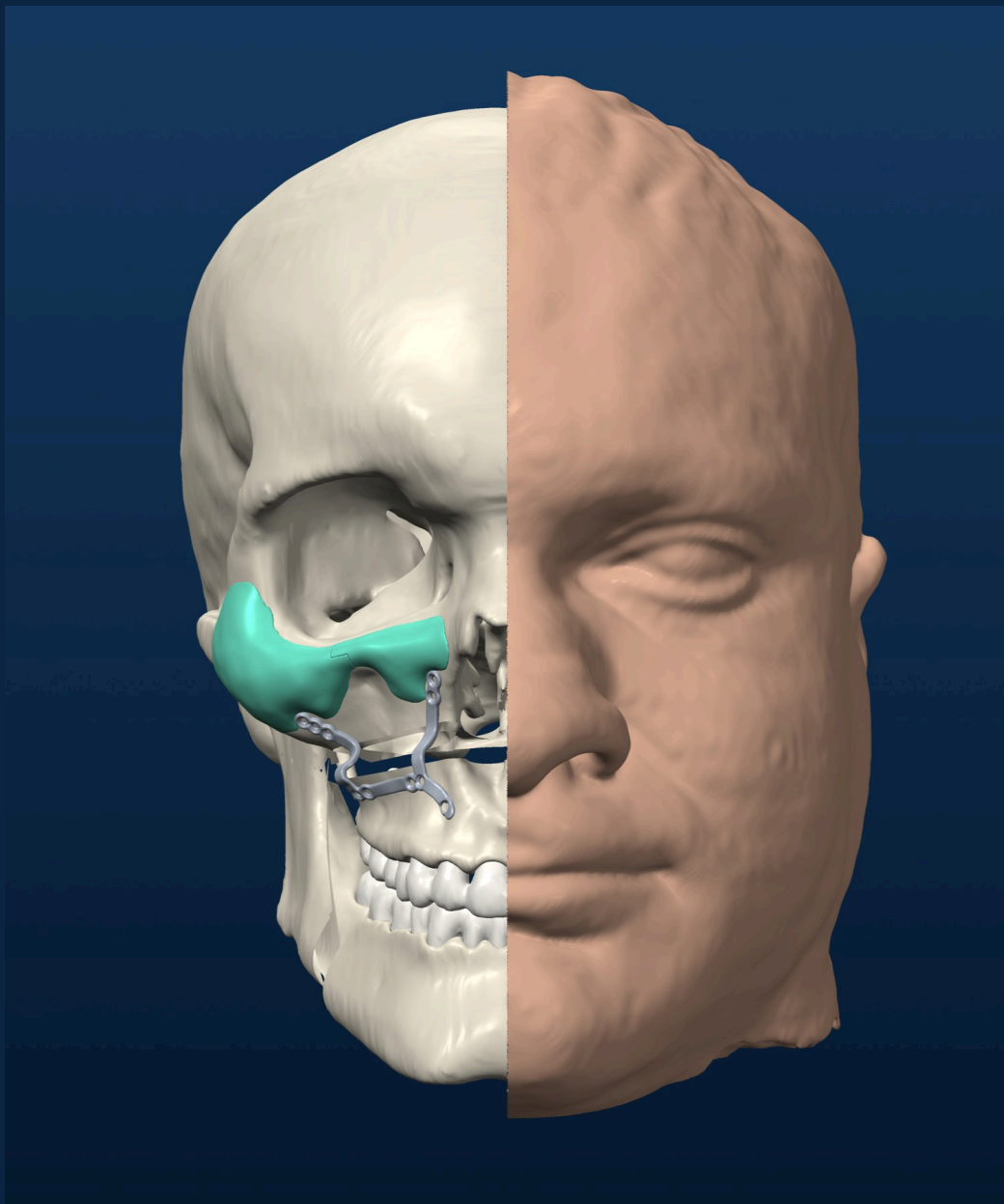




Patient-specific implants

Product catalogue 2026

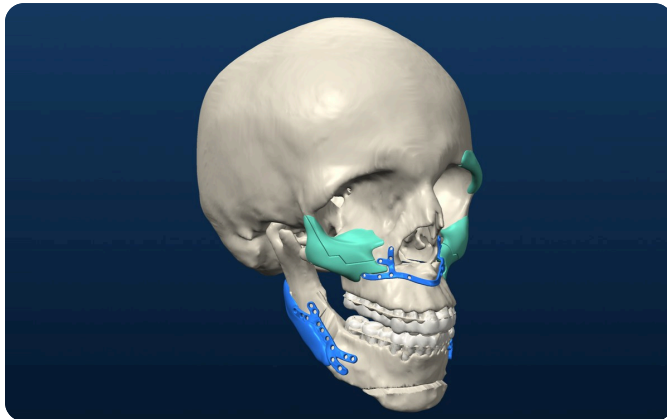
Plan precisely. Operate with confidence.



LAYONMED

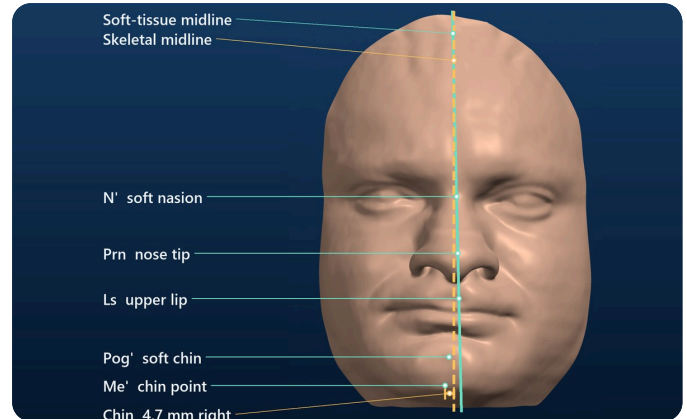
More than plates and guides.

3D planning and patient-specific implants for craniomaxillofacial and facial surgery, and four services that go further.



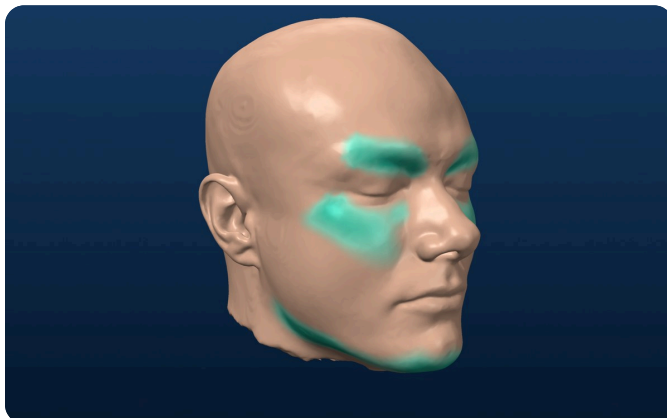
Surgical planning and implants

Osteotomies, cutting guides, plates and onlays, planned in 3D with medical knowledge.



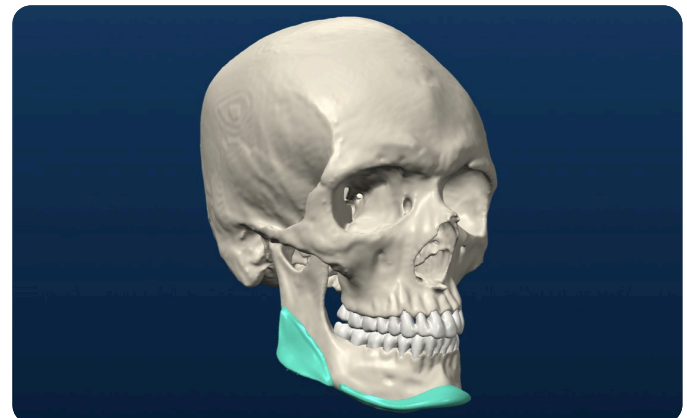
Facial analysis

Landmarks, midlines and proportions of face and skeleton: which surgery is needed, and why.



Soft-tissue simulation

How the face changes with the patient-specific implants, predicted before surgery.



Silicone implant planning

Stock implants placed and fitted to the patient's own bone, with the face predicted.

Contents

Surgical planning and implants

Supraorbital and malar onlays	3
Wraparound, angle and chin onlays	4
Orthognathic surgery: guides, plates and splints	5
Bimaxillary surgery, two cases	6–9
Fibula reconstruction of the mandible	10–11

Facial analysis

12

Soft-tissue simulation

13

Silicone implant planning

14

Working with us

From CT scan to surgery	15
What we deliver	16
What we need from you	17

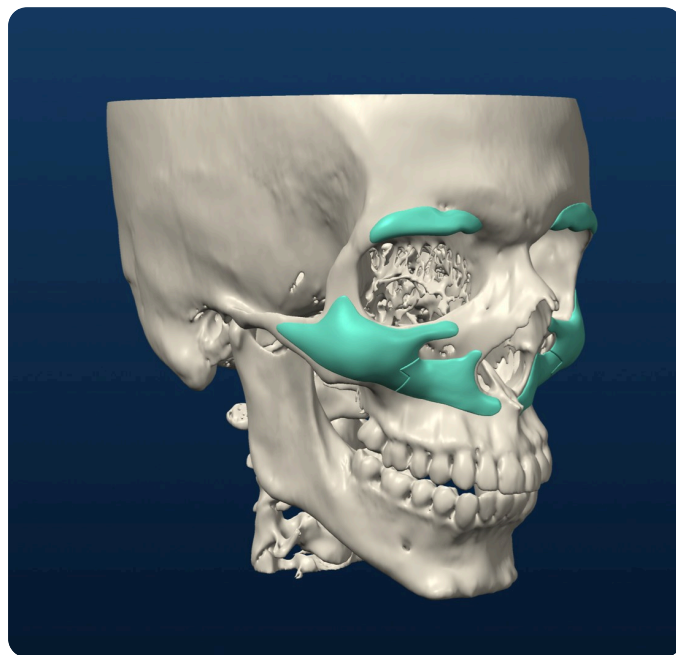
PATIENT-SPECIFIC IMPLANTS · UPPER FACE

Supraorbital and malar onlays

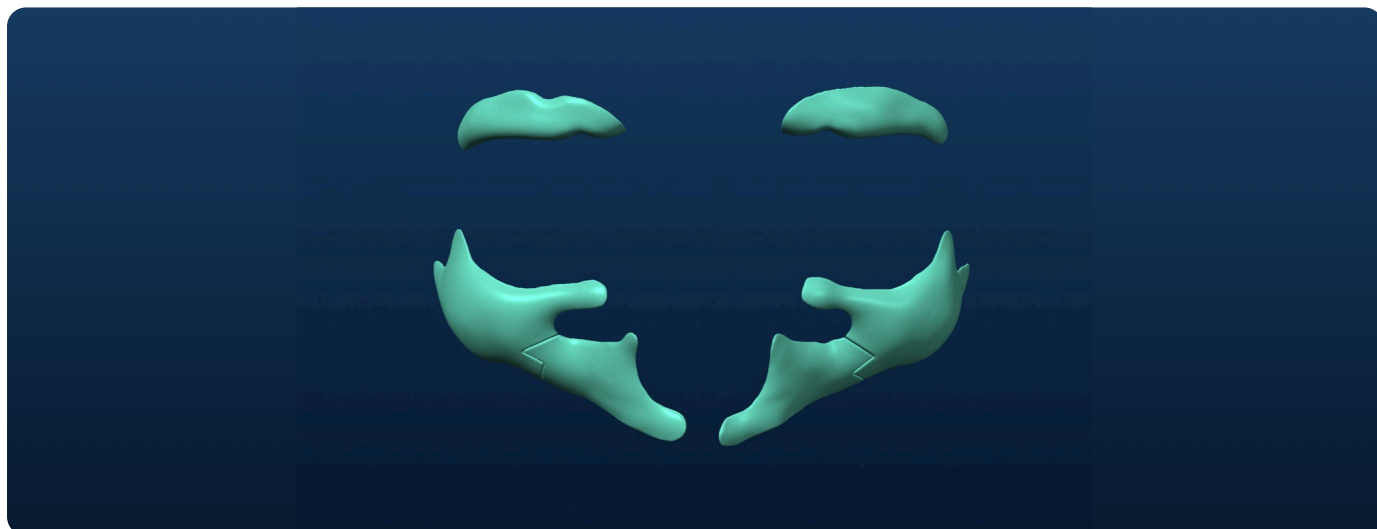
Supraorbital rim onlays augment the upper orbital frame and brow skeleton. Malar onlays augment the zygomatic body and adjacent midface contour.



FRONT



THREE-QUARTER VIEW

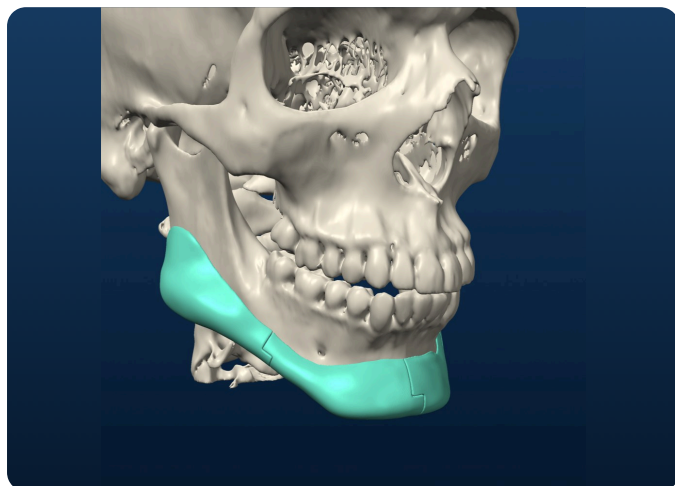


THE IMPLANTS: SUPRAORBITAL RIM AND MALAR, LEFT AND RIGHT

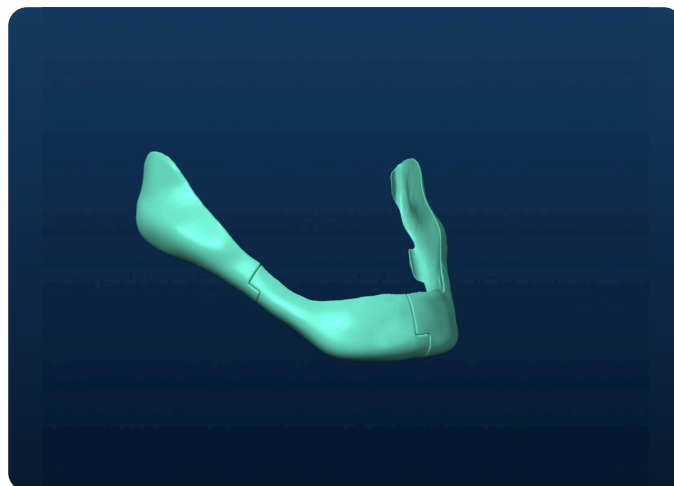
PATIENT-SPECIFIC IMPLANTS · LOWER FACE

Wraparound, angle and chin onlays

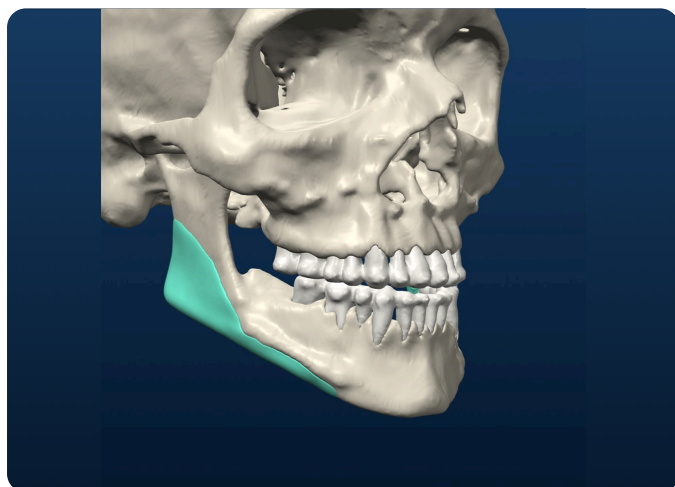
A wraparound mandibular onlay extends along the mandibular body, angle region, and chin border as one continuous contour.



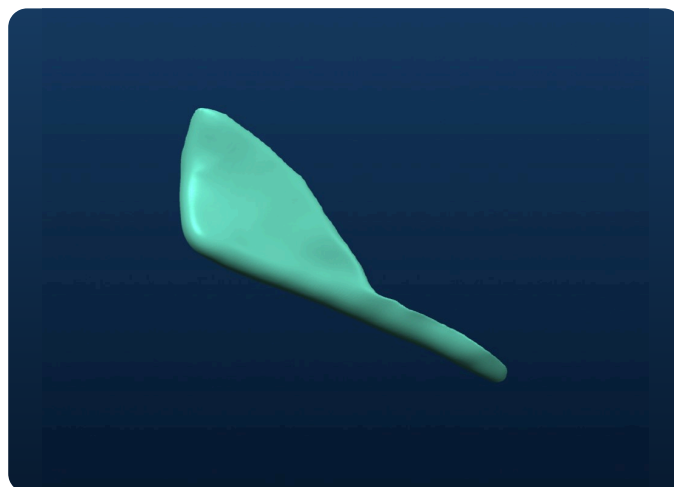
WRAPAROUND MANDIBULAR ONLAY



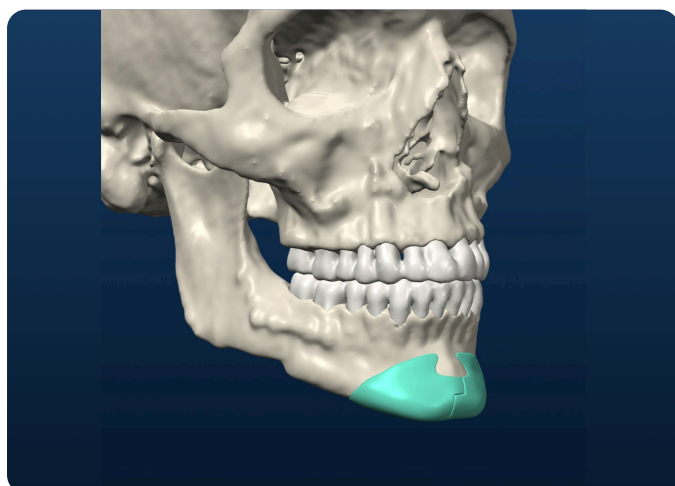
FOUR PARTS, ONE CONTOUR



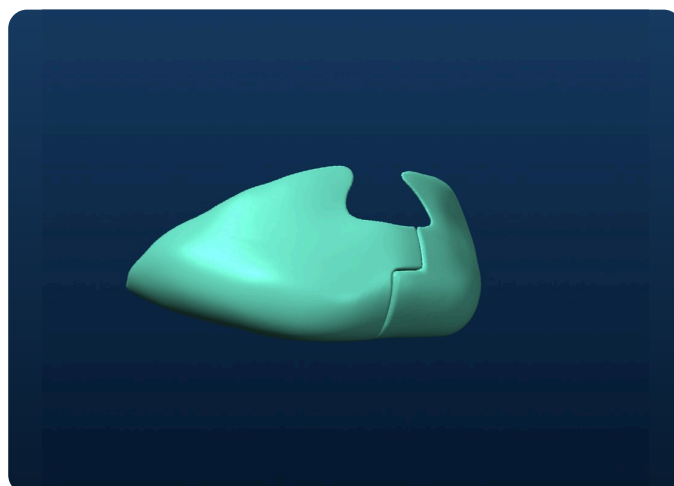
MANDIBULAR ANGLE ONLAY



ONE PER SIDE



CHIN ONLAY



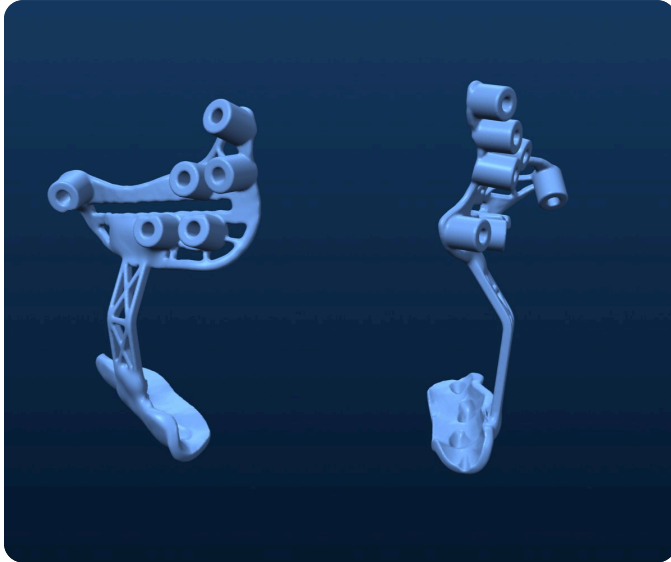
TWO PARTS



ORTHOGNATHIC SURGERY

Guides, plates and splints

Le Fort I, BSSO and genioplasty planned from the CT and dental scan, delivered as cutting guides, patient-specific fixation plates and, where needed, occlusal splints.



CUTTING GUIDES

Cutting guides seat on stable bone, so each cut lands in the planned position.

Custom titanium plates carry the plan directly. Patient-specific cutting guides set where the bone is cut, and each plate fits only the planned position, so the bone is held exactly where it was designed to be, often without a separate splint.



PLATES

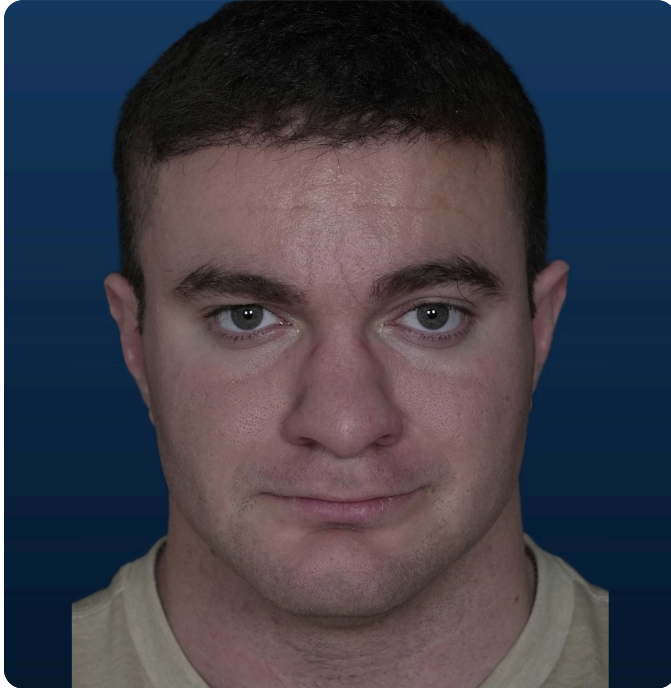


OCCLUSAL SPLINT

FEATURED CASE 1

Bimaxillary surgery with cheek onlays

Le Fort I advancement of 7 mm and BSSO, with patient-specific plates and lateral and medial cheek onlays.



BEFORE



AFTER · 6 MONTHS POST-OP



PRE-OP SKELETON, FROM THE CT

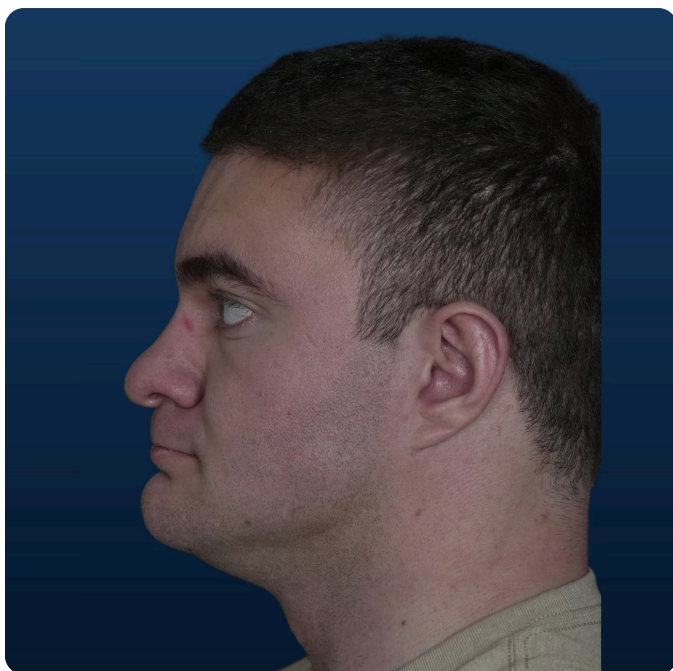


THE PLAN: LE FORT I + BSSO, PLATES, CHEEK ONLAYS

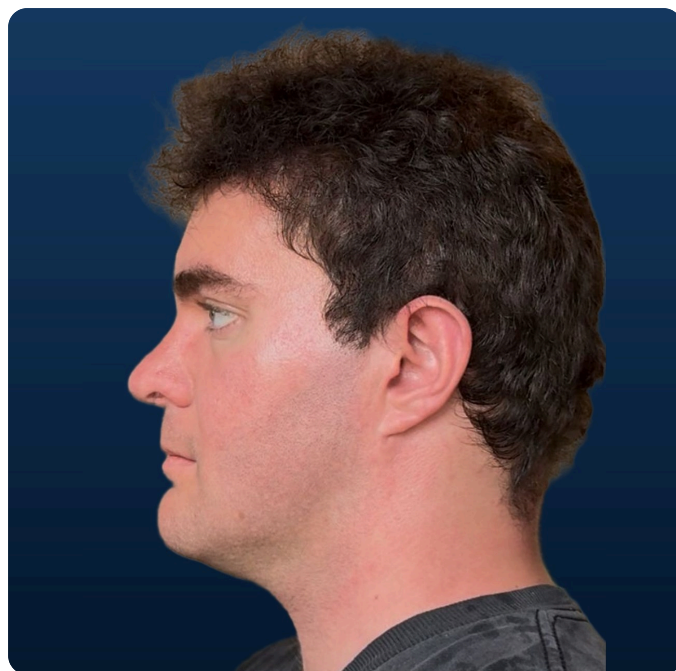
FEATURED CASE 1 - PROFILE

Le Fort I advanced 7 mm, BSSO into the new bite

The profile before and six months after surgery, with the skeleton from the CT and the plan.



BEFORE



AFTER · 6 MONTHS POST-OP



PRE-OP SKELETON, FROM THE CT

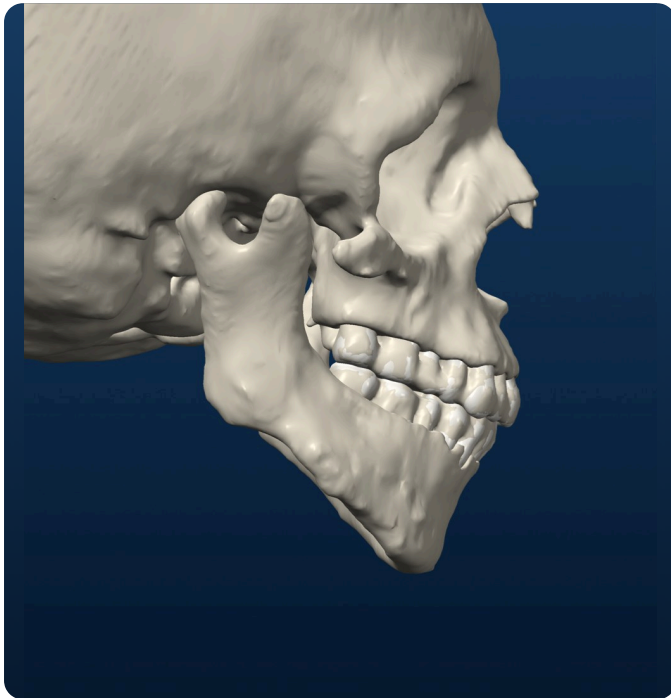


THE PLAN

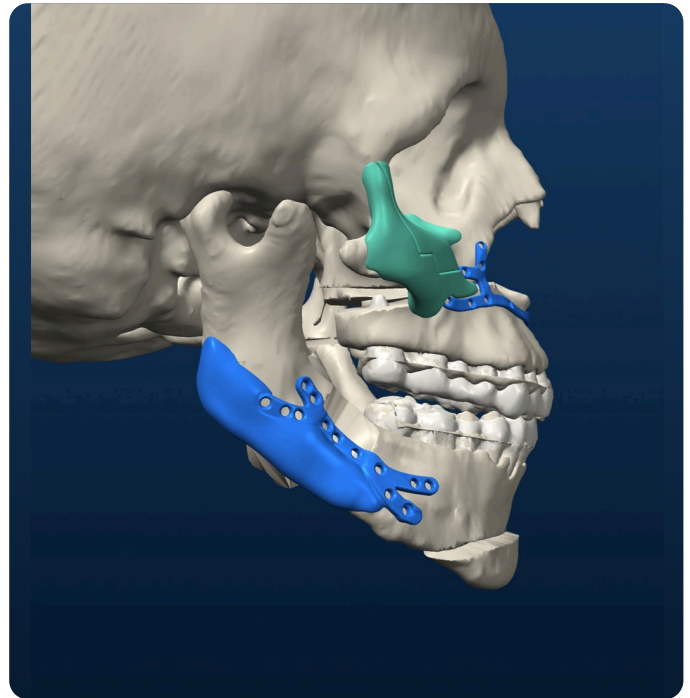
FEATURED CASE 2

Bimaxillary surgery, genioplasty and facial onlays

Fully custom: Le Fort I, BSSO and genioplasty with cutting guides and patient-specific plates, no splint; cheek and brow onlays on the planned skeleton.



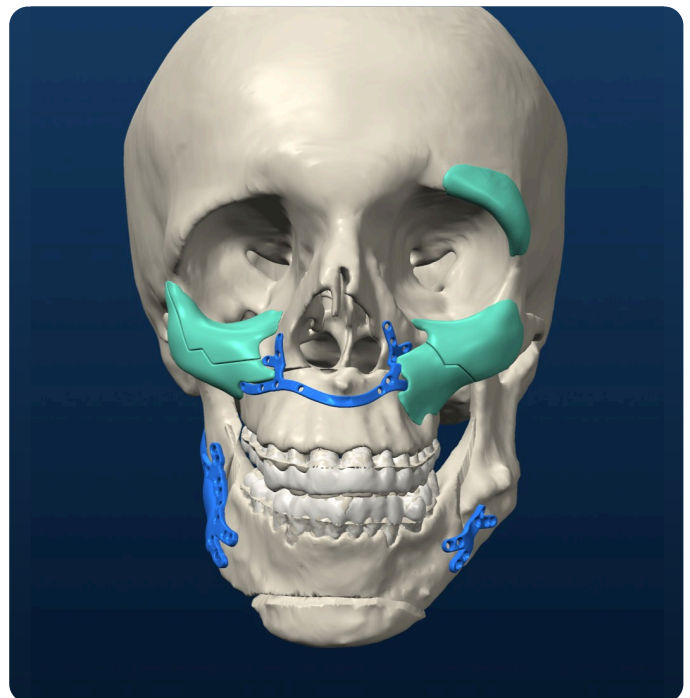
PRE-OP



PLANNED



PRE-OP

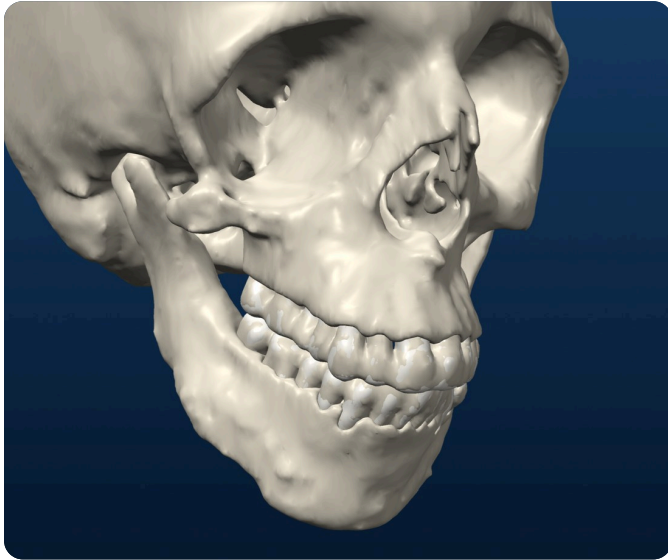


PLANNED

FEATURED CASE 2 - THE PLAN

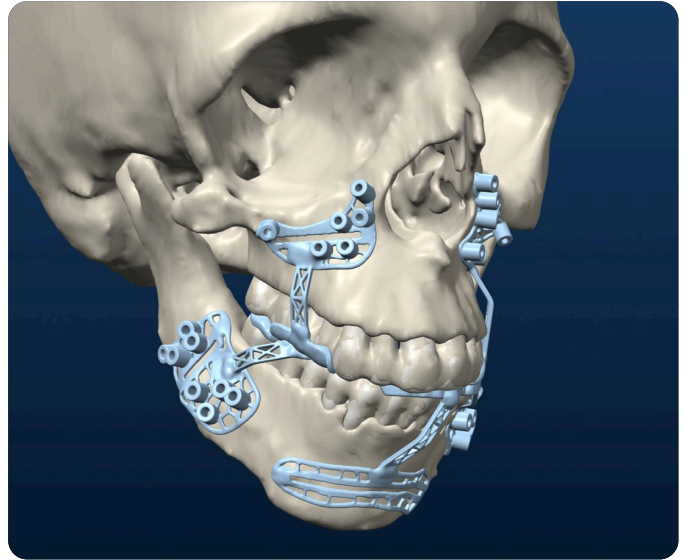
The plan, step by step

From the CT to the planned skeleton in four steps.



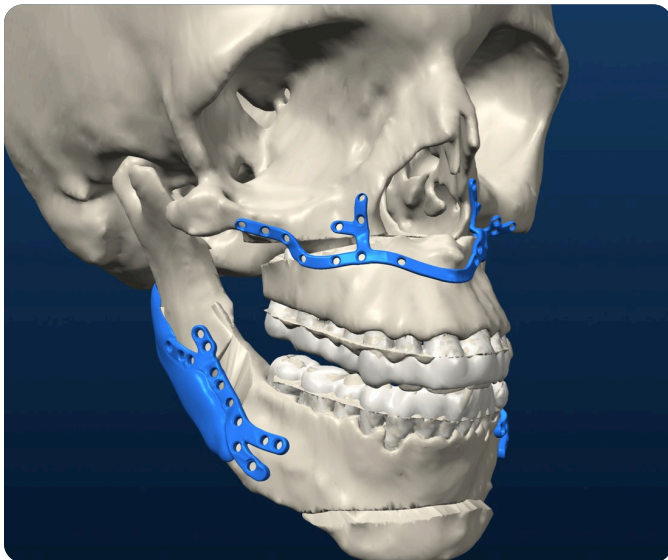
1

Pre-op



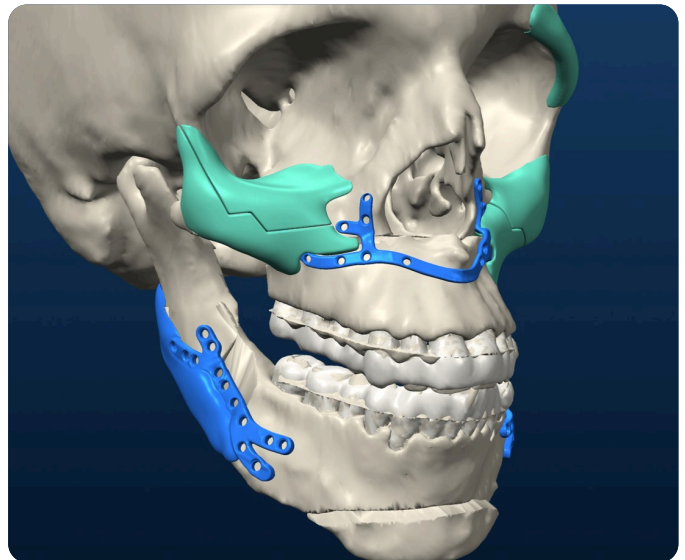
2

Cutting guides



3

Plates



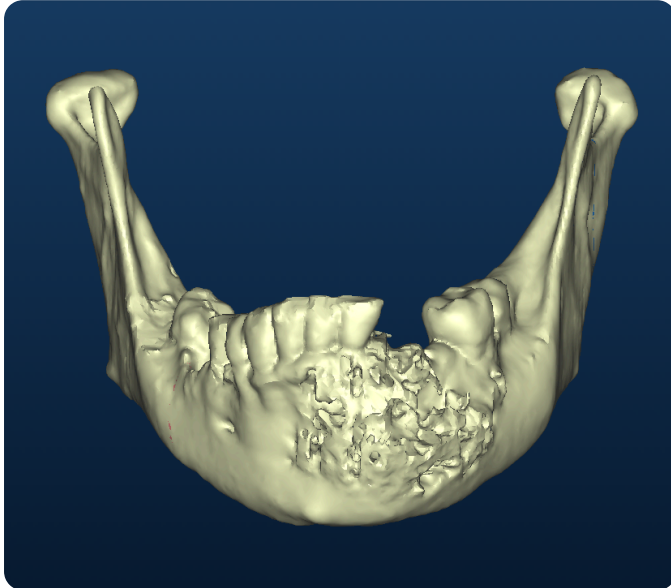
4

Onlays

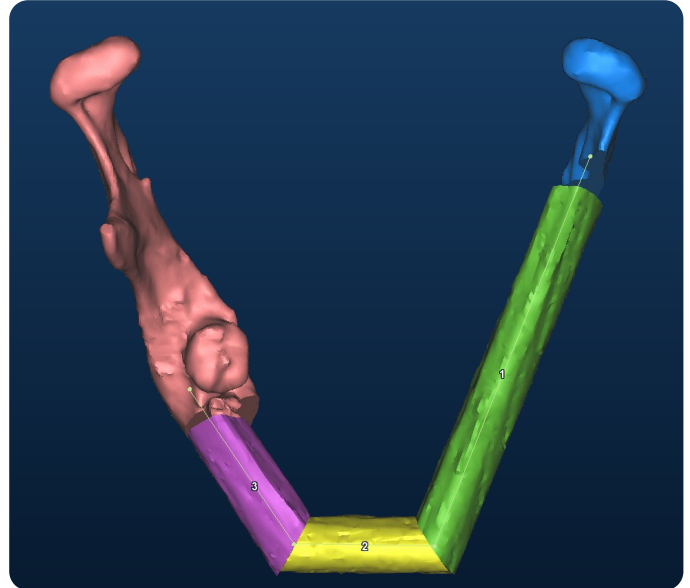
FEATURED CASE 3

Mandible reconstruction with a fibula flap

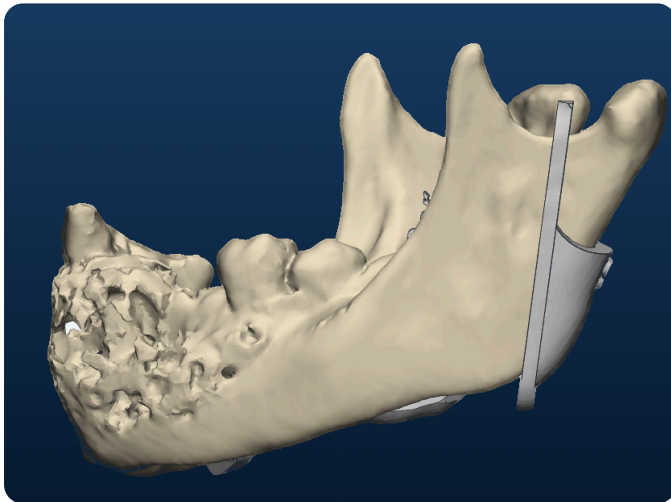
Resection of the mandible and reconstruction with a fibula free flap in three segments, planned by mirroring the healthy side.



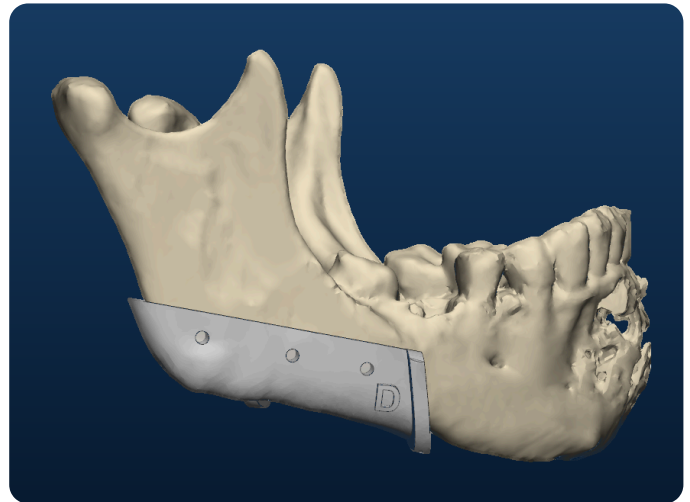
INITIAL SITUATION



THE PLAN: THREE FIBULA SEGMENTS



CUTTING GUIDE, LEFT



CUTTING GUIDE, RIGHT

FEATURED CASE 3 - DELIVERED

3D-printed guides and models



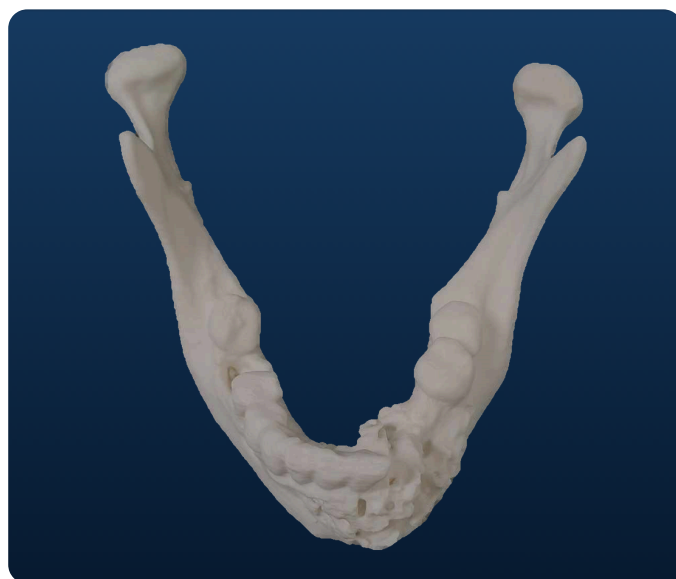
FIBULA CUTTING GUIDE



GUIDE SEATED ON THE MODEL



RECONSTRUCTION MODEL



INITIAL SITUATION

What was delivered

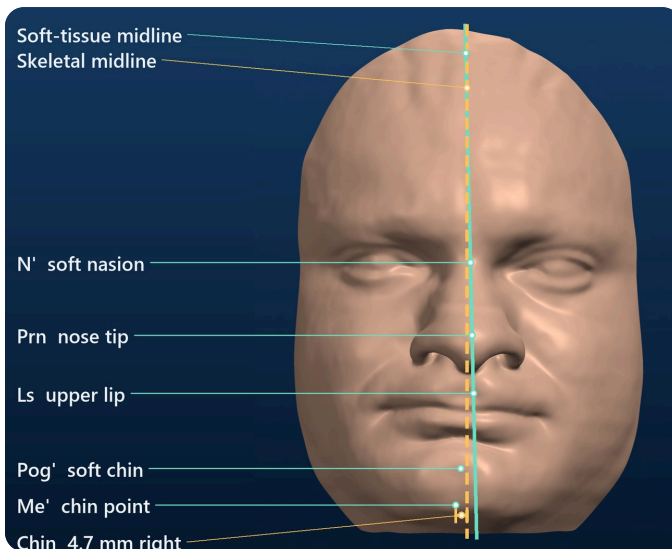
Two cutting guides for the jaw, one for the fibula, and four printed models: one to test the fit, one to place the bone pieces, one to bend the plate before surgery, and one of the jaw as it was.



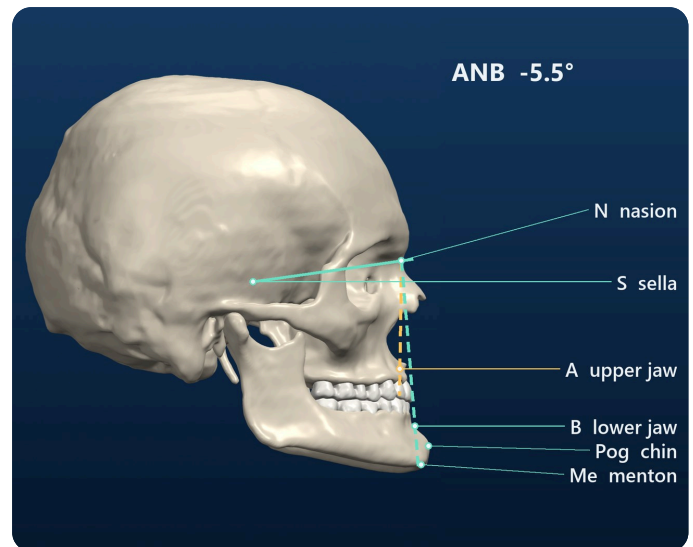
PLANNING SERVICES

Facial analysis

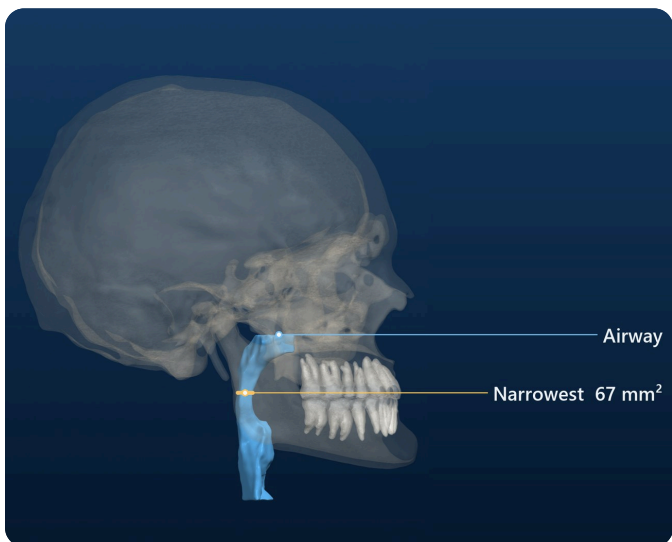
We analyse the face for surgeons and their patients. We find the landmarks and the proportions, show which surgery the findings point to and why, and display the patient so surgeon and patient see the same thing.



LANDMARKS AND BOTH MIDLINES



JAW RELATION



AIRWAY

The surgery, and why

- **Le Fort I, upper jaw 7 mm forward:** the bite is corrected from the upper jaw as well, rather than setting the lower jaw far back, which narrows the airway
- **BSSO:** the lower jaw follows into the new bite
- **Cheek onlays:** midface contour

The surgeon decides; the analysis shows the findings and the options for discussion.



PLANNING SERVICES

Soft-tissue simulation

Integrated soft tissue simulation helps estimate the postoperative facial outcome before surgery is performed.



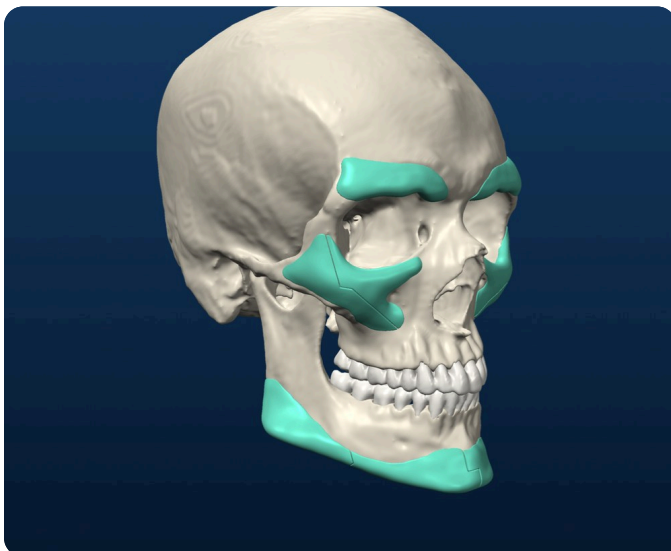
TODAY



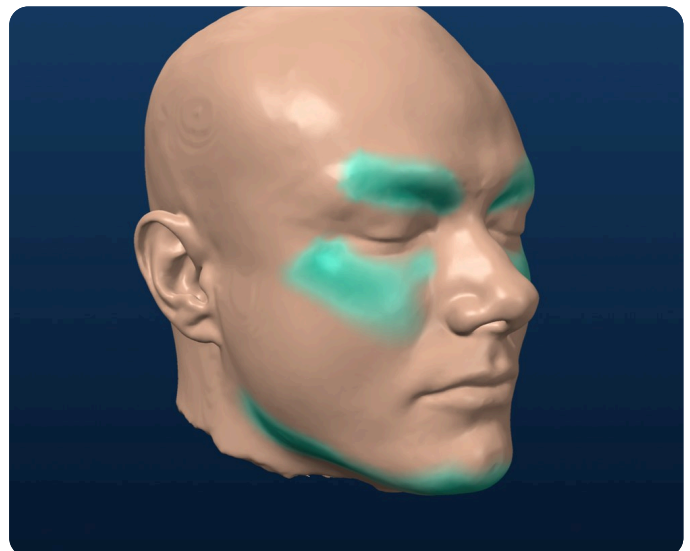
PREDICTED, WITH ONLAYS

— Predicted contour

— Today's contour



THE IMPLANTS, RIGHT SIDE



PREDICTED CHANGE, SAME VIEW



Estimation of likely postoperative soft-tissue contour, with documented modelling limitations. Not a guaranteed visual outcome.



PLANNING SERVICES

Silicone implants, fitted to the patient

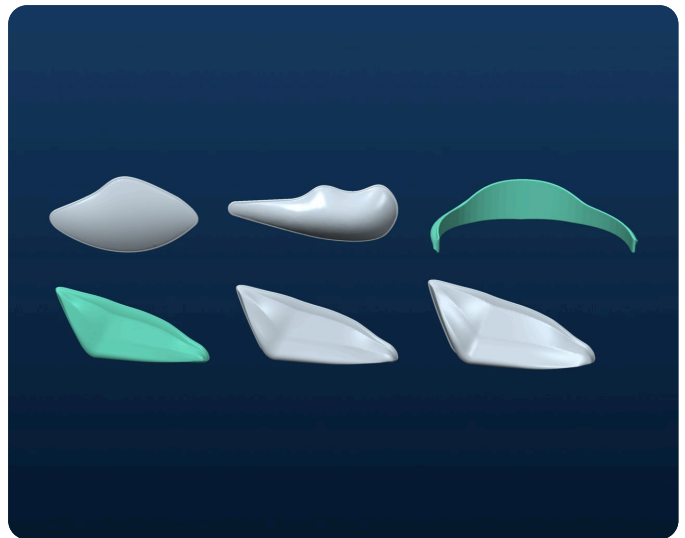
The right stock implant, in the right place, fitted to the patient's own bone, with the face predicted before surgery.

- 1 Choose the location**
Where the implant goes: cheek, chin or jaw angle.



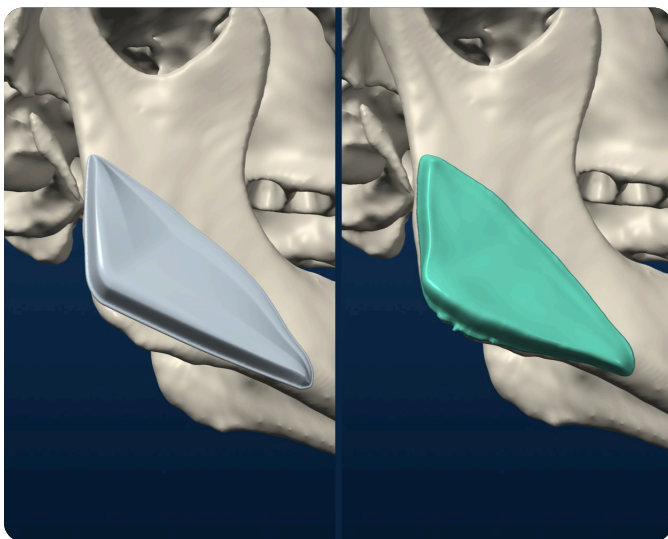
CHEEK, CHIN AND BOTH ANGLES

- 2 Choose the implant**
Shape and size from the stock range, for each location.



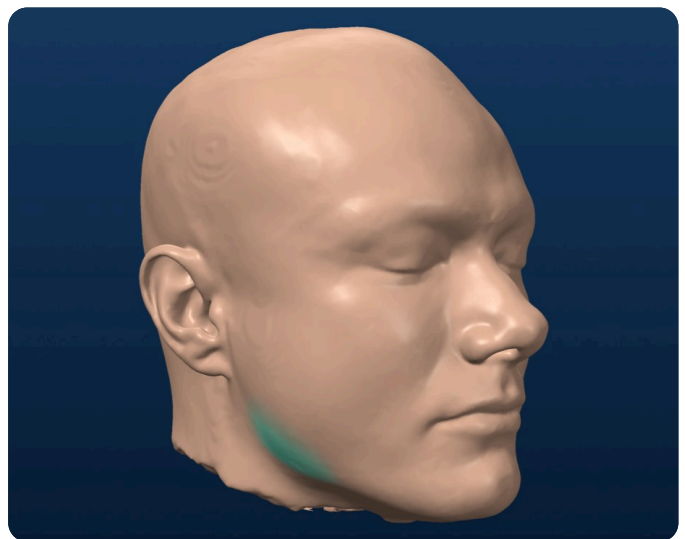
CHEEK AND CHIN SHAPES · ANGLE IN 5, 7 AND 10 MM

- 3 Automatic fit to the bone**
The stock shape is placed and fitted to the bone automatically.



STOCK SHAPE → FITTED TO THE BONE

- 4 Predict the face**
The skin over the implants, predicted before surgery.



PREDICTED CHANGE



Indicative, not a guaranteed result.

THE WORKFLOW

From CT scan to surgery

A planning proposal is typically returned within 2-5 working days, case-dependent.

01

Submit a case

Send the patient's high-resolution CT - and the intraoral scan where relevant - through our secure channel.

02

Virtual surgical planning

We segment and reconstruct a precise 3D model, then plan the osteotomies, movements, and implant positioning together with your surgical team.

03

Design & approval

You review and approve every design before anything is manufactured.

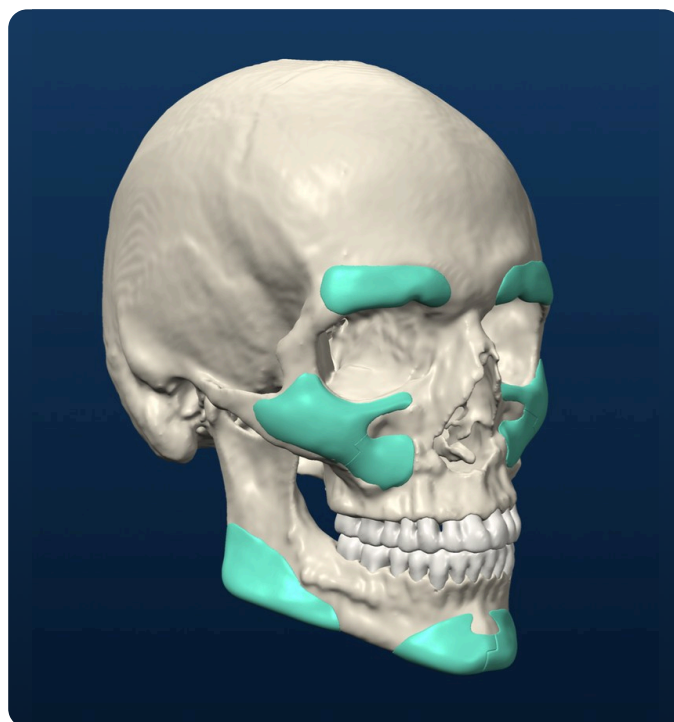
04

Manufacturing & delivery

Approved designs are produced by certified partners in medical-grade titanium or PEEK, timed to your surgical date.



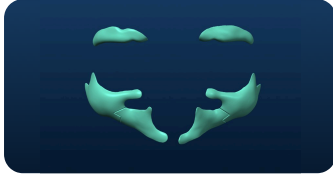
PRE-OP



PLANNED RESULT

SPECIFICATIONS

What we deliver



Facial onlays

TYPES Supraorbital, malar, mandibular angle, chin, wraparound

MATERIAL Titanium or PEEK

Shape, thickness and screw positions planned together

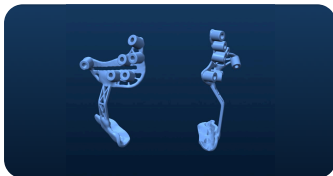


Patient-specific plates

TYPES Le Fort I, BSSO, genioplasty

MATERIAL Titanium

Shaped in advance to the planned bone position, not bent by hand

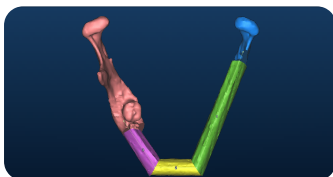


Cutting guides

TYPES Le Fort I, BSSO, genioplasty

MATERIAL 3D-printed by certified partners

Seat on stable bone, so each cut lands in the planned position



Reconstruction guides and models

TYPES Mandible resection, fibula osteotomy, test-fit and plate pre-bending models

MATERIAL 3D-printed

Planned by mirroring the healthy side

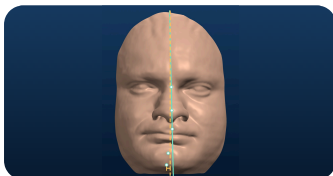


Occlusal splints

TYPES Intermediate and final

MATERIAL 3D-printed from the digital plan

Where the plan needs one

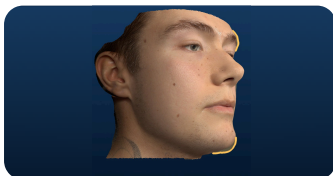


Facial analysis

TYPES Landmarks, proportions, soft-tissue and skeletal midline, jaw relation, airway

MATERIAL Planning service

The findings and the surgery they point to, for discussion



Soft-tissue simulation

TYPES With onlays, silicone implants or orthognathic moves

MATERIAL Planning service

Estimation, with documented modelling limitations



Silicone implant planning

TYPES Stock implants placed on the patient's own bone

MATERIAL Planning service

Size chosen by the surgeon, skin over it simulated

A planning proposal is typically returned within 2-5 working days, case-dependent. Where LayonMed coordinates manufacturing through qualified manufacturing partners, the legal manufacturer of the finished medical device is the manufacturing partner, operating under its own quality management system (ISO 13485 or equivalent). Specific manufacturer, certificate, and notified-body identifiers are provided with each individual order to the prescribing clinician.

BEFORE YOU SEND

What we need from you

The quality of digital planning depends directly on the quality of the imaging acquisition and the dental data.

Orthognathic surgery, plates, guides



CT or CBCT, full head

Min. 16-22 cm field of view, slice 0.5-1.0 mm (CT) / 0.3-0.6 mm (CBCT), no contrast, metal-artefact reduction on



Natural head position

Mandible in centric relation, no chin support



Upper and lower arch

Intraoral scan preferred (STL / PLY / OBJ), or scanned plaster models



Occlusion in CR

Both arches together, in centric relation



Complete DICOM

All files, uncompressed

Facial onlays



CT or CBCT of the region

Target region + the opposite side, same slice settings, metal-artefact reduction on



Natural head position

Patient still, stable head



No dental data

Only if the onlay sits next to the teeth or is combined with orthognathic surgery



Complete DICOM

All files, uncompressed + the target site

Do

- ✓ Natural head position
- ✓ Metal-artefact reduction enabled
- ✓ Send the complete, uncompressed DICOM set

Avoid

- ✗ Chin support (it deforms the soft tissues)
- ✗ Contrast agent
- ✗ Lossy compression on export

Full imaging protocol for each procedure: layonmed.ch



Submit a case, receive a plan.

layonmed.ch

contact@layonmed.com

For healthcare professionals. Not medical advice. The treating clinician retains final clinical responsibility. The legal manufacturer of each finished device is the manufacturing partner (ISO 13485 or equivalent).

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