

Autologes Knochenersatzmaterial, gewonnen aus extrahierten Zähnen des Patienten

Stand: 01.11.2018

1. Anderegg CR, Alexander DC, Freidman M. A bioactive glass particulate in the treatment of molar furcation invasions. *J Periodontol.* 1999 Apr; 70 (4): 384-7.
2. Andersson L, Blomlof L, Lindskog S, Feiglin B, Hammarstrom L. Tooth ankylosis. Clinical, radiographic and histological assessments. *Int J Oral Surg* 1984;13:423-431.
3. Andreassen JO, Hjorting-Hansen E. Replantation of teeth. I. Radiographic and clinical study of 110 human teeth replanted after accidental loss. *Acta Odontol Scand* 1966;24:263-286.
4. Antoun H, Karouni M, Bouchra S. La régénération osseuse guidée: résultats, limites et perspectives. *Actual. Odonto-Stomatol.* 2013. 11-21.
5. Arora H, Ivanovski S. Correlation between pre-operative buccal bone thickness and soft tissue changes around immediately placed and restored implants in the maxillary anterior region: A 2-year prospective study. *Clin Oral Implants Res.* 2016.
6. Association Dentaire Française. Commission des dispositifs médicaux. Les matériaux de substitution osseuse. 2005.
7. Aubeux D, Beck L, Weiss P, Guicheux J, Enkel B, Perez F, Simon S. Assessment and Quantification of Noncollagenic Matrix Proteins Released from Human Dentin Powder Incorporated into a Siliated Hydroxypropylmethylcellulose Biomedical Hydrogel. *J Endod* 2016;42:13711376.
8. Audran M, Guillaume B, Chappard D. Tissu osseux et biomatériaux en chirurgie dentaire. *Quintessence International.* 2014.
9. Avila-Ortiz G, S. Elangovan, K.W.O. Kramer, D. Blanchette, D.V. Dawson. Effect of Alveolar Ridge Preservation after Tooth Extraction. A Systematic Review and Meta-analysis- *J Dent Res.* 2014 Oct; 93(10): 950-958.
10. Bakhshalian N, Hooshmand S, Campbell SC, Kim JS, Brummel-Smith K, Arjmandi BH. Biocompatibility and microstructural analysis of osteopromotive property of allogenic demineralized dentin matrix. *Int J Oral Maxillofac Implants* 2013;28:1655-1662.
11. Barone A, Marconcini S, Giammarinaro E, Mijiritsky E, Gelpi F, Covani U. Clinical Outcomes of Implants Placed in Extraction Sockets and Immediately Restored: A 7-Year Single-Cohort Prospective Study. *Clin Impl Dent Relat Res.* 2016; 18 (6): 1103-12.
12. Belinchon-Sanchez A. L'intégration minérale en Implantologie. Etude histologique des interfaces autres qu'osseuse lors de la pose d'implant trans-corono-radulaire. Thèse d'exercice université de Bordeaux. 2014.
13. Bessho K, Tagawa T, Murata M. Purification of rabbit bone morphogenetic protein derived from bone, dentin, and wound tissue after tooth extraction. *J Oral Maxillofac Surg.* 1990 Feb; 48 (2): 162-9.
14. Bettach R. La régénération osseuse guidée. *Fil Dent.* 2011 jun/jui/aoû; 64.
15. Bhaskar SN et al. Tissue reaction to intrabony ceramic implants. *Oral Surg Oral Med Oral Pathol.* 1971 Feb; 31 (2): 282-9.
16. Binderman I, Sapozhnikov L. Présentation Smart Dentin Grinder. 2014. (Internet)
17. Binderman I et al. A novel procedure to process extracted teeth for immediate grafting of autogenous dentin. *Interdisciplinary medicine and dental science.* 2014: 2-6.
18. Binderman I et al. Processing extracted teeth for immediate grafting of autogenous dentin. *Implant Practice US.* 2015 May. 8 (2): 43-46.
19. Boden SD, LMP-1, a LIM-domain protein, mediates BMP-6 effects on bone formation. *Endocrinology.* 1998 Dec; 139 (12): 5125-34.
20. Bouyer-Bel AS. Régénération parodontale au niveau des lésions intra-osseuses avec l'Emdogain: analyse de la littérature de 1997 à 2006. Thèse d'exercice université de Nantes. 2007.
21. Bouzoubaa S. Apport de l'ingénierie tissulaire en parodontologie. Thèse d'exercice université de Casablanca. 2014.
22. Bowers GM. Histologic evaluation of new attachment apparatus formation in humans. Part II. *J Periodontol.* 1989 Dec; 60 (12): 675-82.
23. Bronner S. Les matériaux de substitution osseuse utilisés en parodontologie et en implantologie: enquête auprès des membres de la SFPIO. Thèse d'exercice université de Strasbourg. 2005.
24. Buser D. 20 years of guided bone regeneration in implant dentistry. *Quintessence Publishing Co, Inc.* 2009.
25. Bäumer D, Zuhr O, Rebele S, Hürzeler M. Socket Shield Technique for immediate implant placement - clinical, radiographic and volumetric data after 5 years. *Clin Oral Implants Res.* 2017 Mar 23. doi: 10.1111/clr.13012. [Epub ahead of print]
26. Chai F et al. Les biomatériaux de substitution osseuse: classification et intérêt. *Rev Stomatol Chir Maxillofac.* 2011 Sep; 112 (4): 212-21.
27. Chen CL, Pan YH. Socket shield technique for ridge preservation: a case report. *Journal of Prosthodontics and Implantology.* 2013.

28. Chochlidakis KM, Geminiani A, Papaspyridakos P, Singh N, Ercoli C, Chen CJ. Buccal bone thickness around single dental implants in the maxillary esthetic zone. *Quintessence Int.* 2016.
29. Colat-Paros J, Jordana F. Les substituts osseux. Société Francophone des Biomatériaux Dentaires. 2009.
30. Cornell CN, Lane JM. Current understanding of osteoconduction in bone regeneration. *Clin Orthop Relat Res.* 1998 Oct; (355 Suppl): S267-73.
31. Degat MC, Ferreira E, Logeart-Avramoglou D. Utilisation de facteurs de croissance pour la réparation osseuse. *Pathol Biol (Paris).* 2005 Apr; 53 (3): 131-41.
32. de Oliveira-Neto OB, Barbosa FT, de Sousa-Rodrigues CF, de Lima FJ. Quality assessment of systematic reviews regarding immediate placement of dental implants into infected sites: An overview. *J Prosthet Dent.* 2016.
33. Devecioğlu D, Tözüm TF, Sengün D, Nohutcu RM. Biomaterials in periodontal regenerative surgery: effects of cryopreserved bone, commercially available coral, demineralized freeze-dried dentin, and cementum on periodontal ligament fibroblasts and osteoblasts. *J Biomater Appl.* 2004 Oct; 19 (2): 107-20.
34. Dohan S et al. De l'usage des concentrés plaquettaires autologues en application topique. *EMC-Odontol.* 2005: 141-180.
35. Estrade D. Comment transformer les dents extraites en greffe osseuse autologue en une séance au cabinet? *Today -Informations indépendantes pour visiteurs et exposants.* 2014.
36. Fugazzotto PA, De Paoli S, Benfenati SP. The use of allogenic freeze-dried dentin in the repair of periodontal osseous defects in humans. *Quintessence Int.* 1986 Aug; 17 (8): 461-77.
37. Garcia A. L'autogreffe dentaire est-elle toujours d'actualité? *Rev. Odontostomatol.* 2002: 177-190.
38. Gomes MF, dos Anjos MJ, Nogueira Tde O, Catanzaro Guimarães SA. Autogenous demineralized dentin matrix for tissue engineering applications: radiographic and histomorphometric studies. *Int J Oral Maxillofac Implants.* 2002 Jul-Aug; 17 (4): 488-97.
39. Hammarström L, Blomlöf L, Lindsjö S. Dynamics of dentoalveolar ankylosis and associated root resorption. *Endod Dent Traumatol.* 1989 Aug; 5(4):163-75.
40. Harris D. Advanced surgical procedures: bone augmentation. *Dent Update.* 1997 Oct; 24 (8): 332-7.
41. Hassan AH, Evans CA, Zaki AM, George A. Use of bone morphogenetic protein-2 and dentin matrix protein-1 to enhance the osteointegration of the Onplant system. *Connect Tissue Res* 2003;44:30-41.
42. Hellwig E, Klimek J, Attin T. Einführung in die Zahnerhaltung. München: Elsevier, Urban und Fischer, 2007.
43. Ike M, Urist MR. Recycled dentin root matrix for a carrier of recombinant human bone morphogenetic protein. *J Oral Implantol.* 1998; 24 (3): 124-32.
44. J. Korean Assoc. Oral Maxillofac. Surg. 2012.
45. Jeong KI et al. Clinical study of graft materials using autogenous teeth in maxillary sinus augmentation. *Implant Dent.* 2011 Dec; 20 (6): 471-5.
46. Jun SH et al. A prospective study on the effectiveness of newly developed autogenous tooth bone graft material for sinus bone graft procedure. *J Adv Prosthodont.* 2014 Dec; 6 (6): 528-38.
47. Karfeld-Sulzer LS, Weber FE. Biomaterial development for oral and maxillofacial bone regeneration. *J. Korean Assoc. Oral Maxillofac. Surg.* 2012.
48. Khoury F. Greffe osseuse en implantologie. *Quintessence International.* 2010.
49. Khoury J, Ghosn N, Mokbel N, Naaman N. Buccal Bone Thickness Overlying Maxillary Anterior Teeth: A Clinical and Radiographic Prospective Human Study. *Implant Dent.* 2016; 25 (4): 525-31.
50. Kim ES, Kang JY, Kim JJ, Kim KW, Lee EY. Space maintenance in autogenous fresh demineralized tooth blocks with platelet-rich plasma for maxillary sinus bone formation: a prospective study. *SpringerPlus* (2016) 5: 274 DOI 10.1186/s40064-0161886-1.
51. Kim ES et al. Autogenous fresh demineralized tooth graft prepared at chairside for dental implant. *Maxillofac Plast Reconstr Surg.* 2015 Feb 18; 37 (1): 8.
52. Kim SG, Kim YK, Park JS. Scientific evidence for autogenous tooth bone graft material (AutoBT). *J. Korean Dent. Sci.* 2009: 42-45.
53. Kim SG, Yeo HH, Kim YK. Grafting of large defects of the jaws with a particulate dentin-plaster of paris combination. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 1999 Jul; 88 (1): 22.
54. Kim SG et al. Use of particulate dentin-plaster of Paris combination with/without platelet-rich plasma in the treatment of bone defects around implants. *Int J Oral Maxillofac Implants.* 2002 Jan-Feb; 17 (1): 86-94.
55. Kim SK, Kim SW, Kim KW. Effect on bone formation of the autogenous tooth graft in the treatment of peri-implant vertical bone defects in the minipigs. *Maxillofac Plast Reconstr Surg.* 2015 Jan 29; 37 (1): 2.
56. Kim Y1, Rodriguez AE2, Nowzari H3 The Risk of Prion Infection through Bovine Grafting Materials *Clin Implant Dent Relat Res.* 2016 Dec; 18 (6): 1095-1102. doi: 10.1111/cid.12391. Epub 2016 Feb 8.
57. Kim YK, Kim SG, Byeon JH, Lee HJ, Um IU, Lim SC, Kim SY. Development of a novel bone grafting material using autogenous teeth. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2010 Apr; 109(4):496-503. doi: 10.1016/j.tripleo.2009.10.017. Epub 2010 Jan 8.
58. Kim YK, Lee J, Um IW, Kim KW, Murata M, Akazawa T, Mitsugi M. Tooth-derived bone graft material. *J Korean Assoc Oral Maxillofac Surg* 2013;39:103-111.
59. Kim YK, Um IW, Murata, M. Tooth bank system for bone regeneration-Safety report. *J. Hard Tissue Biol.* 2014: 371-376.

60. Kim YK. Analysis of the inorganic component of autogenous tooth bone graft material. *J Nanosci Nanotechnol.* 2011 Aug; 11 (8): 7442-5.
61. Kim YK et al. Autogenous teeth used for bone grafting: a comparison with traditional grafting materials. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2014 Jan; 117 (1): e39-45.
62. Kim YK et al. Bone graft material using teeth. *J Korean Assoc. Oral Maxillofac. Surg.* 2012; 134.
63. Kim YK et al. Development of a novel bone grafting material using autogenous teeth. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2010 Apr; 109 (4): 496-503.
64. Kim YK et al. Healing mechanism and clinical application of autogenous tooth bone graft material. *Advances in Biomaterials Science and Biomedical Applications.* Pignatello, R. 2013.
65. Kim YK et al. Tooth-derived bone graft material. *J Korean Assoc Oral Maxillofac Surg.* 2013 Jun; 39 (3): 103-11.
66. Kingsley DM et al. The TGF-beta superfamily: new members, new receptors, and new genetic tests of function in different organisms. *Genes Dev.* 1994 Jan; 8 (2): 133-46.
67. Lee EY, Kim ES, Kim KW. Scanning electron microscopy and energy dispersive X-ray spectroscopy studies on processed tooth graft material by Vacuum-ultrasonic acceleration. *Maxillofacial Plastic and Reconstructive Surgery.* 2014; 103-110.
68. Lee JY, Lee J, Kim YK. Comparative analysis of guided bone regeneration using autogenous tooth bone graft material with and without resorbable membrane. *J. Dent. Sci.* 2013; 281-286.
69. Lind M. Transforming growth factor-beta enhances fracture healing in rabbit tibiae. *Acta Orthop Scand.* 1993 Oct; 64 (5): 553-6.
70. Locatelli LH. Greffes osseuses autogènes à visée implantaire. Thèse d'exercice université de Nancy. 2010.
71. Matsukawa R et al. Immunohistological observation of milled teeth in a rat mandibular incisor extraction socket. *J. Hard Tissue Biol.* 2014; 29-34.
72. Meadows CL, Gher ME, Quintero G, Lafferty TA. A comparison of polylactic acid granules and decalcified freeze-dried bone allograft in human periodontal osseous defects. *J Periodontol.* 1993 Feb; 64 (2): 103-9.
73. Merheb J, Verduyssen M, Coucke W, Beckers L, Teughels W, Quirynen M. The fate of buccal bone around dental implants. A 12-month postloading follow-up study. *Clin Oral Implants Res.* 2016.
74. Moharamzadeh K, Freeman C, Blackwood K. Processed bovine dentine as a bone substitute. *Br J Oral Maxillofac Surg.* 2008 Mar; 46 (2): 110-3.
75. Murata M, Akazawa T, Mitsugi M, Kabir MA, Um IW, Minamida Y, Kim KW, Kim YK, Sun Y, Qin C. Autograft of Dentin Materials for Bone Regeneration. In: Pignatello R (Hrsg) *Advances in Biomaterials Science and Biomedical Applications.* InTech, 2013. <http://www.intechopen.com/books/advances-in-biomaterials-science-and-biomedical-applications> [5.07.2017].
76. Murata M, Akazawa T, Mitsugi M, Um, IW, Kim, KW & Kim, YK (2011) Human Dentin as Novel Biomaterial for Bone Regeneration. *Biomaterials - Physics and Chemistry.* Rosario Pignatello, ISBN: 978-953-307-418-4, INTECK Publisher, Croatia. p127-140.
77. Murata M et al. Autograft of dentin materials for bone regeneration. *Advances in Biomaterials Science and Biomedical Applications.* Pignatello, R. 2013.
78. Murata M et al. Bone induction of human tooth and bone crushed by newly developed automatic mill. *J. Ceram. Soc. Jpn.* 2010; 434-437.
79. Murray G, Holden R, Roschlau W. Experimental and clinical study of new growth of bone in a cavity. *Am J Surg.* 1957 Mar; 93 (3): 385-7.
80. Myon L et al. Ingénierie du tissu osseux oro-maxillofacial par combinaison de biomatériaux, cellules souches, thérapie génique. *Rev Stomatol Chir Maxillofac.* 2011 Sep; 112 (4): 201-11
81. Nampo T, Watahiki J, Enomoto A, Taguchi T, Ono M, Nakano H, Yamamoto G, Irie T, Tachikawa T, Maki K. A new method for alveolar bone repair using extracted teeth for the graft material. *J Periodontol* 2010;81:1264-1272.
82. Nampo T et al. A new method for alveolar bone repair using extracted teeth for the graft material. *J Periodontol.* 2010 Sep; 81 (9): 1264-72.
83. Pang KM, Um IW, Kim YK, Woo JM, Kim SM, Lee JH. Autogenous demineralized dentin matrix from extracted tooth for the augmentation of alveolar bone defect: a prospective randomized clinical trial in comparison with anorganic bovine bone. *Clin Oral Implants Res* 2016.
84. Park SM., Um IW, Kim YK, Kim KW. Clinical application of auto-tooth bone graft material.
85. Petite H. La bio-ingénierie de la régénération osseuse. *Med Sci.* 2002; 18 (10): 995-1002.
86. Picaut C. Apport des matériaux de substitution osseuse d'origine synthétique dans l'aménagement des sites pré-implantaires Thèse d'exercice université de Nancy. 2009.
87. Pignatello R. *Chemistry.* 2011: 127-140.
88. Pohl V, Schuh C, Fischer MB, Haas R. A New Method Using Autogenous Impacted Third Molars for Sinus Augmentation to Enhance Implant Treatment: Case Series with Preliminary Results of an Open, Prospective Longitudinal Study. *Int J Oral Maxillofac Implants.* 2016 May-Jun; 31 (3): 622-30.
89. Reis-Filho CR, Silva ER, Martins AB, Pessoa FF, Gomes PVN, de Araújo MSC, Miziara MN, Alves JB. Demineralised human dentine matrix stimulates the expression of VEGF and accelerates the bone repair in tooth sockets of rats. *Archives of Oral Biology* 2012;57:469-476.
90. Scheller EL, Krebsbach PH, Kohn DH. Tissue engineering: state of the art in oral rehabilitation. *J Oral Rehabil.* 2009 May; 36 (5): 368-89.
91. Schmidmaier G. Improvement of fracture healing by systemic administration of growth hormone and local application of insulin-like growth factor-1 and transforming growth factor-beta1. *Bone.* 2002 Jul; 31 (1): 165-72.

92. Schmidt-Schultz TH, Schultz M. Intact growth factors are conserved in the extracellular matrix of ancient human bone and teeth: a storehouse for the study of human evolution in health and disease. *Biol Chem*. 2005 Aug;386(8):767-76.
93. Schropp L, Wenzel A, Kostopoulos L, Karring T. Bone healing and soft tissue contour changes following single-tooth extraction: a clinical and radiographic 12-month prospective study. *Int J Periodontics Restorative Dent*. 2003 Aug;23(4):313-23.
94. Schwarz F^{1,2}, Hazar D², Becker K^{2,3}, Sader R⁴, Becker J², Efficacy of autogenous tooth roots for lateral alveolar ridge augmentation and staged implant placement. A prospective controlled clinical study.
95. Seban A. *Greffes osseuses et implants*. Elsevier Masson. 2008 Oct.
96. Seban A. *Pratique clinique des greffes osseuses et implants: modalités thérapeutiques et prise en charge des complications*. Elsevier Masson. 2012 Jan.
97. Seibert JS. Reconstruction of deformed, partially edentulous ridges, using full thickness onlay grafts. Part I. Technique and wound healing. *Compend Contin Educ Dent*. 1983 Sep Oct; 4 (5): 437-53.
98. Seo BM et al. SHED repair critical-size calvarial defects in mice. *Oral Dis*. 2008 Jul; 14 (5): 428-34.
99. Slagter KW, Meijer HJ, Bakker NA, Vissink A, Raghoobar GM. Immediate Single-Tooth Implant Placement in Bony Defects in the Esthetic Zone: A 1-Year Randomized Controlled Trial. *J Periodontol*. 2016; 87 (6): 619-29.
100. Slagter KW, Raghoobar GM, Bakker NA, Vissink A, Meijer HJ. Buccal bone thickness at dental implants in the aesthetic zone: A 1-year follow-up cone beam computed tomography study. *J Craniomaxillofac Surg*. 2016.
101. Su-Gwan K, Hak-Kyun K, Sung-Chul L. Combined implantation of particulate dentine, plaster of Paris, and a bone xenograft (Bio-Oss) for bone regeneration in rats. *J Craniomaxillofac Surg*. 2001 Oct; 29 (5): 282-8.
102. Suzuki S et al. Dentin sialoprotein and dentin phosphoprotein have distinct roles in dentin mineralization. *Matrix Biol*. 2009 May; 28 (4): 221-9.
103. Tabatabaei FS, Tatari S, Samadi R, Moharamzadeh K. Different methods of dentin processing for application in bone tissue engineering: A systematic review. *J Biomed Mater Res A* 2016;104:2616-2627.
104. Tal H et al. Cross-linked and non-cross-linked collagen barrier membranes disintegrate following surgical exposure to the oral environment: a histological study in the cat. *Clin Oral Implants Res*. 2008 Aug; 19 (8): 760-6.
105. Tan WL, Wong TL, Wong MC, Lang NP. A systematic review of post-extraction alveolar hard and soft tissue dimensional changes in humans. *Clin Oral Implants Res*. 2012 Feb; 23 Suppl 5: 1-21.
106. Thoma DS, Zeltner M, Hilbe M, Hammerle CH, Husler J, Jung RE. Randomized controlled clinical study evaluating effectiveness and safety of a volume-stable collagen matrix compared to autogenous connective tissue grafts for soft tissue augmentation at implant sites. *J Clin Periodontol*. 2016; 43 (10): 874-85.
107. Tuslane JF, Andreani JF. *Les greffes osseuses en implantologie*. Quintessence International. Réussir. 2004.
108. Urist MR, Strates BS. The classic: Bone morphogenetic protein. *Clin Orthop Relat Res*. 2009 Dec; 467 (12): 3051-62.
109. Urist MR. Bone: formation by autoinduction. *Science*. 1965 Nov 12; 150 (3698): 893-9.
110. Veis AA. Bone regeneration around implants using spherical and granular forms of bioactive glass particles. *Implant Dent*. 2006 Dec; 15 (4): 386-94.
111. Verdelis K et al. DSPP effects on in vivo bone mineralization. *Bone*. 2008 Dec; 43 (6): 983-990.
112. Vidal L. *L'apport de l'ingenierie tissulaire en régénération osseuse pré-implantaire*. Thèse d'exercice université de Toulouse. 2012.
113. Viguet-Carrin S, Garnero P, Delmas PD. The role of collagen in bone strength. *Osteoporos Int*. 2006; 17 (3): 319-36.
114. Yeomans JD, Urist MR. Bone induction by decalcified dentine implanted into oral, osseous and muscle tissues. *Arch Oral Biol* 1967;12:999-1008.