ZIBONE

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ZIBONE
COHO

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Implant System Manual

Content

I. Introduction

ZiBone Causes No Metallic Allergy

Studies show that the titanium may result in hypersensitivity in some patients. Zirconia is a high strength ceramic material which is biocompatible and will eliminate the hypersensitivity on metal. ZiBone implants and surgical instruments are made of zirconia to offer a metal-free treatment to patients.

ZiBone Meets Esthetic Requirement

ZiBone ceramic implants provide a superior esthetics result than the titanium implants. Unlike the greyish appearance on the titanium implants showing apical to the restorations, especially at the junction of restoration and implant, ZiBone ceramic implants show a harmony of shade matching of restoration in the esthetics-demanding zone.

Same day immediate temporization

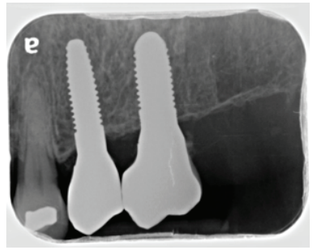
ZiBone One-Piece Design Simplifies Clinical Procedure

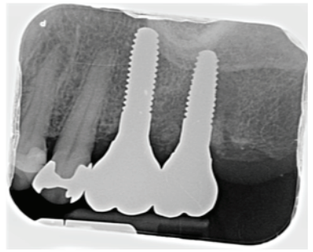
ZiBone ceramic implants are one-piece design. There is no need for the second stage surgery. Micromovements or gaps between implant and abutment are eliminated to minimize the bone loss. The restoration procedure will be similar to the traditional procedures without addition cost for the abutment.

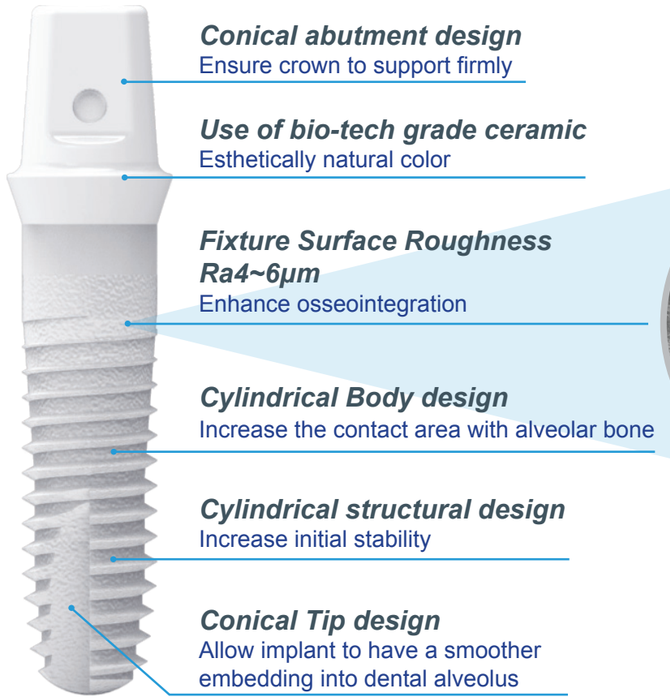
ZiBone Enhances Long-Term Clinical Success

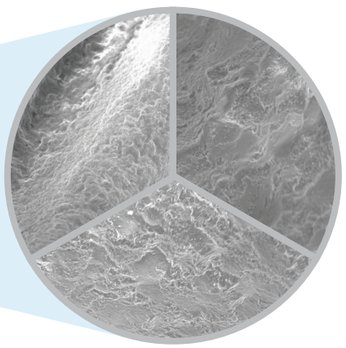
Osseointegration on zirconia implants is comparable to that in titanium implants. Zirconia surfaces show less plaque accumulation; therefore, reduce the risk of peri-implantitis. Without the junction of the abutment, the ZiBone ceramic implants can easily maintain the bone level. Long-term clinical data show the reliable outcomes of zirconia implants.

Excellent esthetics without metal colour









CE, TFDA and FDA certified

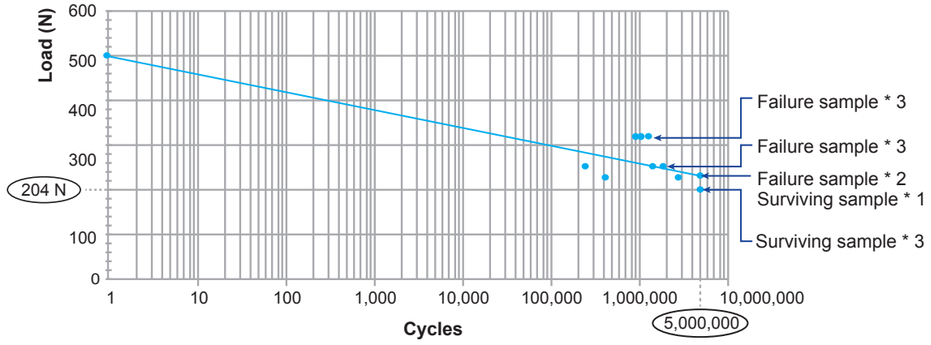
High Bone-Implant Contact

Studies have shown that zirconia integrates with bone tissue similar to titanium. Early loading is possible due to its one-piece design when bone conditions allow.

Superior Mechanical Properties

ZiBone has been tested to verify its performance under different mechanical conditions. The results show that ZiBone has mechanical properties superior to titanium and aluminum oxide. It means that ZiBone performs well in clinical situations.

5 million cycles fatigue testing

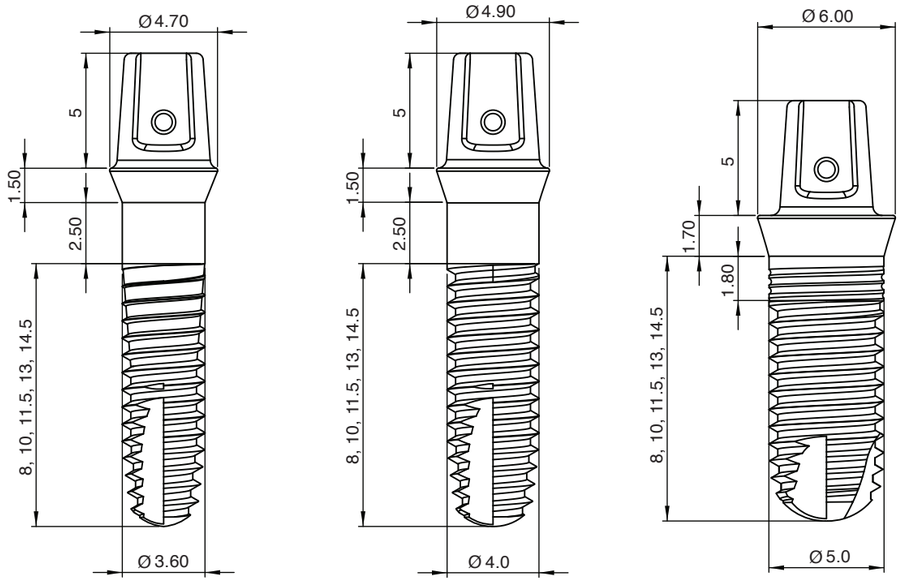


ISO 14801 Fatigue Testing

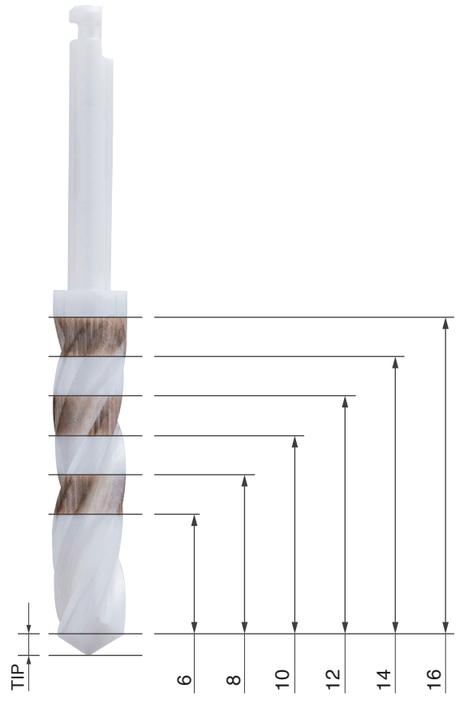
With ISO13356 standard, made with high purity of zirconia oxide.

1	Density	≧ 6.00g/cm3
2	4-point bending flexural strength	≧ 800MPa
3	Fatigue strength (5,000,000 cycles)	≧ 320MPa
4	4-point bending flexural strength after aging treatment	≧ 800MPa
5	Radioactivity	0.0043 Bq/g
6	Highly Biocompatible	Satisfied ISO7405 standard

II. Dimensions of Products

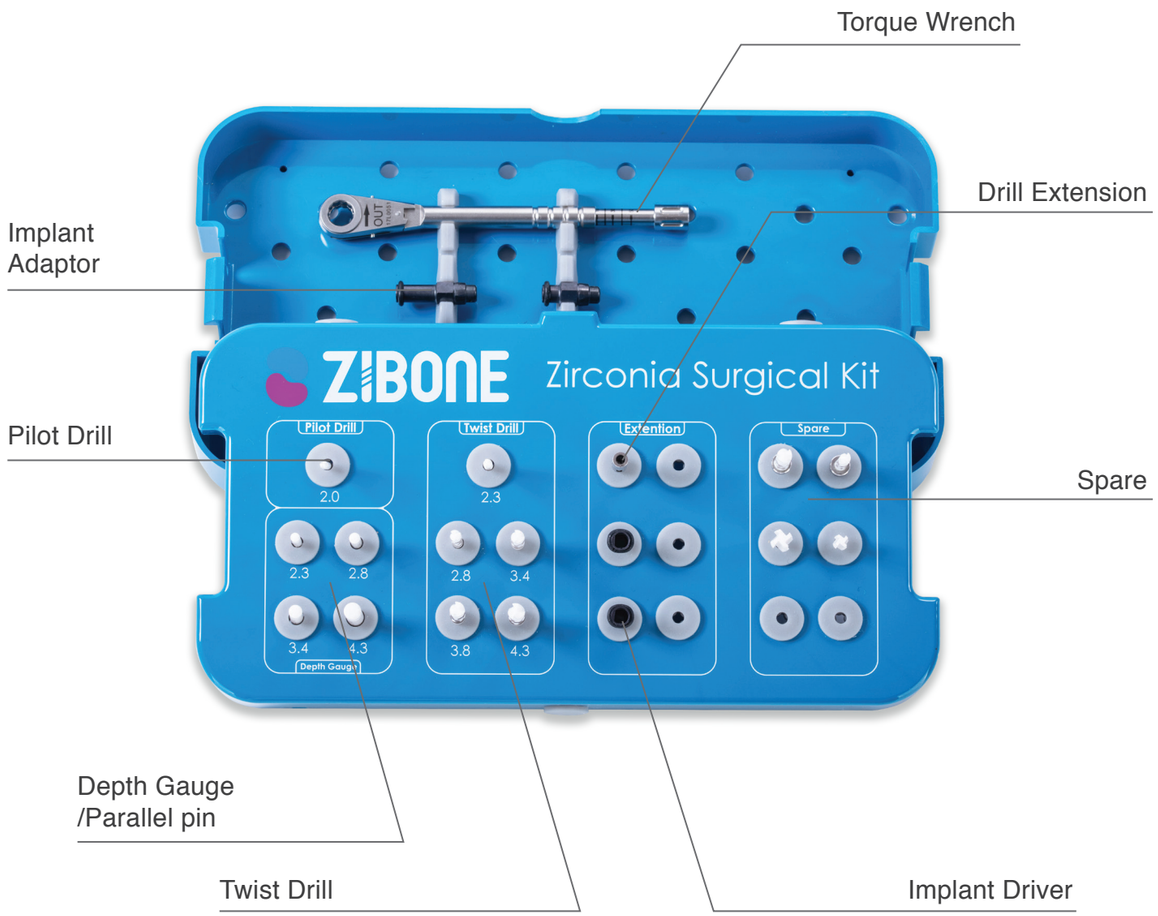


Zibone 3.6 Implant | **Zibone 4.0 Implant** | **Zibone 5.0 Implant**



Model Name	Tip Depth
Zr-D2316	0.8 mm
Zr-D2816	0.9 mm
Zr-D3416	1.0 mm
Zr-D3816	1.1 mm
Zr-D4316	1.3 mm

III. Surgical Kit



Surgical Kit

Image	Article	Spec.(mm)	Article No.
	Standard Kit		ZBK-Standard
	Torque Wrench		
	Implant Adaptor	L 4.5	
		L 10.5	
	Implant Driver	L 22	
		L 25	
	Pilot Drill	D 2.0	
	Twist Drill	D 2.3	
		D 2.8	
		D 3.4	
		D 3.8	
		D 4.3	
	Drill Extension		
	Depth Gauge	D 2.3	
		D 2.8	
		D 3.4	
		D 3.8	
	Empty Box		ZBK-Empty

IV. Product Spec Sheet

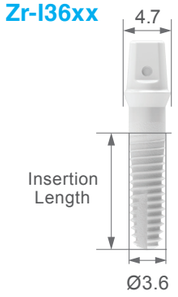
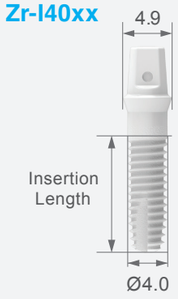
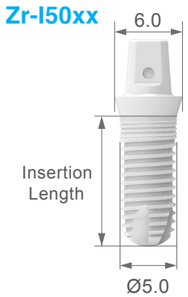
Image	Thread(mm)	Final Drill(mm)	Artical No.
Zr-I36xx 	8.0	D 2.8	Zr-I3608
	10.0	D 2.8	Zr-I3610
	11.5	D 2.8	Zr-I3611
	13.0	D 2.8	Zr-I3613
	14.5	D 2.8	Zr-I3614
Zr-I40xx 	8.0	D 3.4	Zr-I4008
	10.0	D 3.4	Zr-I4010
	11.5	D 3.4	Zr-I4011
	13.0	D 3.4	Zr-I4013
	14.5	D 3.4	Zr-I4014
Zr-I50xx 	8.0	D 4.3	Zr-I5008
	10.0	D 4.3	Zr-I5010
	11.5	D 4.3	Zr-I5011
	13.0	D 4.3	Zr-I5013
	14.5	D 4.3	Zr-I5014

Image	Article	Spec.(mm)	Artical No.
	Pilot Drill		Zr-P2017
	Twist Drill (6, 8, 10, 12, 14, 16)	D 2.3	Zr-D2316
		D 2.8	Zr-D2816
		D 3.4	Zr-D3416
		D 3.8	Zr-D3816
		D 4.3	Zr-D4316
	Twist Drill (8, 10, 11.5, 13, 14.5)	D 2.3	Zr-D2314
		D 2.8	Zr-D2814
		D 3.4	Zr-D3414
		D 3.8	Zr-D3814
		D 4.3	Zr-D4314
	Depth Gauge/ Parallel Pin	D 2.3	Zr-G2316
		D 2.8	Zr-G2816
		D 3.4	Zr-G3416
		D 4.3	Zr-G4316
	Cortical Bone Drill	D 3.6	Zr-C36
		D 4.0	Zr-C40
		D 5.0	Zr-C50
	Tissue Punch	D 3.5	TP-35
		D 4.0	TP-40
		D 4.5	TP-45
		D 5.0	TP-50
		D 5.5	TP-55

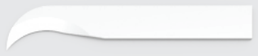
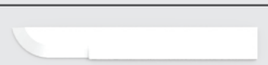
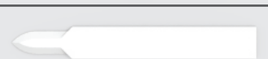
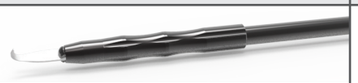
Image	Article	Spec.	Artical No.
	Soft Tissue Trimmer, Point End	L 5.5mm	Zr-V2055
		L 8.5mm	Zr-V2085
	Soft Tissue Trimmer, Round End	L 4.5mm	Zr-V2045
	Blade Handle	8mm Handle	CST-H04
		10mm Handle	CST-H06
	Zirconia Blade	11	CST-B11
		12	CST-B12
		12D	CST-B12D
		15	CST-B15
		15C	CST-B15C
		23	CST-B23
		63	CST-B63
		65	CST-B65
		69	CST-B69
	Scaler	5mm	CST-S05
		10mm	CST-S10

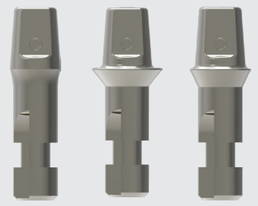
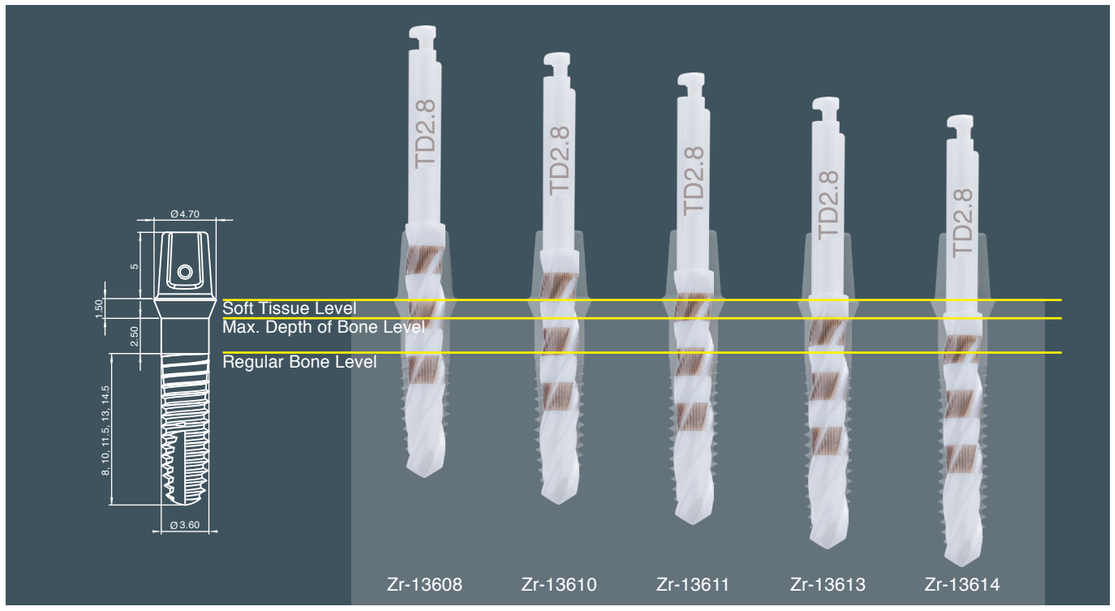
Image	Article	Spec.	Artical No.
	Impression Cap	Universal	Pk-I5075
		3.6 Implant	IP-3604
		4.0 Implant	IP-4004
		5.0 Implant	IP-5004
	Analog	3.6 Implant	ME-M3640
		4.0 Implant	ME-M4049
		5.0 Implant	ME-M5060
	Scan Body	3.6 Implant	SC-3610
		4.0 Implant	SC-4010
		5.0 Implant	SC-5010
	Temporary Coping	3.6 Implant	TM-3605
		4.0 Implant	TM-4005
		5.0 Implant	TM-5005
	Spacer	3.6 Implant	SP-3610
		4.0 Implant	SP-4010
		5.0 Implant	SP-5010

Image	Article	Spec.(mm)	Artical No.
	Torque Wrench		ME-TRC50
	Implant Adaptor	L 4.5	ME-A4815
		L 10.5	ME-A4821
	Implant Driver	L 22	ME-D4822
		L25	Me-D4825
	Drill Extension		Me-L1833

VI. Drilling Guide

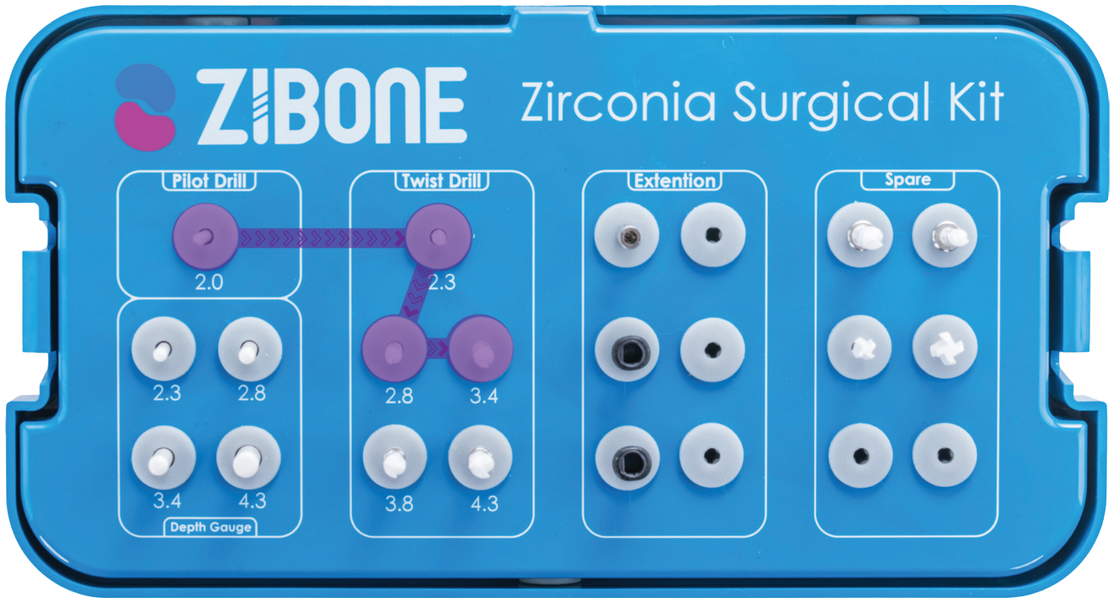
Implant Ø3.6

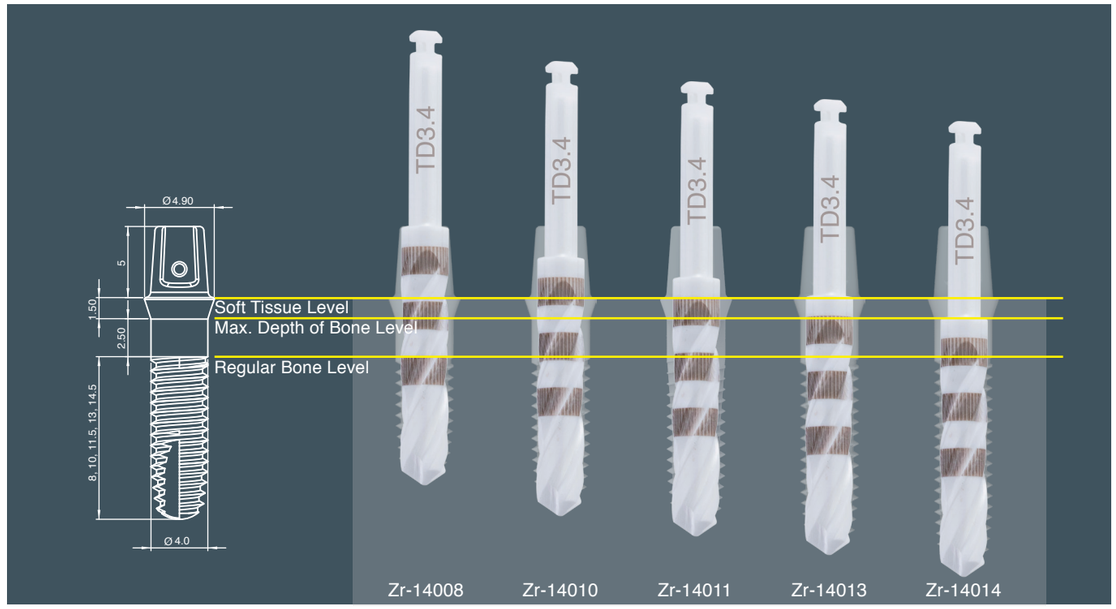


Ø3.6 and Ø4.0 ZiBone ceramic implants present a unique collar design above the thread. This 2.5 collar could be used into the bone for osseointegration or for the soft tissue height. A clinician should evaluate the soft tissue thickness and remaining ridge height for the selection of implants.

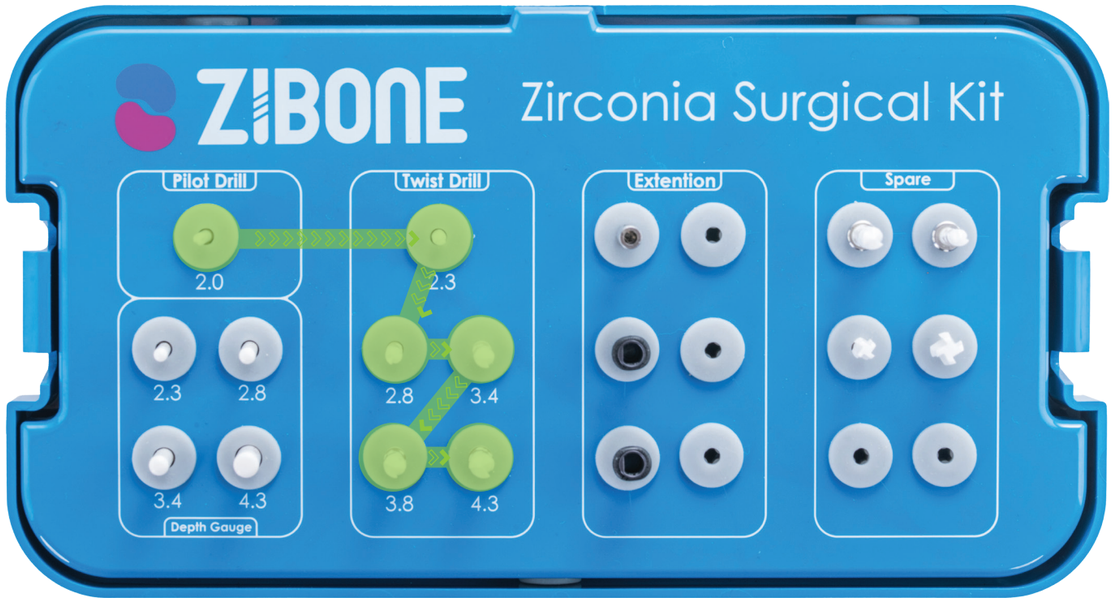
VI. Drilling Guide

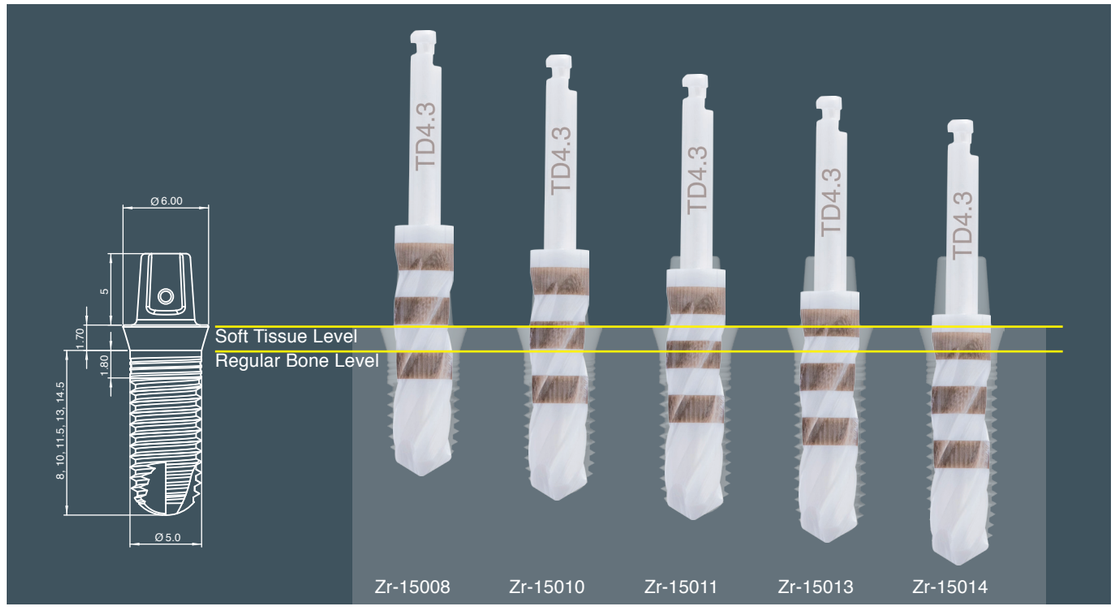
Implant Ø4.0





Implant Ø5.0





Ø3.6 and Ø4.0 ZiBone ceramic implants present a unique collar design above the thread. This 2.5 collar could be used into the bone for osseointegration or for the soft tissue height. A clinician should evaluate the soft tissue thickness and remaining ridge height for the selection of implants.

VII.Procedure

VII. Procedure

1

ZiBone ceramic implant is delivered with instruction and product sticker. The implant is placed in a sterilized bag. Don't use if there is any damage on the package.

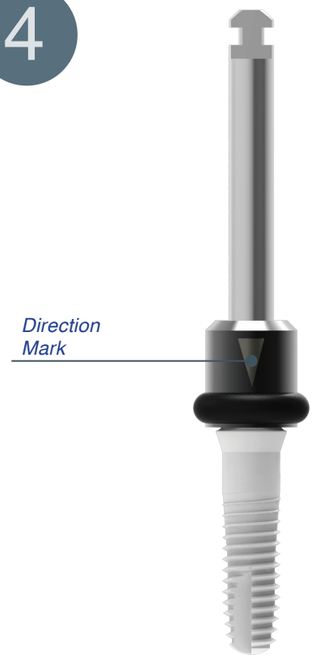
2

ZiBone implant is in a container with a carrier for initial insertion to the prepared socket.

3

Place the implant into the prepared socket and remove the plastic carrier.

4



5

The mark side of adaptor connect to the flat side of abutment

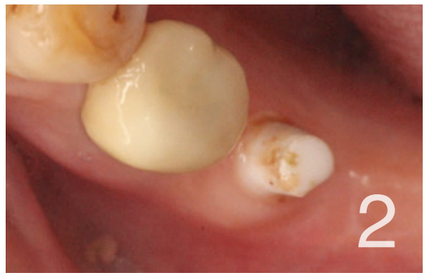
6

the implant could be inserted manually with torque wrench (Fig 5 and 6), or with an implant driver by machine. The triangular mark on the implant adaptor and implant driver should be the same orientation to the flat surface on the abutment.

The torque forces should be remained between 30~40 Ncm in the process. Immediate loading on the ZiBone implant is possible but it depends on the initial stability, systemic condition, and bone quality. It take 3-4 months for osseointegration. A radiograph and thorough clinical evaluation are needed to confirm the osseointegration before the definitive restoration procedures.

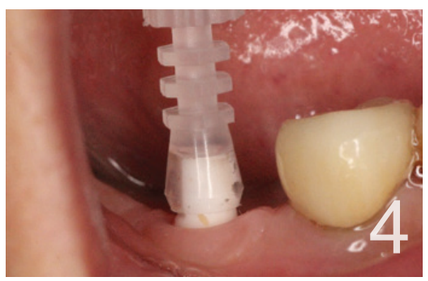
Impression Technique for Zibone Implants

Zibone abutment has a unique flat surface design for anti-rotation of prosthesis and can be used as an orientation reference when making the definitive impression. A preliminary impression with alginate could be used as a verification cast.

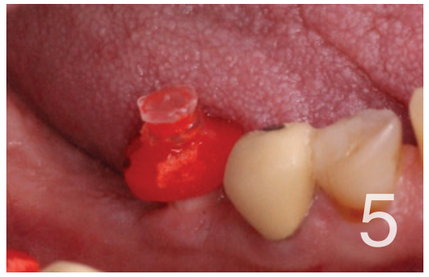


After the appropriate healing time, remove the healing cap and remove any debris from the surface of the abutment. Do not use the metal instrument to clean the surface because it will create the greyish scratch marks on the implant. Exam the stability and osseointegration before making the impression.

Make sure the surface is clean and ready for the impression procedure. Do not use metal instrument to clean the surface because it will create greyish marks on the surface.



The plastic impression cap is for single use only. Avoid repeatedly inserting and removing from the abutment as it will cause damage on the impression cap. It is one size for all 3 different diameters Zibone implants. Be careful to keep the flat surface on the impression cap to face the flat surface on the abutment. Insert the impression cap to the abutment and ensure completely seating on the abutment.



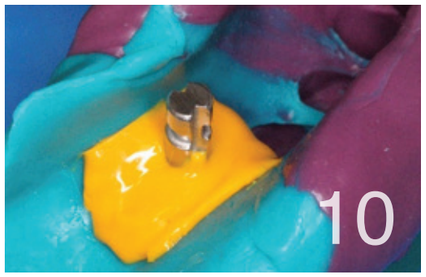
Select an appropriate size of tray. Avoid the contact of tray and impression cap. Shorten the impression cap if necessary. Use a self-curing acrylic resin to create an extension on the impression cap. Make a notch on the flat surface on impression cap as a reference for position.

Shorten impression cap with an acrylic resin extension, occlusal view.

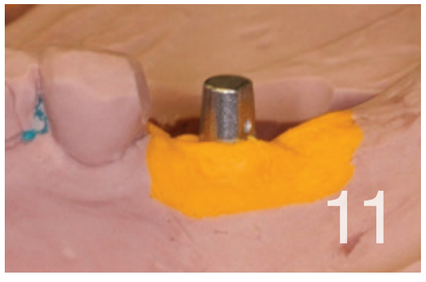
Load the impression material (polyvinyl siloxane, PVS). Inject additional impression material direct onto the impression cap and make an impression as conventional procedure. Additional material may be needed on the tray if there is an additional space above the occlusal plane due to the height of impression cap.

Remove the impression after material polymerizes. Exam any defect on the impression.

Insert the correct size of implant analog into the impression cap inside the impression.

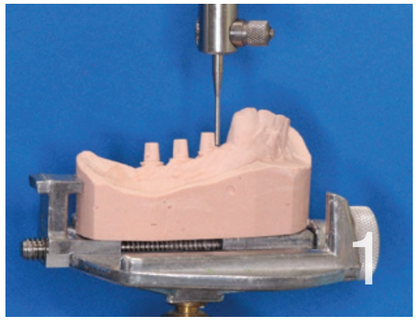


Paint a layer of separating material (Vaseline) on the impression material around the analog. Use a low viscosity PVS impression material to fabricate the soft tissue replica around the implant.



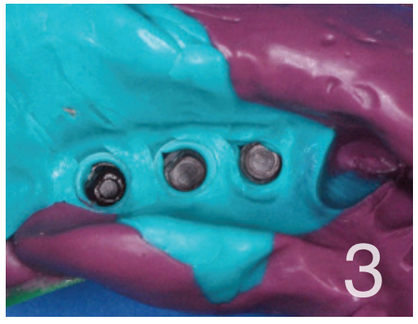
Pour the impression with a type 4 low expansion dental stone (SilkyRock; WhipMix). Mount the opposing cast and make a restoration as conventional technique; however, the all-ceramic material is recommended.

Alternative Impression Technique for Multiple Zibone Implants

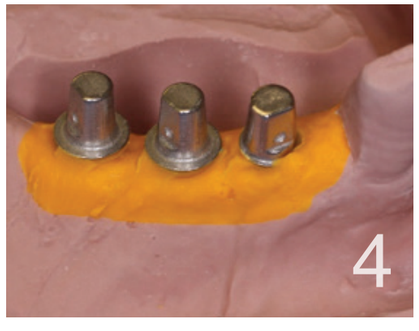


For multiple implants, make an alginate impression as a reference of the implant orientation and place the cast on a surveyor to check the parallelism. If the path of insertion is allowed for one unit restoration, the impression cap may be joined together before impression.

Use a diamond bur as a connecting tool. Create several notches on the flat end of the bur. Use a low expansion acrylic resin (Pattern resin or Duralay) to connect the impression caps before impression.



Make impression soft tissue replica as mentioned above.



Pour up with a Type 4 low expansion dental stone. After stone sets, remove the impression and mount with an opposing cast before sending to the lab for the definitive restoration.