T3® Implant

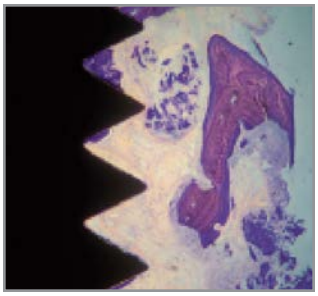
Preservation By Design®

ZIMMER BIOMET

Your progress. Our promise.®

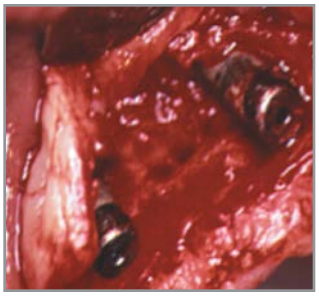
Preservation is Key to Aesthetics

Traditional Challenges to Aesthetic Outcomes



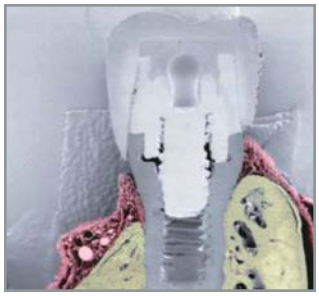
Delayed Osseointegration

Implants lacking a complex surface topography[1] and primary stability require more time for osseointegration.[2]



Peri-implantitis

The prevalence of implants experiencing peri-implantitis has been reported in excess of 12%.[3,4]



Crestal Bone Loss

Average implant crestal bone remodeling can exceed 1.5 mm following the first year of function, leading to compromised aesthetics.[5]

T3 Implant is Designed to Deliver Aesthetic Results Through Tissue Preservation

Contemporary Hybrid Surface

Provided by complex multi-surface topography

Seal Integrity

Provided by a stable and tight implant/abutment interface

Integrated Platform Switching

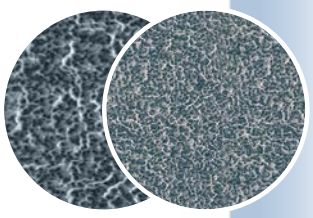
Provided by a medialized implant/abutment junction

Contemporary Hybrid Surface

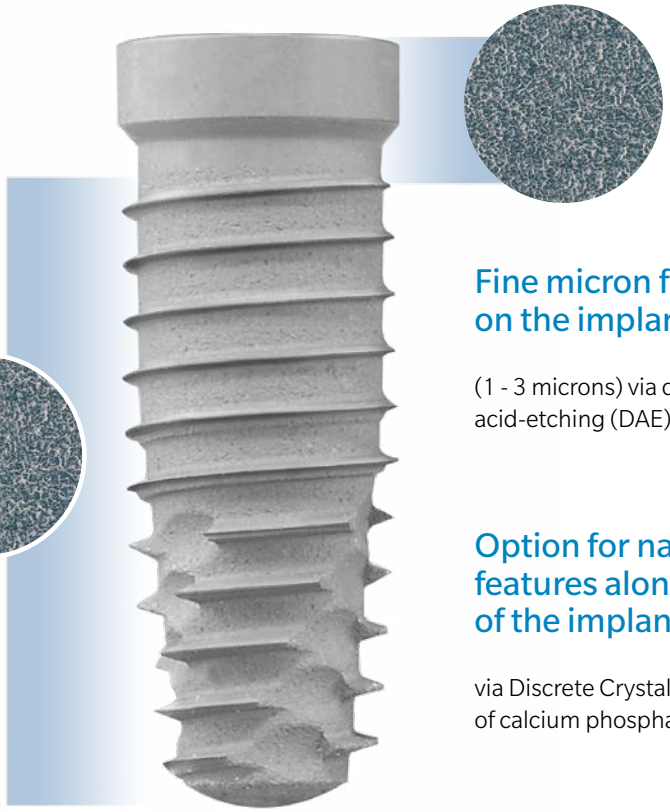
Coarse and Fine Micron Surface Features Create an Average Mean Surface Roughness Value of 1.4 µm in the Threaded Portion of the Implant.[14]

Coarse and fine micron features

Coarse: (10+ microns) via resorbable calcium phosphate media blast



Fine: (1 - 3 microns) via dual acid-etching (DAE) on top of the blasted surface



Fine micron features on the implant collar

(1 - 3 microns) via dual acid-etching (DAE)

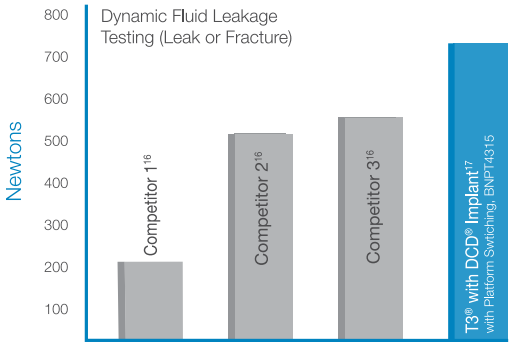
Option for nano-scale features along the full length of the implant

via Discrete Crystalline Deposition (DCD®) of calcium phosphate

Certain Connection

Seal Integrity

A stable, tight implant/abutment interface minimizes abutment micromotion and reduces potential microleakage.[15]



Results of preclinical testing are not necessarily indicative of clinical performance.

- Seal integrity test was performed by Biomet 3i July 2011 - June 2012. In order to test the implant systems, a dynamic - loading leakage test was developed and executed. The test set-up was adapted from ISO14801, Dentistry - Implants - Dynamic Fatigue Test for Endosseous Dental Implants.
- Five samples each of the three competitive implant systems were evaluated.
- The mean seal strength (N) at which each of the systems leaked or fractured is detailed in the graph.
- Bench test results are not necessarily indicative of clinical performance.

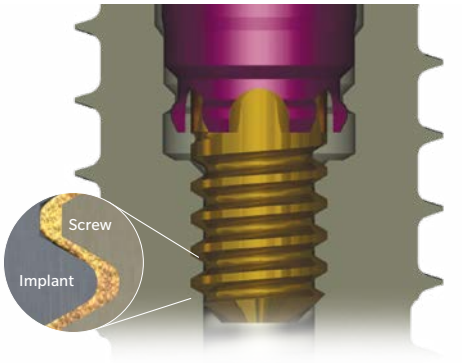
Implant/abutment seal strength

Designed to reduce microleakage through exacting interface tolerances and maximized clamping forces.

Implant/abutment clamping force

Use of the Gold-Tite® Screw increases Certain® Implant/abutment clamping force by 113% vs. a non-coated screw.[18]

Proprietary Gold-Tite Surface lubrication allows the screw to rotate further, increasing clamping force and maximizing abutment stability.[19]



Integrated Platform Switching

Bone remodeling with integrated platform switching

Integrated platform switching medializes the implant/abutment junction (IAJ) inward, creating a biologic width between connective tissue and the IAJ, helping to maintain bone levels.[20]

Reduced crestal bone loss

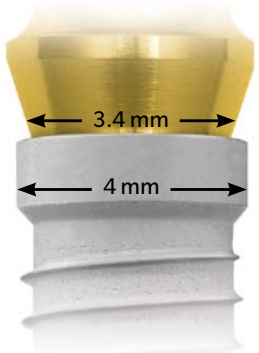
Studies show implants with the integrated platform switching feature demonstrated crestal bone loss as low as 0.37 mm.*,[21]

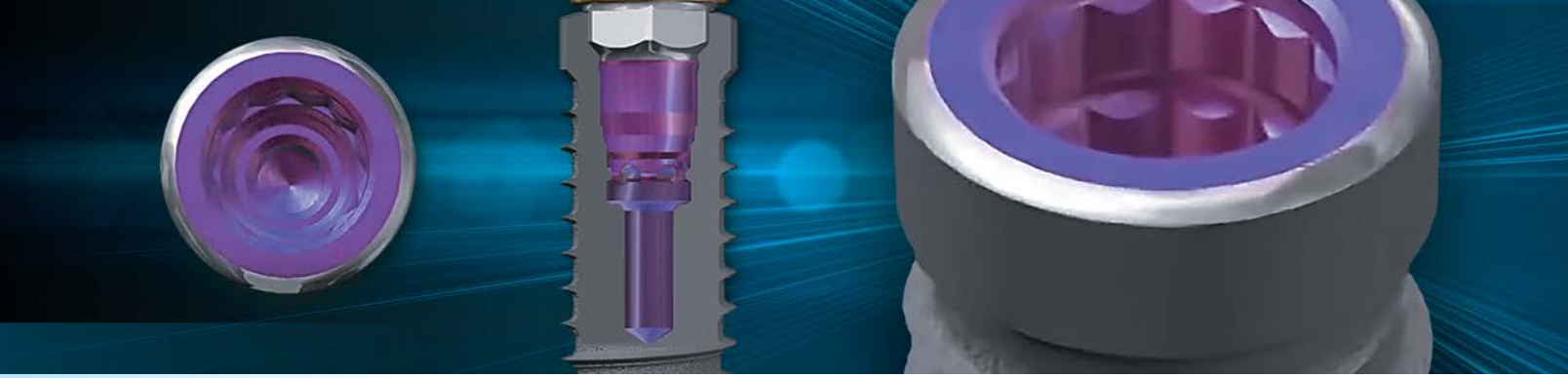
* Results are not necessarily typical, indicative or representative of all recipient patients.

Image courtesy of Dr. Xavier Vela†, Spain.

Reduction in crestal bone remodeling vs. non platform-switched implants[22]

A medialized implant/abutment junction provides support for connective tissue, reducing the potential for recession by 50%.*





Contemporary Hybrid Implant Design

Primary Stability[6,7,8]

Initial Bone-to-Implant Contact is a major contributor to the implant's stability.[9] The specifications of the T3 Implant are held to rigorous tolerances to provide a closely integrated implant-to-osteotomy fit, creating a dental implant system that helps to achieve primary stability.

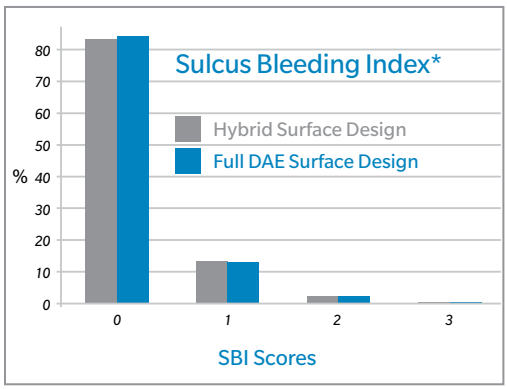
Osseointegration[10,11]

In preclinical studies*, the T3 with DCD Surface demonstrated increased integration strength throughout the healing phase as compared to less complex surface topographies.[11]

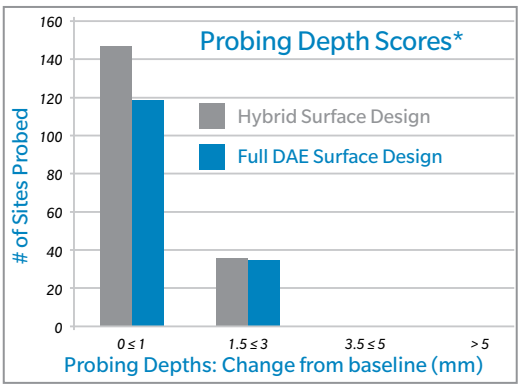
No Increased Peri-implantitis Risk[12,13]

The T3 Implant utilizes the proven Osseotite® Surface technology at the coronal aspect of the implant. In a five-year study**, the dual acid-etched surface of the Osseotite Implant presented no increased risk of peri-implantitis or soft-tissue complications versus a machined surface.[12]

Multicenter, Randomized Controlled 5-Year Study of Hybrid and Fully Etched Implants for the Incidence of Peri-Implantitis**



84% of all SBI scores were "0" (absence of bleeding); 13% of scores were "1" - isolated bleeding spot.



No implant (test or control) showed changes in probing depths greater than 3.0 mm.

One hundred twelve patients who were enrolled at seven centers received 139 control and 165 test implants (total: 304 implants).

* Preclinical studies are not necessarily indicative of clinical performance.

** Zetterqvist et al. A Prospective, Multicenter, andomized Controlled 5-Year Study Of Hybrid And Fully Etched Implants For The Incidence Of Peri-implantitis. J Periodontol April 2010.

T3 Implant with DCD Implant Clinical Case Presentation

Clinical Treatment by Dr. Tiziano Testori† and Dr. Fabio Scutellá†

Figure 1
Hopeless central incisors.

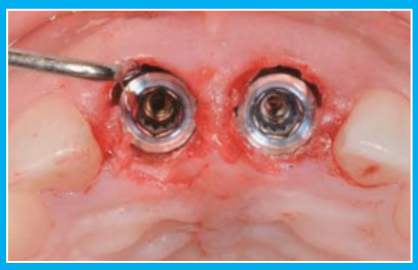


Figure 2
Two T3 DCD Tapered Implants 5 mm(D) x 4.1 mm(P) x 13 mm(L) placed immediately after extractions.

Figure 3
Two PreFormance® Provisional Posts adjusted intraorally.

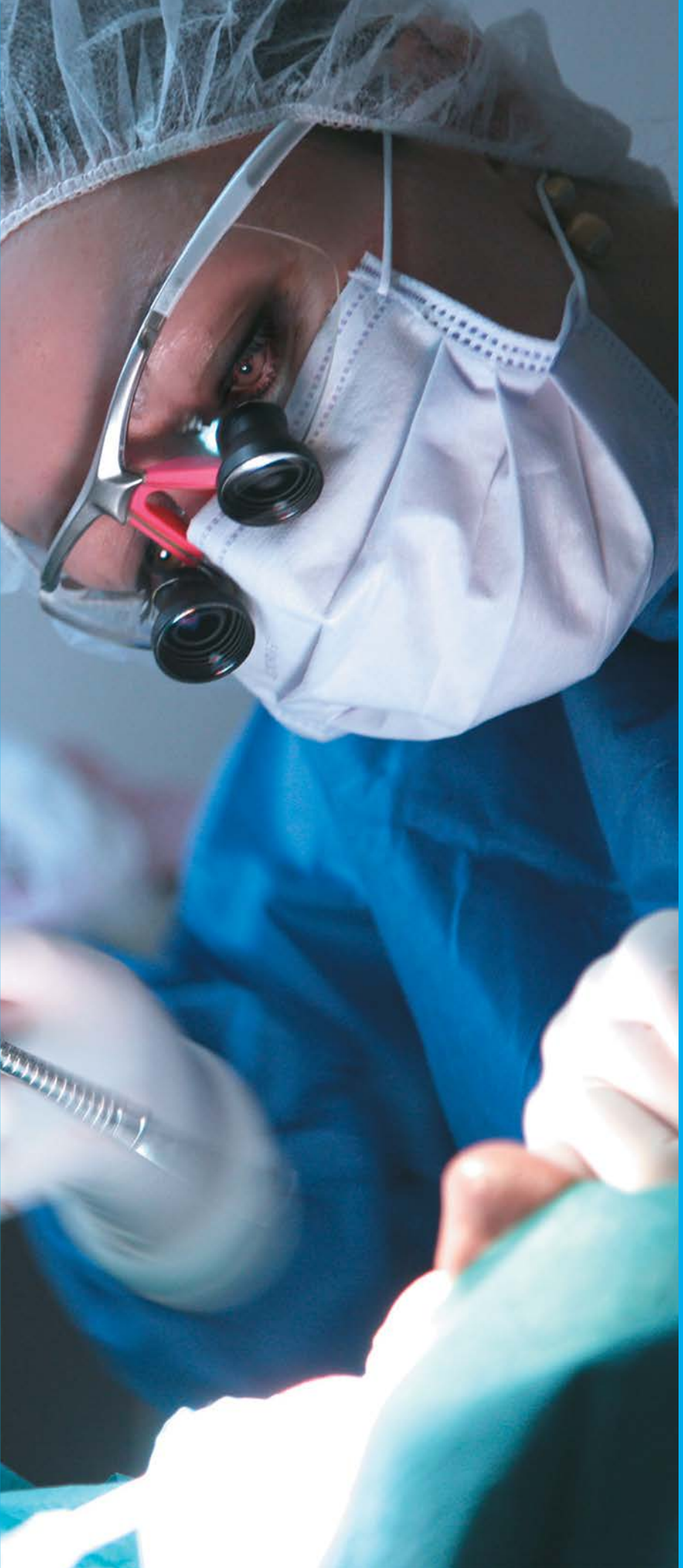
Figure 4
An acrylic-resin splinted provisional restoration was cemented to the PreFormance Posts.

Figure 5
One month follow-up.

Figure 6
Final result with definitive prosthesis six months post-extractions and implant placement. Note the maintenance of the facio-palatal width.

Figure 7
Periapical at six months follow-up showing bone preservation both distally and mesially.

Figure 8
Cone beam images at six months. Note the facial wall thickness is maintained at 2.7 mm.



References

1. Sullivan DY, Sherwood RL, Porter SS. Long-term performance of Osseotite® Implants: A 6-year follow-up Compendium. 2001 Apr;Vol.22, No.4.
2. Javed F, Romanos GE. The role of primary stability for successful immediate loading of dental implants. A literature review. J Dent. 2010 Aug;38(8):612-20. Epub 2010 Jun 11. Review.
3. Fransson C, Lekholm U, Jemt T, Berglundh T. Prevalence of subjects with progressive bone loss at implants. Clinical Oral Implants Research. 2005;16:440–446.
4. Zitzmann NU, Berglundh T. Definition and prevalence of peri-implant diseases. J Clin Perio. 2008;35:286–291.
5. Lazzara RJ,† Porter SS. Platform Switching: A new concept in implant dentistry for controlling post restorative crestal bone levels. Int J Periodontics Restorative Dent. 2006;26:9-17.
6. Östman PO†, Wennerberg A, Ekestubbe A, et al. Immediate occlusal loading of NanoTite™ tapered implants: A prospective 1-year clinical and radiographic study. Clin Implant Dent Relat Res. 2012 Jan 17.
7. Block MS†. Placement of implants into fresh molar sites: Results of 35 cases. J Oral Maxillofac Surg. 2011 Jan;69(1):170-174.
8. Meltzer AM†. Immediate implant placement and restoration in infected sites. Int J Periodontics Restorative Dent. 2012 Oct;32(5):e169-173.
9. Meredith N. Assessment of implant stability as a prognostic determinant. Int J Prosthodont. 1998 Sep-Oct;11(5):491-501.
10. Nevins M†, Nevins ML, Schupbach P, Fiorellini J, Lin Z, Kim DM. The impact of bone compression on bone-to-implant contact of an osseointegrated implant: A canine study. Int J Periodontics Restorative Dent. 2012 Dec;32(6):637-645.
11. Mendes V, Davies JE. Early Implant healing at implant surfaces of varying topographical complexity. Poster Presentation: Academy of Osseointegration, 26th Annual Meeting; March 2011; Washington, DC. http://biomet3i.com/pdf/Posters/Poster_Early_Periimplant_Healing.pdf.
12. Zetterqvist L, Feldman S, Rotter B, et al. A prospective, multicenter, randomized-controlled 5-year study of hybrid and fully etched implants for the incidence of peri-implantitis. J Periodontol. 2010 April;81:493-501.
13. Lang NP, Berglundh T. Periimplant diseases: Where are we now?-Consensus of the Seventh European Workshop on Periodontology; Working Group 4 of Seventh European Workshop on Periodontology. J Clin Perio. 2011 Mar;38 Suppl 11:178-181.
14. Gubbi P††, Towse R††, Quantitative and qualitative characterization of various dental implant surfaces. Poster Presentation P421: European Association For Osseointegration, 20th Meeting; October 2012; Copenhagen, Denmark. (http://www.biomet3i.com/Pdf/Posters/Poster_421_EAO_Final.pdf).
15. Lazzara R.† Dental implant system design and the potential impact on long-term aesthetics: A review of the T3 Tapered Implant. ART1193EU Biomet 3i White Paper. Biomet 3i, Palm Beach Gardens, Florida, USA. http://biomet3i.com/Pdf/EMEA/ART1193C_T3%20Implant_White_Paper_EU.pdf
16. Suttin et al††. A novel method for assessing implant-abutment connection seal robustness. Poster Presentation: Academy of Osseointegration, 27th Annual Meeting; March 2012; Phoenix, AZ. http://biomet3i.com/Pdf/Posters/Poster_Seal%20Study_ZS_AO2012_no%20logo.pdf
17. Suttin Z††, Towse R††. Dynamic loading fluid leakage characterization of dental implant systems. ART1205EU Biomet 3i White Paper. Biomet 3i, Palm Beach Gardens, Florida, USA. http://biomet3i.com/Pdf/EMEA/ART1205EU%20Dynamic%20Loading%20T3%20White%20Paper.pdf
18. Suttin Z††, Towse R††. Effect of abutment screw design on implant system seal performance. Presented at the European Association for Osseointegration, 20th Annual Scientific Meeting; October 2012; Copenhagen, Denmark. http://biomet3i.com/Pdf/Posters/P-450_Effect_of_Screw_Design_on_Implant_Seal.pdf
19. Byrne D, Jacobs S, O'Connell B, Houston F, Claffey N. Preloads generated with repeated tightening in three types of screws used in dental implant assemblies. J. Prosthodont. 2006 May–Jun;15(3):164-171.
20. Lazzara RJ, Porter SS. Platform switching: A new concept in implant dentistry for controlling postrestorative crestal bone levels. Int J Perio Rest Dent. 2006;26:9-17.
21. Östman PO,† Wennerberg A, Albrektsson T. Immediate occlusal loading of NanoTite prevail implants: A prospective 1-year clinical and radiographic study. Clin Implant Dent Relat Res. 2010 Mar;12(1):39-47.
22. Boitel N, Andreoni C, Grunder U†, Naef R, Meyenberg K†. A three year prospective, multicenter, randomized-controlled study evaluating platform-switching for the preservation of peri-implant bone levels. Poster Presentation P83: Academy of Osseointegration, 26th Annual Meeting: 2011 March 3-5; Washington DC. http://biomet3i.com/Resource%20Center/Publications%20of%20Interest/Platform_Switching_for_the_Preservation_of%20Peri_Implant%20Bone%20Levels.pdf

† Dr. Block, Dr. Goené, Dr. Grunder, Dr. Lazzara, Dr. Makigusa, Dr. Meltzer, Dr. Méndez, Dr. Meyenberg, Dr. Nevins, Dr. Östman, Dr. Rodríguez, Dr. Segalá, Dr. Scutellá, Dr. Tarnow, Dr. Testori and Dr. Vela have financial relationships with Biomet 3i, LLC resulting from speaking engagements, consulting engagements and other retained services.

†† Dr. Gubbi, Mr. Suttin and Mr. Towse contributed to the above research while employed by Biomet 3i.

References 6–10 discuss the Tapered Implant macrodesign, which is incorporated into the T3 Implant. References 10–13 discuss the Osseotite and/or NanoTite Implants' dual acid-etched or DCD technology, which is incorporated into the T3 Implant. References 20–22 discuss PREVAIL® Implants with an integrated platform switching design, which is also incorporated into the T3 Implant.

(D) = Diameter
(P) = Platform

Ordering Information

Tapered Implants

T3

Length	4.0 mm (D) x 3.4 mm (P)	5.0 mm (D) x 4.1 mm (P)	6.0 mm (D) x 5.0 mm (P)
8.5 mm	BOPT4385	BOPT5485	BOPT6585
10 mm	BOPT4310	BOPT5410	BOPT6510
11.5 mm	BOPT4311	BOPT5411	BOPT6511
13 mm	BOPT4313	BOPT5413	BOPT6513
15 mm	BOPT4315	BOPT5415	BOPT6515

T3 Non-Platform Switched

Length	3.25 mm (D) x 3.4 mm (P)	4.0 mm (D) x 4.1 mm (P)	5.0 mm (D) x 5.0 mm (P)	6.0 mm (D) x 6.0 mm (P)
8.5 mm	BOST3285	BOST485	BOST585	BOST685
10 mm	BOST3210	BOST410	BOST510	BOST610
11.5 mm	BOST3211	BOST411	BOST511	BOST611
13 mm	BOST3213	BOST413	BOST513	BOST613
15 mm	BOST3215	BOST415	BOST515	BOST615

T3 With DCD

Length	4.0 mm (D) x 3.4 mm (P)	5.0 mm (D) x 4.1 mm (P)	6.0 mm (D) x 5.0 mm (P)
8.5 mm	BNPT4385	BNPT5485	BNPT6585
10 mm	BNPT4310	BNPT5410	BNPT6510
11.5 mm	BNPT4311	BNPT5411	BNPT6511
13 mm	BNPT4313	BNPT5413	BNPT6513
15 mm	BNPT4315	BNPT5415	BNPT6515

T3 Non-Platform Switched With DCD

Length	3.25 mm (D) x 3.4 mm (P)	4.0 mm (D) x 4.1 mm (P)	5.0 mm (D) x 5.0 mm (P)	6.0 mm (D) x 6.0 mm (P)
8.5 mm	BNST3285	BNST485	BNST585	BNST685
10 mm	BNST3210	BNST410	BNST510	BNST610
11.5 mm	BNST3211	BNST411	BNST511	BNST611
13 mm	BNST3213	BNST413	BNST513	BNST613
15 mm	BNST3215	BNST415	BNST515	BNST615

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