



XC CUSTIMESH
MEDICAL INNOVATIVE SOLUTIONS

PERSONALIZED
INNOVATIVE SOLUTIONS



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for Bone Regeneration

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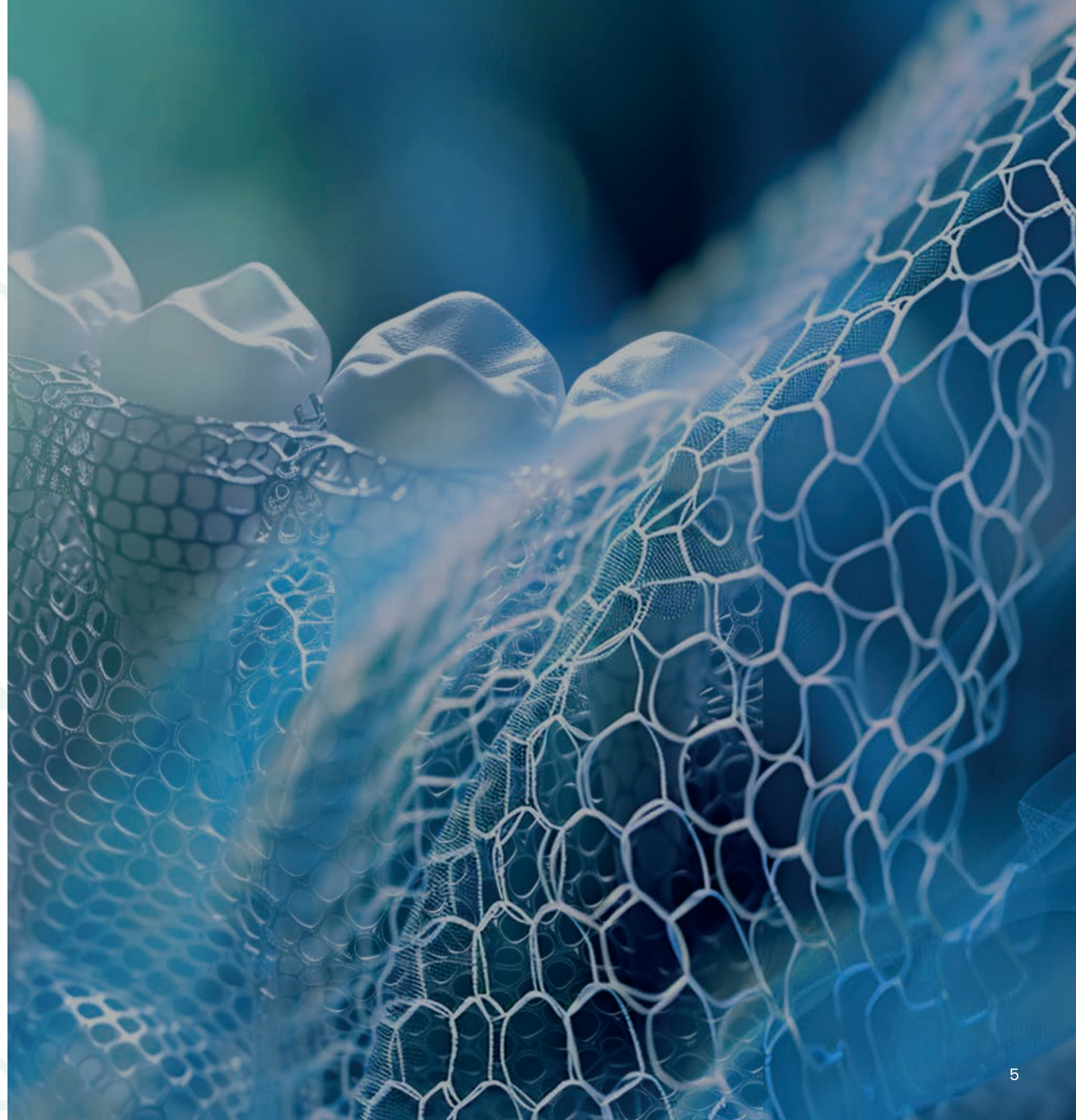
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About Us

Founded in 2020 at Erciyes Technopark, our company operates as a pioneering R&D center in the field of personalized medical solutions. Our expert team develops innovative solutions in areas such as surgical guide design, anatomical modeling, and digital dentistry, with a focus on Custimesh (customized titanium skeleton) and Custimplant (customized subperiosteal implant). We support bone regeneration with our personalized titanium skeletons, particularly designed for patients who are unable to undergo dental implants. Additionally, we offer implant solutions produced with CAD/CAM technology for individuals with incomplete jaw development or insufficient bone support. Continuously expanding our product range, we provide solutions such as customized orthognathic surgical plates, reconstruction plates, surgical guides, and aesthetic gum smile implants, meeting the needs of both doctors and patients. By processing DICOM images with advanced software and developing patient- and doctor-focused designs with our multidisciplinary team, we continue to work towards becoming a global reference point in personalized medical solutions.



Custimesh

Private Healthcare Services

Our company, which began operations in 2020 at Erciyes Technopark, has established its position in the industry by developing personalized titanium mesh (Custimesh) and personalized subperiosteal implants (Custimplant). Over time, the company has expanded its product portfolio to include customized orthognathic surgical plates, reconstruction plates, surgical guides, and gum smile implants. Our company continues its R&D and product development efforts without slowing down, providing innovative, personalized medical solutions for both patients and doctors.



R&D and Product Development Activities

In our operations, which started at Erciyes Teknopark, we are developing custom titanium mesh (Custimesh) and subperiosteal implants (Custimplant) to provide bone augmentation in cases where dental implants cannot be applied.



Augmentation Procedures

Use of Customized Titanium Mesh (Custimesh): In cases where dental implants cannot be applied, we support bone regeneration by using specially designed titanium mesh (Custimesh), which acts as a skeletal structure to promote new bone formation.



Customized Implant Manufacturing

Digital Dentistry and Customized Implants: We provide tailored solutions for patients with incomplete jaw development or insufficient bone support through fully customized implant products, produced using CAD/CAM technology.



Surgical Guide Design and Manufacturing

Patient-Specific Surgical Guides: With our expertise in surgical guide design and manufacturing in the dental field, we create optimal designs using the patient's DICOM images, working with our multidisciplinary team.



Customized Titanium Mesh (CUSTIMESH)

Innovative Medical Solution for Bone Regeneration

Customized titanium mesh, developed to support bone regeneration in patients where dental implants cannot be applied, is a titanium barrier system perfectly adapted to the patient's anatomy. It is used to preserve graft material and support new bone formation during bone augmentation procedures.

Made from medical-grade titanium, this innovative solution is designed using the patient's CT data and CAD software, and produced with 3D printing technology. It offers superior mechanical stability and excellent adaptation properties, which standard meshes cannot provide, especially in complex bone defects. By perfectly fitting the anatomical structure, it ensures the graft material stays in place while supporting optimal vascularization to accelerate the bone regeneration process.



Screw Content

1,2 mm Diameter
Grade 5 Medical-Grade Titanium Material
Perfect Fit
Universal Screw Head

- Custom Design
- Perfect Fit
- Grade 23 Medical-Grade Titanium Material

- Optimally Designed Screw Holes
- Custom-Designed Implant and Condensation Holes
- Reduction in Surgical Time

- Custom Design for Easy Removal
- No Need for Screwing from the Palatal or Lingual Side
- Low Risk of Complications

CUSTIMESH Order and Delivery Process

01 DICOM

The patient's DICOM file should be sent via WeTransfer to custimesh.case@gmail.com. *The doctor's name and the relevant area for the Custimesh procedure should be specified in the *DESCRIPTION section. For Custimesh, a CBCT scan with a slice thickness of 0.2 - 0.5 mm should be performed, covering the treatment area with the appropriate field of view (FOV).

02 DOCTOR

A 3D model is prepared based on the area where the mesh will be planned, presented to the doctor for approval, and communication is established with the doctor for necessary evaluation.

03 PAYMENT

At this stage, payment is made, and active design begins, transitioning to the surface design process.

04 DESIGN

The surface design for the relevant area is created, taking anatomical contours into consideration. It is then submitted for the doctor's approval. Once approved by the doctor, the surface design is transformed into the mesh form, with consideration given to safe screw regions and appropriate condensation points.

05 DOCTOR APPROVAL

The final design of the customized Custimesh, prepared for production, is presented to the doctor for approval.

06 PRODUCTION

The Custimesh, approved by the doctor, is produced using 3D printing technology from Grade 23 (Ti6Al4V) Medical Titanium Alloy.

07 SHIPPING

The Custimesh, after undergoing the necessary post-processing stages, is carefully prepared and shipped to the relevant doctor.



Customized Subperiosteal Implant (CUSTIMPLANT)

Innovative Medical Solution for Bone Regeneration

In modern dentistry, customized titanium implants offer solutions for patients with incomplete jaw development or severe bone loss. These implants, produced using CAD/CAM technology and laser sintering, perfectly adapt to the patient's individual anatomical structure, providing an excellent alternative in cases where traditional implants cannot be applied. Subperiosteal implants, specifically developed for patients with advanced bone loss, are placed beneath the periosteum, offering a minimally invasive approach. Thanks to designs optimized with CT data and finite element analyses, they guarantee both aesthetic and functional outcomes. This innovative technology allows for implant and prosthesis application in a single session, enabling patients to achieve their natural smile on the same day. It also eliminates the need for additional procedures like bone grafting, significantly simplifying the surgical process. With their custom design and superior biocompatibility, these implants deliver successful results even in complex cases previously considered untreatable. They open a new era in modern dentistry, aiming to improve patients' quality of life.

Benefits



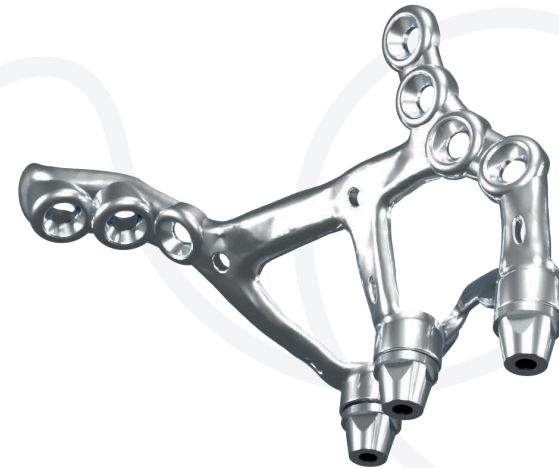
- Custom Design
- Perfect Fit
- Grade 23 Medical-Grade Titanium Material
- RBM Inner Surface
- Polished Outer Surface



- Reinforced Multiunit
- Multiunit Suitable for Different Gum Levels
- Alignment with Reduction Guide when Necessary



- 2 mm Diameter Titanium Screw for Fixation
- Screw Holes Designed According to Anatomical Boundaries
- Pink Anodization Compatible with Gum Color



Screw Content

2,0 mm Diameter
Grade 5 Medical-Grade Titanium Material
Perfect Fit
Universal Screw Head

CUSTIMPLANT

Order and Delivery Process

01

DICOM

The patient's DICOM file must be sent via WeTransfer to custimesh.case@gmail.com. The physician's name and the specific region for the Custimplant must be clearly stated in the description section. Prior to creating the Custimplant, a total prosthesis containing barium sulfate must be fabricated for the patient. Then, a Medical CT scan should be performed while the patient is in the occlusion position, using a slice thickness of 0.5 mm.

02

DOCTOR

A 3D model is prepared based on the region where the Custimplant is to be planned. The model is then submitted for the physician's approval, and communication is established with the physician for any necessary evaluations.

03

PAYMENT

At this stage, payment is made, and the active design process begins, initiating the Custimplant design phase.

04

DESIGN

Preliminary evaluations and analyses are conducted for the relevant region. The design of the Custimplant is then finalized by determining the positions of the multi-units, prosthetic emergence profiles, safe screw locations, and optimal intraoral screw access angles.

05

DOCTOR APPROVAL

The final production-ready design of the custom-made Custimplant is submitted for the physician's approval.

06

PRODUCTION

The Custimplant approved by the physician is manufactured using 3D printing technology from Grade 23 (Ti6Al4V) Medical Titanium Alloy.

07

SHIPPING

After undergoing the necessary post-processing stages, the Custimplant is carefully prepared and shipped to the respective physician.

Custom-Made Orthognathic Surgical Plate (CUSTIPLATE)

Innovative Medical Solution for Bone Regeneration

Custom-Made Orthognathic Surgical Plates (CUSTIPLATE) are surgical solutions designed using advanced 3D modeling technologies and digital manufacturing methods, made from Grade 23 Medical Titanium, and tailored to perfectly fit the patient's unique anatomical structure. Developed with the patient's CT or CBCT scans and dental data, these plates provide maximum stabilization during surgery, with screw placements and angles optimized for surgical access ease, bone quality, and the protection of critical anatomical structures. This personalized system eliminates the need for manual bending required in traditional methods, enhancing surgical precision while significantly reducing operation time, minimizing the need for splints, and maximizing comfort for both the patient and the surgeon. Combined with CUSTIMESH's titanium processing technology and expertise in digital design, this innovative solution offers high surgical accuracy based on virtual planning, ensuring predictable and safe outcomes even in complex orthognathic cases, thus setting a new standard in surgery.



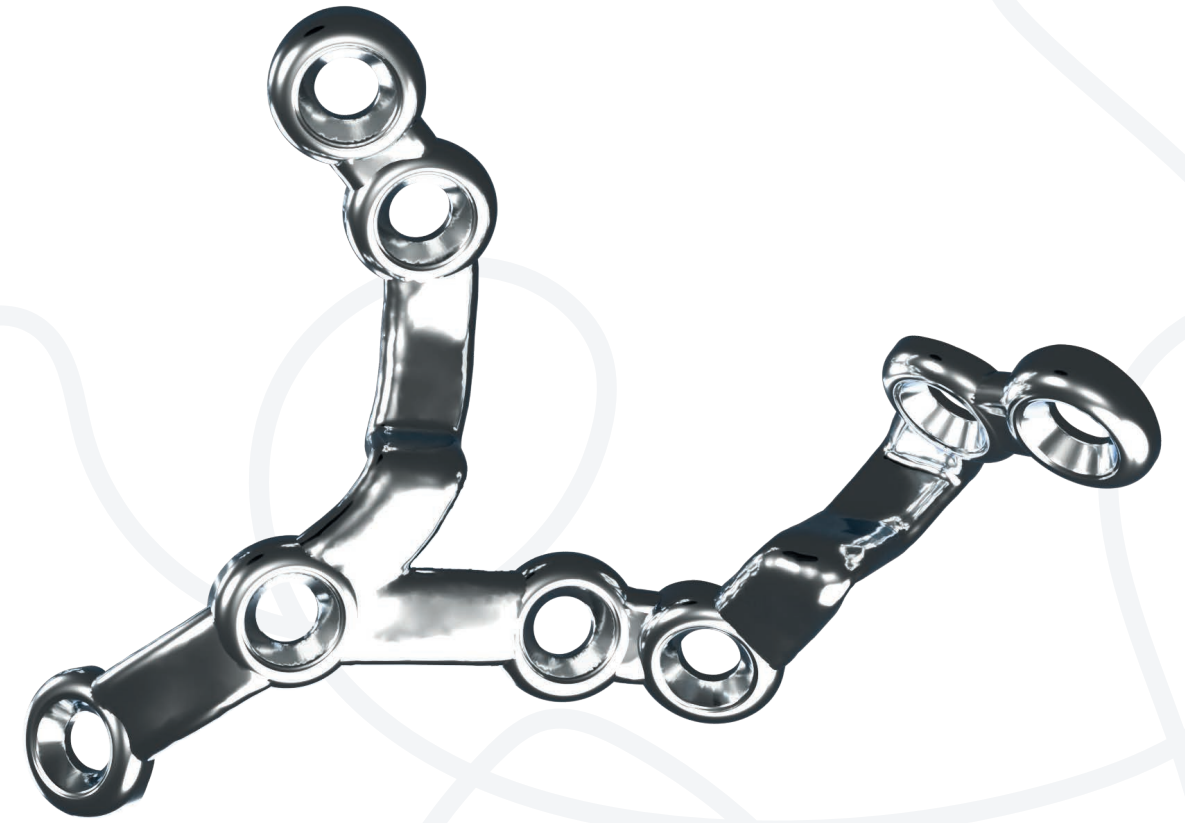

- Production with 3D Modeling and Additive Manufacturing
- Grade 23 Medical-Grade Titanium Material
- Custom Design for the Patient



- Interactive Online Planning
- High Accuracy and Predictability
- Reduced Surgical Time



- Minimal Invasive Surgical Support
- Pre-Designed Screw Placement
- Maxillary Positioning Without the Need for Splints



Screw Content

2,0 mm Diameter
Grade 5 Medical-Grade Titanium Material
Perfect Fit
Universal Screw Head

CUSTIPLATE

Order and Delivery Process





Custom Reconstruction Plate

Innovative Medical Solution for Bone Regeneration

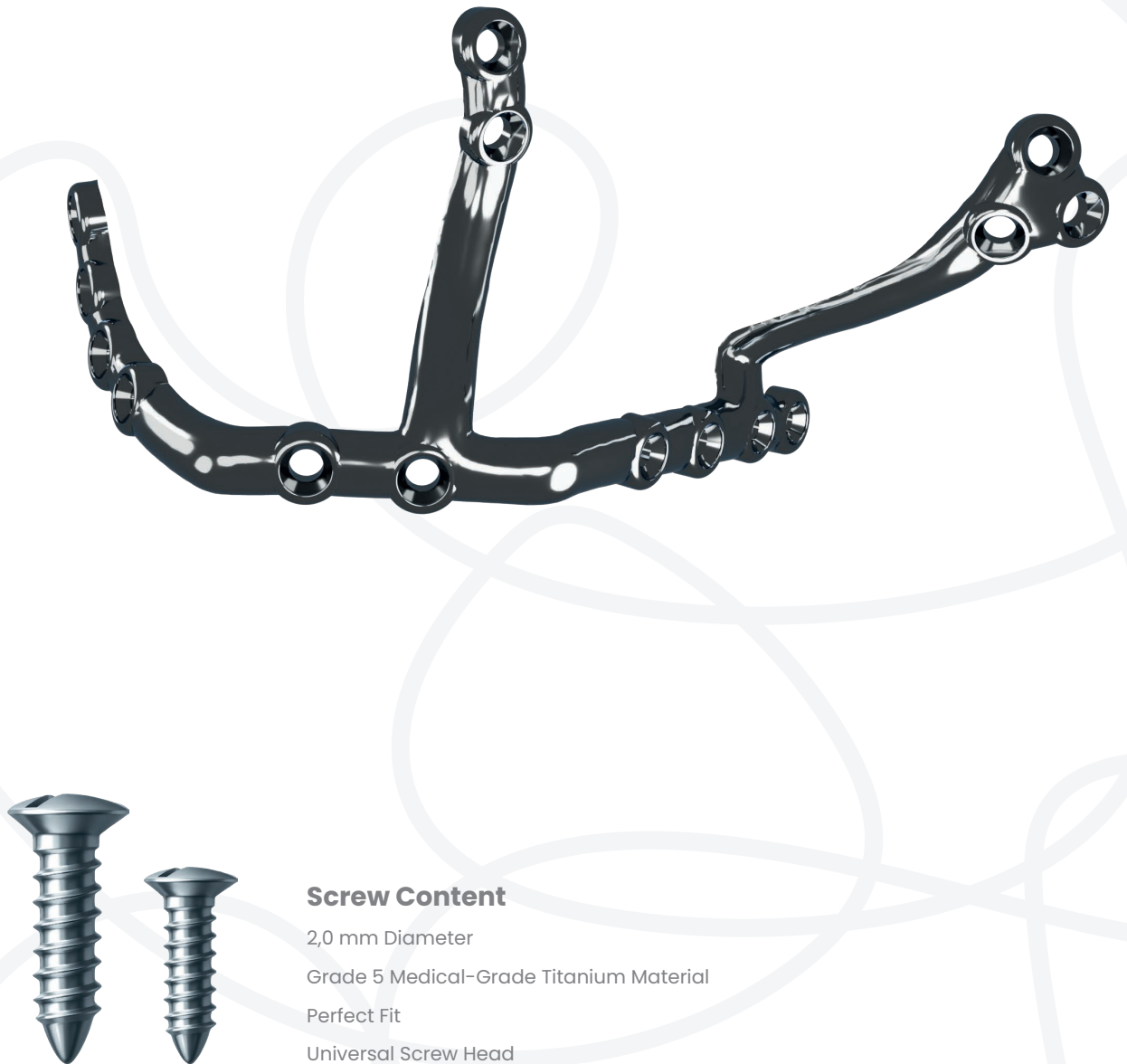
Custom Reconstruction Plates are implants designed based on the patient's unique anatomical data (CT, CBCT) and manufactured using 3D printing technology with Grade 23 Medical-Grade Titanium, known for its high corrosion resistance. These plates are delivered pre-shaped to perfectly match the patient's planned post-surgery anatomy, following a design process that involves the direct participation of the surgeon. The custom design allows for the selection of features such as profile height, screw hole positions, and arm extensions. These plates can be integrated with virtual surgical planning, enabling the surgery to be planned in a virtual environment and then transferred to the operation using customized osteotomy and positioning guides. Compared to standard plates, these custom plates have higher fatigue resistance and reduce the need for locking screws due to their excellent fit. Additionally, as there is no need for manual bending, they contribute to a shorter surgical time. Studies have shown that custom plates can provide more accurate reconstruction results and lower complication rates, particularly for less experienced surgeons, compared to manually shaped plates.



- High Accuracy and Anatomical Fit
- Reduced Surgery Time
- Enhanced Biomechanical Properties
- Personalized Planning and Control

- Improved Clinical Outcomes and Fewer Complications
- Grade 23 Medical-Grade Titanium Material
- Anatomical Fit and Pre-Formed Plates
- Increased Bar Width and Strength

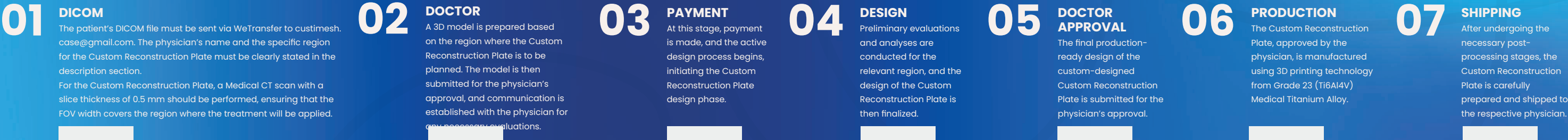
- Fully Secure Screw Holes
- Ability to Extend the Plate in Multiple Directions
- Ability to Modify Thickness and Width in Specific Areas
- Better Fatigue Resistance Compared to Standard Plates



Screw Content

2,0 mm Diameter
Grade 5 Medical-Grade Titanium Material
Perfect Fit
Universal Screw Head

CUSTOM RECONSTRUCTION PLATE Order and Delivery Process





Custom Cutting Guide

Innovative Medical Solution for Bone Regeneration

Surgical guides are advanced, patient-specific tools used in maxillofacial and craniofacial surgery that can be sterilized and customized for each case. These guides are virtually planned using the patient's 3D tomographic data before surgery, allowing the surgeon to operate saws and drills at precisely the intended location, angle, and depth. This ensures millimetric precision in implementing the surgical plan during complex procedures such as mandibular reconstructions (including fibula grafts), genioplasty, Le Fort osteotomies, and bone-cutting implant surgeries.

These guides are generally categorized into two main types: cutting guides, used for osteotomies, and positioning guides, used for aligning and stabilizing bone segments. For short-term use, sterilizable polymers are typically used as the production material. However, titanium guides, which offer greater durability, allow for direct cutting and drilling, significantly enhancing surgical efficiency. This innovative approach minimizes surgical errors, shortens operation time, and greatly enhances patient safety.



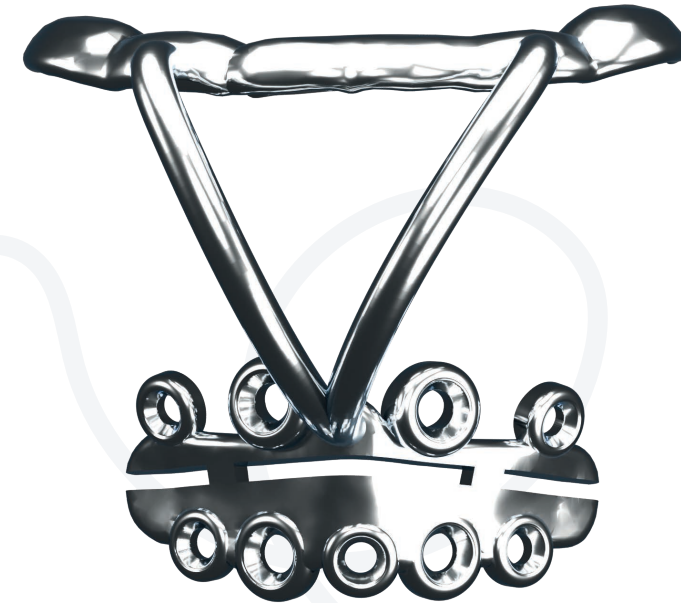
- Enhances Accuracy
- Reduces Surgical Time
- Enables Pre-Determined Cuts and Screw Placement
- Ensures Safe Cutting of Bone Segments



- In Jaw Surgeries, Screw Placements Can Be Designed to Ensure the Use of the Same Holes for Both Bone Fixation and Plate Positioning
- Ensures the Effective Transfer of the Virtual Surgical Plan to the Operating Room
- They Are Specifically Designed to Match the Patient's Unique Anatomy



- Provides Precise Resection in Osteotomies
- In Reconstruction Surgeries, Positioning Guides Assist in Accurately Securing Bone Segments or Implants in the Correct Location
- Titanium Material (Stronger and More Durable)



Screw Content

2,0 mm Diameter
Grade 5 Medical-Grade Titanium Material
Perfect Fit
Universal Screw Head

CUSTOM CUTTING GUIDE Order and Delivery Process

01

DICOM

The patient's DICOM file must be sent via WeTransfer to custimesh.case@gmail.com. The physician's name and the specific region for the Cutting Guide must be clearly stated in the description section. For the Cutting Guide, a CBCT or Medical CT scan with a slice thickness of 0.2 - 0.5 mm should be performed, ensuring that the FOV width covers the region where the treatment will be applied.

02

DOCTOR

A 3D model is prepared based on the region where the Cutting Guide is to be planned. The model is then submitted for the physician's approval, and communication is established with the physician for any necessary evaluations.

03

PAYMENT

At this stage, payment is made, and the active design process begins, initiating the Cutting Guide design phase.

04

DESIGN

Preliminary evaluations and analyses are conducted for the relevant region, and the design of the Cutting Guide is then finalized.

05

DOCTOR APPROVAL

The final production-ready design of the custom-made Cutting Guide is submitted for the physician's approval.

06

PRODUCTION

The Doctor-approved Cutting Guide is manufactured from Grade 23 (Ti6Al4V) Medical Titanium Alloy or a fully biocompatible polymer material using 3D printing technology.

07

SHIPPING

After undergoing the necessary post-processing stages, the Cutting Guide is carefully prepared and shipped to the respective physician.



Gummy Implant

Innovative Medical Solution for Bone Regeneration

Gummy Smile implants are fully biocompatible, patient-specific implants designed to address the condition where excessive gum tissue is exposed during smiling (commonly referred to as a “gummy smile”).

These implants provide support to the upper lip by filling the depression in the subnasal region—an area often responsible for the excessive upward movement of the upper lip during smiling. By limiting this movement, the implants help reduce the visibility of the gums. Manufactured using 3D printing technology to precisely match the patient’s anatomy, these implants are surgically placed in the subnasal area. They significantly enhance smile aesthetics, offering a more balanced and harmonious appearance.



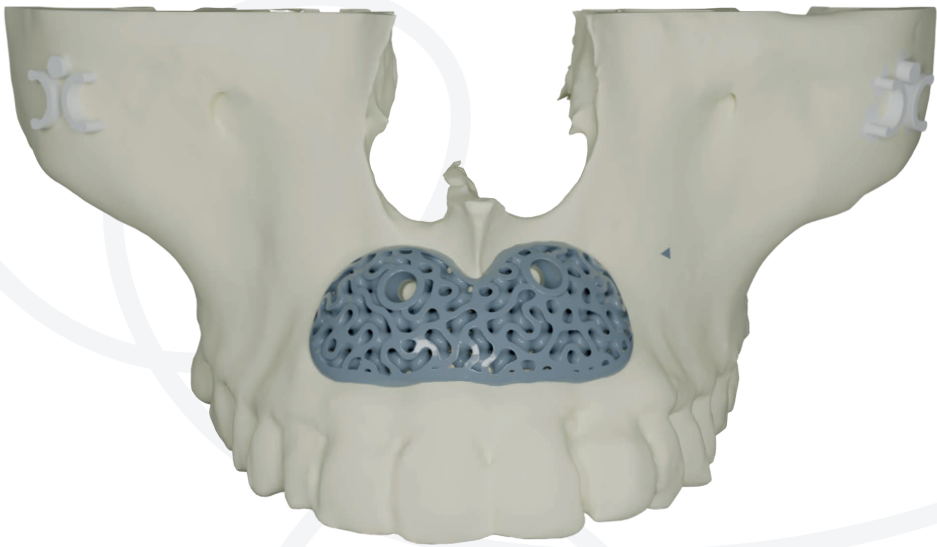
- Biocompatible Material
- Smile Aesthetic Recovery
- A Lasting Solution
- Personalized Production



- Minimally Invasive Application
- Titanium Material and 3D Printing
- Low Risk of Complications



- Stabilization Possibility with Screw
- Reduction in Surgery Time
- Combination with Other Treatments



Screw Content

2,0 mm Diameter
Grade 5 Medical-Grade Titanium Material
Perfect Fit
Universal Screw Head

GUMMY IMPLANT Order and Delivery Process

01 DICOM
The patient’s DICOM file must be sent via WeTransfer to custimesh.case@gmail.com. The physician’s name and the specific region for the Gummy Smile treatment must be clearly stated in the description section. For Gummy Smile, a CBCT scan should be performed with a slice thickness of 0.2 – 0.5 mm, ensuring that the FOV width covers the region where the treatment will be applied.

02 DOCTOR
A 3D model is prepared based on the region where the Gummy Smile is to be planned. The model is then submitted for the physician’s approval, and communication is established with the physician for any necessary evaluations.

03 PAYMENT
At this stage, payment is made, and the active design process begins, initiating the Gummy Smile design phase.

04 DESIGN
Preliminary evaluations and analyses are conducted for the relevant region, and the design of the Gummy Smile is then finalized.

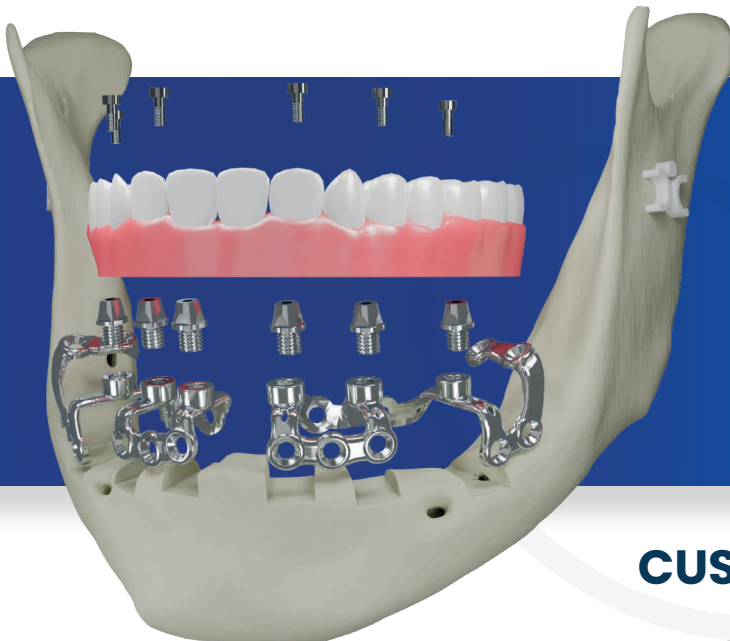
05 DOCTOR APPROVAL
The final production-ready design of the custom-made Gummy Smile is submitted for the physician’s approval.

06 PRODUCTION
The Gummy Smile, approved by the physician, is manufactured using 3D printing technology from a completely biocompatible material.

07 SHIPPING
After undergoing the necessary post-processing stages, the Gummy Smile is carefully prepared and shipped to the respective physician.

OUR PRODUCTS

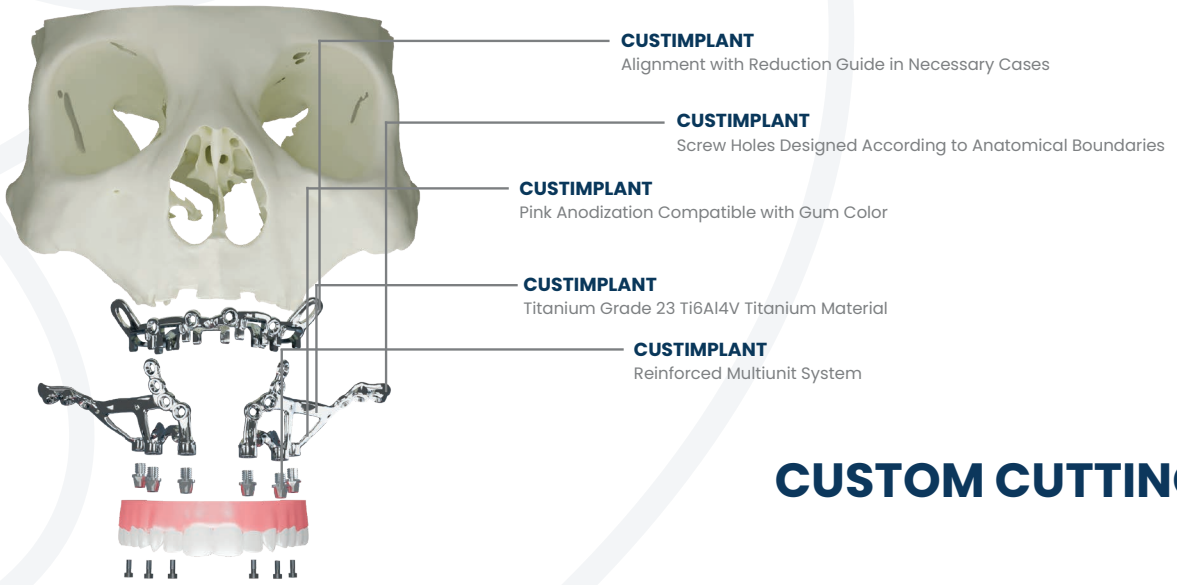
Detailed Visual Descriptions



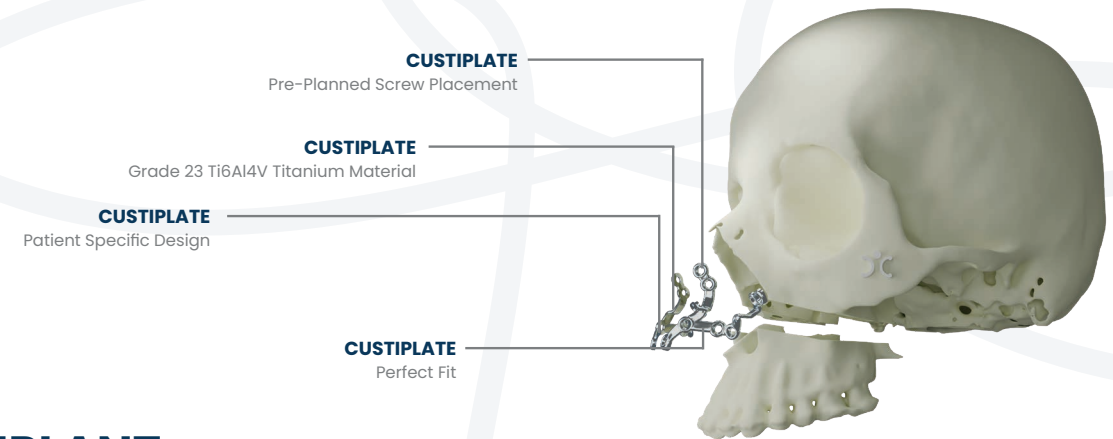
CUSTIMESH



CUSTIMPLANT



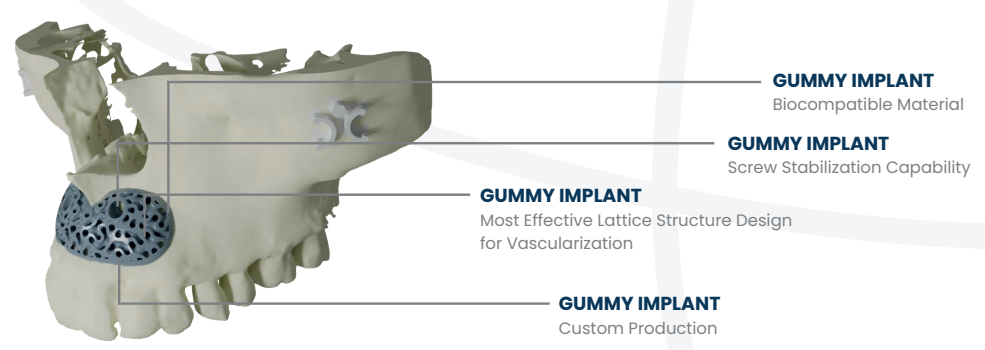
CUSTIPLATE



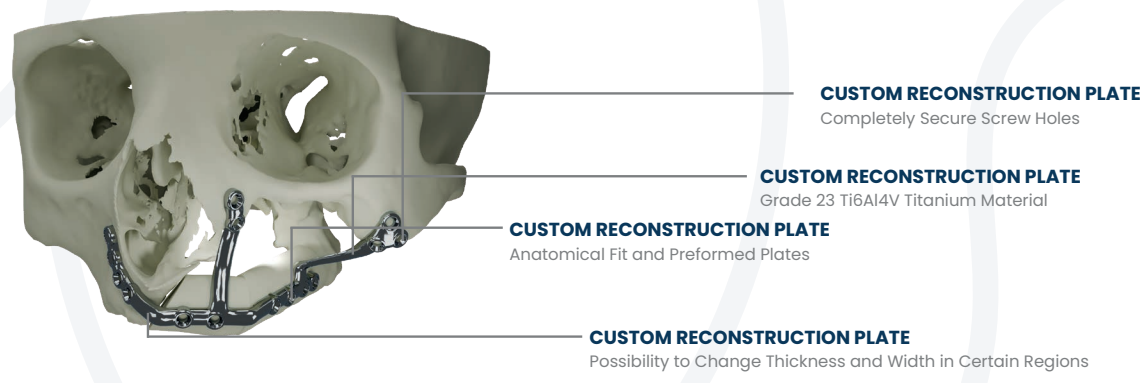
CUSTOM CUTTING GUIDE



GUMMY IMPLANT



CUSTOM RECONSTRUCTION PLATE

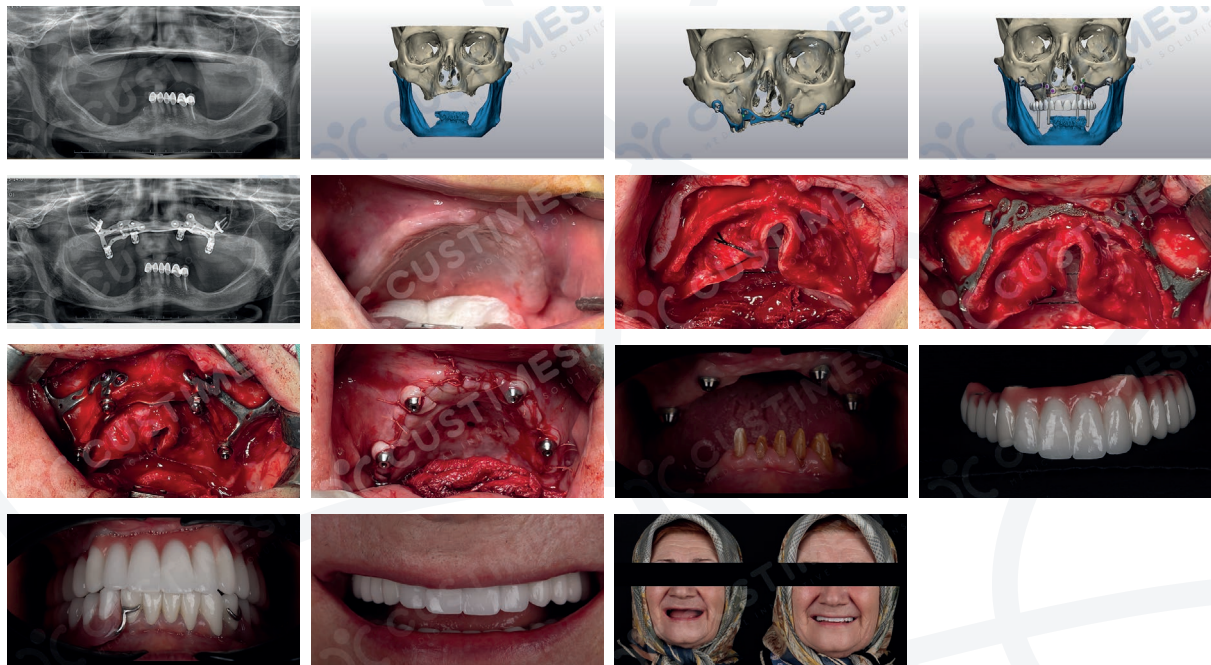


CASE VISUALS

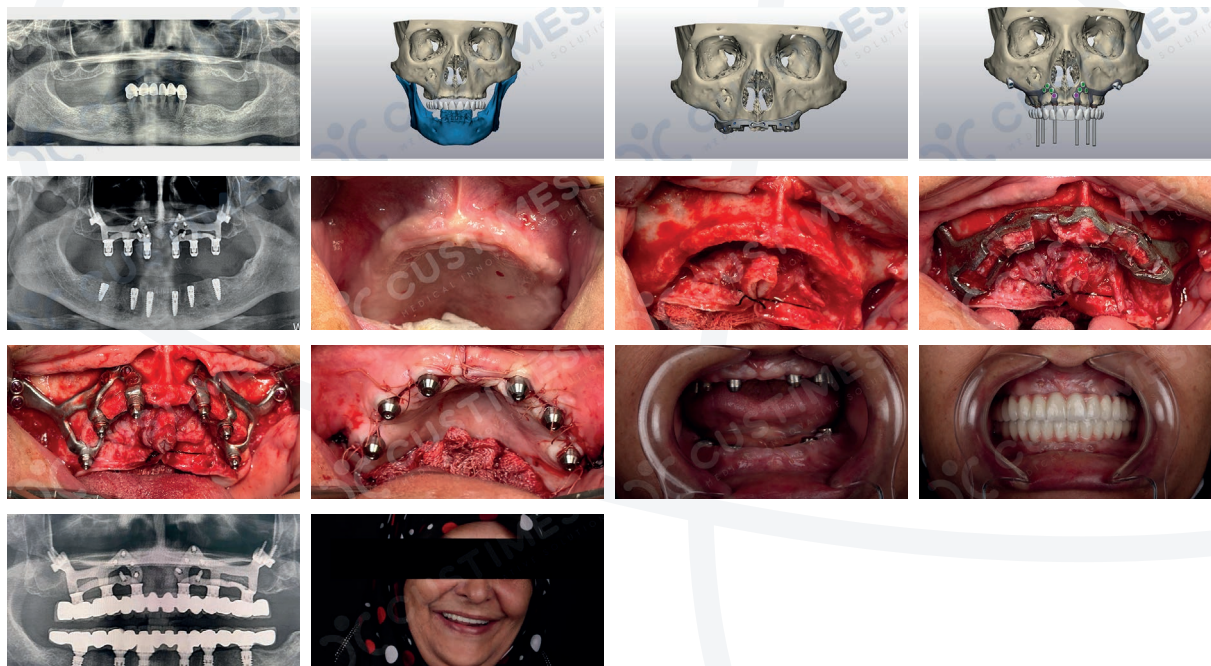
Detailed Visuals



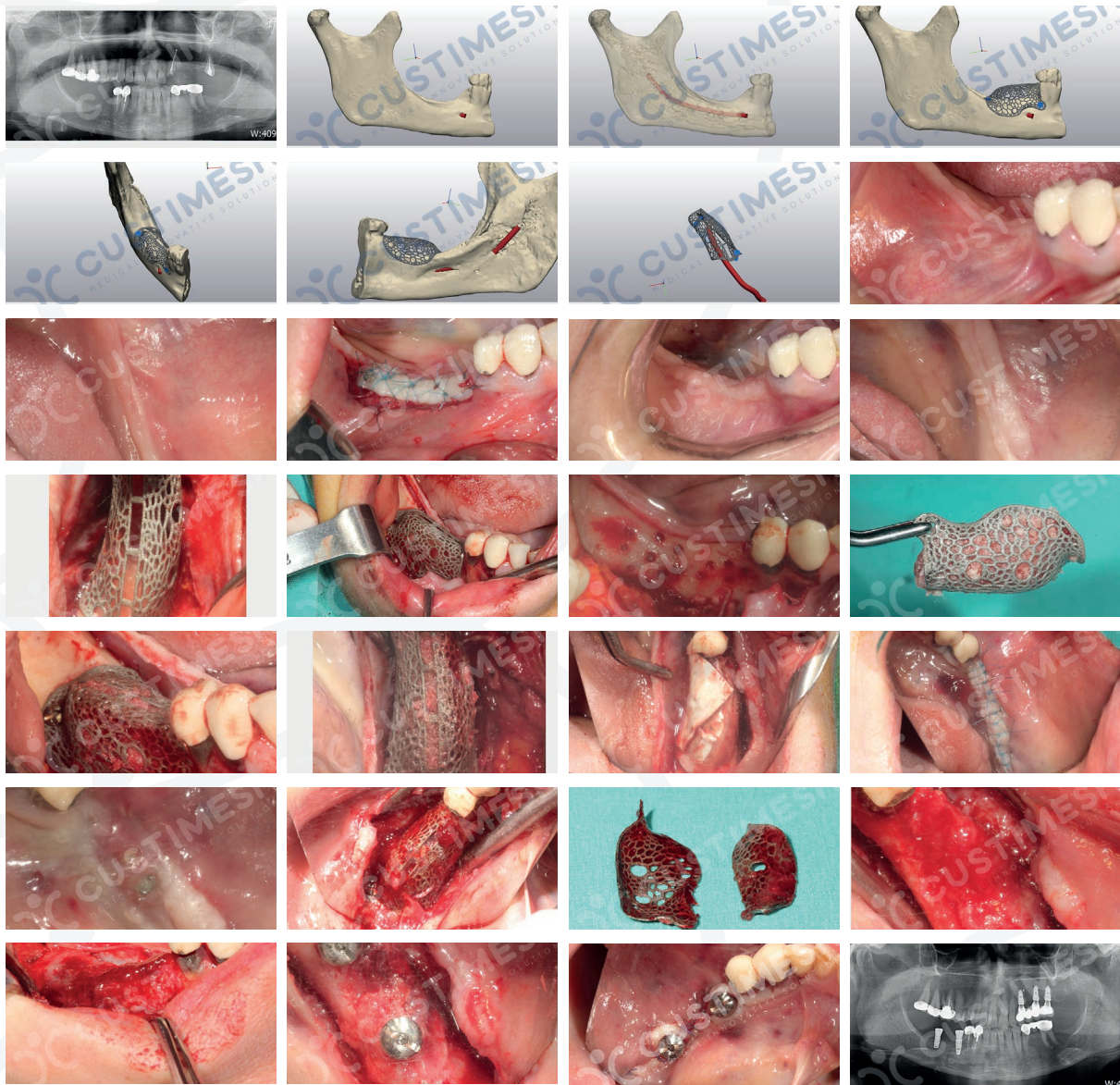
CUSTIMPLANT



CUSTIMPLANT



CUSTIMESH



Innovative Medical Solution for Bone Regeneration

Founded in 2020 at Erciyes Technopark, our company has established its position in the industry by developing custom titanium meshes (Custimesh) and custom subperiosteal implants (Custimplant). Over time, our product portfolio has expanded to include custom orthognathic surgical plates, reconstruction plates, cutting guides, and gummy smile implants. Our company continues to accelerate its R&D and product development efforts, offering innovative, personalized medical solutions for both patients and physicians.

Certificates

Certified Quality System

UNI EN ISO 9001 and UNI EN ISO 13485.

Custimesh is registered in the ÜTS system in accordance with the Ministry of Health regulations.

Website



Facebook



Linkedin



Instagram



TR Catalog



EN Catalog



AR Catalog



Discover
the potential

