, dehiscence occurred.
Under conventional treatment protocols, active GBR (Guided Bone Regeneration) would typically be required to address these defects.

Fig 6. The three fixtures have been successfully placed. The BD Cuff implant in the second premolar extraction socket effectively covers the socket defect with its machined cuff. Additionally, the BD Cuff in the first molar region ensures that even if the thin buccal cortical bone undergoes resorption, the threads will remain covered, allowing for healthy and long-term functional stability.

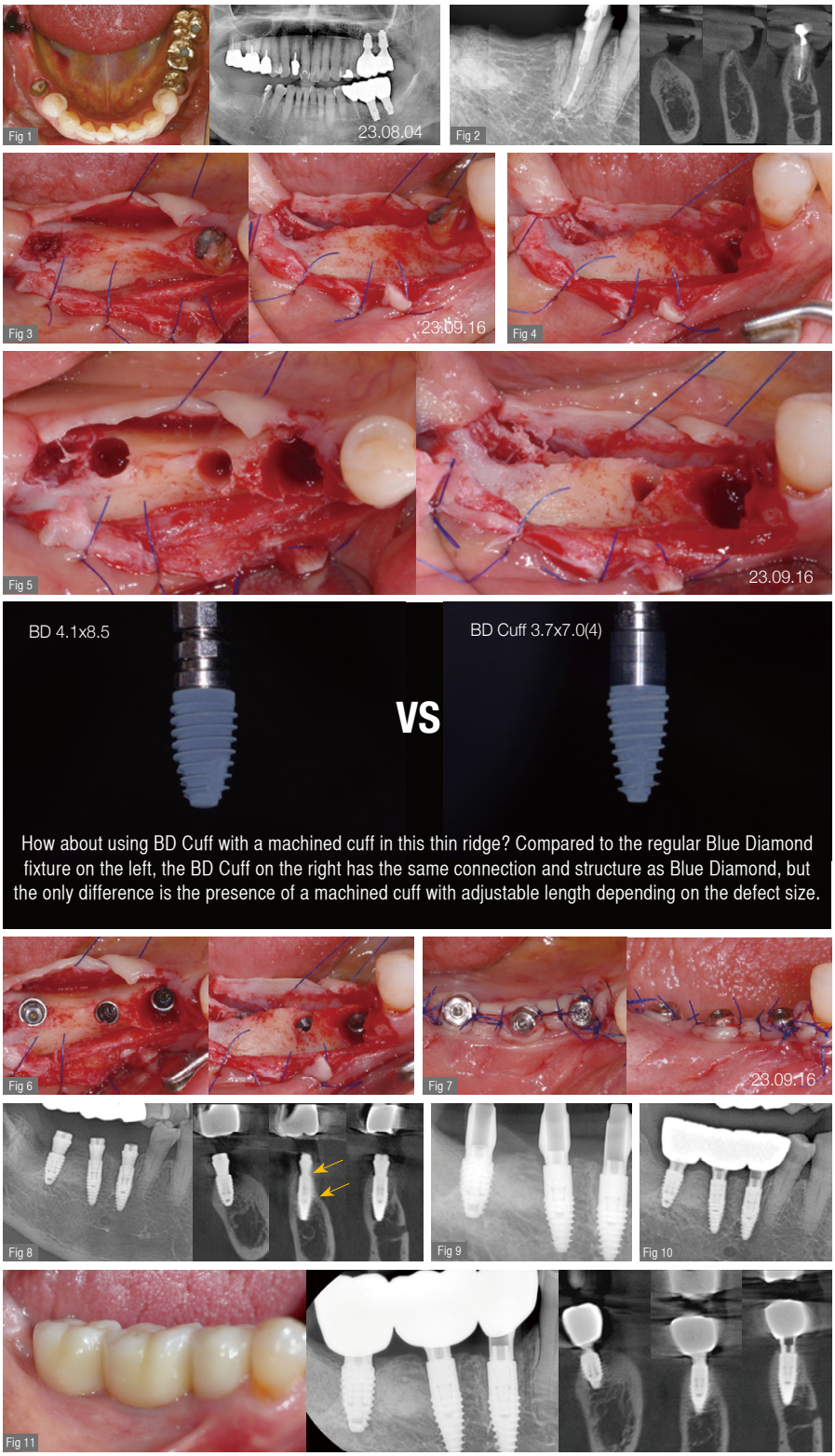
Fig 7. A small amount of allograft was placed in the second premolar extraction socket defect, while the first molar region was left untreated and simply sutured. If the patient's gingival biotype had been thin, an additional material like Ossix Volumax would have been used.

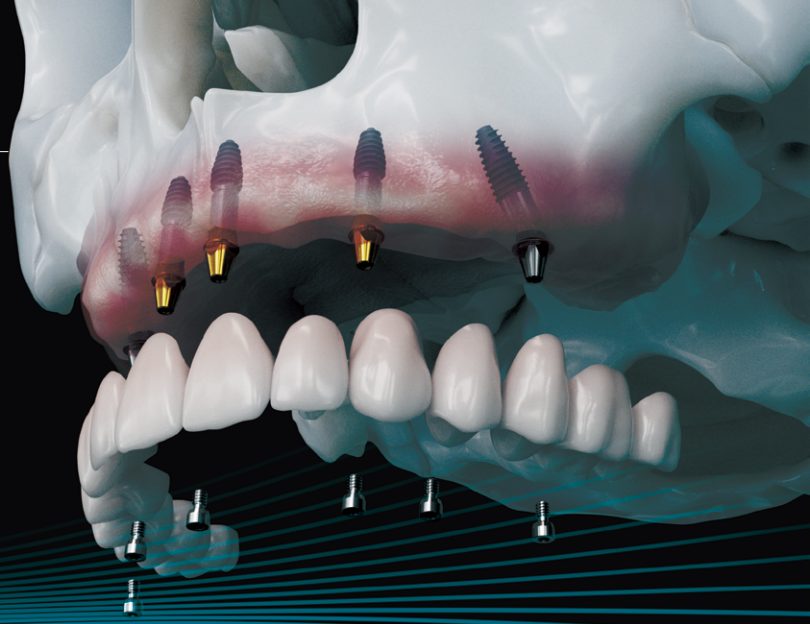
Fig 8. Postoperative panoramic and CBCT radiographs revealed minimal buccal bone thickness around the first molar implant, with the machined cuff of the BD Cuff occupying this space (indicated between the two arrows).

Fig 9. After approximately eight weeks, scanning was performed for impression-taking, followed by the placement of a customized abutment based on the BOPT (Biologically Oriented Preparation Technique) concept and a PMMA provisional bridge.

Fig 10. The provisional restoration was used for about three weeks, after which the final prosthesis was delivered.

Fig 11. Intraoral Clinical Images, Radiographs, and CBCT Scans at Three Months After Loading
Although this represents a relatively short follow-up period, the clinical and radiographic evaluation at three months post-loading showed comparable outcomes to conventional Blue Diamond (BD) implant cases, demonstrating no signs of compromise in stability or bone response.





Perception
4

Is the Multi-Unit Abutment (MUA) still the best prosthetic option for full-mouth implants?

A Game-Changer for Edentulous Cases: Overcoming Bone Limitations with ARi, BD, and BD Cuff

The BlueDiamond, BD Cuff, and ARi solutions offer a new concept and approach that adapt to bone anatomy (nature), reducing surgical complexity and ensuring predictable results and long-term stability, even in thin and defective ridges, without the need for excessive bone grafting.

Innovation in edentulous implant solutions!

With the development of ARi, BD, and BD Cuff implants, full-arch implant placement has evolved to overcome the limitations of bone quantity and distribution. These systems enable optimal implant positioning based on even force distribution, rather than being constrained by the existing bone conditions.



But once the implants are placed, the next critical question arises —how should the prosthetics be designed?

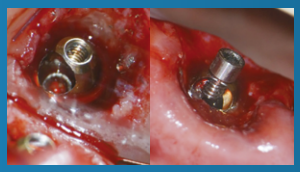
REDEFINING CONCEPT 4

We have developed a new optimized abutment system with a special design to overcome the limitations of the existing MUA.

For years, the industry standard for All-on-4 and full-arch restorations has been the Multi-Unit Abutment (MUA), which helps correct implant angles placed at varying inclinations.

However, MUA has some inherent weaknesses:

- A small contact area between the abutment and the final compromising long-term stability.
- Narrow-diameter prosthetic screws, which increase the loosening and fractures over time.



Redefinding Prosthetic solution for full-mouth implants:

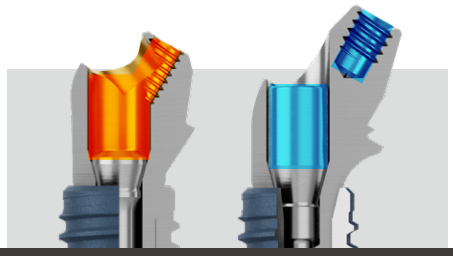
Optimized abutment system, designed to overcome the limitations of MUA (All-on-X Abutment)

To address these issues, an optimized abutment system was needed. This led to the creation of the AXA (All-on-X Abutment). AXA is a new advanced abutment system specifically designed to overcome the limitations of MUA. It ensures:

- A stronger connection,
- Greater load distribution,
- Improved longevity.

By combining anatomically adaptive implant placement with a structurally enhanced abutment system, AXA is the ideal solution for modern edentulous cases, offering improved prosthetic stability and better long-term outcomes.



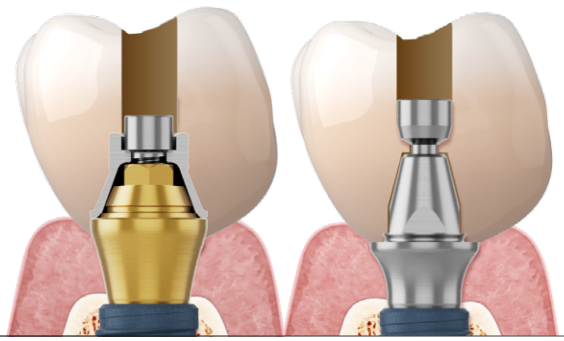




- Post height for Strong prosthetic retention
  2.2mm < **4.0mm**
- Screw fracture? Wide screw diameter
  M1.4 < **M1.6**
- No Screw loosening Fully Screw-Retained
  1.5 thread < **3.5 thread**
- Independent Screw Hole
  Special Screw for hole sealing

Truly Cement less

Directly connect the crown and the screw without intraoral and outra-oral cementation



A diverse selection of angled abutment

Reduces the chair time by enabling direct connection to crowns and enhances crown fabrication convenience



CLINICAL CASE-❶ AXA Abutment

AXA Abutment & Screw-Retained Prosthetics in Full-Mouth Reconstruction

Fig 1. This case involves a female patient in her early 70s who presented with severe masticatory dysfunction. She had been using a partial denture in the maxilla, relying on a single remaining tooth, while the mandible retained only anterior and premolar teeth. The protrusion of the mandibular anterior teeth further compromised the stability of her maxillary denture, exhibiting the classic features of combination syndrome.

Fig 2. ICBCT cross-cut views from the right to left mental foramen revealed that most of the anterior teeth were floating, with the alveolar bone axis significantly labioversioned. If implants were placed following the existing alveolar bone angle, significant prosthetic complications would arise. This would be even more problematic if maxillary implant treatment were needed in the future.

Fig 3. All remaining teeth were extracted

Fig 4.flap elevation, the labial plate of the alveolar bone was confirmed to be highly protruded, as seen in CBCT. A direction indicator was used to assess the lingual bone contour and determine the optimal implant axis. Instead of following the excessively labioversioned bone, implant placement was planned according to the green guideline, ensuring better prosthetic positioning.

Fig 5. Although the alveolar bone was inclined and the underlying ridge was thin, these structures played a critical role in defining the gingival line. Therefore, instead of removing the entire alveolar bone, ridge trimming was selectively performed to reduce excessive labial protrusion, allowing for more favorable implant positioning while maintaining soft tissue support.

Fig 6. Two tilted implants were placed anterior to the mental foramen at an angle of approximately 30-40°, followed by the connection of angulated AXA abutments.

Fig 7. For the anterior region, implants were positioned based on the lingual edge of the ridge, ensuring proper prosthetic alignment as shown in the image

Fig 8. Since this region had excellent bone density, ARi (2.8) 3.5 × 9.0 (4) fixtures were selected for placement.

Fig 9. After removing the fixture mounts, straight AXA abutments were connected

Fig 10. To reinforce the thin labial plate, a single layer of Ossix Volumax was applied to cover the exposed fixture, and scannable healing caps were attached

Fig 11. The excessive gingival tissue containing inflammatory components was trimmed, and a simple suturing technique was performed.

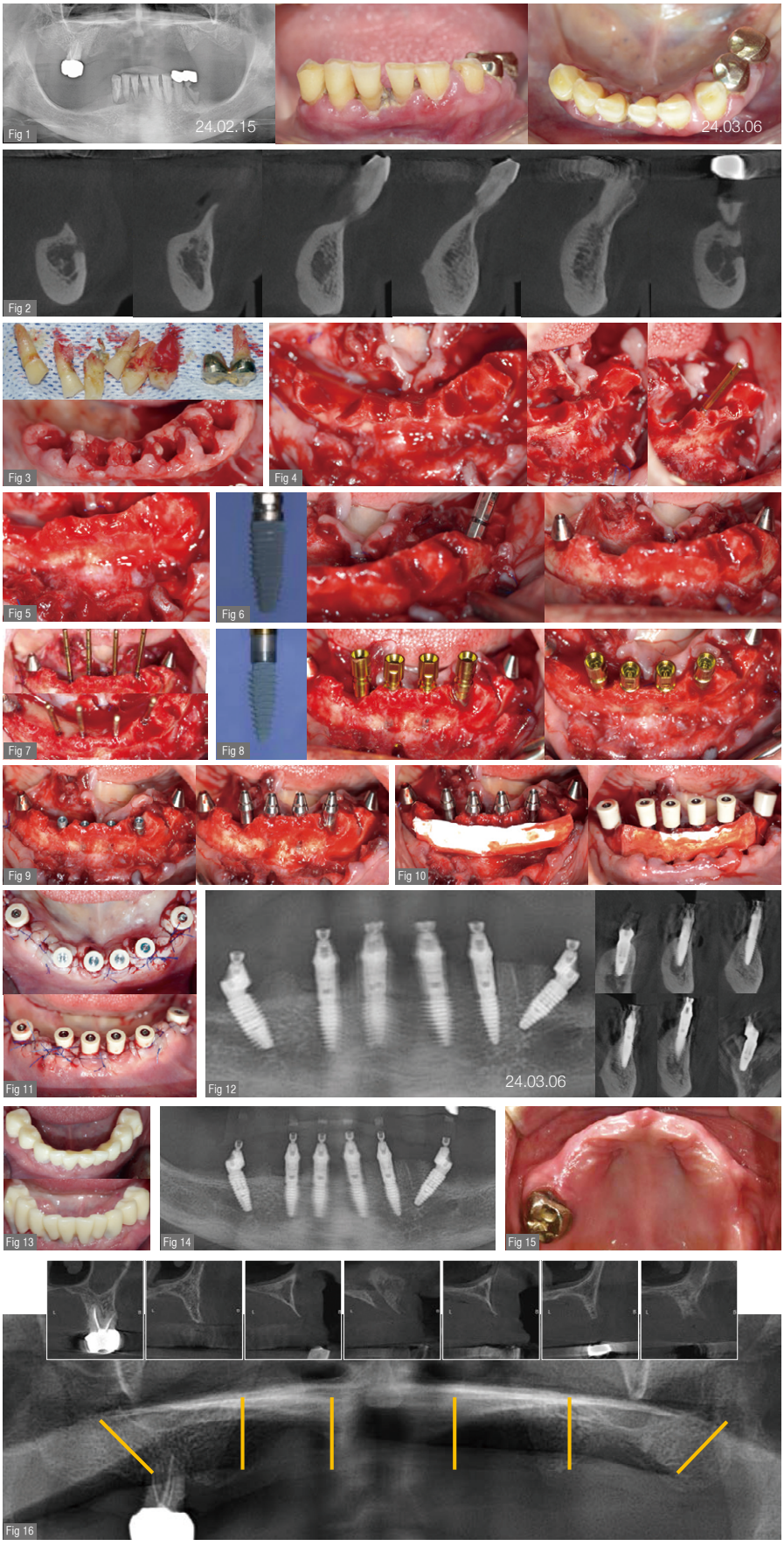
Fig 12. Postoperative panoramic and CBCT radiographs

Fig 13. Approximately two weeks later, a screw-retained pure PMMA bridge was delivered,

Fig 14. A panoramic radiograph taken after PMMA bridge placement

Fig 15. About a month after the mandibular surgery and temporary prosthesis placement, the patient inquired about maxillary implant treatment. The mandibular procedure was not particularly challenging, and the fixed provisional restoration gave the patient confidence in implant-supported prosthetics.

Fig 16. CBCT imaging revealed that the anterior region had a very thin ridge, leading to the consideration of the ARi system. For the posterior region, where there was relatively sufficient bone, a plan was made to place two tilted implants in the tuberosity. The availability of ARi implants made this implant distribution possible.



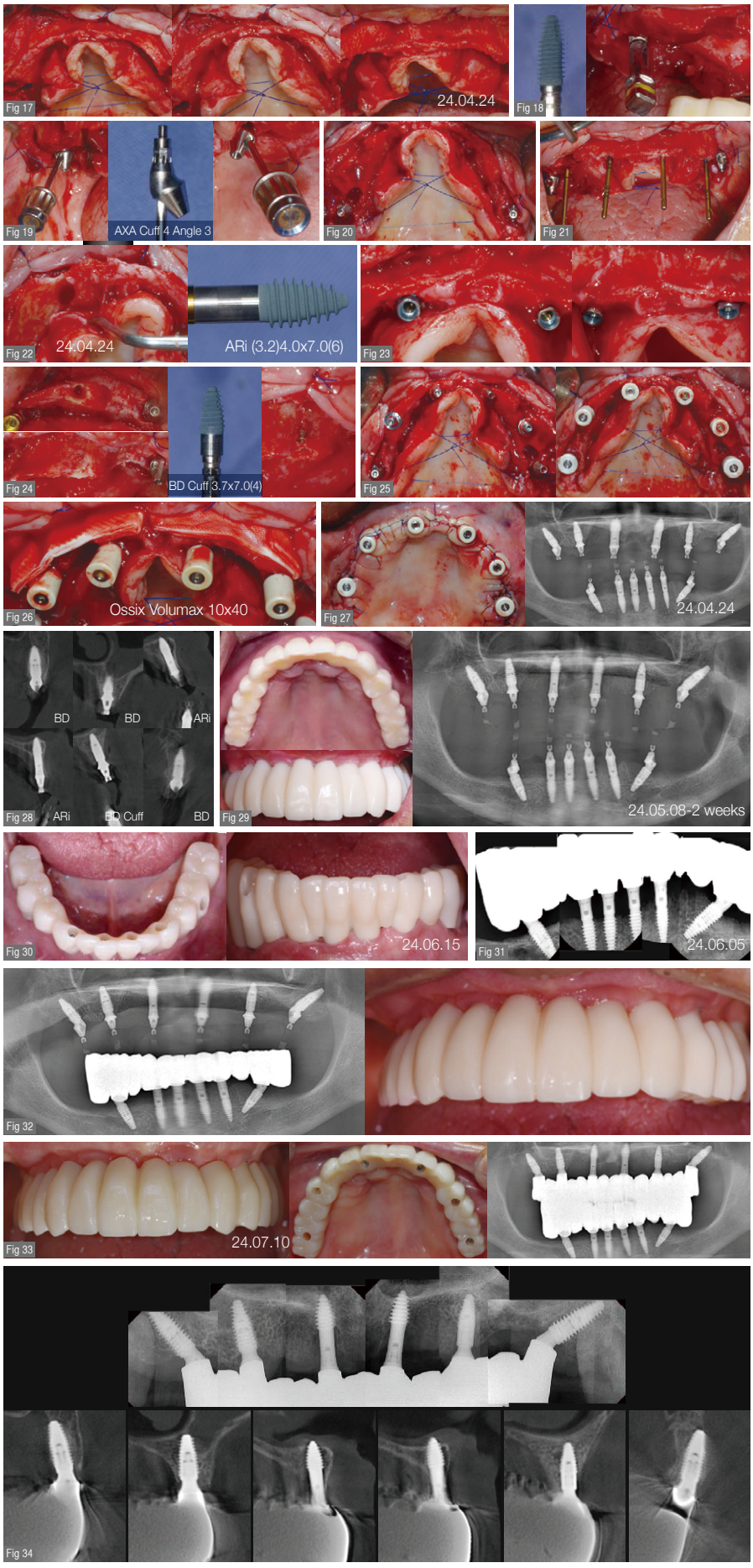


Fig 17. Upon flap elevation, the ridge was confirmed to be extremely thin, as observed in the CBCT. Augmentation in such ridges is highly challenging, and the long-term prognosis remains uncertain.

Fig 18. After extracting the remaining posterior teeth, the right tuberosity implant was placed first. Due to low bone density, a long and deep-threaded implant was selected for placement.

Fig 19.A Blue Diamond implant of the same size was placed in the opposite tuberosity region, and a cuff 4, angle 30° AXA abutment was connected.

Fig 20. The AXA posts connected to the two tilted tuberosity implants were confirmed to be aligned at the optimal angle for prosthetic support.

Fig 21. Initial drilling was performed for the anterior and premolar implants. In cases with a thin ridge, it is always recommended to begin drilling from the palatal side and align the angle toward the basal bone for better implant stability.

Fig 22. Upon completing the drilling, a palatal slope was formed. If a conventional implant were placed, this would create a dehiscence defect. However, with the ARi system's machined magic cuff, this issue can be easily overcome.

Fig 23. The ARi fixtures were successfully placed. The ExCon connection should be positioned at the thin ridge crest, as shown in the image, to ensure proper sta∋bility and prosthetic alignment.

Fig 24. During 3.6mm drilling for the left premolar implant, buccal dehiscence was observed. With conventional implants, GBR would typically be required. However, by using a BD Cuff implant with a 4mm machined cuff, the issue was easily resolved. The exposed machined cuff is no longer considered a bone defect, eliminating the need for additional bone grafting.

Fig 25. AXA abutments were connected to the ARi fixtures in the anterior region and the BD & BD Cuff fixtures in the premolar region. Scannable healing abutments were also attached to facilitate precise digital impressions.

Fig 26. To support thin labial gingiva and enhance gingival contour formation, Ossix Volumax was placed to optimize soft tissue architecture.

Fig 27. A simple suture was completed, and the immediately taken panoramic radiograph confirmed that the surgery was performed as planned.

Fig 28. Postoperative CBCT radiographs confirmed that the implants were appropriately positioned according to the bone condition.

Fig 29. Overall, while the initial stability was not entirely satisfactory, the advantages of cross-arch stabilization allowed for the placement of a PMMA temporary bridge within just two weeks.

Fig 30. Approximately three months after surgery, the final prosthesis for the mandible was placed first.

Fig 31. Intraoral radiographs at the time of mandibular final prosthesis placement.

Fig 32. Panoramic radiograph at the time of mandibular final prosthesis placement. The implants placed in the thin maxillary ridge were loaded within two weeks, and after about one month, they were functioning healthily.

Fig 33. Approximately 10 weeks after surgery, the final prosthesis was also placed in the maxilla. Like the mandible, a one-piece full zirconia bridge was screw-retained onto the AXA abutments.

Fig 34. Intraoral and CBCT radiographs at the time of maxillary final prosthesis placement.
If the implant fixture is selected according to the bone condition, meaning the implant fixture is treated as a dependent variable, even in cases like this with thin bone, GBR or bone grafting is not necessary. This allows for a minimally invasive approach and enables rapid functional recovery.



Perception

5

VD determination and treatment planning for edentulous patients are complex and difficult?

Beyond the Dental Avatar: From Static to Dynamic Dental Avatar

By overcoming the two-dimensional limitations of traditional Digital Smile Design (DSD), Dental Avatar by revolutionized esthetic analysis by integrating face scans and intraoral scans, setting a new standard for digital treatment planning.

In 2019, MegaGen advanced this concept with R2Studio, which combines face scans, CBCT, and STL data to create a fully integrated workflow from treatment planning to CAD/CAM fabrication. This innovation enabled comprehensive treatment planning for edentulous patients.

Still involves complex manual VD determination and external CAD software for diagnostic wax-ups.

REDEFINING CONCEPT ❺

In 2022, the QVD, developed with R2Studio Q and R2 AI technology, streamlined the process by eliminating the need for manual VD determination and complex CAD manipulation.

QVD integrates CBCT, face scan, and intraoral scan data, simplifying the workflow from consultation to provisional restoration. It automatically determines the ideal VD using smile analysis and CBCT evaluation. The system also establishes the 3D positional relationship between the maxillary and mandibular STL files to plan optimized implant placement and prosthetic design.

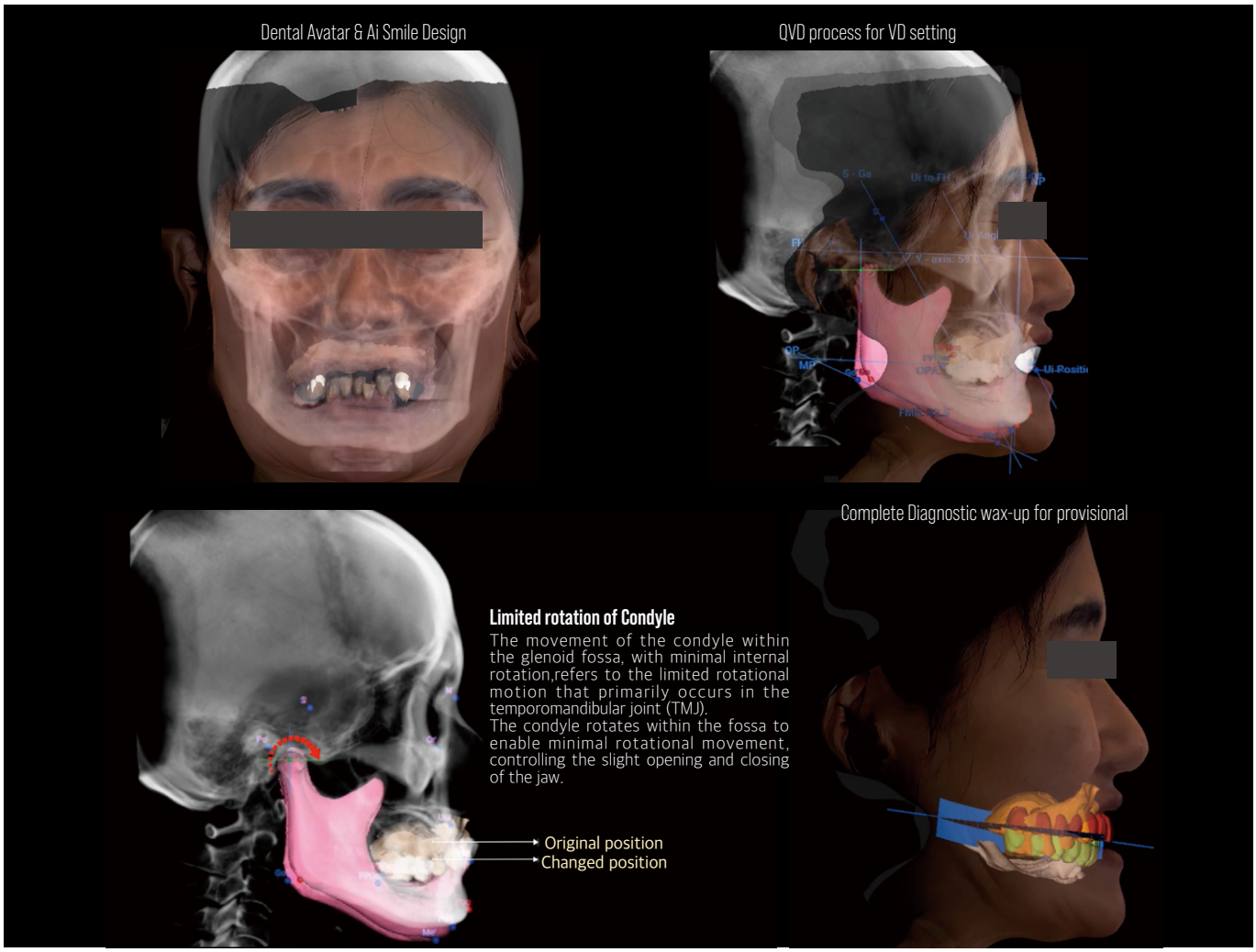
By the second visit, implant surgery is performed, and the temporary restoration is delivered, enabling one-day implant treatment.

Redefining a new chapter for full-mouth implants:

Until now, such a perfect protocol has never existed
Any edentulous case : Surgery & temporary in 2 visits!

QVD;A New Approach to Full Mouth Workflow with R2 STUDIO Q

Treating edentulous patients traditionally involves complex diagnosis and treatment planning. Key factors such as midline, maxillary central incisor position, smile line, vertical dimension (VD), and occlusal plane must be accurately communicated to dental technicians, but this process is often time-consuming and prone to errors. Traditional methods depend on bite wax rims and clinical adjustments, making them imprecise and reliant on clinician skill.



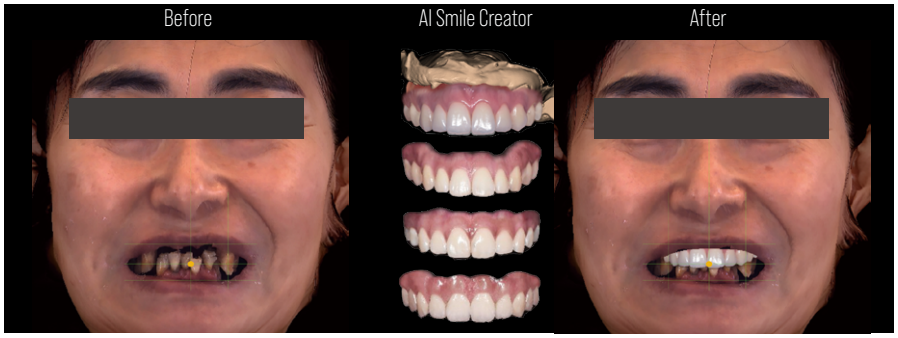
Digital Approach with R2 QVD Solution

The R2 QVD system integrates facial scan data, CBCT, and intraoral scans to create a 3D virtual model (Dental Avatar). This system allows precise determination of critical parameters like midline, smile line, anterior tooth positioning, VD, and occlusal plane. By automatically analyzing Y-axis and mandibular base angles, it proposes an optimal VD based on the patient's anatomical structure, speeding up the treatment process and ensuring accurate planning.

Digital Protocol for an All-on-X Treatment Plan

For a 53-year-old female patient with missing maxillary anterior and mandibular posterior teeth, the R2 QVD system enabled a more precise All-on-X treatment plan. By determining midline, central incisor positions, and VD, it simplified the treatment workflow and improved the functional and aesthetic outcomes compared to traditional methods.

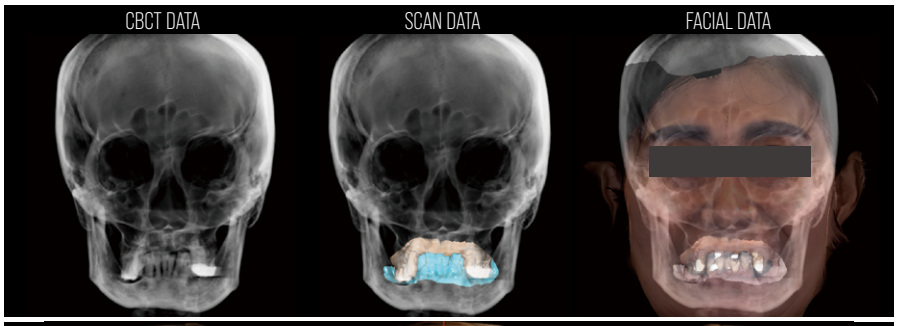
01 Patient Consultation and Data Acquisition



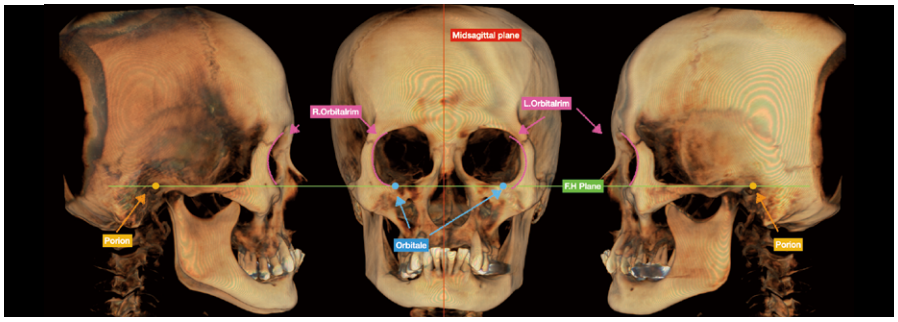
Smile Line Analysisand Treatment Planning Through Patient Consultation

The patient's midline and smile line were analyzed with AI Smile Creator, positioning the maxillary anterior teeth. The oval tooth library was selected for a harmonious result. CBCT and intraoral scan data were acquired using R2Studio Q, eliminating recording bases. The R2 QVD solution streamlined the workflow, reducing visits and speeding up treatment planning.

02 Precision Diagnosis and Digital Analysis Using Dental Avatar



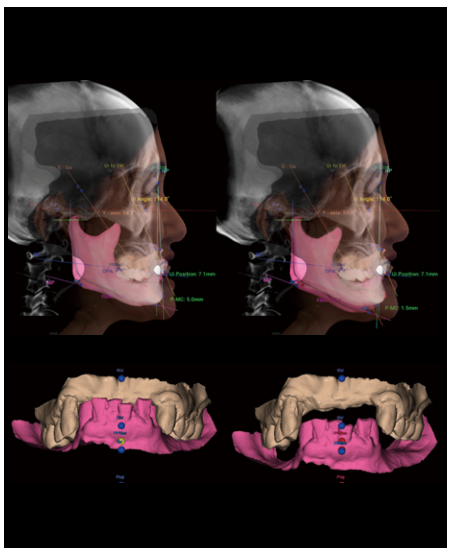
The Dental Avatar integrates facial scan, intraoral scan, and CBCT data into a 3D model for precise anatomical analysis, ensuring accurate diagnostics and harmonious occlusion and aesthetics.

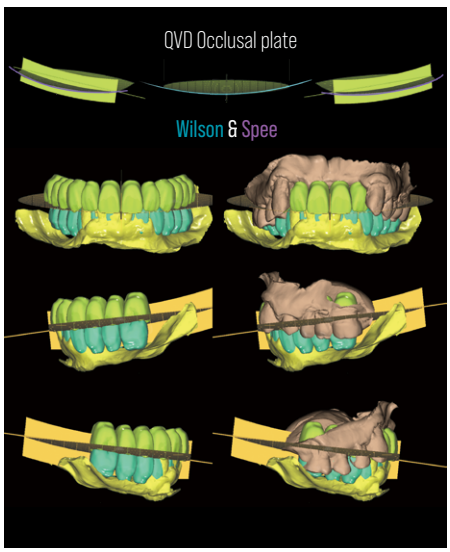


Enhanced Data Alignmentand Diagnostic Accuracy Through CBCT Reorientation

AI-assisted CBCT Reorientation corrects misalignments along Yaw, Roll, and Pitch axes for optimal positioning.

03 Vertical Dimension Adjustment using QVD





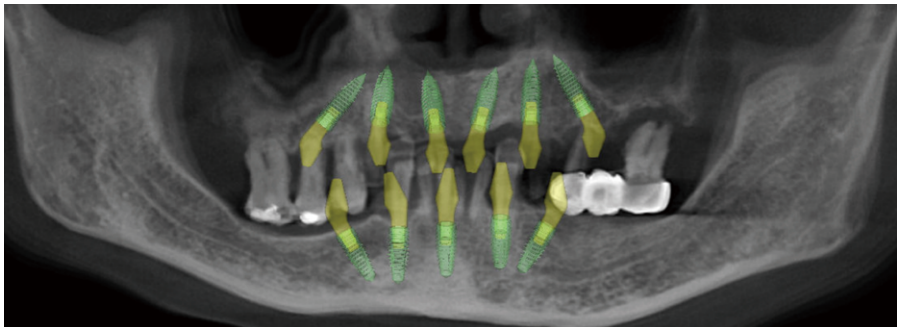
Facial Analysis & QVD

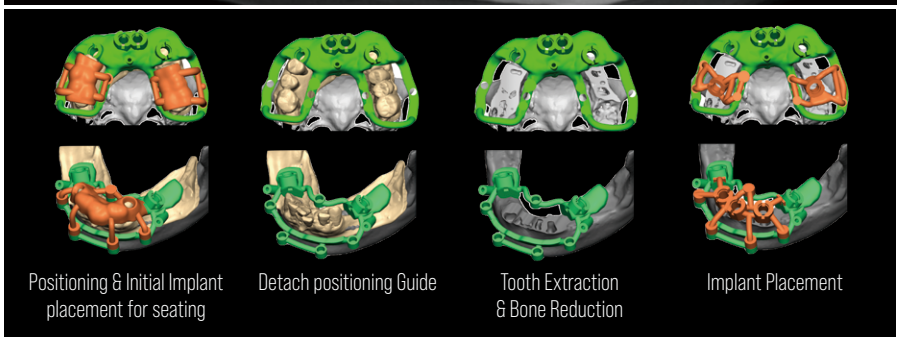
- CBCT analysis: Overcomes 2D limits, evaluates skeletal, soft tissue, and occlusion.
- AI analysis: Speeds up process, reducing manual landmarking.
- Smile Creator: Adjusted maxillary central incisor to 4-6mm from McNamara Line.
- VD: Set at 54.2°, gradually adjusted.

Occlusal Plane & Wax-Up

- Occlusal plane: Based on Curve of Spee/ Wilson, adjusted for stability.
- Archform: Ovoid with slight tooth mods.
- Result: Balanced plane, improving function and aesthetics.

04 R2GATE planning and Guide Design





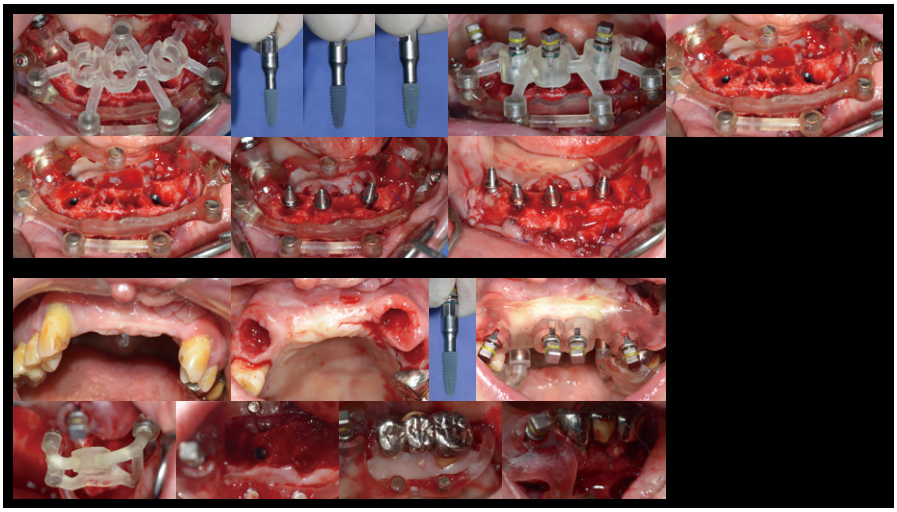
Implant Planning and Clinical Considerations Using R2GATE

6 BlueDiamond implants with AXA abutments were placed in the maxilla and 5 in the mandible using an All-on-X design. Implants were angled for stability, avoiding sinus augmentation and utilizing existing bone, minimizing complications and evenly distributing occlusal forces.

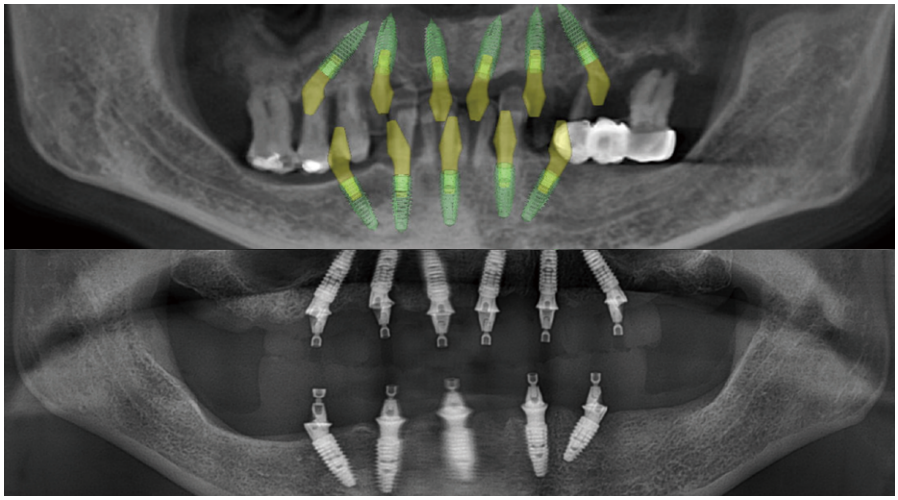
R2 Stackable Guide Design for partial bone reduction

A stackable guide was used for partial bone reduction ensuring accurate implant placement and easy reattachment. It marked the resection level, featured a magnetic connection for smooth adjustments, and enhanced workflow efficiency and predictability..

05 The All-on-X implant surgery using a Guide and AXA Abutments



The All-on-X implant surgery started with the mandible using a stackable guide and AXA abutments. After extracting the teeth, implants were placed with bone reduction for precision. The same procedure was followed in the maxilla, with posterior implants at 30 degrees and anterior ones at 20 degrees, ensuring proper abutment alignment and stability.



Post-surgery panoramic imaging confirmed that the implants were placed with high accuracy, closely matching the surgical plan. The R2 Guide system ensured precise implant positioning and stability.

The planned angulation of both posterior and anterior implants was successfully executed, optimizing the AXA Abutment positioning and maximizing prosthetic stability, leading to improved long-term prognosis.

06 The Key to Transforming a Patient's Emotions

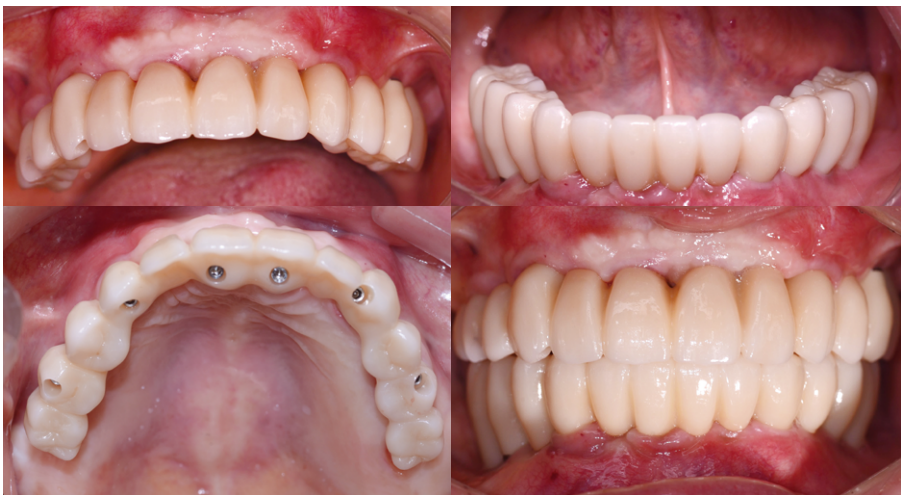


Functional and Aesthetic Improvements with Rapid Provisional Delivery: A Psychological Transformation

The provisional crowns were delayed by two weeks, but once placed, the Facial Analyzer confirmed proper positioning, maintaining VD and aligning the central incisors, occlusal plane, and smile line. The QVD solution restored the occlusal vertical dimension, improving TMJ adaptation and occlusal stability. This resulted in a notable psychological transformation, enhancing the patient's confidence and comfort.

Final Prosthesis Design Reflecting the Patient's Aesthetic Expectations

During the provisional phase, the patient requested slimmer, more feminine teeth. This was reflected in the final crowns by refining the anterior teeth to suit the patient's facial structure. A full-zirconia, screw-retained prosthesis with a refined incisal contour was created, and the patient's response was highly positive. The All-on-X treatment allows functional adaptation with provisional crowns and precise aesthetic refinements based on patient feedback.



QVD-ALL-ON-X: A DIGITAL SOLUTION FOR PRECISION AND PREDICTABILITY

This All-on-X treatment utilized the QVD solution for precise digital analysis, ensuring optimal implant positioning and occlusal alignment. The Stackable Guide and AXA abutments ensured surgical accuracy, resulting in a full-zirconia, screw-retained prosthesis. The approach delivered functional, aesthetic, and psychological benefits, setting a new standard for full-mouth digital dentistry.

Creating a New Standard in Treatment Environment



MegaGen has launched the N3 dental unit, designed to provide exceptional patient comfort and enhance treatment efficiency. Known as "The First Class," the N3 integrates advanced features to elevate both dental procedures and the patient experience.

Innovative Treatment Environment

The N3 offers first-ever ventilated and heated upholstery for patient comfort, along with individual suction filters for improved suction power and easier cleaning. Its UV-sterilized water system ensures hygiene, and the real-time warm water supply adds to patient ease.

Optimized for Clinicians

With features like an 830mm max seat height and hands-free operation, the N3 enhances clinician efficiency. The integrated system facilitates seamless interaction with diagnostic tools, reducing strain on clinicians.

Cutting-Edge Digital Features

The N3's full touch-screen interface, Android OS, and advanced air control optimize dental procedures, while UV sterilization and suction cleaning systems ensure safety and hygiene.

Versatile and Future-Ready

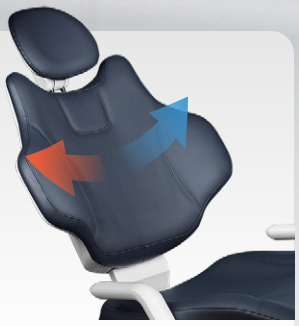
The N3's customizable features, including an expandable tray, left-handed adaptability, and wireless phone charging, make it adaptable for various clinical needs, with global compatibility.

By combining luxury, comfort, and efficiency, the N3 revolutionizes dental care, offering a transformative experience for both patients and clinicians.

First class care for patients,
First class performance for clinicians

N3
The First Class

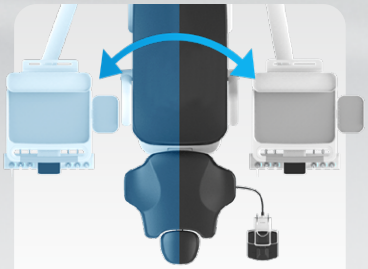




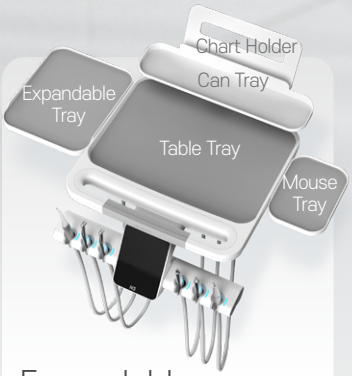
Ventilated/Heated
Upholstery



Bigger
Dental Light



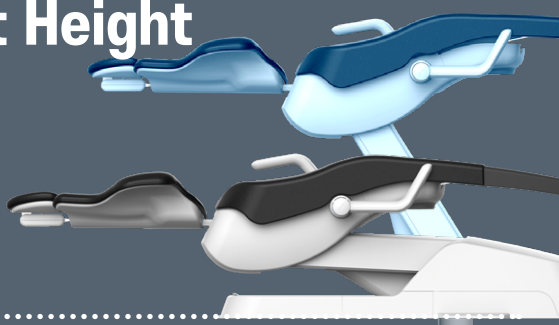
Usable for
Left-handed



Expandable
Tray



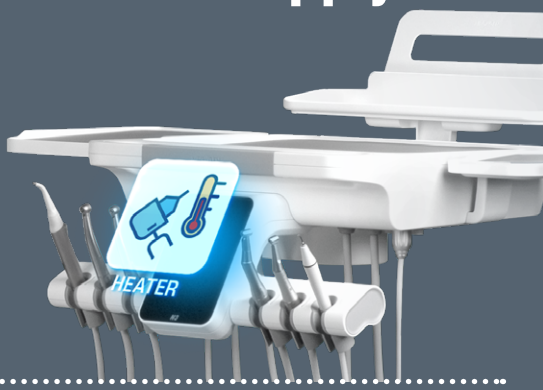
830mm
Seat Height



UV-Sterilized
Water Control



H/P Real-time
Warm Water Supply



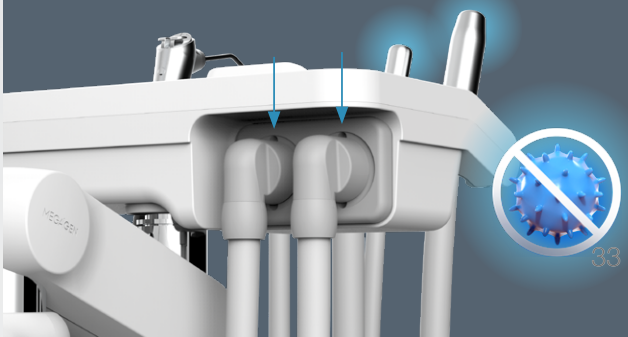


Wireless
Phone Charger



Brand-new
adjustable Dr.Stool

Individual(Separated)
Suction Filters





18th MEGA GEN International Symposium in DAEGU

May 24 ~ 25, 2025, Daegu, Korea
Global Plaza, Kyungpook National University

Symposium

DAY 1

May 24, 2025 (Sat) 08:30-19:30

TIME	LECTURE	SPEAKER
08:30 - 09:00	Registration & Opening	
09:00 - 10:00	40 years history of the bone regeneration around Implant	Prof. Thomas J. Han
10:00 - 10:50	Failures in Bone Augmentation : Prevention and Management	Prof. Ramon Gomez Meda
10:50 - 11:20	**Break**	
11:20 - 12:10	Learning from Failures in GBR : Clinical Experiences and Long-Term Follow-Up	Prof. Hom-Lay Wang
12:10 - 13:30	**Lunch**	
13:30 - 14:20	The MPI® concept: Medullar & Periosteal Inductions enhance bone substitutes remodeling in major bone reconstructions	Dr. Georges Khoury
14:20 - 15:10	All about Alveolar ridge preservation (ARP) - when, why & how?	Prof. Ki-Tae Koo
15:10 - 15:40	**Break**	
15:40 - 16:30	Socket Management in Immediate Implant Therapy : Are All Techniques Created Equal?	Prof. Howard Gluckman
16:30 - 17:20	Volume deficiencies in the Anterior Zone : a multidisciplinary approach	Prof. Davide Farronato
17:20 - 17:30	**Closing**	
17:30 - 19:30	**Cocktail Reception** (at Global Plaza)	

DAY 2

May 25, 2025 (Sun) 09:00-21:30

TIME	LECTURE	SPEAKER
09:00 - 09:20	**Opening**	
09:20 - 10:10	How to Manage Vertical and Horizontal Defects following implant failures : Bone Regeneration Techniques and Managing Knowhow	Prof. Matteo Chiapasco
10:10 - 11:00	The Minimally Invasive Lateral Sinus (MILS) Technique	Prof. Tiziano Testori
11:00 - 11:30	**Break**	
11:30 - 12:30	Sinus Lifting Procedures: Innovations and Insights for Advanced Bone Augmentation	Prof. Cristian Dinu with Dr. Mattia Manfredini
12:30 - 13:20	How can we make GBR and sinus augmentation more predictable and successful?	Prof. Tara Aghaloo
13:20 - 14:40	**Lunch**	
14:40 - 16:10	Alternative suggestions to minimize complications and maximize clinical efficiency for thin defected ridges	Dr. Kwang Bum Park
16:10 - 16:40	**Break**	
16:40 - 17:40	Preventive bone loss strategies: ZBLC in the box	Prof. Tomas Linkevicius
17:40 - 18:00	**Closing**	
18:30 - 21:30	**MegaGen Night** (at Ilcheongdam, Kyungpook Uni)	

*Lecture schedule is subject to change.

BEYOND THE LIMITS OF BONE
: 30 YEARS OF CHALLENGES AND THE PATH FORWARD

Save the Date



Speakers

DAY 1



Prof. Thomas J. Han



Prof. Ramon Gomez Meda



Prof. Hom-Lay Wang



Dr. Georges Khoury



Prof. Ki-Tae Koo



Prof. Howard Gluckman



Prof. Davide Farronato

DAY 2



Prof. Matteo Chiapasco



Prof. Tiziano Testori



Prof. Cristian Dinu



Dr. Mattia Manfredini



Prof. Tara Aghaloo



Dr. Kwang Bum Park



Prof. Tomas Linkevicius

Registration

- Symposium Registration Fee : $899
- MegaGen Night Only : $199



Venue

· Symposium Venue
- Location : Global Plaza, Kyungpook National University
- Address : 80, Daehak-ro, Buk-gu, Daegu, Republic of Korea
- Website : https://globalplaza.knu.ac.kr/gp/

· MegaGen Night Venue
- Location : Ilcheongdam, Kyungpook National University (3-4 minutes walking distance from main venue)
- Address : 80, Daehak-ro, Buk-gu, Daegu, Republic of Korea
- Website : https://en.knu.ac.kr/main/main.htm



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Special Edition for IDS 2025

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