

Osseotite[®] Implant Reference List



ZIMMER BIOMET
Your progress. Our promise.™



The Osseotite Implant Family

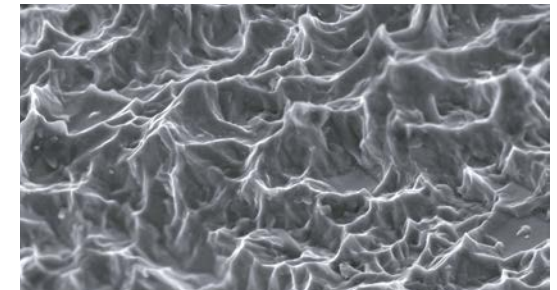
The Osseotite Implant features the proprietary dual-acid-etched surface that is designed for improving the clot/implant attachment, which may increase platelet activation and red blood cell (rbc) agglomeration.¹

For more than 15 years with documentation from numerous global multicenter clinical evaluations,²⁻⁹ the Osseotite Surface has proven to be predictable and a well-researched surface. Clinical studies on the Osseotite Surface document the benefits of increased contact osteogenesis, especially in poor quality bone.¹⁰

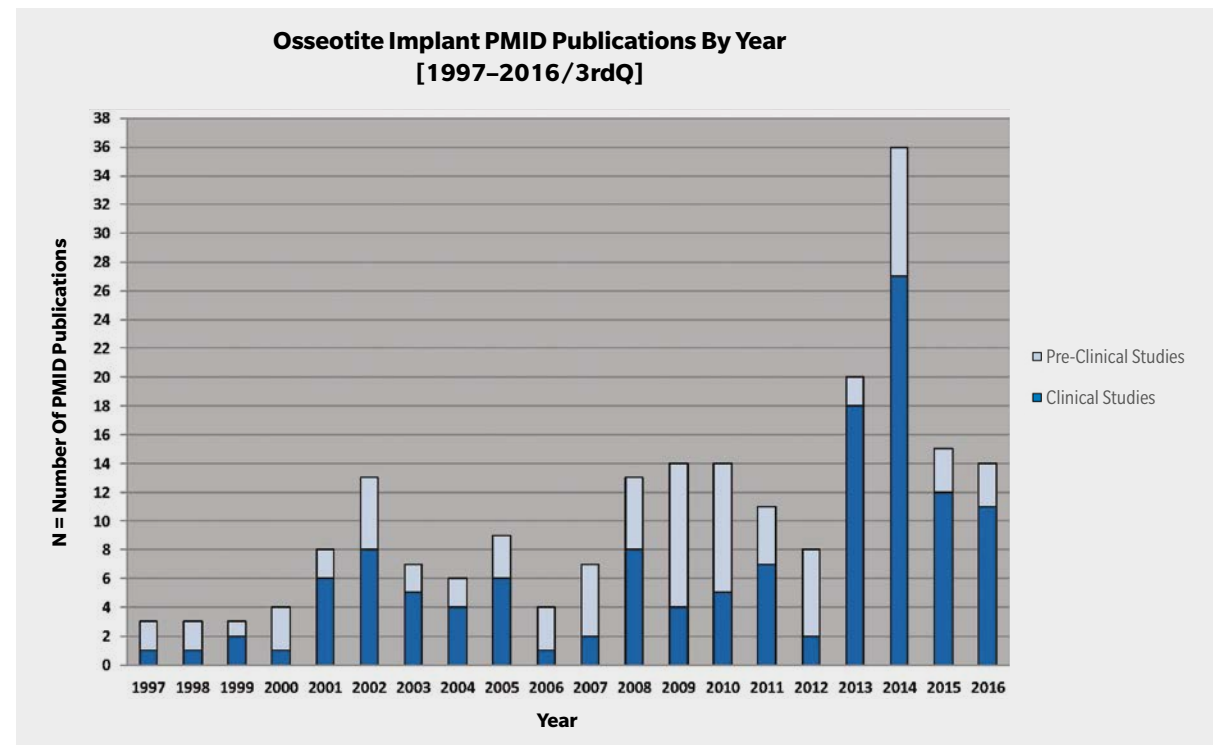
The following nine pages display chronologically in table format published clinical studies with Osseotite implants, reporting the study design and clinical data of numbers of patients, numbers of implants and follow-up duration with relevant surface performance outcome of cumulative survival rate tagged by variables.



Osseotite Implants



Osseotite Surface at 20,000x magnification.



The graph depicts the number of Osseotite Implant studies, clinical and pre-clinical (bench, animal and in vitro), that have been published in peer-reviewed, biomedical MEDLINE journals each year from 1997 through 2016 (the third Quarter). The publication total is 223, of which 64% are clinical studies and 36% are pre-clinical studies.

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
1997								
9338869	Sullivan DY, Sherwood RL, Mai TN.	J Prosthet Dent 1997;78:379-386.	Preliminary results of a multicenter study evaluating a chemically enhanced surface for machined commercially pure titanium implants.‡	Prospective	75	Osseotite 147	3 years	96.6
1998								
10321197	Lazzara RJ#, Porter SS#, Testori T, Galante J, Zetterqvist L.	J Esthet Dent 1998;10:280-289.	A prospective multicenter study evaluating loading of Osseotite implants two months after placement: one-year results.‡	Prospective, multicenter	155	Osseotite 429	1 year	98.5 Early
1999								
10650380	Grunder U, Gaberthuel T, Boitel N, Imoberdorf M, Meyenberg K, Andreoni C, Meier T.	Compend Contin Educ Dent 1999;20:628-640.	Evaluating the clinical performance of the Osseotite implant in maxillary and mandibular posterior areas: defining prosthetic predictability.‡	Prospective, multicenter	74	Osseotite 219	34 months	99.4 100 Post-loading
2000								
10898842	Vigolo P, Givani A.	J Prosthet Dent 2000;84:50-54.	Clinical evaluation of single-tooth mini-implant restorations: a five-year retrospective study.	Retrospective	44	Osseotite 52	5 years	94.2
2001								
11472658	Davarpanah M, Martinez H, Celletti R, Alcoforado G, Tecucianu J-F, Etienne D.	Clin Impl Dent Related Res 2001;3:111-118.	Osseotite implant: 3-year prospective multicenter evaluation.‡	Prospective, multicenter	142	Osseotite 413	3 years	96.6
11597345	Gaucher H, Bentley K, Roy S, Head T, Blomfield J, Blondeau F, Nicholson L, Chehade A, Tardif N, Emery R	J Can Dent Assoc 2001;67:528-533.	A multi-centre study of Osseotite implants supporting mandibular restorations: a three-year report.‡	Prospective, multicenter	172	Osseotite 688	3 years	99.3
11794565	Grunder U.	Int J Periodontics Restorative Dent 2001;21:545-551.	Immediate functional loading of immediate implants in edentulous arches: two-year results.†	Prospective	8	Osseotite 91	2 years	92.3 IL

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
11699480	Khang W, Feldman S, Hawley CE, Gunsolley J.	J Periodontol 2001;72:1384-1390.	A multicenter study comparing DAE and machined-surfaced implants in various bone qualities.‡	Prospective, Randomized-controlled	97	Osseotite 247	3 years	95.0 Pre-loading 96.8 Poor quality bone
11913278	Sullivan DY, Sherwood RL, Porter SS#.	Compend Contin Educ Dent 2001;4:326-334.	Long term performance of Osseotite implants: a six-year follow-up.‡	Prospective	147	Osseotite 75	6 years	96.6
11324207	Testori T, Wiseman L, Woolfe S, Porter SS#.	Int J Oral Maxillofac Implants 2001;16:193-200.	A prospective multicenter clinical study of the Osseotite implant: a four-year interim report.‡	Prospective, multicenter	181	Osseotite 485	4 years	98.8 100 Post-loading
2002								
12244737	Bain CA, Weng D, Meltzer A, Kohles SS, Stach RM#.	Compend Contin Educ Dent 2002;23:695-699,702,704.	A meta-analysis evaluating the risk for implant failure in patients who smoke.‡	Meta-analysis: 6 Prospective studies	778	Osseotite 2,274	3 years	98.7 All 98.7 Smokers 98.4 Non-smokers
12507242	Davarpanah M, Martinez H, Celletti R, Alcoforado G, Tecucianu JF, Etienne D.	Int J Oral Maxillofac Implants 2002;17:820-828.	A prospective multi-center evaluation of 1583 3i implants: 1- to 5-year data.†	Prospective, multicenter	528	Osseotite 545 of 1,583	5 years	96.5 97.2 Maxilla 95.8 Mandible
12078594	Ibañez JC, Jalbout ZN.	Implant Dent 2002;11:128-136.	Immediate loading of Osseotite implants: two-year results.†	Prospective	11	Osseotite 87	3 years	100 IL
12146526	Mayer TM, Gunsolley JC, Feldman S.	J Periodontol 2002;73:687-693.	The single-tooth implant: a viable alternative for single tooth replacement.‡	Prospective, multicenter	59	Osseotite 71	5 years	98.6
11952735	Testori T, Del Fabbro M, Feldman S, Vincenzi G, Sullivan D, Rossi Jr. R, Anitua E, Bianchi F, Francetti L, Weinstein RL.	Clin Oral Impl Res 2002;13:154-161.	A multicenter prospective evaluation of 2-months loaded Osseotite implants placed in the posterior jaws: 3-year follow-up results.‡	Prospective, multicenter	175	Osseotite 405	3 years	97.8 Early 100 Post-loading/ Maxilla 98.9 Post-loading/ Mandible
2003								
12939014	Garlini G, Bianchi C, Chierichetti V, Sigurta D, Mariorana C, Santoro F.	Int J Oral Maxillofac Implants 2003;18:589-593.	Retrospective clinical study of Osseotite implants: zero- to 5-year results.	Retrospective	244	Osseotite 555	5 years	98.5
14682653	Ibañez JC, Tahhan MJ, Zamar JA.	J Periodontol 2003;74:1575-1581.	Performance of double acid-etched surface external hex titanium implants in relation to one- and two-stage surgical procedures.	Prospective	195	Osseotite 654	3 years	99.2

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
12704962	Stach RM#, Kohles SS.	Implant Dent 2003;12:87-96.	A meta-analysis examining the clinical survivability of machined-surfaced and Osseotite implants in poor quality bone.‡	Meta-analysis: 6 Prospective studies	931	Osseotite 2,236	4 years	98.4 All 98.4 Good quality bone 98.1 Poor quality bone
11952735	Testori T, Bianchi F, Del Fabbro M, Szmukler-Moncler S, Francetti L, Weinstein RL.	Pract Proced Aesthet Dent 2003;15:787-794.	Immediate non-occlusal loading vs. early loading in partially edentulous patients.	Prospective, multicenter	32	Osseotite 405	2 years	96.2 IL 98.0 Early
12939006	Testori T, Del Fabbro M, Szmukler-Moncler S, Francetti L, Weinstein RL.	Int J Oral Maxillofac Implants 2003;18:544-551.	Immediate occlusal loading of Osseotite implants in the completely edentulous mandible.‡	Prospective, multicenter	15	Osseotite 103	4 years	98.9 IOL
2004								
15346750	Drago CJ, Lazzara RJ#.	Int J Oral Maxillofac Implants 2004;19:534-541.	Immediate provisional restoration of Osseotite implants: a clinical report of 18-month results.	Retrospective	27	Osseotite 77	1.5 years	97.4 IL
15595705	Feldman S, Boitel N, Weng D, Kohles SS, Stach RM#.	Clin Implant Dent Relat Res 2004;6:16-23.	Five-year survival distributions of short-length (10 mm or less) machined-surfaced and Osseotite implants.‡	Meta-analysis: 6 Prospective studies	NR	Osseotite 2,294	5 years	98.4 Standard length 97.7 Short ≤ 10 mm
15142089	Testori T, Meltzer A, Del Fabbro M, Zuffetti F, Troiano M, Weinstein RL.	Clin Oral Impl Res 2004;15:278-284.	Immediate occlusal loading of Osseotite implants in the lower edentulous jaw. A multicenter prospective study.‡	Prospective, multicenter	62	Osseotite 325	5 years	99.4 IOL
15587021	Testori T, Del Fabbro M, Galli F, Francetti L, Taschieri S, Weinstein R.	J Oral Implantol 2004;30:307-313.	Immediate occlusal loading the same day or the day after implant placement: comparison of 2 different time frames in totally edentulous lower jaws.†	Prospective, multicenter	19	Osseotite 116	37.8 months	96.9 IL 98.1 Day after placement
2005								
16160574	Goené R, Bianchesi C, Huerzeler M, Del Lupo R, Testori T, Davarpanah M, Jalbout Z.	Implant Dent 2005;14:274-280.	Performance of short implants in partial restorations: three years follow-up of 7-mm and 8.5-mm Osseotite implants.†	Retrospective, multicenter	188	Osseotite 311	3 years	95.8 Short length

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
16274318	Ibañez JC, Tahhan MJ, Zamar JA, Menendez AB, Juaneda AM, Zamar NJ, Monqaut JL.	J Periodontol 2005;76:1972-1981.	Immediate occlusal loading of double acid-etched surface titanium implants in 41 consecutive full-arch cases in the mandible and maxilla: 6- to 74-month results.	Prospective, multicenter	41	Osseotite 343	6 years	99.4 IOL
15842263	Schropp L, Kostopoulos L, Wenzel A, Isidor F.	J Clin Periodontol 2005;32:480-487.	Clinical and radiographic performance of delayed-immediate single-tooth implant placement associated with peri-implant bone defects. A 2-year prospective, controlled, randomized follow-up report. [†]	Prospective, Randomized-controlled	43	Osseotite 43	2 years	91.0 IL 96.0 Delayed
16392348	Sullivan D, Vincenzi G, Feldman S.	Int J Oral Maxillofac Implants 2005;20:905-912.	Early loading of Osseotite implants after placement in the maxilla and mandible: a five-year report. [‡]	Prospective, multicenter	195	Osseotite 526	5 years	97.9 Early
2006								
16939015	Drago CJ, Del Castillo RA.	Int J Periodontics Restorative Dent 2006;26:337-345.	A retrospective analysis of Osseotite NT implants in clinical practice: 1-year follow-up. [†]	Retrospective	126	Osseotite Tapered 309	1 year	97.4 Early
16681501	Drago CJ, Lazzara RJ [#] .	J Prosthodont 2006;15:187-194.	Immediate occlusal loading of Osseotite implants in mandibular edentulous patients: a prospective observational report with 18-month data. [†]	Prospective	27	Osseotite 151	1.5 years	98.0 IOL
16646396	Drago CJ, O'Connor CG.	Compend Contin Educ Dent 2006;27:266-71.	A clinical report on the 18-month cumulative survival rates of implants and implant prostheses with an internal connection implant system.	Prospective	45	Osseotite Certain [®] 83	1.5 years	100
2007								
17929526	Capelli M, Zuffetti F, Del Fabbro M, Testori T.	Int J Oral Maxillofac Implants 2007;22:639-644.	Immediate rehabilitation of the completely edentulous jaw with fixed prostheses supported by either upright or tilted implants: a multicenter clinical study.	Prospective multicenter	65	Osseotite Tapered 342	40 months	97.6 IL

Key:

PMID: PubMed identification number; N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
17563506	Calvo Guirado JL, Saez Yuguero MR, Pardo Zamora G.	Implant Dent 2007;2:155-164.	Immediate provisionalization on a new implant design for esthetic restoration and preserving crestal bone.	Prospective	10	Osseotite Certain Prevail® 10	6 months	100 IL
17586347	Hürzeler M, Fickl S, Zuhre O, Wachtel HC.	J Oral Maxillofac Surg 2007;65:33-39.	Peri-implant bone level around implants with platform-switched abutments: preliminary data from a prospective study.	Prospective	15	Osseotite 22 (14 w/PSw)	1 year	100
17224029	Stavropoulos A, Karring T, Kostopoulos L.	Clin Oral Implants Res 2007;18:95-102.	Fully vs. partially rough implants in maxillary sinus floor augmentation: a randomized-controlled clinical trial.	Prospective, Randomized-controlled	26	Full Osseotite 35	1 year	82.9 AUG Sinus
17974118	Testori T, Galli F, Capelli M, Zuffetti F, Esposito M.	Int J Oral Maxillofac Implants 2007;22:815-822.	Immediate nonocclusal versus early loading of dental implants in partially edentulous patients: 1-year results from a multicenter randomized controlled clinical trial.	Prospective, Randomized-controlled, multicenter	52	Full Osseotite Tapered 100	1 year	98.0 IL 100 Early
2008								
18758403	Calvo Guirado JL, Ortiz Ruiz AJ, Gómez Moreno G, López Marí L, Bravo González LA.	Med Oral Patol Oral Cir Bucal 2008;13:E576-581.	Immediate loading and immediate restoration in 105 expanded-platform implants via the Diem System after a 16-month follow-up period.	Prospective, multicenter	18	Osseotite Certain Prevail 105	16 months	99.1 IL
18717373	Cappiello M, Luongo R, Di Iorio D, Bugea C, Cocchetto R, Celletti R.	Int J Periodontics Restorative Dent 2008;28:347-355.	Evaluation of peri-implant bone loss around platform-switched implants.	Prospective, Randomized-controlled, multicenter	45	Full Osseotite 131 (75 w/PSw)	1 year	99.2
19088880	de Cravero Marta R, Carlos IJ.	Open Dent J 2008;2:30-37.	Assessing double acid-etched implants submitted to orthodontic forces and used as prosthetic anchorages in partially edentulous patients.	Prospective	38	Osseotite 93	4 years	100

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
18422981	Galli F, Capelli M, Zuffetti F, Testori T, Esposito M.	Clin Oral Implants Res 2008;19:546-552.	Immediate non-occlusal vs. early loading of dental implants in partially edentulous patients: a multicentre randomized clinical trial. Peri-implant bone and soft-tissue levels.	Prospective, Randomized-controlled	52	Osseotite Tapered 104	14 months	96.0 IL 100 Early
18462202	Östman PO, Hellman M, Sennerby L, Wennerberg A.	Clin Implant Dent Relat Res 2008;10:71-77.	Temporary implant-supported prosthesis for immediate loading according to a chair-side concept: technical note and results from 37 consecutive cases.	Prospective	37	Osseotite 61 NanoTite® 71	6 months	100 IL
18456046	Tealdo T, Bevilacqua M, Pera F, Menini M, Ravera G, Drago C#, Pera P.	J Prosthet Dent 2008;99:351-360.	Immediate function with fixed implant-supported maxillary dentures: a 12-month pilot study.	Prospective	21	Osseotite 111 (38 Tapered)	20 months	92.8 IL
18177428	Testori T, Del Fabbro M, Capelli M, Zuffetti F, Francetti L, Weinstein RL.	Clin Oral Implants Res 2008;19:227-232.	Immediate occlusal loading and tilted implants for the rehabilitation of the atrophic edentulous maxilla: 1-year interim results of a multicenter prospective study.	Prospective, multicenter	41	Osseotite Tapered 164	22 months	98.8 IOL
2009								
20095192	Baldi D, Menini M, Pera F, Ravera G, Pera P.	Int J Prosthodont 2009;22:447-455.	Plaque accumulation on exposed titanium surfaces and peri-implant tissue behavior. A preliminary 1-year clinical study.†	Prospective, Randomized-controlled	8	Osseotite 10 Full Osseotite 10	1 year	100
19582246	Carinci F, Guidi R, Franco M, Visconi A, Rigo L, De Santis B, Tropina E.	Quintessence 2009;40:413-419.	Implants inserted in fresh-frozen bone: a retrospective analysis of 88 implants loaded 4 months after insertion.	Retrospective	22	Osseotite 30 of 88	27 months	100 AUG
19492643	Calvo-Guirado JL, Ortiz Ruiz AJ, López Marí L, Delgado-Ruiz R, Maté-Sánchez J, Bravo González LA.	Int J Oral Maxillofac Implants 2009;24:275-281.	Immediate maxillary restorations of single-tooth implants using platform switching for crestal bone preservation: a 12-month study.	Prospective	50	Osseotite Certain Prevail 61	1 year	98.4 IL

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
19408476	Rodríguez-Ciurana X, Vela-Nebot X, Segalà-Torres M, Calvo-Guirado JL, Cambra J, Méndez-Blanco V, Tarnow D.	Int J Periodontics Restorative Dent 2009;29:141-151.	The effect of interimplant distance on the height of the interimplant bone crest when using platform-switched implants.	Prospective	37	Osseotite Certain Prevail 82	2 years	100
20072737	Trammell K, Geurs NC, O'Neal SJ, Liu PR, Haigh SJ, McNeal S, Kenealy JN#, Reddy MS.	Int J Periodontics Restorative Dent 2009;29:599-605.	A prospective, randomized, controlled comparison of platform-switched and matched-abutment implants in short-span partial denture situations.†	Prospective	10	Osseotite Tapered 25 (13 w/PSw)	2 years	100
19344032	Vigolo P, Givani A.	Int J Oral Maxillofac Implants 2009;24:103-109.	Platform-switched restorations on wide-diameter implants: a 5-year clinical prospective study.	Prospective	144	Osseotite Ex-Hex 182 (97 w/PSw)	5 years	100
2010								
19076178	Carinci F, Brunelli G, Franco M, Viscioni A, Rigo L, Guidi R, Strohmer L	Clin Implant Dent Relat Res 2010;12:91-98.	A retrospective study on 287 implants installed in resorbed maxillae grafted with fresh frozen allogeneous bone.	Retrospective	69	Osseotite 82 of 287	26 months	98.3 AUG
20228975	Cocchetto R, Traini T, Caddeo F, Celletti R.	Int J Periodontics Restorative Dent 2010;30:163-167.	Evaluation of hard tissue response around wider platform-switched implants.	Prospective	10	Full Osseotite Certain Prevail 15	18 months	100
20556258	Fickl S, Zuhr O, Stein JM, Hürzeler MB.	Int J Oral Maxillofac Implants 2010;25:577-581.	Peri-implant bone level around implants with platform-switched abutments.	Retrospective	36	Full Osseotite 89 (75 w/PSw)	1 year	100
20022217	Pelo S, Boniello R, Moro A, Gasparini G, Amoroso PF.	Int J Oral Maxillofac Surg 2010;39:227-234.	Augmentation of the atrophic edentulous mandible by a bilateral two-step osteotomy with autogenous bone graft to place osseointegrated dental implants.	Prospective	19	Osseotite 141	4 years	96.0 AUG Symphysis 91.0 AUG Molar sites
2011								
21435008	Calvo-Guirado JL, Gómez-Moreno G, López-Marí L, Guardia J, Negri B, Martínez-González JM.	Clin Oral Implants Res 2011;22:1409-1414.	Crestal bone loss evaluation in Osseotite expanded platform implants: a 5-year study.	Prospective	64	Osseotite Certain Prevail 86	5 years	97.1

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
22043465	Cannizzaro G, Felice P, Soardi E, Ferri V, Leone M, Esposito M.	Eur J Oral Implantol 2011;4:205-217.	Immediate loading of 2 (all-on-2) versus 4 (all-on-4) implants placed with a flapless technique supporting mandibular cross-arch fixed prostheses: preliminary results from a pilot randomised controlled trial.	Prospective	60	Osseotite Tapered 180	4 months	100 IL
21398013	Walker LR, Morris GA, Novotny PJ.	J Oral Maxillofac Surg 2011;69:1344-1349.	Implant insertional torque values predict outcomes.	Retrospective	172	Osseotite 174	6 months	97.0
23057041	Sesma N, Pannuti C, Cardaropoli G.	Int J Oral Maxillofac Implants 2012;27:1243-1248.	Retrospective clinical study of 988 dual acid-etched implants placed in grafted and native bone for single-tooth replacement.	Retrospective	988	Osseotite Certain 988	39 months	97.6 91.2 AUG Sinus 92.7 AUG Bone block 98.4 Native bone
22292143	Vela X, Mendez V, Rodriguez X, Segala M, Tarnow DP.	Int J Periodontics Restorative Dent 2012;32:149-155.	Crestal bone changes on platform-switched implants and adjacent teeth when the tooth-implant distance is less than 1.5 mm.	Retrospective	50	Osseotite Certain Prevail 70	6 months	100
2013								
21745328	Browaeys H, Defrancq J, Dierens MC, Miremadi R, Vandeweghe S, Van de Velde T, De Bruyn H.	Clin Implants Dent Relat Res 2013;15:380-389.	A retrospective analysis of early and immediately loaded Osseotite implants in cross-arch rehabilitations in edentulous maxillas and mandibles up to 7 years. [†]	Retrospective	83	Osseotite 749	7 years	97.9 Early and IL 96.8 Maxilla 98.8 Mandible
23998154	Cardaropoli D, Gaveglio L, Cardaropoli G.	Int J Periodontics Restorative Dent 2013;33:583-589.	Vertical ridge augmentation with a collagen membrane, bovine bone mineral and fibrin sealer: clinical and histologic findings.	Prospective	20	Osseotite 35	6 months	100 AUG Sites
22171568	Raghoobar GM, Meijer HJ, Telleman G, Vissink A.	Clin Implant Dent Relat Res 2013;15:550-557.	Maxillary sinus floor augmentation surgery with autogenous bone grafts as ceiling: a pilot study and test of principle.	Prospective	14	Osseotite Certain Prevail 14	1 year	100 AUG Sinus
22631883	Sivolella S, Stellini E, Testori T, Di Fiore A, Berengo M, Lops D.	J Periodontol 2013;84:502-512.	Splinted and unsplinted short implants in mandibles: a retrospective evaluation with 5 to 16 years of follow-up.	Retrospective	103	Osseotite 103	16 years	97.2

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
23611604	Testori T, Mandelli F, Mantovani M, Taschieri S, Weinstein RL, Del Fabbro M.	J Oral Maxillofac Surg 2013;71:1187-1194.	Tilted trans-sinus implants for the treatment of maxillary atrophy: case series of 35 consecutive patients.	Prospective	35	Osseotite 196	1 year	98.4 Trans-sinus
2014								
23425107	Calvo-Guirado JL, Gómez-Moreno G, Delgado-Ruiz RA, Maté Sánchez de Val JE, Negri B, Ramírez Fernández MP.	Clin Oral Implants Res 2014;25:352-358.	Clinical and radiographic evaluation of Osseotite-expanded platform implants related to crestal bone loss: a 10-year study.	Prospective, multicenter	64	Osseotite Certain Prevail 86	10 years	97.1
25171033	Cardaropoli D, Gaveglío L, Gherlone E, Cardaropoli G.	Int J Periodontics Restorative Dent 2014;34:631-637.	Soft tissue contour changes at immediate implants: a randomized-controlled clinical study.	Prospective, Randomized-controlled	52	Osseotite Certain Tapered 62	1 year	100 IRES Test 96.15 IRES Control
24600658	Kermalli JY, Deporter DA, Atenafu EG, Lam EW.	Int J Periodontics Restorative Dent 2014;34:225-231.	A retrospective report on three implant devices used to restore posterior partial edentulism: overall performance and changes in crestal bone levels.	Retrospective, Cross-sectional	345	Osseotite 563 of 799	3.7 years	96.0 (95.1 ALL)
23305406	Romanos GE, Gaertner K, Nentwig GH.	Clin Implant Dent Relat Res 2014;16:601-608.	Long-term evaluation of immediately loaded implants in the edentulous mandible using fixed bridges and platform shifting.	Prospective, Randomized, Split-mouth	18	Osseotite 107 (w/PSw 53)	1 year	98.1 IL
24905260	Tealdo T, Menini M, Bevilacqua M, Pera F, Pesce P, Signori A, Pera P.	Int J Prosthodont 2014;27:207-214.	Immediate versus delayed loading of dental implants in edentulous patients' maxillae: a 6-year prospective study.	Prospective, Randomized-controlled	49	Osseotite 260	6 years	93.9 IL 95.9 Delayed
23506353	Testori T, Zuffetti F, Capelli M, Galli F, Weinstein RL, Del Fabbro M.	Clin Implant Dent Relat Res 2014;16:926-935.	Immediate versus conventional loading of post-extraction implants in the edentulous jaws. [†]	Retrospective	80	Osseotite 519	4 years	95.8 96.6 Age <70 at 1yr 98.1 Mandible at 1yr
2015								
25599761	Pompa G, Saccucci M, Di Carlo G, Brauner E, Valentini V, Di Carlo S, Gentile T, Guarino G, Polimeni A.	BMC Oral Health 2015 Jan 20;15:5. [Epub]	Survival of dental implants in patients with oral cancer treated by surgery and radiotherapy: a retrospective study.	Retrospective	34	Osseotite 168	1 year	90.5 Oral cancer

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
24890861	Schropp L, Wenzel A, Spin-Neto R, Stavropoulos A.	Clin Oral Implants Res 2015;26:492-500.	Fate of the buccal bone at implants placed early, delayed, or late after tooth extraction analyzed by cone beam CT: 10-year results from a randomized, controlled, clinical study. [†]	Prospective	63	Osseotite 63	10 years	90.9 Early 95.4 Delayed 100 Late
25830402	Vigolo P, Mutinelli S, Zaccaria M, Stellini E.	Int J Oral Maxillofac Implants 2015;30:411-418.	Clinical evaluation of marginal bone level change around multiple adjacent implants restored with splinted and nonsplinted restorations: a 10-year randomized controlled trial.	Prospective, Randomized-controlled	44	Osseotite 132	10 years	99.2
24107257	Zuffetti F, Testori T, Capelli M, Rossi MC, Del Fabbro M.	Clin Implant Dent Relat Res 2015 Jan;17 Suppl 1:e168-176.	The topical administration of bisphosphonates in implant surgery: a randomized split-mouth prospective study with a follow-up up to 5 years. [†]	Prospective, Randomized-controlled, Split-mouth	39	Osseotite Tapered 55	5 years	100 Bisphosphonates 91.3 Control
2016 to date								
27560668	Cooper LF, Tarnow D, Froum S, Moriarty J, De Kok IJ.	Int J Periodontics Restorative Dent 2016;36:631-642.	Comparison of marginal bone changes with internal conus and external hexagon design implant systems: a prospective, randomized study.	Prospective, Randomized-controlled	18	Osseotite 42	3 years	100
25180683	Glibert M, Vervaeke S, De Bruyn H, Ostman PO.	Clin Implant Dent Relat Res 2016;18(1):129-137.	Clinical and radiographic comparison between platform-shifted and nonplatform-shifted implant: a one-year prospective study. [†]	Prospective, Randomized-controlled	48	Osseotite 2 115	1 year	100
27004291	Kitajima H, Ogawa T.	Int J Oral Maxillofac Implants 2016;31:439-447.	The use of photofunctionalized implants for low or extremely low primary stability cases.	Retrospective	38	Osseotite 55	3 years	98.2
26988739	Mazzocco F, Jimenez D, Barallat L, Paniz G, Del Fabbro M, Nart J.	Clin Oral Implants Res 2016 Mar 14. Epub ahead of print.	Bone volume changes after immediate implant placement with or without flap elevation.	Prospective	35	Osseotite Tapered 35	6 months	100 IRES

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

PMID	Publication Authors	Journal Citation	Title	Study Design	Patients (N)	Study Implant (N)	Duration	% CSR % CSRs By Variables
26848887	Passoni BB, Marques de Castro DS, de Araújo MA, de Araújo CD, Piatelli A, Benfatti CA.	Clin Oral Implants Res 2016 Feb 5. Epub ahead of print.	Influence of immediate/delayed implant placement and implant platform on the peri-implant bone formation.	Prospective, Randomized-controlled	35	Osseotite Tapered 35	6 months	100 IRES
27722221	Zuffetti F, Esposito M, Galli F, Capelli M, Grandi G, Testori T.	Eur J Oral Implantol 2016;9:219-230.	A 10-year report from a multicentre randomised controlled trial: Immediate non-occlusal versus early loading of dental implants in partially edentulous patients. [†]	Prospective, Randomized-controlled	52	Full Osseotite Tapered 104	10 years	98 IL 100 Early

Key:

PMID: PubMed identification number, N = total number; %CSR = cumulative survival rate percentage; w/PSw = with platform switching (Prevail Implants); IL = Immediate loading; IOL = Immediate occlusal loading; IRES = Immediate replacement of extraction socket; AUG = Augmented (grafted).

References:

1. Park JY, Davies JE^{††}. Red Blood Cell and Platelet Interactions with Titanium Implant Surfaces. *Clin Oral Implants Res* 2000;11:530-539.
2. Sullivan DY, Sherwood RL, Porter SS. Long-Term Performance of Osseotite Implants: a 6-Year Clinical Follow-up. *Compendium*. 2001;22:326-328,330,332-334.
3. Davarpanah M, Martinez H, Etienne D, Zabalegui I, Mattout P, Chiche F^{††}, Michel J. A Prospective Multicenter Evaluation of 1,538 3i Implants: 1 to 5-year Data. *Int J Oral Maxillofac Implants* 2002;17:820-828.
4. Cappiello M, Luongo R, Di Iorio D, Bugea C, Cocchetto R, Celletti R. Evaluation of Peri-Implant Bone Loss Around Platform-Switched Implants. *Int J Periodontics Restorative Dent* 2008;28:347-355.
5. Sullivan D, Vincenzi G, Feldman S. Early Loading of Osseotite Implants 2 Months After Placement in the Maxilla and Mandible: A 5-year Report. *Int Journal Oral Maxillofac Implants* 2005;20:905-912.
6. Calvo-Guirado JL, Gómez-Moreno G, Delgado-Ruiz RA, Maté Sánchez de Val JE, Negri B, Ramírez Fernández MP. Clinical and Radiographic Evaluation of Osseotite-Expanded Platform Implants Related to Crestal Bone Loss: A 10-Year Study. *Clin Oral Implants Res*. 2014;25:352-358.
7. Testori T^{††}, Wiseman L, Woolfe S, Porter SS. A Prospective Multicenter Clinical Study of the Osseotite Implant: Four-Year Interim Report. *Int J Oral Maxillofac Implants* 2001;16:193-200.
8. Gaucher H, Bentley K, Roy S, Head T, Blomfield J, Blondeau F, Nicholson L, Chehade A, Tardif N, Emery R^{††}. A Multi-Centre Study of Osseotite Implants Supporting Mandibular Restorations: a 3-Year Report. *J Can Dent Assoc* 2001;67: 528-533.
9. Testori T^{††}, Fabbro MD, Feldman S, Vincenzi G, Sullivan D, Rossi R, Anitua E, Bianchi F, Francetti L, Weinstein RL. A Multicenter Prospective Evaluation of 2-months Loaded Osseotite Implants Placed in the Posterior Jaws: 3-year Follow-up Results. *Clin Oral Implants Res* 2002;13:154-161.
10. Stach RM[#], Kohles SS. A Meta-Analysis Examining the Clinical Survivability of Machined-Surfaced and Osseotite Implants In Poor Quality Bone. *Implant Dent* 2003;12:87-96.

All of the articles are published in peer-reviewed journals that belong to the MEDLINE database; none of the authors received financial compensation from Zimmer Biomet Dental for writing of the manuscripts. Some of the authors listed on the publications currently have financial relationships with Zimmer Biomet Dental resulting from speaking engagements, consulting engagements and other retained services or did have such financial relationships at the time of the study publication.

[†]The study received support from Biomet 3i which may have included monetary grant(s) or scholarship(s) and/or supplying devices and/or materials.

^{††}These clinicians have financial relationships with Biomet 3i LLC resulting from speaking engagements, consulting engagements and other retained services.

[‡]The study was sponsored by Biomet 3i.

[#] Author contributed to the research while employed by Biomet 3i.



Contact us at +34-934-705-500 or visit zimmerbiometdental.com

Zimmer Biomet Dental
Global Headquarters
4555 Riverside Drive
Palm Beach Gardens, FL 33410
Tel: +1-561-776-6700
Fax: +1-561-776-1272

Biomet 3i Dental Iberica, S.L.
EMEA Headquarters
WTC Almeda Park, Ed. 4, Planta 2
C/Tirso de Molina, 40,
08940 - Cornellà de Llobregat
(Barcelona) Spain
Tel: +34-934-705-500
Fax: +34-933-717-849

Unless otherwise indicated, as referenced herein, all trademarks are the property of Zimmer Biomet; and all products are manufactured by one or more of the dental subsidiaries of Zimmer Biomet Holdings, Inc., and distributed and marketed by Zimmer Biomet Dental (and, in the case of distribution and marketing, its authorized marketing partners). For additional product information, please refer to the individual product labeling or instructions for use. Product clearance and availability may be limited to certain countries/regions. This material is intended for clinicians only and does not comprise medical advice or recommendations. This material may not be copied or reprinted without the express written consent of Zimmer Biomet Dental.

ZB0249AP_EN REV A 03/17 ©2017 Zimmer Biomet. All rights reserved.

