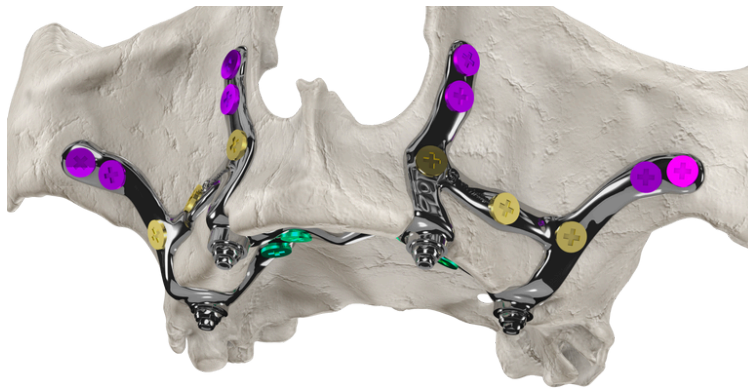


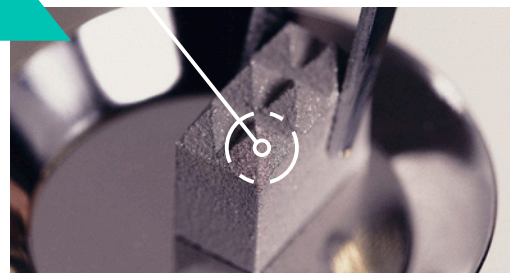


**CUSTOM SUBPERIOSTEAL
IMPLANT:
RECORD-TAKING AND
PLANNING PROTOCOL**

SURGICAL IMPLANTS CUSTOM-MADE

TITANIUM Ti6AL4V

WE CREATE CUSTOM-
DESIGNED IMPLANTABLE
MEDICAL IMPLANTS FOR
EACH PATIENT.



- 1 CASES WITH REMAINING NATURAL TEETH**
- 2 CASES WITH STANDARD IMPLANTS**
- 3 EDENTULOUS CASES WITH REMOVABLE PROSTHESIS**
- 4 EDENTULOUS CASES WITHOUT REMOVABLE PROSTHESIS**
- 5 PROCEDURE FOR THE DESIGN OF THE SUBPERIOSTEAL IMPLANT**
- 6 APPENDIX: RECOMMENDED PARAMETERS FOR THE CT SCAN**
- 7 PRESCRIPTION FORM**

1

CASES WITH REMAINING NATURAL TEETH

TAKING OF THE PATIENT'S RECORDS

TAKE AN ANALOG OR DIGITAL IMPRESSION OF THE MANDIBLE AND MAXILLA BEFORE PERFORMING ANY EXTRACTIONS, ALONG WITH A BITE REGISTRATION IN MAXIMUM INTERCUSPATION OR CENTRIC RELATION.

TAKE TWO 2D FACIAL PHOTOGRAPHS OF THE PATIENT: ONE WITH CHEEK RETRACTORS IN PLACE CAPTURING THE ENTIRE FACE, AND ANOTHER OF THE PATIENT SMILING. THESE PHOTOGRAPHS ARE USED TO PERFORM A DIGITAL SMILE DESIGN AND CREATE A MOCK-UP, IF REQUIRED.

ACQUIRE A HIGH-QUALITY CT SCAN (CT) OR CONE BEAM COMPUTED TOMOGRAPHY (CBCT) IN MAXIMUM INTERCUSPATION WITH ALL REMAINING TEETH PRESENT TO ENABLE ACCURATE ALIGNMENT (REGISTRATION) OF THE CBCT WITH THE PATIENT'S ANALOG OR DIGITAL MODELS.



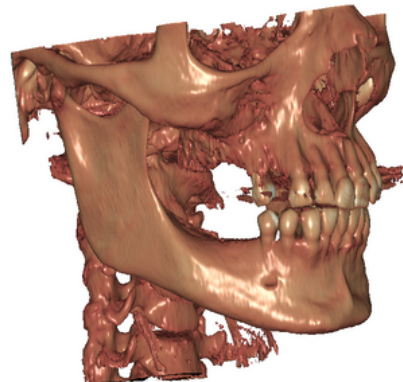
**CHEEK
RETRACTOR**



SMILE

SEND TO [INVENTICA](#):

- **THE MODEL:**
 - ANALOG (BY POSTAL MAIL)**
 - DIGITAL (BY EMAIL)**
- **2D PHOTOGRAPHS:**
 - WITH CHEEK RETRACTOR (EMAIL)**
 - WITH SMILE (EMAIL)**
- **CT OR CBCT (EMAIL)**



2

CASE WITH STANDARD IMPLANTS

IN THESE CASES, REQUEST THE RADIOPAQUE REFERENCE MARKERS FROM INVENTICA. THEY WILL BE SHIPPED DIRECTLY FROM THE FACTORY TO YOUR CLINIC.

BOND A MINIMUM OF THREE RADIOPAQUE REFERENCE MARKERS TO THE TEETH USING COMPOSITE RESIN, LOCTITE, OR ANOTHER SUITABLE ADHESIVE TO ENSURE SECURE ATTACHMENT. THESE REFERENCE MARKERS SHOULD BE POSITIONED IN THE PREMOLAR, MOLAR, AND CENTRAL INCISOR REGIONS.

OBTAIN AN ANALOG OR DIGITAL IMPRESSION OF THE MAXILLA AND MANDIBLE BEFORE PERFORMING ANY EXTRACTIONS, ALONG WITH A BITE REGISTRATION IN MAXIMUM INTERCUSPATION OR CENTRIC RELATION.

TAKE TWO 2D FACIAL PHOTOGRAPHS OF THE PATIENT: ONE WITH CHEEK RETRACTORS IN PLACE, CAPTURING THE ENTIRE FACE, AND ANOTHER WITH THE PATIENT SMILING. THESE PHOTOGRAPHS ARE USED TO PERFORM A DIGITAL SMILE DESIGN AND FABRICATE A MOCK-UP, IF REQUIRED.

ACQUIRE A HIGH-QUALITY CT SCAN (CT) OR CONE BEAM COMPUTED TOMOGRAPHY (CBCT) WITH THE RADIOPAQUE REFERENCE MARKERS IN PLACE INTRAORALLY, AND WITH THE PATIENT IN MAXIMUM INTERCUSPATION OR CENTRIC RELATION.

SEND THE FOLLOWING TO

INVENTICA:

PATIENT MODEL:

ANALOG MODEL: BY POSTAL MAIL DIGITAL MODEL: BY EMAIL



**CHEEK
RETRACTOR**



SMILE

2D FACIAL PHOTOGRAPHS:

WITH CHEEK RETRACTORS: BY EMAIL **SMILING**

PHOTOGRAPH: BY EMAIL

CT SCAN OR CBCT:

BY EMAIL

3

EDENTULOUS CASES WITH REMOVABLE DENTURES

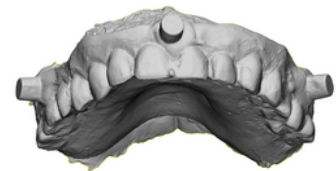
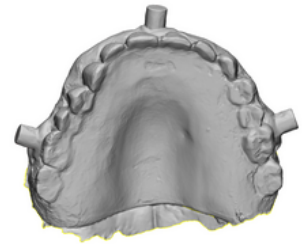
OBTAIN THE PATIENT'S RECORDS USING AN ANALOG IMPRESSION.

IN THESE CASES, REQUEST THE RADIOPAQUE REFERENCE MARKERS FROM FRESMEDICAL, AND THEY WILL BE SHIPPED DIRECTLY FROM THE FACTORY TO YOUR CLINIC.

RELINE THE PATIENT'S COMPLETE DENTURE WITH FLOWABLE SILICONE.

BOND A MINIMUM OF THREE RADIOPAQUE REFERENCE MARKERS USING COMPOSITE RESIN, LOCTITE, OR ANOTHER SUITABLE ADHESIVE TO ENSURE PROPER ADHESION TO THE TEETH. THESE REFERENCE MARKERS SHOULD BE POSITIONED AT THE LEVEL OF THE PREMOLARS, MOLARS, AND CENTRAL INCISORS.

ACQUIRE A HIGH-QUALITY CT SCAN (CT) OR CONE BEAM COMPUTED TOMOGRAPHY (CBCT) IN MAXIMUM INTERCUSPATION.



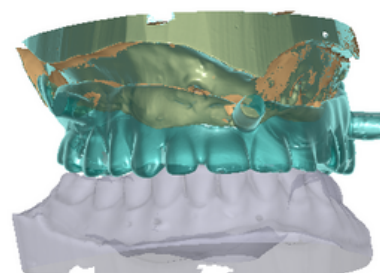
REMOVE THE COMPLETE DENTURES, TAKING CARE NOT TO DETACH THE REFERENCE MARKERS. CAREFULLY PACKAGE THEM, ENSURING THEY ARE PROTECTED, AND CALL THE CENTER FOR COLLECTION. THE COMPLETE DENTURES WILL BE RETURNED WITHIN A MAXIMUM PERIOD OF 72 HOURS. THIS IS NECESSARY IN ORDER TO DIGITIZE THE COMPLETE DENTURES.

SEND THE FOLLOWING TO [INVENTICA](#):

[ALL ITEMS WITH THE RADIOPAQUE REFERENCE MARKERS:](#)

COMPLETE DENTURES: BY POSTAL MAIL

CT SCAN OR CBCT: BY EMAIL



3

EDENTULOUS CASES WITH REMOVABLE PROSTHESIS

OBTAIN THE PATIENT'S RECORDS USING A DIGITAL IMPRESSION

IN THESE CASES, REQUEST THE RADIOPAQUE REFERENCE MARKERS FROM INVENTICA AND THEY WILL BE SHIPPED DIRECTLY FROM THE FACTORY TO YOUR CLINIC.

RELINE THE PATIENT'S COMPLETE DENTURE WITH FLOWABLE SILICONE.

BOND A MINIMUM OF THREE RADIOPAQUE REFERENCE MARKERS USING COMPOSITE RESIN, LOCTITE, OR ANOTHER SUITABLE ADHESIVE TO ENSURE PROPER ADHESION TO THE TEETH. THESE REFERENCE MARKERS SHOULD BE POSITIONED AT THE LEVEL OF THE PREMOLARS, MOLARS, AND CENTRAL INCISORS.

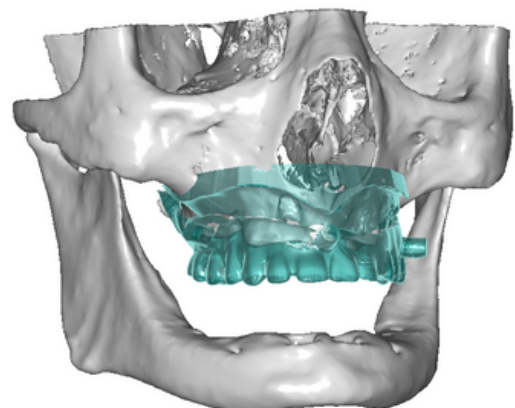
ACQUIRE A HIGH-QUALITY CT SCAN (CT) OR CONE BEAM COMPUTED TOMOGRAPHY (CBCT) IN MAXIMUM INTERCUSPATION, WITH THE RADIOPAQUE REFERENCE MARKERS IN PLACE.

REMOVE THE COMPLETE DENTURES, TAKING CARE NOT TO DETACH THE REFERENCE MARKERS, AND THEN SCAN THEM BOTH INTERNALLY AND EXTERNALLY. THIS IS NECESSARY IN ORDER TO OBTAIN AN INTERNAL AND EXTERNAL DIGITAL MODEL AND TO PERFORM THE ALIGNMENT OF THE COMPLETE DENTURE WITHOUT LOSING THE SOFT TISSUE INFORMATION.

**SEND THE FOLLOWING TO
INVENTICA:**

**ALL ITEMS WITH THE RADIOPAQUE
REFERENCE MARKERS:**

**SCANNED COMPLETE DENTURES: BY EMAIL
CT SCAN OR CBCT: BY EMAIL**



4

EDENTULOUS CASES WITHOUT REMOVABLE PROSTHESIS

PATIENT RECORD ACQUISITION

TAKE BOTH ANALOG AND DIGITAL IMPRESSIONS. IN BOTH CASES, SEND THEM TO INVENTICA AND REQUEST A BASE PLATE WITH OCCLUSION RIMS.

INVENTICA WILL SEND A BASE PLATE WITH AN OCCLUSION RIM FOR RECORDING VERTICAL DIMENSION, MIDLINE, SMILE LINE, ETC.

TAKE 2D FACIAL PHOTOGRAPHS OF THE PATIENT WITH THE BASE PLATE AND OCCLUSION RIM POSITIONED IN THE MOUTH: ONE WITH THE CHEEK RETRACTOR SHOWING THE ENTIRE FACE OF THE PATIENT AND ANOTHER WITH THE PATIENT SMILING, IN ORDER TO PERFORM A SMILE DESIGN.

RETURN THE MODELS TO INVENTICA TOGETHER WITH THE RECORDS AND PHOTOGRAPHS.

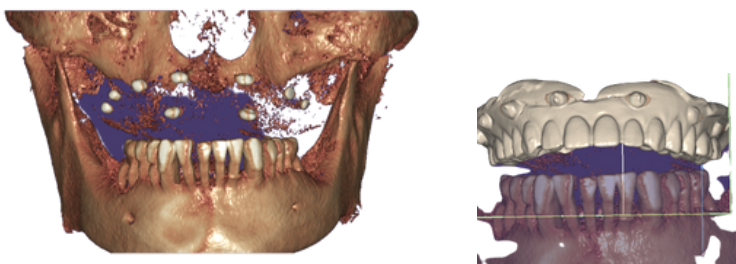
INVENTICA WILL SEND THE CENTER A DIGITAL SMILE DESIGN PROPOSAL FOR APPROVAL.

ONCE APPROVED, THE COMPLETE DENTURES WITH RADIOPAQUE REFERENCE MARKERS WILL BE PRINTED AND SENT TO THE CENTER FOR AESTHETIC TRY-IN AND VERTICAL DIMENSION VERIFICATION.

REBASE THE TOOTH TRY-IN WITH FLOWABLE SILICONE.

PERFORM A HIGH-QUALITY CT OR CBCT SCAN IN MAXIMUM INTERCUSPATION.

REMOVE THE COMPLETE DENTURES, TAKING CARE NOT TO DETACH THE REFERENCE MARKERS. CAREFULLY PACKAGE THEM AND CONTACT THE CENTER FOR COLLECTION. THIS IS NECESSARY TO DIGITIZE THE COMPLETE DENTURES.



**CHEEK
RETRACTOR**



SMILE

5

PROCEDURE FOR THE DESIGN OF A SUBPERIOSTEAL IMPLANT

FOR ALL THE CASES

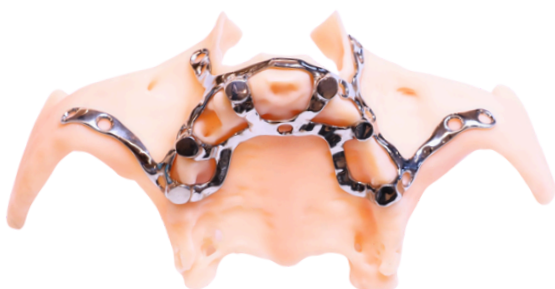
ONCE THE CENTER RECEIVES ALL THE INFORMATION, THEY WILL CONTACT THE DOCTOR TO FINALIZE THE DETAILS OF THE SUBPERIOSTEAL IMPLANT ACCORDING TO THE NEEDS OF THE CASE.

IN ACCORDANCE WITH THE CLINICIAN'S INSTRUCTIONS, A BONE BIOMODEL AND A PROTOTYPE DESIGN OF THE CUSTOMIZED IMPLANT WILL BE PROVIDED TO THE DOCTOR ELECTRONICALLY.

THE DOCTOR WILL BE CONTACTED AGAIN FOR APPROVAL OF THE DESIGN PROPOSAL. THE QUANTITY, LENGTH, AND THICKNESS OF THE SCREWS WILL ALSO BE AGREED UPON.

IF THE DESIGN IS APPROVED, AN ACCEPTANCE DOCUMENT FOR THE CASE PROVIDED BY INVENTICA WILL BE SIGNED. ONCE THE CENTER HAS RECEIVED THE SIGNED DOCUMENT, THE CUSTOMIZED IMPLANT WILL PROCEED TO MANUFACTURING.

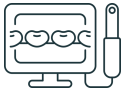
THE CUSTOMIZED SUBPERIOSTEAL IMPLANT, OSTEOSYNTHESIS SCREWS, PMMA PROVISIONAL PROSTHESIS, PROSTHETIC SCREWS, PLACEMENT INSTRUCTIONS, AND MEDICAL DOCUMENTATION WILL BE SENT TO THE CLINICIAN.



5

PROCEDURE FOR THE DESIGN OF A SUBPERIOSTEAL IMPLANT

SCAN IN THE MOUTH



SCANNING OR ANALOG IMPRESSIONS OF THE UPPER AND LOWER JAWS.

RECORD THE BITE REGISTRATION, MIDLINE, AND SMILE LINE.

SCAN OR TAKE AN IMPRESSION OF THE PROVISIONAL PROSTHESIS TO USE AS A REFERENCE.

RECORD THE DIGITAL IMPLANT POSITIONS USING SCAN BODIES. (CURRENTLY AVAILABLE LIBRARIES ARE: DAS/IPD/BIONER/ECKERMANN/GTMEDICAL.)

IF AN INTRAORAL SCANNER IS NOT AVAILABLE, TAKE ANALOG IMPRESSIONS USING IMPRESSION COPINGS; A VERIFICATION JIG (FREE) IS NOT REQUIRED.

PATIENT'S TOOTH SHADE.

OPTIONAL: PHOTOGRAPHS OF THE PATIENT SMILING AND WITH CHEEK RETRACTORS (SHOWING THE ENTIRE FACE).



SEND THE DIGITAL IMPRESSIONS FOR REVIEW AND APPROVAL BY INVENTICA THROUGH INVENTICALP@GMAIL.COM

ANALOG IMPRESSIONS MUST BE SENT AFTER BEING POURED WITH

REMOVABLE GINGIVA. ONCE ACCEPTED, THE DESIGN PROCESS WILL BEGIN.

SHIPMENT OF ANALOG WORK WILL BE CARRIED OUT BY COURIER.



RECEIPT OF THE CASE BY INVENTICA AND DESIGN OF THE FINAL PROSTHESIS: GLAZED MONOLITHIC ZIRCONIA ON A TITANIUM BAR OR ON INTERFACES.



CONSULT THE AVAILABLE LIBRARIES.

ORIGINAL MULTIUNIT CONNECTION ACCORDING TO THE LIBRARY SELECTED BY THE PRESCRIBER. POSSIBILITY OF ADDING THREADS TO SCREW IN ATTACHMENTS WITH DIFFERENT GINGIVAL HEIGHTS.



PERFORM THE DESIGN ACCORDING TO CAD PROTOCOLS.

THE WORK IS FINALIZED IN MONOLITHIC ZIRCONIA, GLAZED, AND SENT TO THE CLINIC WITH ALL THE REQUIRED COMPONENTS (CEMENTED INTERFACES, ...).



SCREWS, ETC.).

THE IMPLANT POSITIONS WILL ALWAYS CORRESPOND TO THE SUBPERIOSTEAL IMPLANT DESIGN, UNLESS THE PRESCRIBER HAS INFORMED US THAT THE PMMA PROSTHESIS PROVIDED ON THE DAY OF THE SURGERY DID NOT FIT PROPERLY IN THE PATIENT'S MOUTH. IN THIS CASE, THE NEW POSITION OF THE MULTIUNIT ABUTMENTS IN THE PATIENT'S MOUTH WILL BE REQUIRED.

A. COMPUTED TOMOGRAPHY (CT) SCAN INSTRUCTIONS

- USE ONLY PRIMARY AXIAL IMAGES.
- IMAGES SCANNED WITH GANTRY TILT, AS WELL AS OBLIQUE OR REFORMATTED IMAGES, NEGATIVELY AFFECT ACCURACY.
- ALL SLICES MUST HAVE THE SAME FIELD OF VIEW, RECONSTRUCTION CENTER, AND TABLE HEIGHT.
- SCAN EACH SLICE IN THE SAME DIRECTION.
- SCAN USING THE SAME SLICE SPACING, LESS THAN OR EQUAL TO THE SLICE THICKNESS. NON OVERLAPPING AXIAL SLICES MAY REDUCE THE QUALITY OF REFORMATTED IMAGES.

A1 PATIENT POSITION

- PLACE THE PATIENT IN A SUPINE POSITION ON THE SCANNER TABLE AND MOVE THEM INTO THE GANTRY, WITH THE HEAD ENTERING FIRST. ADJUST THE TABLE HEIGHT TO POSITION THE PATIENT'S HEAD WITHIN THE SCANNER'S FIELD OF VIEW.
- STABILIZE THE PATIENT'S HEAD USING A HEADREST WITHOUT DEFORMING THE FACIAL SOFT TISSUES (DO NOT USE CHIN RESTS OR STRAPS). THE PATIENT'S HEAD MUST REMAIN STILL.
- MINIMIZE ARTIFACTS CAUSED BY METALLIC DENTAL RESTORATIONS OR ORTHODONTIC BRACKETS BY ALIGNING THE PATIENT'S OCCLUSAL PLANE AS MUCH AS POSSIBLE WITH THE AXIAL SLICES.
- DEPENDING ON THE REQUESTED PRODUCT OR SERVICE,

THE FIELD OF VIEW MUST INCLUDE:

- NOSE AND CHIN -
- RIGHT AND LEFT TEMPOROMANDIBULAR JOINTS (TMJ)
- COMPLETE RIGHT AND LEFT ZYGOMATIC REGIONS
- OTHER REGIONS OF INTEREST IF NECESSARY (E.G., SKULL) FOR CASES INVOLVING COMPLETE TUMOR/DEFECT RECONSTRUCTION"



A2) COMPUTED TOMOGRAPHY (CT) PARAMETERS

GENERAL

GANTRY TILT / OBLIQUE ANGLE	0°
RECONSTRUCTED SLICE INCREMENT	≥ SLICE THICKNESS
RECONSTRUCTION ALGORITHM	BONE OR HIGH RESOLUTION

6

APPENDIX: RECOMMENDED PARAMETERS FOR THE TAC

HEAD

	SLICE THICKNESS		PIXEL SIZE
	RACCOMANDED	MAX	MAX
CASES WITHOUT SURGICAL GUIDES	1.0 mm	1.25 mm	1.0 mm
CASES WITH SURGICAL GUIDES	1.0 mm	1.25 mm	0.5 mm
CASES WITH SURGICAL GUIDES BASED ON CT DATA	0.3-0.5 mm	0.75 mm	0.3 mm

B. CONE BEAM COMPUTED TOMOGRAPHY (CBCT) SCANNING INSTRUCTIONS

"B1) PATIENT POSITIONING

PLACE THE PATIENT IN A SEATED POSITION, WITH THE HEAD IN A NATURAL POSITION, AND THE JAWS IN CENTRIC RELATION (CR).

DO NOT DEFORM THE SOFT TISSUES (NO CHIN RESTS, NO STRAPS). THE FIELD OF VIEW MUST INCLUDE:

NOSE AND CHIN
RIGHT AND LEFT TEMPOROMANDIBULAR JOINTS (TMJ)
COMPLETE RIGHT AND LEFT ZYGOMATIC REGIONS

THE REGION OF INTEREST MUST BE AT LEAST 10 MM AWAY FROM THE EDGE OF THE FIELD OF VIEW TO AVOID POSSIBLE EDGE DISTORTION EFFECTS.



B2) CONE BEAM COMPUTED TOMOGRAPHY (CBCT) SCANNING PARAMETERS

GENERAL

FIELD OF VIEW	LARGEST AVAILABLE
SCAN TIME	LONGEST AVAILABLE

SPECIFIC DEVICE

CASES INCLUDING:	VOXEL SIZE	
	RECOMMENDED	MAXIMUM
3D-PRINTED TITANIUM GUIDES, PLATES, AND IMPLANTS	0.3mm	0.4 mm
ANATOMICAL MODELS, GUIDES, AND SPLINTS	0.3 mm	0.5 mm
CBCT DATA-BASED SURGICAL GUIDES	0.2 mm	0.3 mm

CBCT SCANNERS ARE NOT ACCEPTED FOR ORBITAL AND CRANIAL IMPLANTS.



7

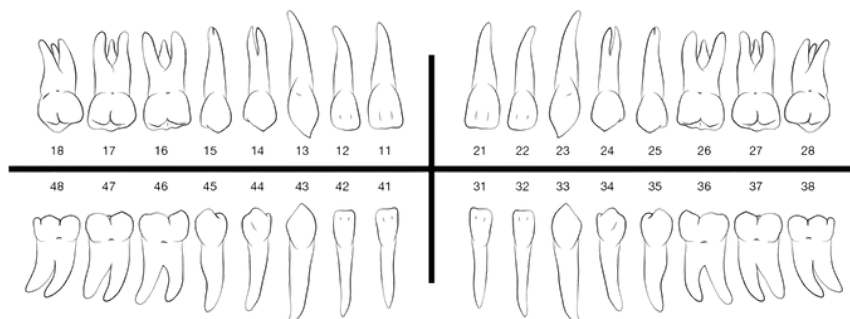
PRESCRIPTION FORM

CUSTOM SUBPERIOSTEAL IMPLANT

PRESCRIBING DOCTOR	
LICENSE NUMBER	
PATIENT NAME	
CLINIC NAME	
TELEPHONE	
EMAIL	
ADDRESS	

TYPE OF SUBPERIOSTEAL IMPLANT

- ☐ **COMPLETE UPPER ARCH**
- ☐ **COMPLETE LOWER ARCH**
- ☐ **PARTIAL UPPER: FROM TOOTH # _____ TO _____**
- ☐ **PARTIAL LOWER: FROM TOOTH # _____ TO _____**



- ☐ **FIXED CONNECTION TO MULTI-UNITS**
- ☐ **CONNECTIONS WITH INTERCHANGEABLE SCREW-RETAINED TRANSEPITHELIAL ABUTMENTS — REQUEST PMMA PROVISIONAL PROSTHESIS.**
- ☐ **REQUEST PMMA PROVISIONAL PROSTHESIS.
SPECIFY SHADE: (E.G., A3) _____**

PLANNING DESIGN MANUFACTURING QUALITY CONTROL



THE CUSTOM SUBPERIOSTEAL IMPLANT



**OPTIONS WITH FIXED MULTI-UNIT TYPE
CONNECTIONS OR CONNECTIONS WITH
INTERCHANGEABLE SCREW-RETAINED
TRANSEPITHELIAL ABUTMENTS.**





INVENTICA

— DENTAL LAB —

PRECISION • AESTHETICS • INNOVATION

CREATION WITH PRECISION

R16

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