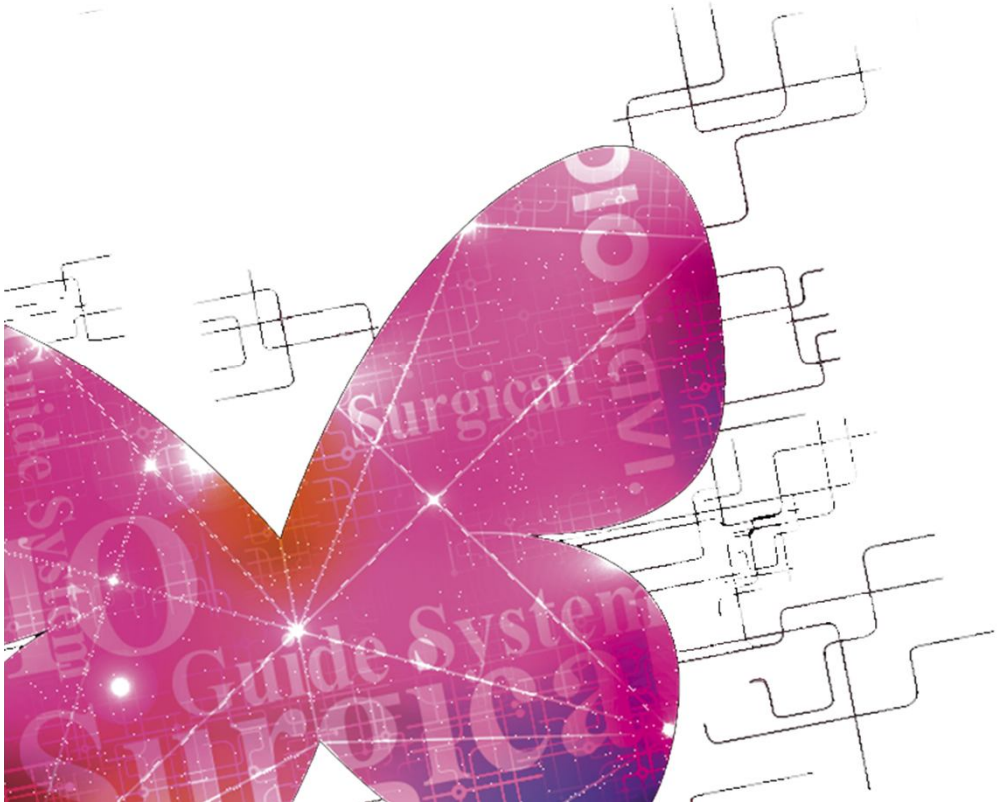
DIO Digital Implant System DIO navi.

Full Digitalized Implant Solution

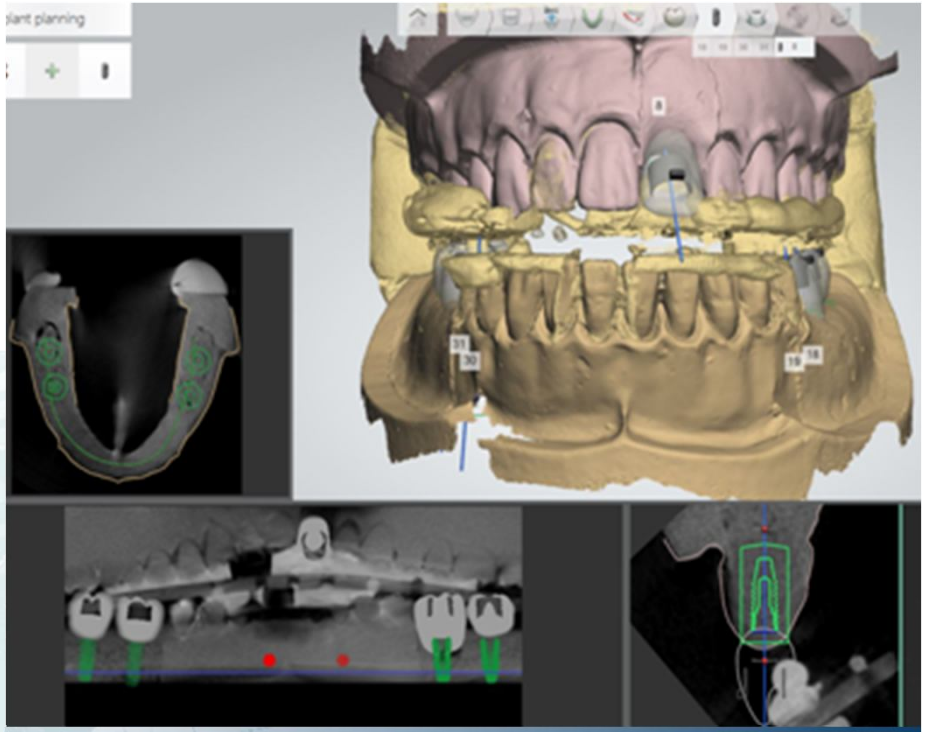


Most Advanced World Class Digital Implant System

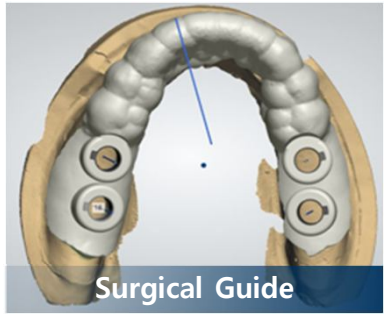
- Optimal Surgical Guide system that is 100% digitalized from diagnosis to final prosthetics

CBCT Data

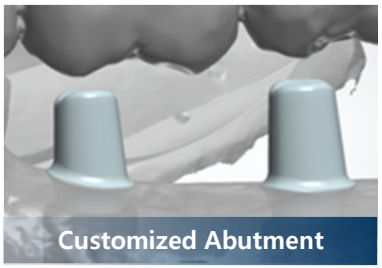
Trios Scan Data



Implant Simulation



Surgical Guide



Customized Abutment

Abutment Jig

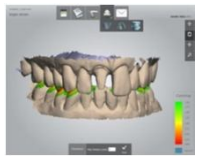
DIO navi.

DIOnavi. Work-flow

Full Digital

CBCT Data

Trios Data



Half Digital

CBCT Data

Model Data

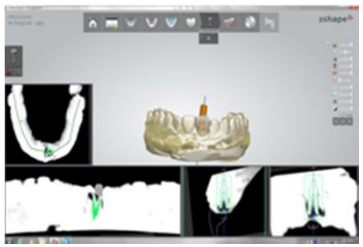
Dental Clinic

Simulation transmission

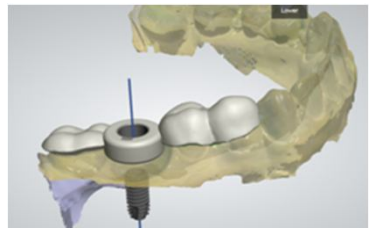
Implant Planning & Confirm

DIO Digital Center

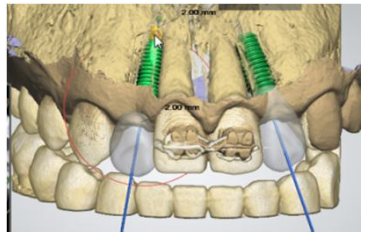
Implant Simulation



Surgical Guide design



C.A & A.J design



3D Printing & CAM process

Customized Abutment

Abutment Jig

Surgical Guide

Transmission

After confirming the dental plan, 4 nights, 5 days based on work hours. (In KOREA)

With DIOnavi, selective treatment for the patient situation is possible

Immediate restoration

Permanent
Customized Abutment Placement

↓

Provisional Restoration
(PMMA Temporary)

Temporary
Customized Abutment Placement
(Hybrid Link)

↓

Provisional Restoration
(PMMA Temporary)

Delayed restoration

H-scan Body Placement

Cover Screw Placement

2. Comfortable Treatment for patients

- Surgical procedure convenient for patients without suture, irrigation, and noise.
- Because there is less bleeding, it is possible to treat patients with high blood pressure, diabetes and mental diseases.
- It is possible to treat patients with high blood pressure, diabetes.
- 1- 2 unit implant surgery can be finished within 10-20 minutes up to provisional crown delivery.
- Patient satisfaction increase and chair time reduction

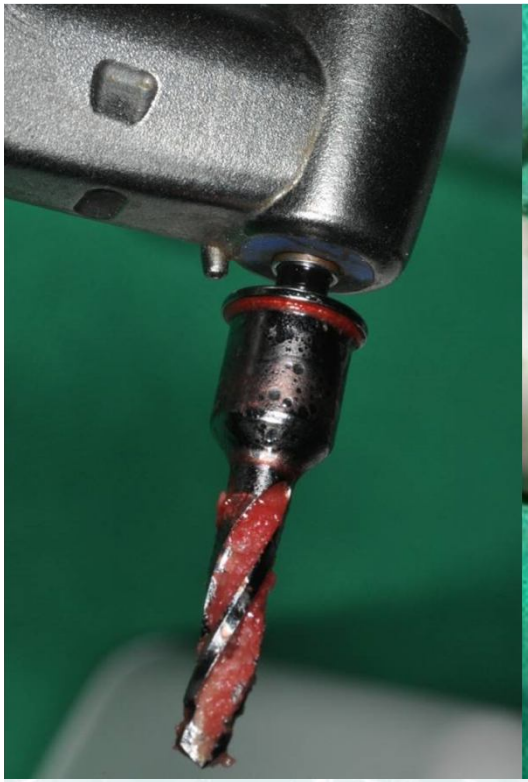
Common Procedure	Comparision	DIOnavi
Normal	Patient satisfaction	Very satisfied
Less than 60 minutes	Average treatment time of 1~2 unit	Less than 10~20 minutes
Many (minimum of 7~14 times)	Average visiting times	Little (minimum of 3~4 times)
Some ~ very much	Surgical Pain	Little
Ok ~ not satisfied	Esthetic quality after surgery	Very satisfied

Patient Visiting Time in the Digital Implant Surgery

Compared to the conventional implant surgery, DIOnavi can finish making the final restoration in minimum of 3 visits and can reduce the waiting period of chair time and number of visiting times

3. Doctors' convenience

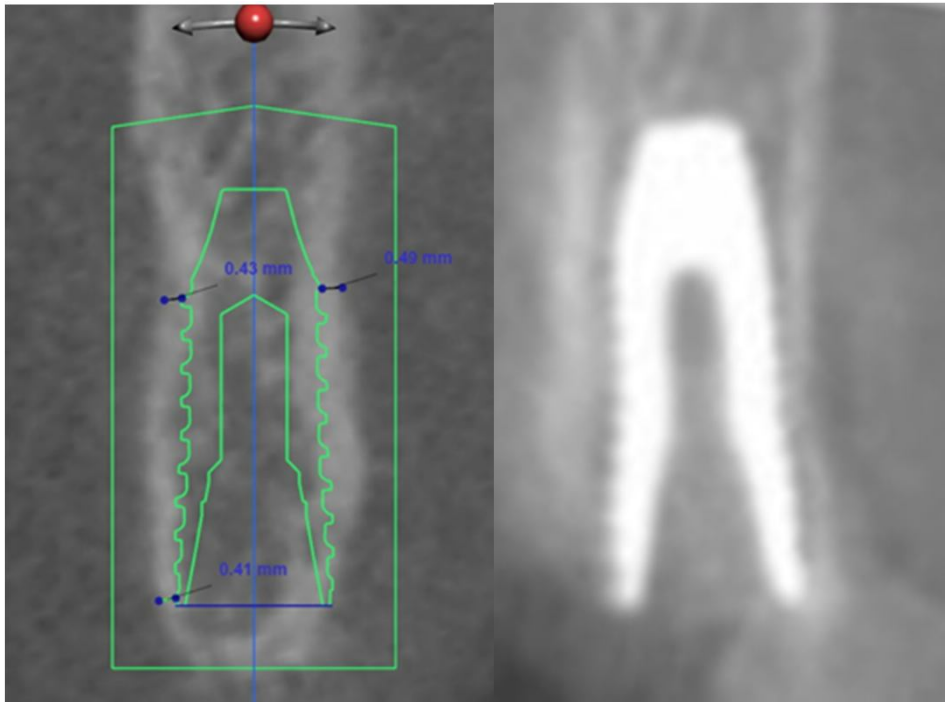
- Complicated construction process has been simplified and production period has been shortened due to the Full Digital method
- Guide length is shorter than other guide systems (DIOnavi. 9mm, Others 12~15mm)
- Large amount of auto-genous bone is harvested.
- After fixture placement, one can immediately use the H-scan body if needed.



4. All time highest accuracy and stability (Full Digital)

- Average treatment deviation **0.4 ~ 0.9 degrees**
- Exact patient information acquisition with Digital Impression such as patient's bone quality.

Literature	Deviation
D'haese. Clin Implant Dent Relat Res 2009.	2.6°
Van Assche N. Clin Periodontol 2010.	2.7°
Ozan O. J Oral Maxillofac Surg 2009.	4.1°
Sarment DP. Int J Oral Maxillofac Implants 2003.	4.5°
Di Giacome GA. J Periodontol 2005.	7.3°
Valente F. Int J Oral Maxillofac Implants 2009.	7.9°
Ruppin J. Clin Oral Implants Res 2008.	7.9°



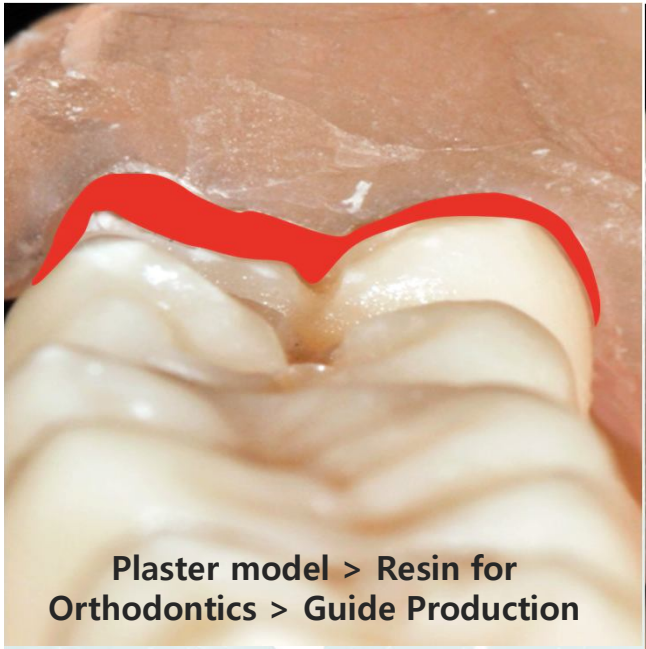
Guide system procedure accuracy comparison

Comparison of Guide System

	N-Guide(Sweden)	R2 (Korea)	DIOnavi. (Full digital)
Impression Method	Alginate Impression Stone Model	Alginate Impression Stone Model	Digital Oral Scanning
Guide height (Sleeve Top~Fixture Top)	10 mm	12~13.5 mm	9 mm
Recommended Drilling RPM	1000~1200 RPM	1000~1200 RPM	50 RPM
Precision result before and after surgery	0.1~15.3 degree *average 4.9°*	0.1~5 degree average 2.5°	0.1~1.9 degree Average **0.4~ 0.9°**

Degree of precision of Surgical Guide comparison

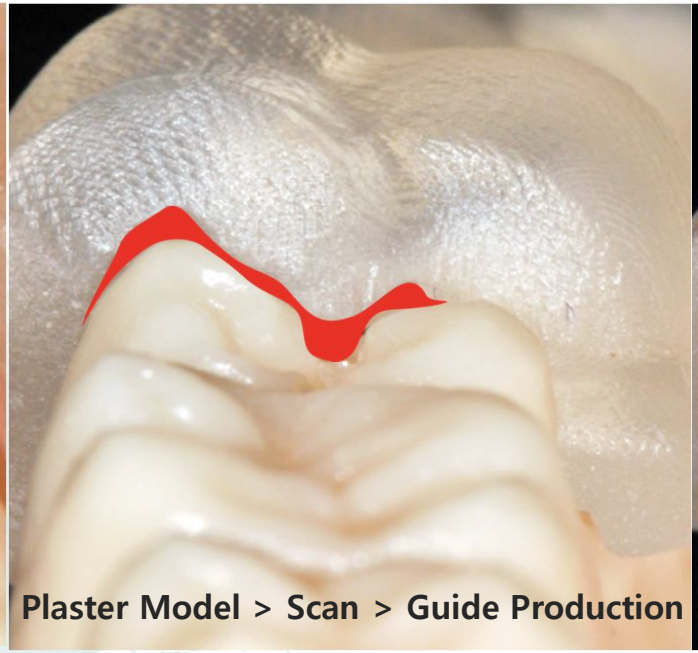
Analog



Plaster model > Resin for Orthodontics > Guide Production

Half Digital

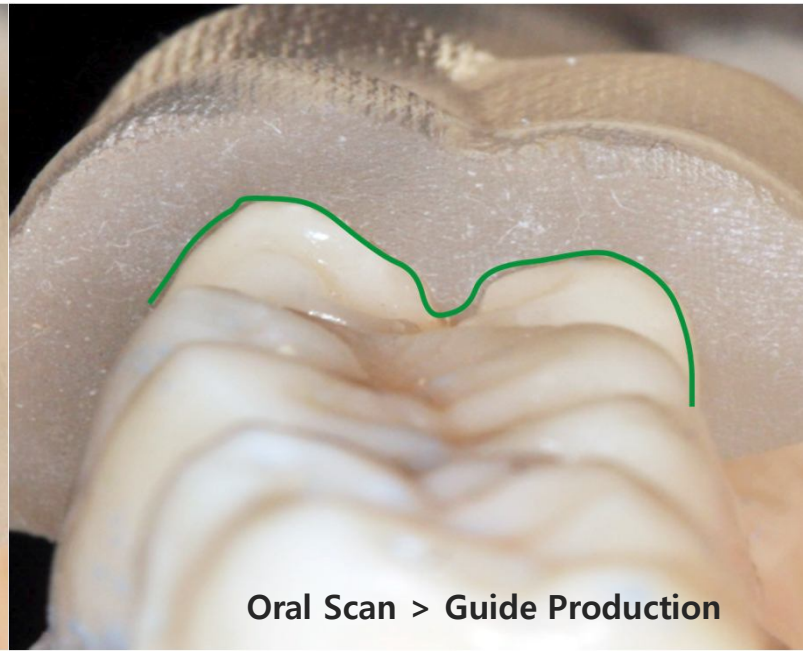
Nobel Guide, R2 Gate



Plaster Model > Scan > Guide Production

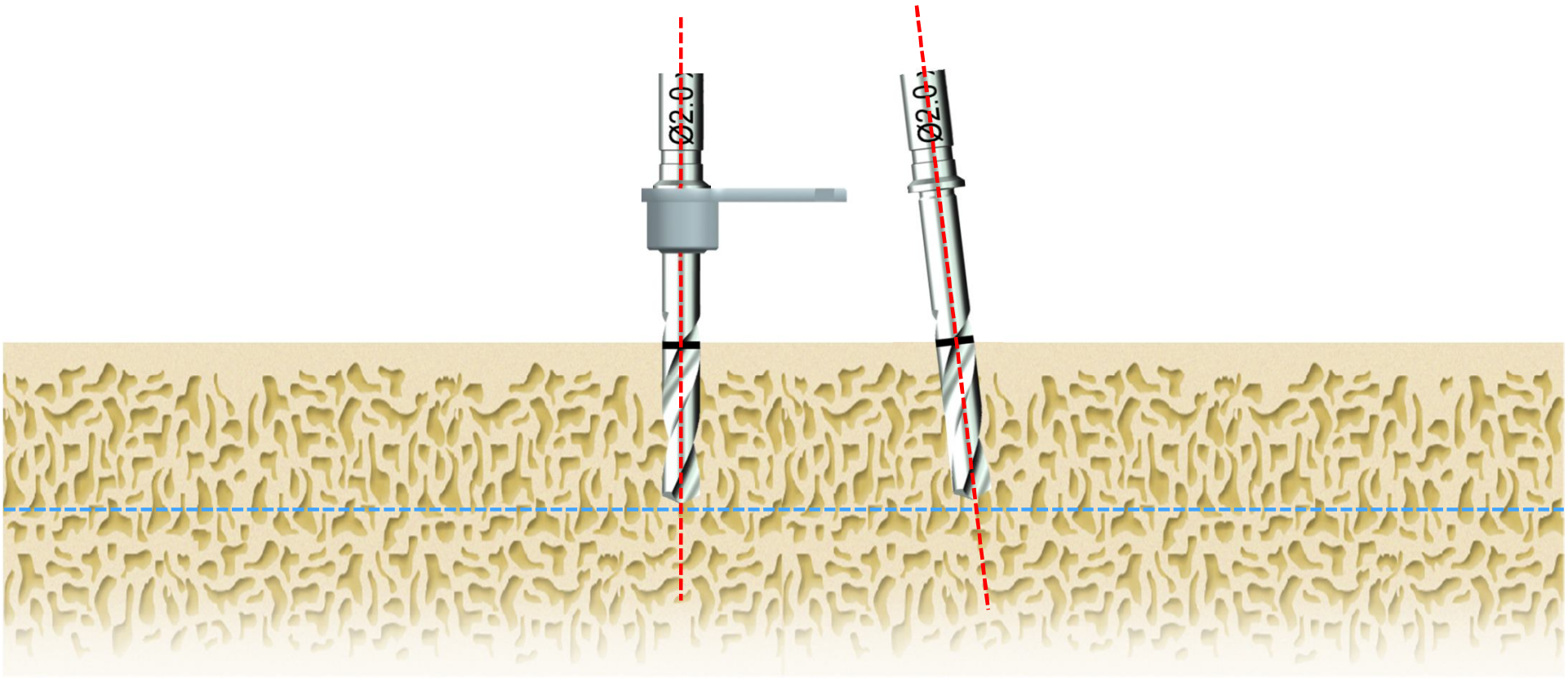
Full Digital

DIOnavi.



Oral Scan > Guide Production

Importance of Initial Stage Drilling

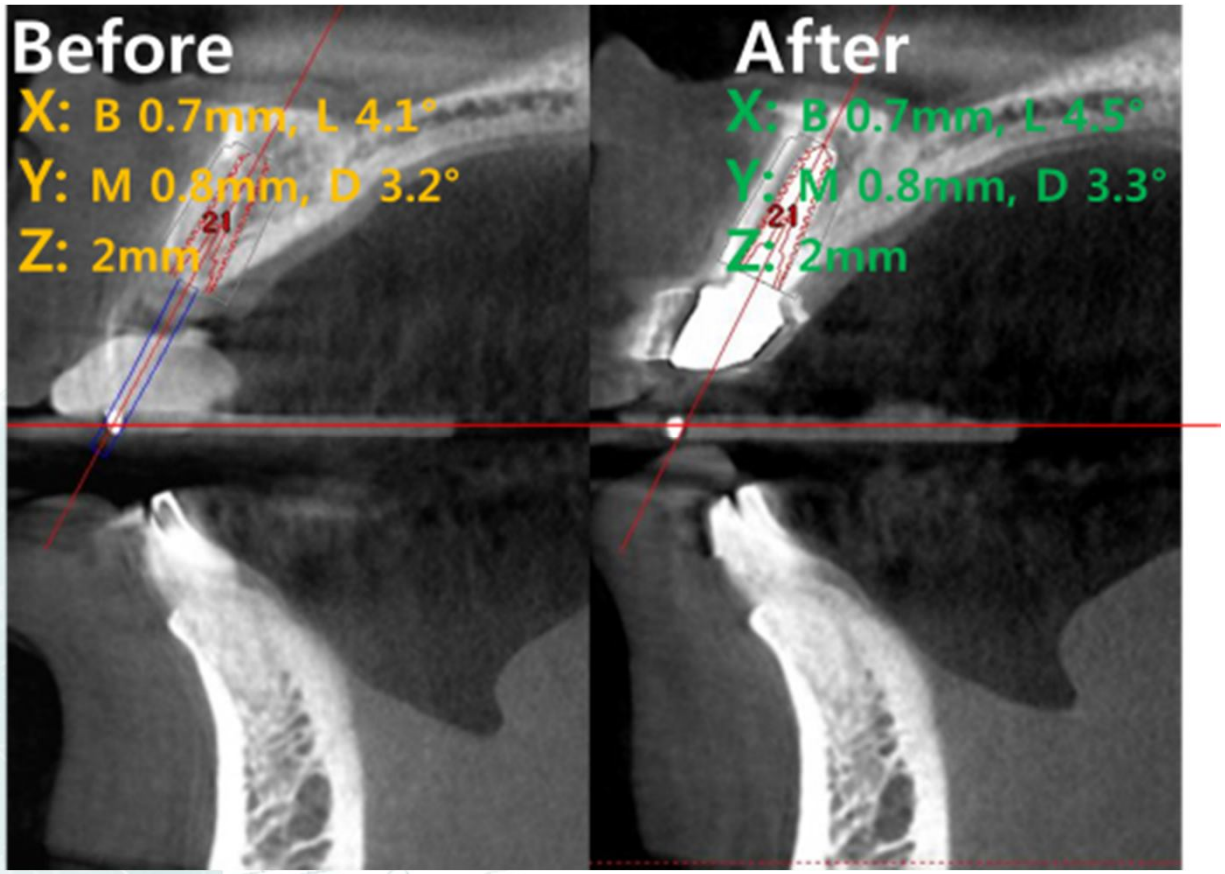


Method of measuring the degree of precision

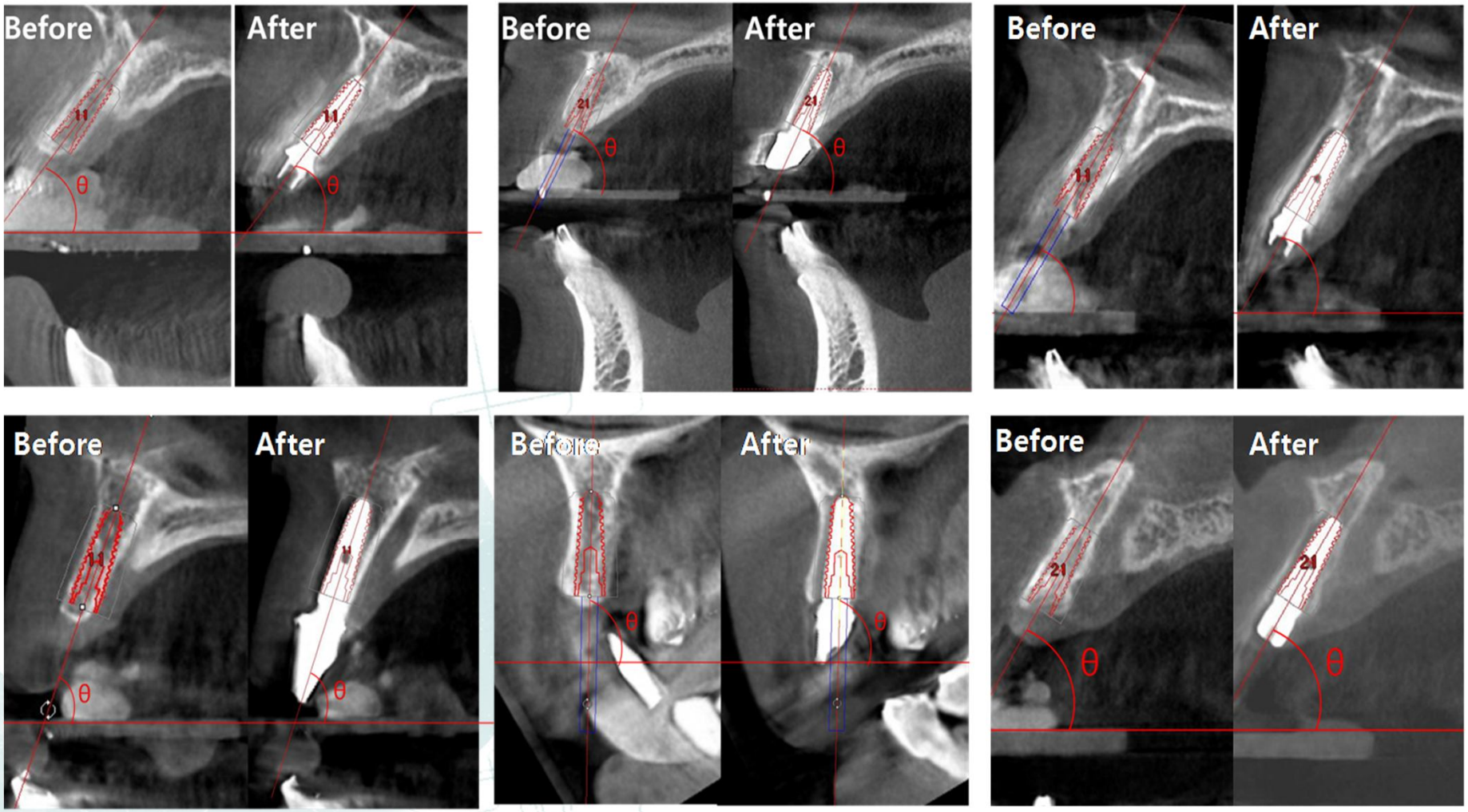
Compare the implant coordination by taking a CT before and after the surgery while biting a same reference place.

(SCI dissertation scheduled for the method and result of the degree of precision)

Reference plate



Precision Results before and after the DIOnavi surgery (0.1~1.9° ; Average of **0.4~0.9°**)



Even when the Ridge is narrow, if the surgical guide and instrument with high accuracy are used, it is possible to treat this case safely and easily with a flapless surgery and without bone grafting.

Characteristics of DIOnavi

1. Full Digital Implant Surgery

2. Comfortable Treatment for patients, doctors, staffs

3. World #1 accuracy and safety (Full Digital)

4. Improvement clinic management with patient marketing

DIOnavi. vs. Ordinary

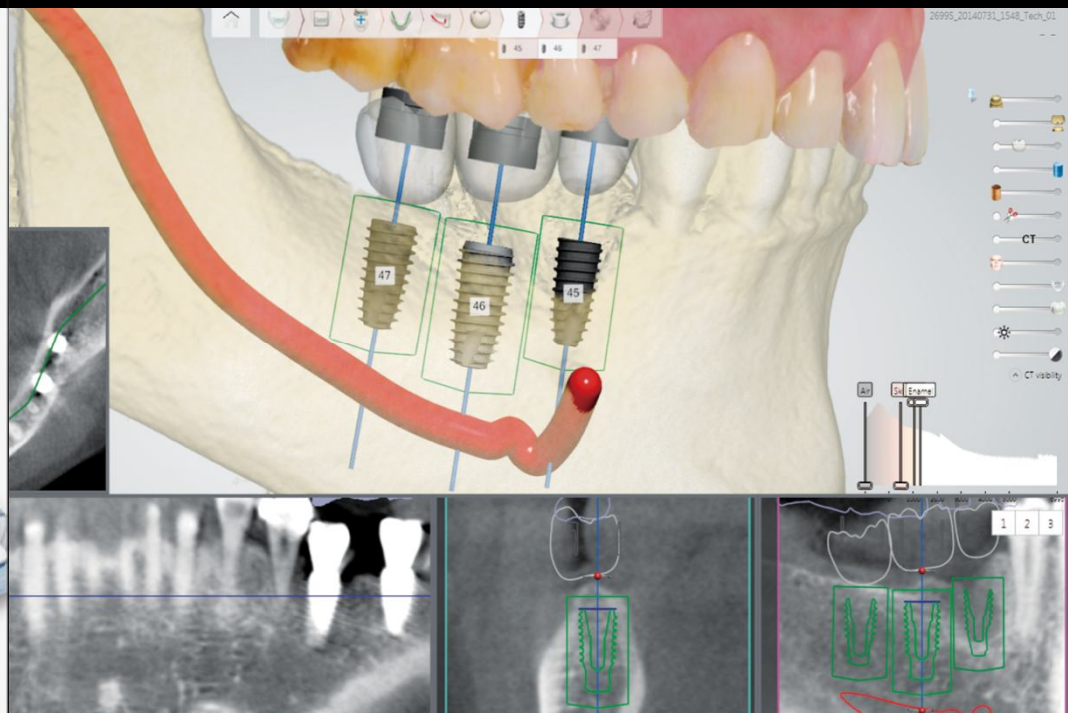
ordinary

Planning a surgery
based on experience

DIOnavi.

3D virtual surgery

Accurate and safe
Predictable surgery



DIOnavi. vs. Ordinary

ordinary

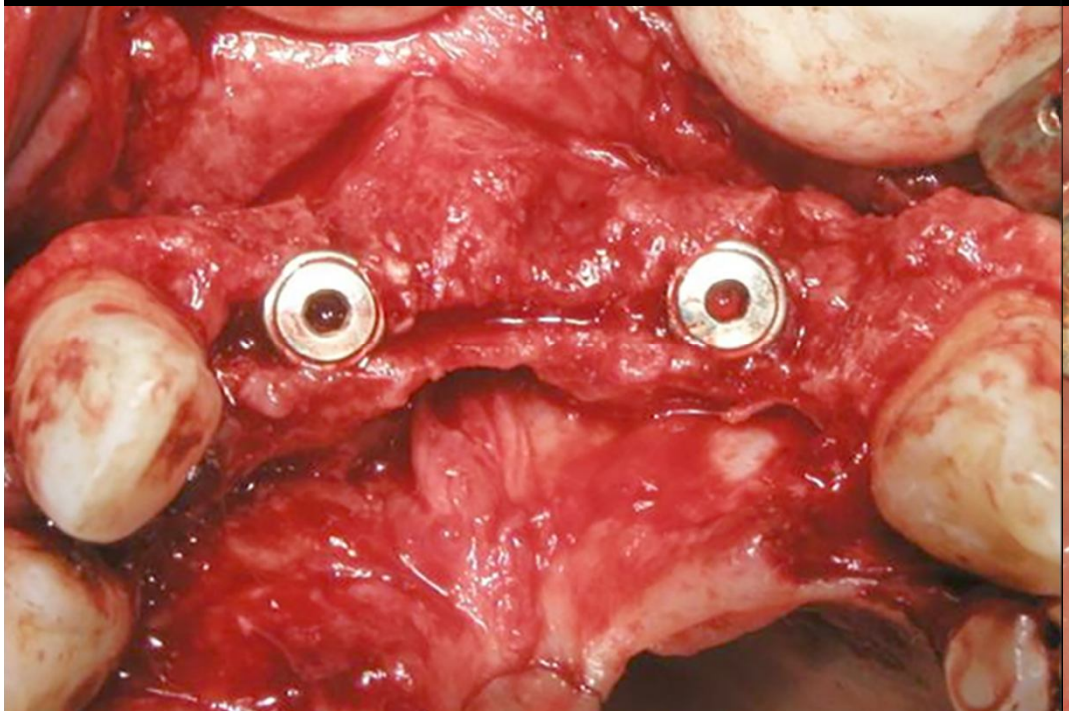
Flap

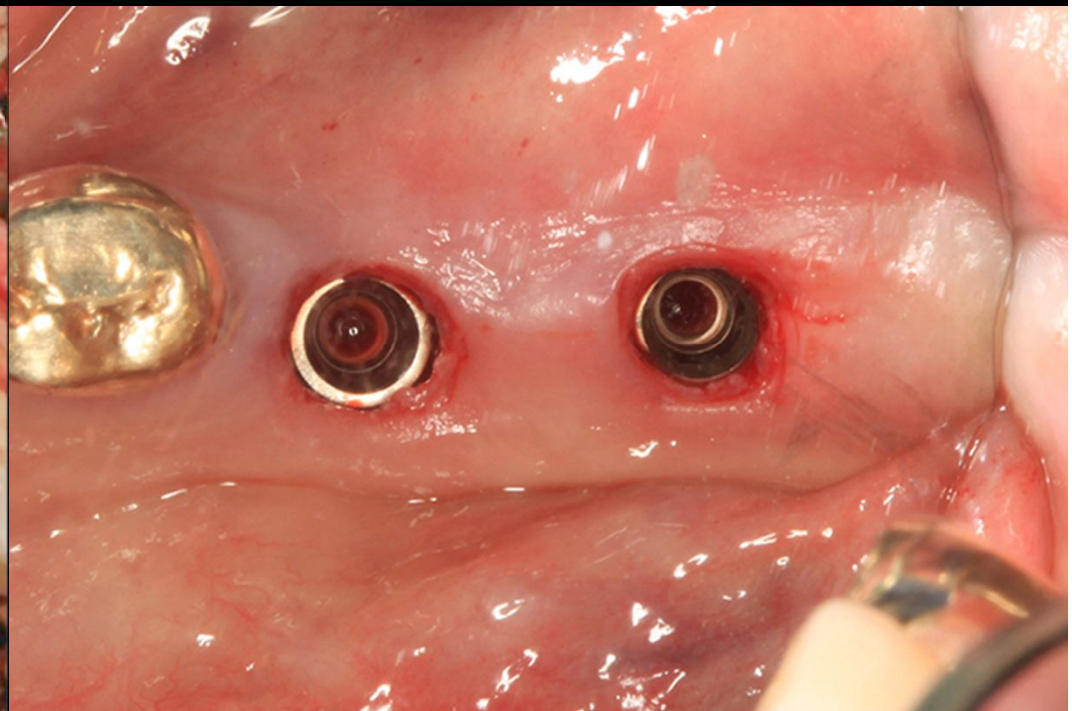
Bleeding, pain, edema
High chances of infection

DIOnavi.

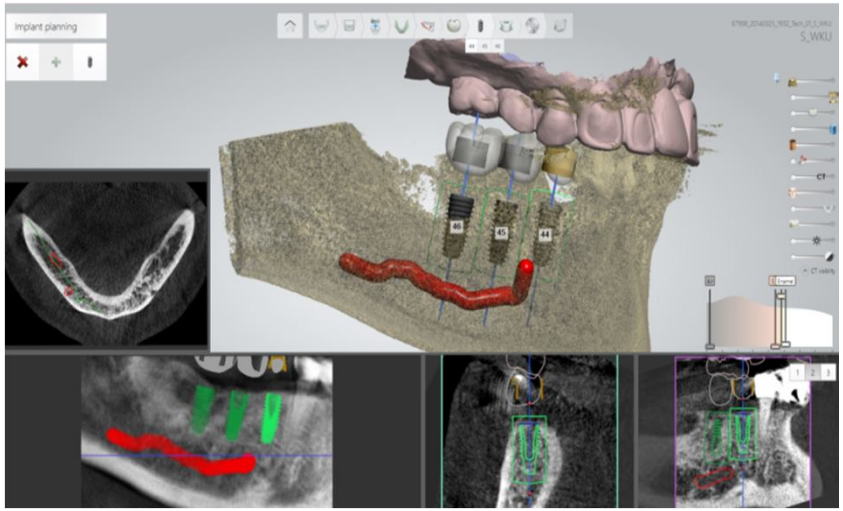
Flapless

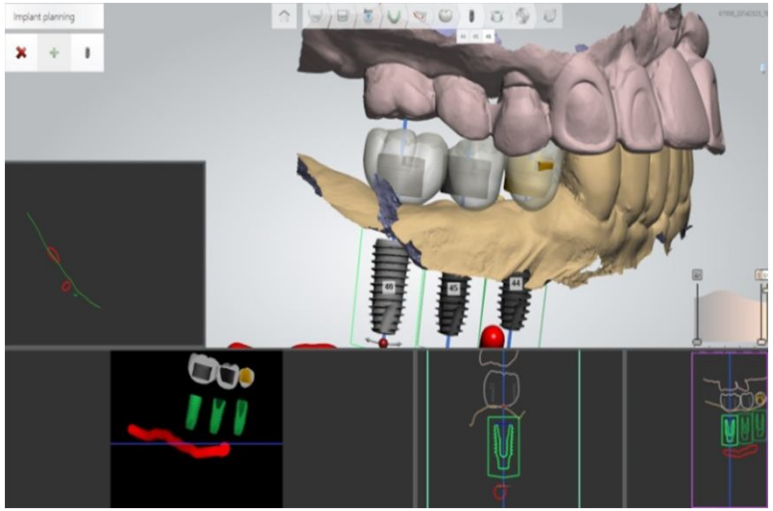
Less bleeding and edema
Faster recovery and lower chances of infection





DIO navi brings a butterfly effect to patient marketing





DIO navi Implant Surgery.

Analyze the patients' bone status in a 3D-image, and place an implant in an optimized place by a mock surgery and produce a customized surgical guide in advance.

This is a most advanced surgical guide system that can place an implant at once, in a day, in a flapless surgery method that doesn't expose the patients' bone.

DIOnavi. vs. Ordinary

ordinary

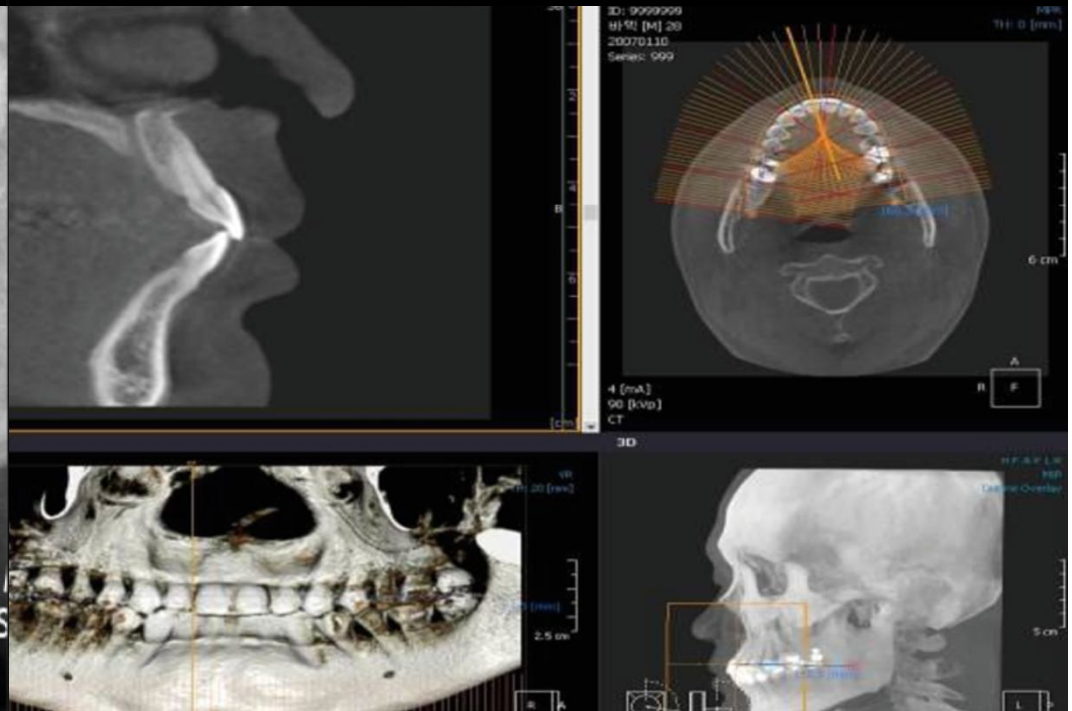
2D Panorama

Hard to analyze

DIOnavi.

3D CT

Accurate analysis of bone and nerve system



DIOnavi. vs. Ordinary

ordinary

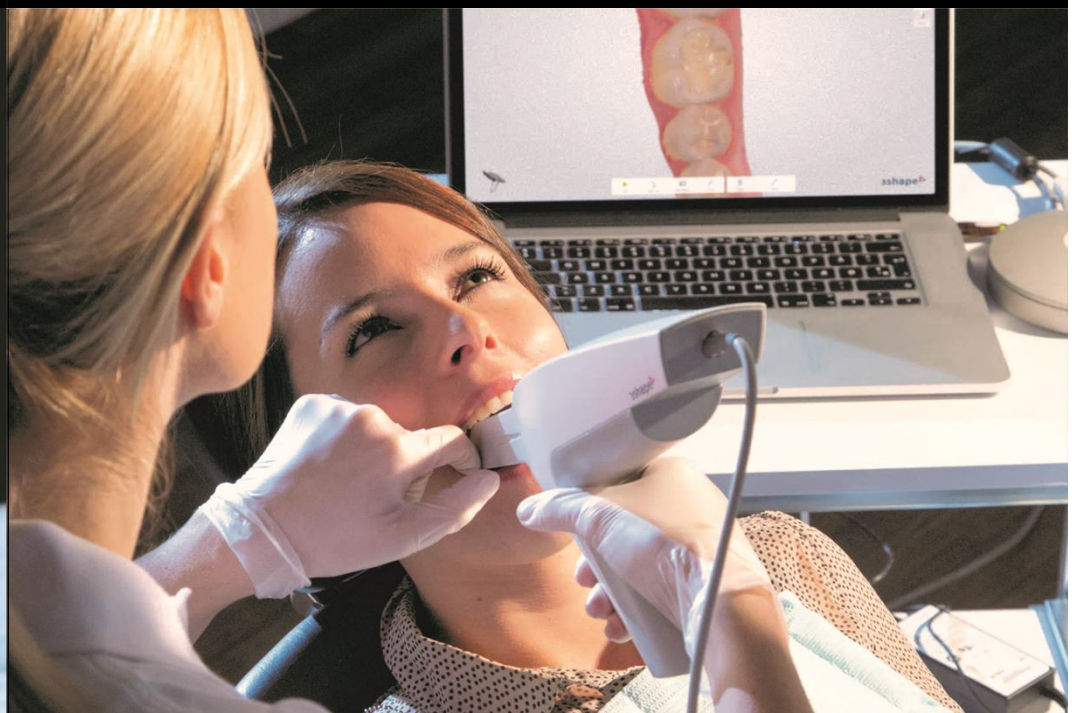
rubber impression

gaggling, can't reproduce the oral status

DIOnavi.

digital impression

time saving, accurate and comfortable



DIOnavi. vs. Ordinary

Clinical superiority of DIOnavi

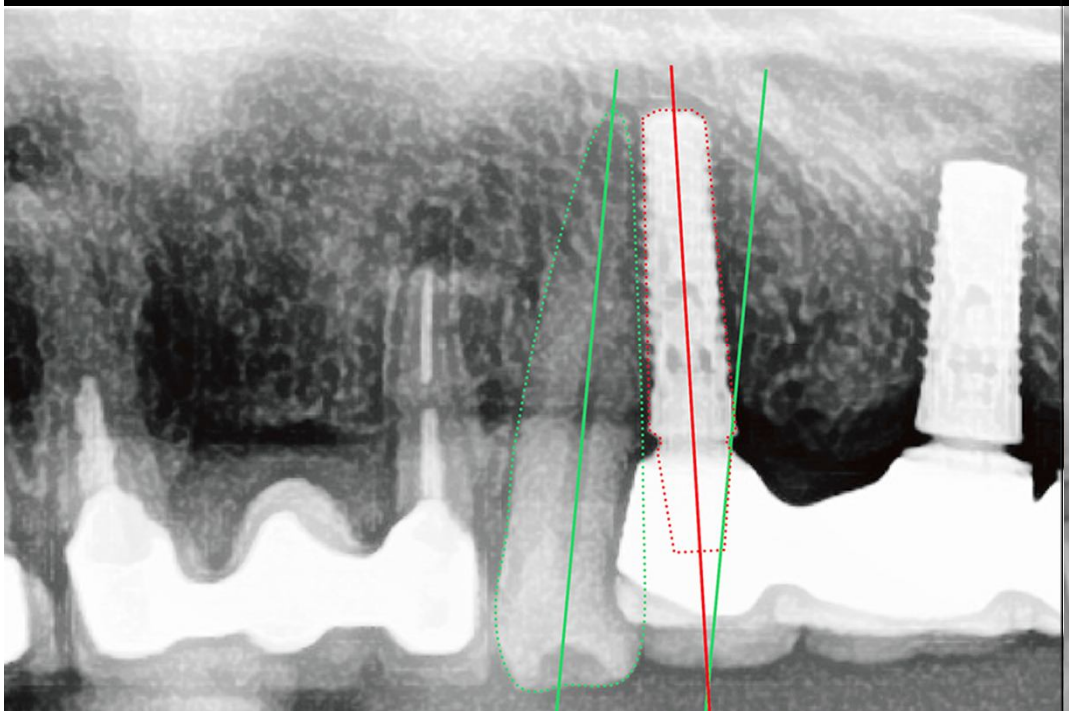
	nary implant surgery	DIOnavi.
Failure (%)	3%	1%
Time(min/two fixtures)	60	15
Final prosthesis	After 8~12 week	After 4~8 week
Patient visits	At least 7 times	At least 3 times
Satisfaction value(Max 10)	5	9
Pros and Cons	edema, bleeding, pain	Flapless, less painful, waterless, less noise

DIOnavi. vs. Ordinary

Ordinary

Result

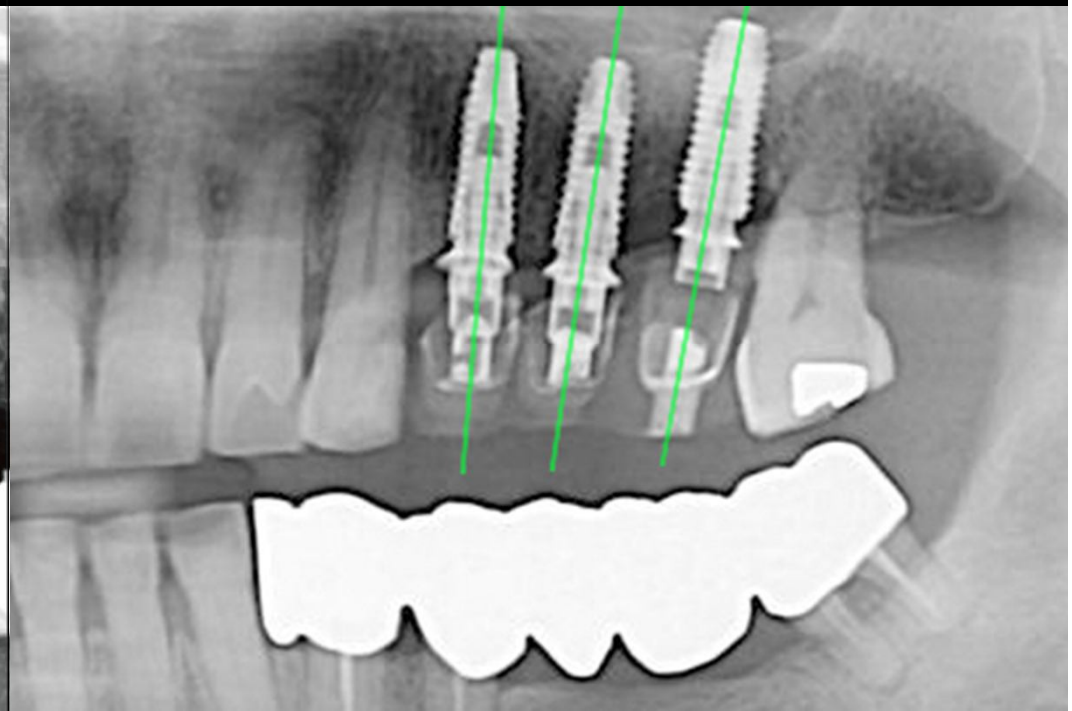
Chances to harm nerve and prosthesis



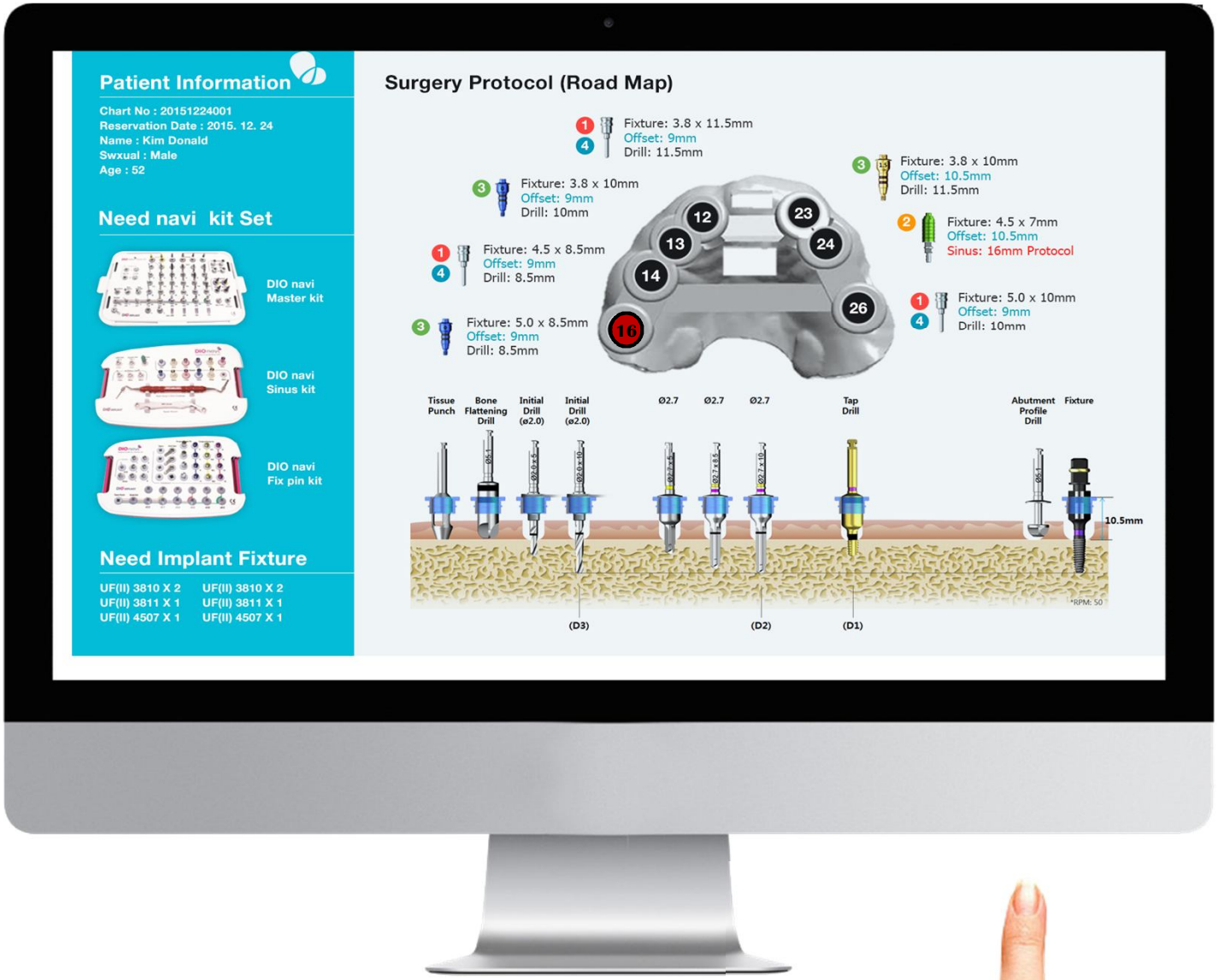
DIOnavi.

Result

Place the implant exactly what you planned



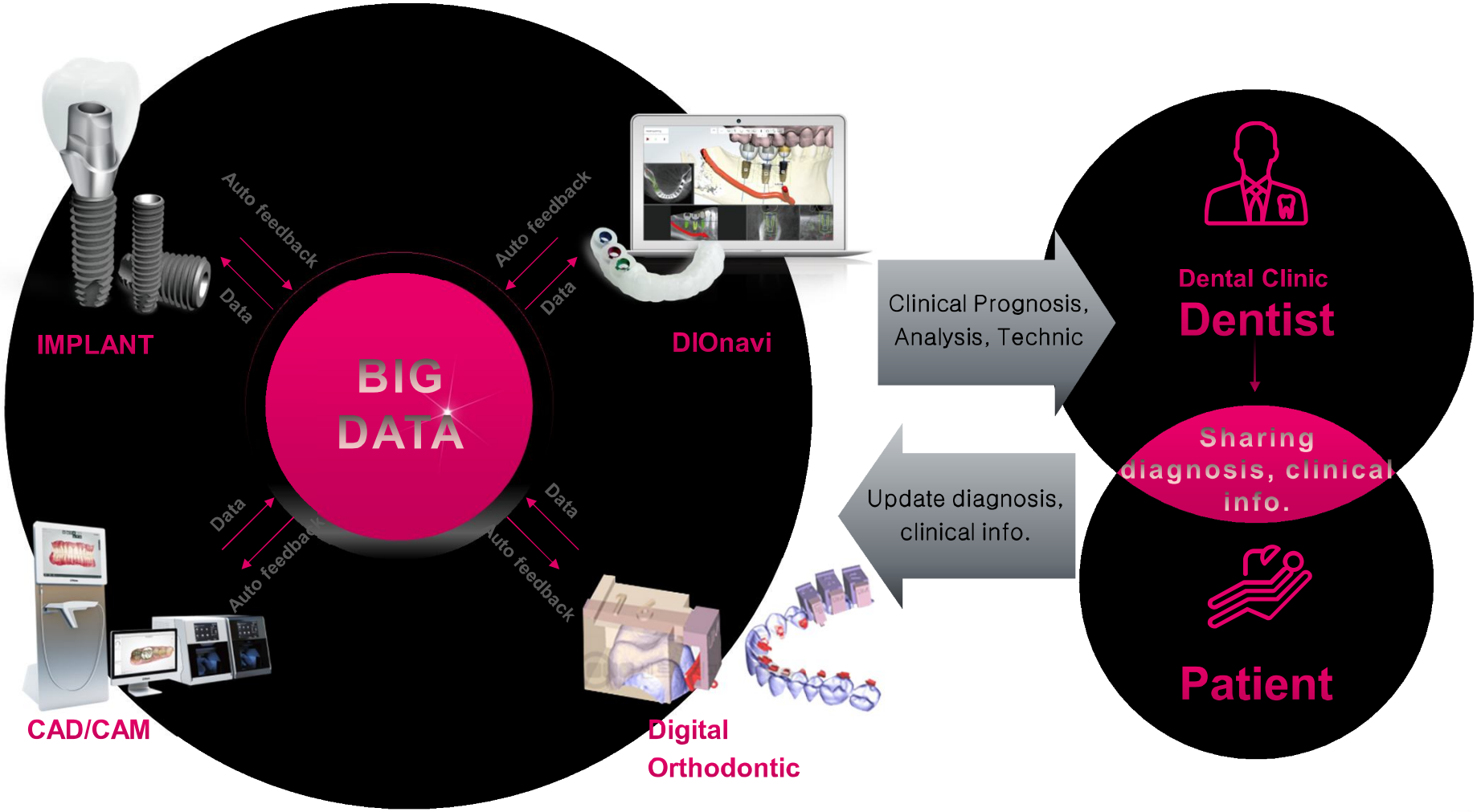
Digital Implant Service Platform



Product & Service Value Proposition

Core Value and Technology

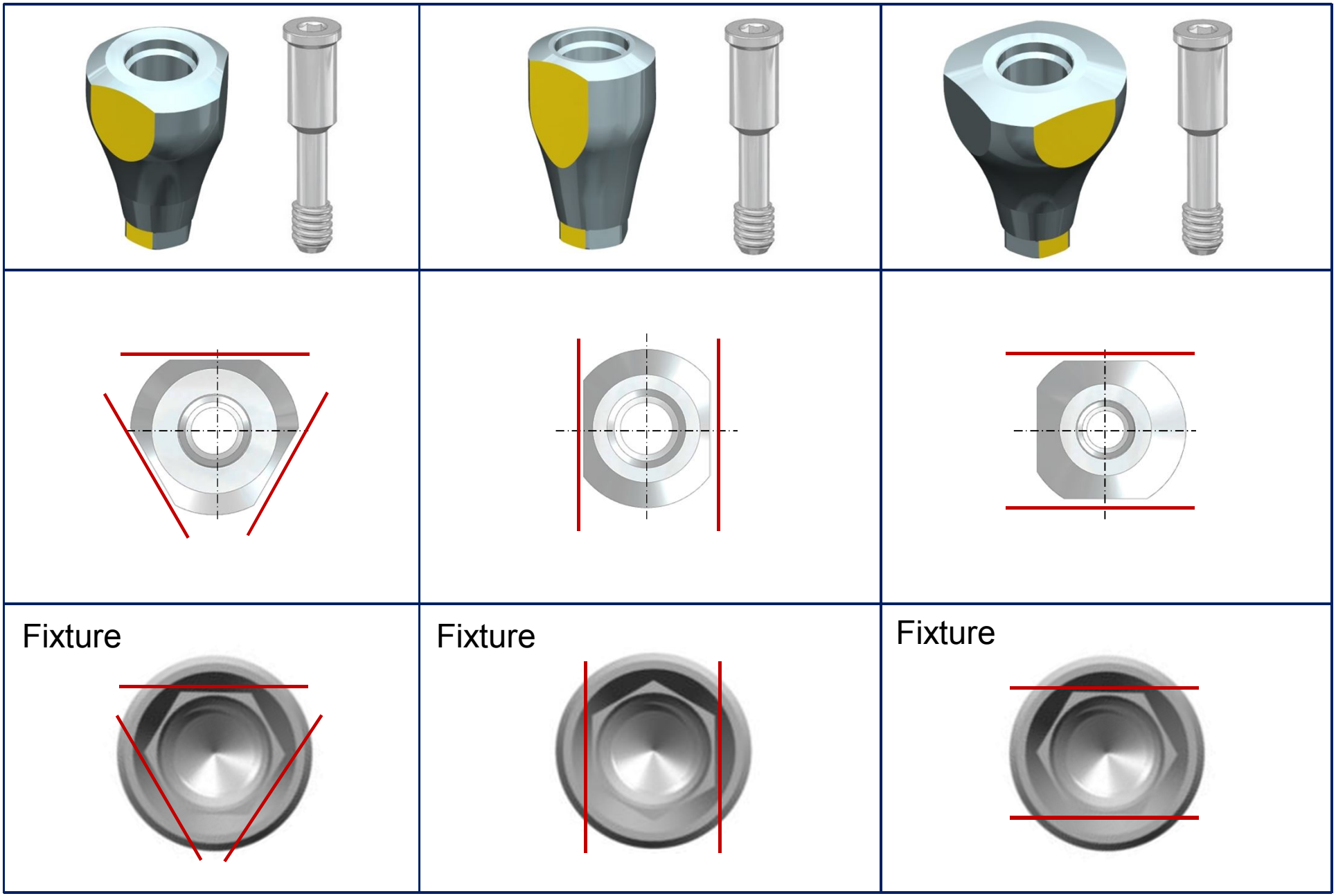
Providing Auto-Planning Platform to Dentists



H-Scan body

- **With DIOnavi,** one can immediately use the H-scan body after fixture placement

H-Scan body and Hex Direction of the inner part of the fixture

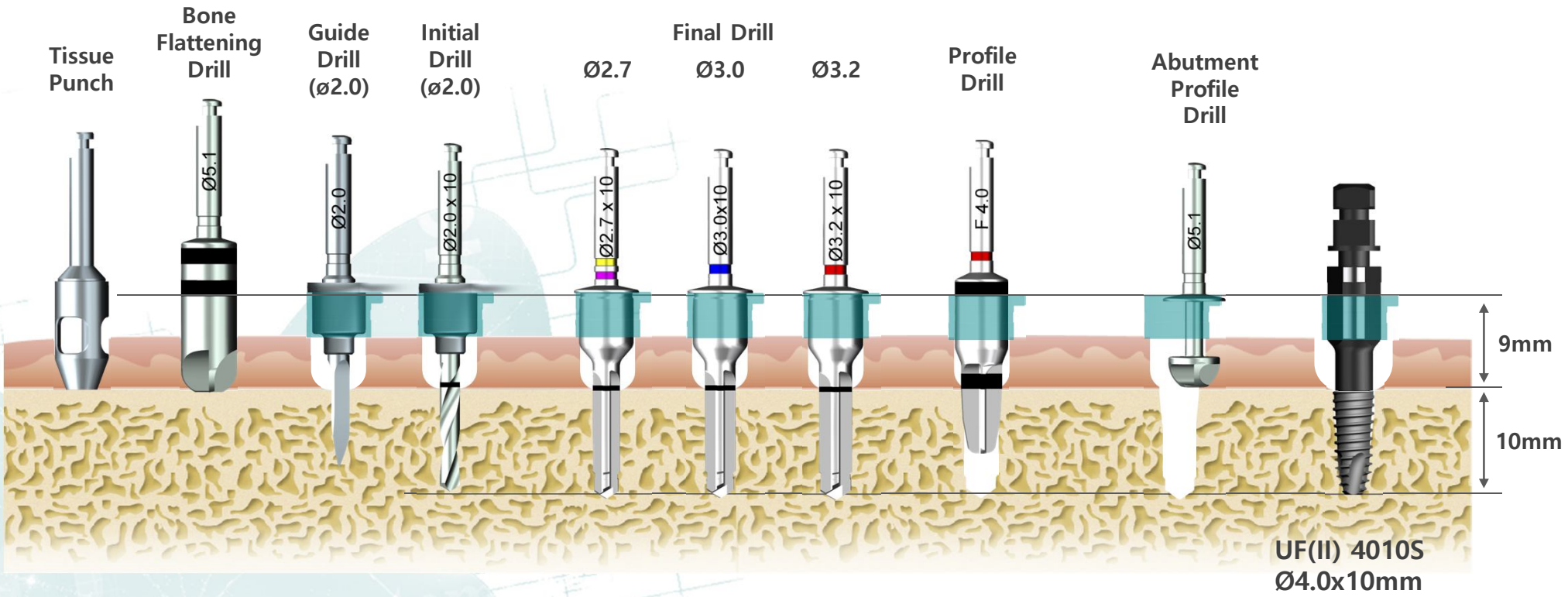


DIOnavi. Surgical Protocol

- Bone Density : D2 Bone Fixture : Ø4.0x10mm placement
- Recommended Drilling Speed : 50 RPM

Flapless, Low speed 4N Technique.

(If the bone quality is very hard, Initial drilling should be done with high speed and irrigation)



Planning REPORT

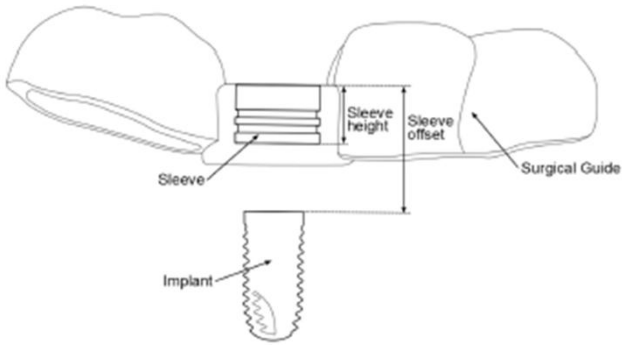
Contact information:

3Shape Implant Studio

Drilling Protocol.

Order Details

Patientname:	S_SBJ
Client Order Reference:	67998_20140428_1040_Tech_01_S_SBJ
Creation Date:	4/28/2014 1:19:38 PM
Created by:	Default operator



Implant information			
Implant position (FDI)	24	25	26
Manufacturer	DIO	DIO	DIO
Type	UF(II) 4510	UF(II) 4510	UF(II) 5008
Order number	UF(II) 4510	UF(II) 4510	UF(II) 5008
Length (mm)	10	10	8.5
Diameter (mm)	4.5	4.5	5
Color	Gray	Gray	Green
Sleeve information			
Type	DIO GS 53	DIO GS 53	DIO GS 53
Order number	GS 53	GS 53	GS 53
Offset (mm)	10.5	9	9

Contact information:

3Shape Implant Studio

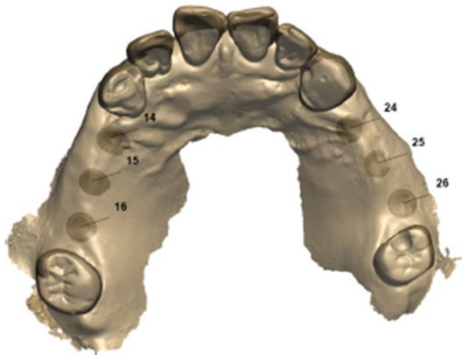
Surgical Report

Order Details

APPROVED

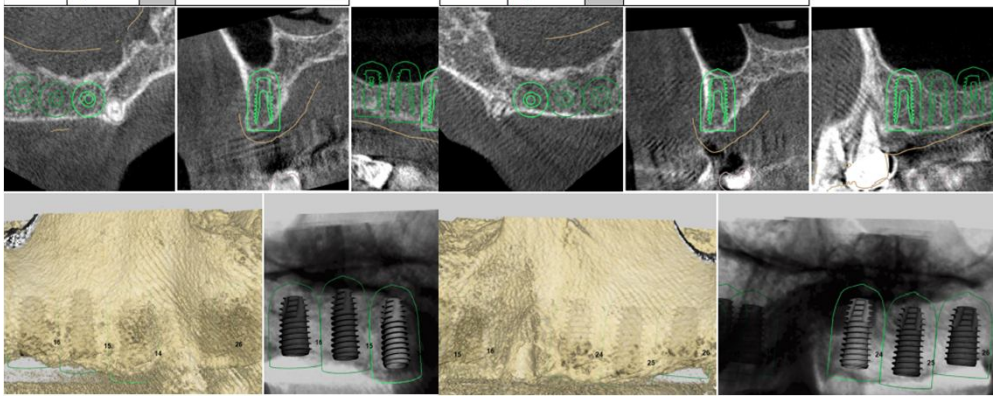
Patientname:	S_SBJ
Client Order Reference:	67998_20140428_1040_Tech_01_S_SBJ
Creation Date:	4/28/2014 1:19:14 PM
Approved by:	Default operator

Upper Jaw



Implant information	
Implant position (FDI)	14
Manufacturer	DIO
Type	UF(II) 4510
Order number	UF(II) 4510
Length (mm)	10
Diameter (mm)	4.5
Color	Gray

Implant information	
Implant position (FDI)	24
Manufacturer	DIO
Type	UF(II) 4510
Order number	UF(II) 4510
Length (mm)	10
Diameter (mm)	4.5
Color	Gray




Thank You
DIO IMPLANT SYSTEM