

# Клиническая документация по системе имплантатов ASTRA TECH Implant System™

Система имплантатов ASTRA TECH Implant System обладает четырьмя ключевыми особенностями: дизайном соединения имплантата и абатмента Conical Seal Design, мелкой резьбой на шейке имплантата MicroThread, уникальным контуром Connective Contour, который создается при соединении абатмента и имплантата, и поверхностью OsseoSpeed.

Поверхность OsseoSpeed была представлена в 2004 году. Это дальнейшее развитие умеренно шероховатой титановой поверхности TiOblast, период проспективного последующего наблюдения которой — один из самых длительных, описанных в литературе по дентальным имплантатам<sup>1-8</sup>.

Имплантаты OsseoSpeed документированы в нескольких проспективных клинических исследованиях с минимальным сроком последующего наблюдения 1 год. Результаты демонстрируют, что данные имплантаты можно безопасно использовать при ряде показаний в верхней и нижней челюсти с показателем приживаемости от 94,5 до 100 %<sup>9-24</sup>. Такие же хорошие результаты получены для протоколов немедленной нагрузки при атрофии верхней челюсти<sup>25-27</sup>, синус-лифтинге и трансплантации в боковых отделах<sup>28-36</sup> и немедленной установке в лунки удаленных зубов<sup>15-17, 24, 37-45</sup>. Более того, в ряде исследований отмечен хороший эстетический результат<sup>24, 41, 46-50</sup> и высокая степень удовлетворенности пациентов<sup>16, 51-66</sup>.

Зарегистрировано чрезвычайно малое изменение коэффициента стабильности имплантатов OsseoSpeed<sup>31, 67-71</sup> в период раннего восстановления, что интерпретируется как непрерывное усиление остеоинтеграции и устойчивости. В проспективных клинических исследованиях отмечены весьма незначительные изменения уровня кости в области шейки имплантатов OsseoSpeed после 1 года<sup>25, 32, 40, 49, 60, 68, 69, 72-85</sup> (от +0,06 до 0,54 мм), 2 лет<sup>21, 86-88</sup> (от 0,11 до 0,6 мм), 3 лет<sup>15, 17, 23, 27, 58, 67, 89-92</sup> (от +1,6 до 0,88 мм) и 5 лет<sup>19, 42, 70, 93, 94</sup> функционирования (от 0,1 до 0,3 мм). По существу, в большинстве исследований отмечена средняя атрофия кости в области шейки имплантата 0,3 мм или менее после 1, 2, 3 и 5 лет функционирования.

Материалы о ключевых особенностях системы имплантатов ASTRA TECH Implant System см. на сайте [www.dentsplyimplants.com](http://www.dentsplyimplants.com)

1. Rasmusson L, Roos J, Bystedt H. A 10-year follow-up study of titanium dioxide-blasted implants. *Clin Impl Dent Rel Res* 2005;7(1):36-42. [Abstract in PubMed](#)
2. Vroom MG, Sipos P, de Lange GL, et al. Effect of surface topography of screw-shaped titanium implants in humans on clinical and radiographic parameters: a 12-year prospective study. *Clin Oral Implants Res* 2009;20(11):1231-39. [Abstract in PubMed](#)
3. Albrektsson T, Sennerby L, Wennerberg A. State of the art of oral implants. *Periodontol* 2000;47:15-26. [Abstract in PubMed](#)
4. Albrektsson T, Wennerberg A. Oral implant surfaces: Part 2-review focusing on clinical knowledge of different surfaces. *Int J Prosthodont* 2004;17(5):544-64. [Abstract in PubMed](#)
5. Jacobs R, Pittayapat P, van Steenberghe D, et al. A split-mouth comparative study up to 16 years of two screw-shaped titanium implant systems. *J Clin Periodontol* 2010;37(12):119-127. [Abstract in PubMed](#)
6. Ravald N, Dahlgren S, Teiwik A, et al. Long-term evaluation of Astra Tech and Branemark implants in patients treated with full-arch bridges. Results after 12-15 years. *Clin Oral Implants Res* 2013;24(10):1144-51. [Abstract in PubMed](#)
7. Mertens C, Steveling HG. Implant-supported fixed prostheses in the edentulous maxilla: 8-year prospective results. *Clin Oral Implants Res* 2010;22(5):464-72. [Abstract in PubMed](#)
8. Renvert S, Lindahl C, Persson RG. The incidence of peri-implantitis for two different implant systems over a period of thirteen years. *J Clin Periodontol* 2012;39(12):1191-7. [Abstract in PubMed](#)
9. Stanford CM, Wagner W, Rodriguez YBR, et al. Evaluation of the effectiveness of dental implant therapy in a practice-based network (FOCUS). *Int J Oral Maxillofac Implants* 2010;25(2):367-73. [Abstract in PubMed](#)
10. Bressan E, Tomasi C, Stellini E, et al. Implant-supported mandibular overdentures: a cross-sectional study. *Clin Oral Implants Res* 2012;23(7):814-9. [Abstract in PubMed](#)
11. D'haese J, De Bruyn H. Effect of smoking habits on accuracy of implant placement using mucosally supported stereolithographic surgical guides. *Clin Impl Dent Rel Res* 2011;E-pub May 20, doi:10.1111/j.1708-8208.2011.00353.x. [Abstract in PubMed](#)
12. D'haese J, Van De Velde T, Elaut L, et al. A prospective study on the accuracy of mucosally supported stereolithographic surgical guides in fully edentulous maxillae. *Clin Impl Dent Rel Res* 2012;14(2):293-303. [Abstract in PubMed](#)
13. Mumcu E, Bilhan H, Geckili O. The influence of healing type on marginal bone levels of implants supporting mandibular overdentures: A randomized clinical study. *Indian J Dent Res* 2012;23(4):514-8. [Abstract in PubMed](#)
14. Lops D, Bressan E, Chiapasco M, et al. Zirconia and titanium implant abutments for single-tooth implant prostheses after 5 years of function in posterior regions. *Int J Oral & Maxillofac Implants* 2013;28(1):281-87.
15. De Bruyn H, Raes F, Cooper LF, et al. Three-years clinical outcome of immediate provisionalization of single Osseospeed implants in extraction sockets and healed ridges. *Clin Oral Implants Res* 2013;24(2):217-23. [Abstract in PubMed](#)
16. Raes F, Cooper LF, Tarrida LG, et al. A case-control study assessing oral-health-related quality of life after immediately loaded single implants in healed alveolar ridges or extraction sockets. *Clin Oral Implants Res* 2012;23(5):602-8. [Abstract in PubMed](#)
17. Sanz M, Cecchinato D, Ferrus J, et al. Implants placed in fresh extraction sockets in the maxilla: clinical and radiographic outcomes from a 3-year follow-up examination. *Clin Oral Implants Res* 2014;25(3):321-7. [Abstract in PubMed](#)
18. Limmer B, Sanders AE, Reside G, et al. Complications and Patient-Centered Outcomes with an Implant-Supported Monolithic Zirconia Fixed Dental Prosthesis: 1 Year Results. *J Prosthodont* 2014;E-pub Jan 8, doi:10.1111/jopr.12110. [Abstract in PubMed](#)
19. Donati M, La Scala V, Di Raimondo R, et al. Marginal bone preservation in single-tooth replacement: A 5-year prospective clinical multicenter study. *Clin Impl Dent Rel Res* 2013;E-pub July 25, doi:10.1111/cid.12117. [Abstract in PubMed](#)
20. Borges T, Lima T, Carvalho A, et al. The influence of customized abutments and custom metal abutments on the presence of the interproximal papilla at implants inserted in single-unit gaps: a 1-year prospective clinical study. *Clin Oral Implants Res* 2013;E-pub Sep 12, doi:10.1111/clr.12257. [Abstract in PubMed](#)
21. Vervaeke S, Collaert B, De Bruyn H. The effect of implant surface modifications on survival and bone loss of immediately loaded implants in the edentulous mandible. *Int J Oral Maxillofac Implants* 2013;28(5):1352-7. [Abstract in PubMed](#)
22. Esquivel-Upshaw JF, Clark AE, Shuster JJ, et al. Randomized clinical trial of implant-supported ceramic-ceramic and metal-ceramic fixed dental prostheses: preliminary results. *J Prosthodont* 2014;23(2):73-82. [Abstract in PubMed](#)
23. Maiorana C, King P, Quaas S, et al. Clinical and radiographic evaluation of early loaded narrow-diameter implants: 3 years follow-up. *Clin Oral Implants Res* 2013;E-pub Oct 30, doi:10.1111/clr.12281.
24. Cooper LF, Reside GJ, Raes F, et al. Immediate Provisionalization of Dental Implants Placed in Healed Alveolar Ridges and Extraction Sockets: A 5-year Prospective Evaluation. *Int J Oral Maxillofac Implants* 2014;29(3):709-17. [Abstract in PubMed](#)
25. Toljanic JA, Baer RA, Ekstrand K, et al. Implant rehabilitation of the atrophic edentulous maxilla including immediate fixed provisional restoration without the use of bone grafting: a review of 1-year outcome data from a long-term prospective clinical trial. *Int J Oral Maxillofac Implants* 2009;24(3):518-26. [Abstract in PubMed](#)
26. Toljanic JA, Thor A, Baer R, et al. Immediate fixed restoration of implants in the atrophic edentulous maxilla. *Dent Today* 2008;27(6):56, 58, 60 passim; quiz 63. [Abstract in PubMed](#)
27. Thor A, Ekstrand K, Baer RA, et al. Three-year Follow-up of Immediately Loaded Implants in the Edentulous Atrophic Maxilla: A Study in Patients with Poor Bone Quantity and Quality. *Int J Oral Maxillofac Implants* 2014;29(3):642-9. [Abstract in PubMed](#)
28. Galindo-Moreno P, Padijal-Molina M, Fernandez-Barbero JE, et al. Optimal microvessel density from composite graft of autogenous maxillary cortical bone and anorganic bovine bone in sinus augmentation: influence of clinical variables. *Clin Oral Implants Res* 2010;21(2):221-7. [Abstract in PubMed](#)
29. Kahnberg KE, Wallstrom M, Rasmusson L. Local sinus lift for single-tooth implant. I. Clinical and radiographic follow-up. *Clin Impl Dent Rel Res* 2009;13(3):231-7. [Abstract in PubMed](#)
30. Trombelli L, Minenna P, Franceschetti G, et al. Transcrestal sinus floor elevation with a minimally invasive technique. *J Periodontol* 2010;81(1):158-66. [Abstract in PubMed](#)
31. Pieri F, Aldini NN, Fini M, et al. Immediate fixed implant rehabilitation of the atrophic edentulous maxilla after bilateral sinus floor augmentation: a 12-month pilot study. *Clin Impl Dent Rel Res* 2012;14 (Suppl 1):e67-82. [Abstract in PubMed](#)
32. Piero B, Mario V, Niccolo N, et al. Implant placement in combination with sinus membrane elevation without biomaterials: A 1-year study on 15 patients. *Clin Impl Dent Rel Res* 2012;14(5):682-9. [Abstract in PubMed](#)
33. Sivolella S, Bressan E, Gnocco E, et al. Maxillary sinus augmentation with bovine bone and simultaneous dental implant placement in conditions of severe alveolar atrophy: a retrospective analysis of a consecutively treated case series. *Quintessence Int* 2011;42(10):851-62. [Abstract in PubMed](#)

34. Mertens C, Steveling HG, Seeberger R, et al. Reconstruction of severely atrophied alveolar ridges with calvarial onlay bone grafts and dental implants. *Clin Impl Dent Rel Res* 2013;15(5):673-83. [Abstract in PubMed](#)
35. Mertens C, Decker C, Seeberger R, et al. Early bone resorption after vertical bone augmentation – a comparison of calvarial and iliac grafts. *Clin Oral Implants Res* 2013;24(7):820-5. [Abstract in PubMed](#)
36. Badr M, Coulthard P, Alissa R, et al. The efficacy of platelet-rich plasma in grafted maxillae. A randomised clinical trial. *Eur J Oral Implantol* 2010;3(3):233-44. [Abstract in PubMed](#)
37. Gökçen-Röhlig B, Meric U, Keskin H. Clinical and radiographic outcomes of implants immediately placed in fresh extraction sockets. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2010;109(4):1-7. [Abstract in PubMed](#)
38. Lops D, Chiapasco M, Rossi A, et al. Incidence of inter-proximal papilla between a tooth and an adjacent immediate implant placed into a fresh extraction socket: 1-year prospective study. *Clin Oral Implants Res* 2008;19(11):1135-40. ID No. 79132 [Abstract in PubMed](#)
39. Acocella A, Bertolai R, Sacco R. Modified insertion technique for immediate implant placement into fresh extraction socket in the first maxillary molar sites: a 3-year prospective study. *Implant Dent* 2010;19(3):220-8. [Abstract in PubMed](#)
40. Barbier L, Abeloos J, De Clercq C, et al. Peri-implant bone changes following tooth extraction, immediate placement and loading of implants in the edentulous maxilla. *Clin Oral Investig* 2012;16(4):1061-70. [Abstract in PubMed](#)
41. Noelken R, Neffe BA, Kunkel M, et al. Maintenance of marginal bone support and soft tissue esthetics at immediately provisionalized OsseoSpeed implants placed into extraction sites: 2-year results. *Clin Oral Implants Res* 2014;25(2):214-20. [Abstract in PubMed](#)
42. Berberi AN, Sabbagh JM, Aboushelib MN, et al. A 5-year comparison of marginal bone level following immediate loading of single-tooth implants placed in healed alveolar ridges and extraction sockets in the maxilla. *Front Physiol* 2014;5:29. [Abstract in PubMed](#)
43. Levin B, Wilk B. Immediate provisionalization of immediate implants in the esthetic zone: a prospective case series evaluating implant survival, esthetics, and bone maintenance. *Compendium* 2013;34(5):352-61.
44. Cecchinato D, Lops D, Salvi GE, et al. A prospective, randomized, controlled study using OsseoSpeed implants placed in maxillary fresh extraction socket: soft tissues response. *Clin Oral Implants Res* 2013;E-pub Dec 5, doi:10.1111/clr.12295. [Abstract in PubMed](#)
45. Raes F, Renckens L, Aps J, et al. Reliability of circumferential bone level assessment around single implants in healed ridges and extraction sockets using cone beam CT. *Clin Impl Dent Rel Res* 2013;15(5):661-72. [Abstract in PubMed](#)
46. Bressan E, Paniz G, Lops D, et al. Influence of abutment material on the gingival color of implant-supported all-ceramic restorations: a prospective multicenter study. *Clin Oral Implants Res* 2010;22(6):631-7. [Abstract in PubMed](#)
47. Raes F, Cosyn J, Crommelinck E, et al. Immediate and conventional single implant treatment in the anterior maxilla: 1-year results of a case series on hard and soft tissue response and aesthetics. *J Clin Periodontol* 2011;38(4):385-94. [Abstract in PubMed](#)
48. Raes F, Cosyn J, De Bruyn H. Clinical, aesthetic, and patient-related outcome of immediately loaded single implants in the anterior maxilla: A prospective study in extraction sockets, healed ridges, and grafted sites. *Clin Impl Dent Rel Res* 2013;15(6):819-35. [Abstract in PubMed](#)
49. Tsuda H, Rungcharassaeng K, Kan JY, et al. Peri-implant tissue response following connective tissue and bone grafting in conjunction with immediate single-tooth replacement in the esthetic zone: A case series. *Int J Oral Maxillofac Implants* 2011;26(2):427-36. [Abstract in PubMed](#)
50. van Brakel R, Noordmans HJ, Frenken J, et al. The effect of zirconia and titanium implant abutments on light reflection of the supporting soft tissues. *Clin Oral Implants Res* 2011;22(10):1172-8. [Abstract in PubMed](#)
51. Bashutski JD, Wang HL, Rudek I, et al. Effect of flapless surgery on single-tooth implants in the esthetic zone: a randomized clinical trial. *J Periodontol* 2013;84(12):1747-54. [Abstract in PubMed](#)
52. Bilhan H, Geckili O, Sulun T, et al. A quality-of-life comparison between self-aligning and ball attachment systems for two-implant-retained mandibular overdentures. *J Oral Implantol* 2010;37(sp1):167-73. [Abstract in PubMed](#)
53. De Kok I, Chang K-H, Li T-S, et al. Comparison of three-implant-supported fixed dentures and two-implant-retained overdentures in the edentulous mandible: A pilot study of treatment efficacy and patient satisfaction. *Int J Oral Maxillofac Implants* 2011;26(2):415-26. [Abstract in PubMed](#)
54. Erkapers M, Ekstrand K, Baer RA, et al. Patient satisfaction following dental implant treatment with immediate loading in the edentulous atrophic maxilla. *Int J Oral Maxillofac Implants* 2011;26(2):356-64. [Abstract in PubMed](#)
55. Gates WD, 3rd, Cooper LF, Sanders AE, et al. The effect of implant-supported removable partial dentures on oral health quality of life. *Clin Oral Implants Res* 2014;25(2):207-13. [Abstract in PubMed](#)
56. Geckili O, Bilhan H, Bilgin T. Impact of mandibular two-implant retained overdentures on life quality in a group of elderly Turkish edentulous patients. *Arch Gerontol Geriatr* 2011;53(2):233-6. [Abstract in PubMed](#)
57. Hosseini M, Gotfredsen K. A feasible, aesthetic quality evaluation of implant-supported single crowns: an analysis of validity and reliability. *Clin Oral Implants Res* 2012;23(4):453-8. [Abstract in PubMed](#)
58. Hosseini M, Worsaae N, Schiodt M, et al. A 3-year prospective study of implant-supported, single-tooth restorations of all-ceramic and metal-ceramic materials in patients with tooth agenesis. *Clin Oral Implants Res* 2013;24(10):1078-87. [Abstract in PubMed](#)
59. Pieri F, Aldini NN, Marchetti C, et al. Esthetic outcome and tissue stability of maxillary anterior single-tooth implants following reconstruction with mandibular block grafts: a 5-year prospective study. *Int J Oral Maxillofac Implants* 2013;28(1):270-80. [Abstract in PubMed](#)
60. Slot W, Raghoobar GM, Vissink A, et al. Maxillary overdentures supported by four or six implants in the anterior region; 1-year results from a randomized controlled trial. *J Clin Periodontol* 2013;40(3):303-10. [Abstract in PubMed](#)
61. Kriz P, Seydlova M, Dostalova T, et al. Oral health-related quality of life and dental implants - preliminary study. *Cent Eur J Med* 2012;7(2):209-15.
62. Van Lierde K, Browaeys H, Corthals P, et al. Comparison of speech intelligibility, articulation and oromyofunctional behaviour in subjects with single-tooth implants, fixed implant prosthetics or conventional removable prostheses. *J Oral Rehabil* 2012;39(4):285-93. [Abstract in PubMed](#)
63. Vera C, De Kok IJ, Chen W, et al. Evaluation of post-implant buccal bone resorption using cone beam computed tomography: a clinical pilot study. *Int J Oral Maxillofac Implants* 2012;27(5):1249-57. [Abstract in PubMed](#)
64. Kriz P, Seydlova M, Dostalova T, et al. Dental implants and improvement of oral health-related quality of life. *Community Dent Oral Epidemiol* 2012;40(Suppl 1):65-70.
65. Van Lierde KM, Corthals P, Browaeys H, et al. Impact of anterior single-tooth implants on quality of life, articulation and oromyofunctional behaviour: a pilot study. *J Oral Rehabil* 2011;38(3):170-5. [Abstract in PubMed](#)

66. Cakir O, Kazancioglu HO, Celik G, et al. Evaluation of the Efficacy of Mandibular Conventional and Implant Prostheses in a Group of Turkish Patients: A Quality of Life Study. *J Prosthodont* 2014;E-pub Jan 15, doi:10.1111/jopr.12120. [Abstract in PubMed](#)
67. Geckili O, Bilhan H, Mumcu E, et al. Three-year radiologic follow-up of marginal bone loss around titanium dioxide grit-blasted dental implants with and without fluoride treatment. *Int J Oral Maxillofac Implants* 2011;26(2):319-24. [Abstract in PubMed](#)
68. Liaje A, Ozkan YK, Ozkan Y, et al. Stability and marginal bone loss with three types of early loaded implants during the first year after loading. *Int J Oral Maxillofac Implants* 2012;27(1):162-72. [Abstract in PubMed](#)
69. Rismanchian M, Fazel A, Rakhshan V, et al. One-year clinical and radiographic assessment of fluoride-enhanced implants on immediate non-functional loading in posterior maxilla and mandible: a pilot prospective clinical series study. *Clin Oral Implants Res* 2011;22(12):1440-5. [Abstract in PubMed](#)
70. Schliephake H, Rodiger M, Phillips K, et al. Early loading of surface modified implants in the posterior mandible - 5 year results of an open prospective non-controlled study. *J Clin Periodontol* 2012;39(2):188-95. [Abstract in PubMed](#)
71. Störe G, Heyden A, Walaas L. Osseointegration surgery and implant stability in irradiated mandibles. *Oral Surgery* 2011;4:65-72. [Abstract](#)
72. Galindo-Moreno P, Nilsson P, King P, et al. Clinical and radiographic evaluation of early loaded narrow diameter implants – 1-year follow-up. *Clin Oral Implants Res* 2012;23(5):609-16. [Abstract in PubMed](#)
73. Gulje F, Abrahamsson I, Chen S, et al. Implants of 6 mm vs. 11 mm lengths in the posterior maxilla and mandible: a 1-year multicenter randomized controlled trial. *Clin Oral Implants Res* 2013;24(12):1325-31. [Abstract in PubMed](#)
74. Marcellis K, Vercruyssen M, Naert I, et al. Model-based guided implant insertion for solitary tooth replacement: a pilot study. *Clin Oral Implants Res* 2012;23(8):999-1003. [Abstract in PubMed](#)
75. Noelken R, Donati M, Fiorellini J, et al. Soft and hard tissue alterations around implants placed in an alveolar ridge with a sloped configuration. *Clin Oral Implants Res* 2014;25(1):3-9. [Abstract in PubMed](#)
76. Slot W, Raghoebar GM, Vissink A, et al. Maxillary overdentures supported by anteriorly or posteriorly placed implants opposed by a natural dentition in the mandible: a 1-year prospective case series study. *Clin Implant Dent Relat Res* 2014;16(1):51-61. [Abstract in PubMed](#)
77. D'haese J, Vervaeke S, Verbanck N, et al. Clinical and radiographic outcome of implants placed using stereolithographic guided surgery: a prospective monocenter study. *Int J Oral Maxillofac Implants* 2013;28(1):205-15. [Abstract in PubMed](#)
78. Balleri P, Ferrari M, Veltri M. One-year outcome of implants strategically placed in the retrocanine bone triangle. *Clin Impl Dent Rel Res* 2010;12(4):324-30. [Abstract in PubMed](#)
79. Cooper LF, Raes F, Reside GJ, et al. Comparison of radiographic and clinical outcomes following immediate provisionalization of single-tooth dental implants placed in healed alveolar ridges and extraction sockets. *Int J Oral Maxillofac Implants* 2010;25(6):1222-32. [Abstract in PubMed](#)
80. Donati M, La Scala V, Billi M, et al. Immediate functional loading of implants in single tooth replacement: a prospective clinical multicenter study. *Clin Oral Implants Res* 2008;19(8):740-48. [Abstract in PubMed](#)
81. Gulje F, Raghoebar GM, Ter Meulen JW, et al. Mandibular overdentures supported by 6-mm dental implants: A 1-year prospective cohort study. *Clin Impl Dent Rel Res* 2011;14(Supplement 1):e59-e66. [Abstract in PubMed](#)
82. Kim JJ, Lee DW, Kim CK, et al. Effect of conical configuration of fixture on the maintenance of marginal bone level: preliminary results at 1 year of function. *Clin Oral Implants Res* 2010;21(4):439-44. [Abstract in PubMed](#)
83. Koutouzis T, Koutouzis G, Tomasi C, et al. Immediate loading of implants placed with the osteotome technique: One-year prospective case series. *J Periodontol* 2011;82(11):1556-62. [Abstract in PubMed](#)
84. Roe P, Kan JY, Rungcharassaeng K, et al. Immediate loading of unsplinted implants in the anterior mandible for overdentures: a case series. *Int J Oral Maxillofac Implants* 2010;25(5):1028-35. [Abstract in PubMed](#)
85. Ghozeizi R, Alikhasi M, Siadat M-R, et al. A radiographic comparison of progressive and conventional loading on crestal bone loss and dentistry in single dental implants: A randomized controlled trial study. *J Dentistry, Teheran Univ Med Sci* 2013;10(2):155-63.
86. Pieri F, Aldini NN, Fini M, et al. Preliminary 2-year report on treatment outcomes for 6-mm-long implants in posterior atrophic mandibles. *Int J Prosthodont* 2012;25(3):279-89. [Abstract in PubMed](#)
87. Collaert B, Wijnen L, De Bruyn H. A 2-year prospective study on immediate loading with fluoride-modified implants in the edentulous mandible. *Clin Oral Implants Res* 2011;22(10):1111-6. [Abstract in PubMed](#)
88. Raes S, Rocci A, Raes F, et al. A prospective cohort study on the impact of smoking on soft tissue alterations around single implants. *Clin Oral Implants Res* 2014. [Abstract in PubMed](#)
89. Tabrizi R, Pourdaneh F, Zare S, et al. Do angulated implants increase the amount of bone loss around implants in the anterior maxilla? *J Oral Maxillofac Surg* 2013;71(2):272-7. [Abstract in PubMed](#)
90. Barewal RM, Stanford C, Weesner TC. A randomized controlled clinical trial comparing the effects of three loading protocols on dental implant stability. *Int J Oral Maxillofac Implants* 2012;27(4):945-56. [Abstract in PubMed](#)
91. Roe P, Kan JY, Rungcharassaeng K, et al. Immediate loading of unsplinted implants in the anterior mandible for overdentures: 3-year results. *Int J Oral Maxillofac Implants* 2011;26(6):1296-302. [Abstract in PubMed](#)
92. Palmer RM, Howe LC, Palmer PJ, et al. A prospective clinical trial of single Astra Tech 4.0 or 5.0 diameter implants used to support two-unit cantilever bridges: results after 3 years. *Clin Oral Implants Res* 2012;23(1):35-40. [Abstract in PubMed](#)
93. Mertens C, Steveling HG. Early and immediate loading of titanium implants with fluoride-modified surfaces: results of 5-year prospective study. *Clin Oral Implants Res* 2011;22(12):1354-60. [Abstract in PubMed](#)
94. Lops D, Bressan E, Chiapasco M, et al. Zirconia and titanium implant abutments for single-tooth implant prostheses after 5 years of function in posterior regions. *Int J Oral Maxillofac Implants* 2013;28(1):281-7. [Abstract in PubMed](#)