

Clinical and scientific literature about Nobel Biocare zygoma implant family



A long history of implant design.

From the earliest machined versions in 1997 to the latest designs, our implants are backed by over two decades of clinically proven success and a growing community of leading experts.

Zero bone grafting, shorter time to teeth and fewer clinical visits with the Nobel Biocare zygoma implant family.¹

Reference about Nobel Biocare zygoma implants

- 1 Nunes M, de Araújo Nobre M, Camargo V. All-on-4 Hybrid with Extra-Long Transnasal Implants: Descriptions of the Technique and Short-Term Outcomes in Three Cases. *J Clin Med.* 2024 Jun 6;13(11):3348.
- 2 Jayanandhini S, Prasad C, Appadurai R, Balaji J, Arunkumar K, Rohini T. Evaluation of Survival Rate of Zygomatic Implants Placed Using Immediate Loading Protocol in an Atrophic Maxilla: A Case Series. *Journal of maxillofacial and oral surgery.* 2024.
- 3 Davo R, Fan S, Wang F, Wu Y. Long-term survival and complications of Quad Zygoma Protocol with Anatomy-Guided Approach in severely atrophic maxilla: A retrospective follow-up analysis of up to 17 years. *Clin Implant Dent Relat Res.* 2023;1-13.
- 4 Kämmerer PW, Fan S, Aparicio C, Bedrossian E, Davó R, Morton D, Raghoobar GM, Zarine S, Al-Nawas B. Evaluation of surgical techniques in survival rate and complications of zygomatic implants for the rehabilitation of the atrophic edentulous maxilla: a systematic review. *Int J Implant Dent.* 2023 May 17;9(1):11.
- 5 Vrielinck L, Moreno-Rabie C, Coucke W, Jacobs R, Politis C. Retrospective cohort assessment of survival and complications of zygomatic implants in atrophic maxillae. *Clin Oral Implants Res.* 2023;34(2):148-56.
Vrielinck L, Moreno-Rabie C, Croucke W, Jacobs R, Politis C. A 22-year retrospective evaluation of survival and complications of zygomatic implants in atrophic maxillae. *Clin Oral Implants Res.* epub ahead 2022.
- 6 Vrielinck L, Moreno-Rabie C, Schepers S, Van Eyken P, Coucke W, Politis C. Peri-zygomatic infection associated with zygomatic implants: A retrospective longitudinal cohort study. *Clin Oral Implants Res.* 2022;33(4):405-12.
- 7 Pesce P, Menini M, Bagnasco F, Gamalero M, Pera F, Tealdo T. Outcomes of Zygomatic Implants Combined with Anterior Regular Implants: A Retrospective Analysis with a Mean Follow-up Time of 36 Months. *Int J Oral Maxillofac Implants.* 2023;38(2):251-8.
- 8 Yu Z, Guo H, Han W, Jiang X, Lin Y. Peri-zygomatic complications on zygomatic implants with or without penetrating the external surface of zygoma: A 2-year retrospective study. *Clin Implant Dent Relat Res.* epub ahead 2023.
- 9 Jin S, Ma H, Ling X, Tao B, Wang F, Wu Y. Longitudinal reactions of maxillary sinus in patients treated with multiple zygomatic implants: A modified radiographic evaluation with clinical follow-up. *Clin Implant Dent Relat Res.* 2023;25(6):1091-102.
- 10 Guo H Fau - Jiang X, Jiang X Fau - Di P, Di P Fau - Lin Y, Lin Y. A Novel Method to Achieve Preferable Bone-to-Implant Contact Area of Zygomatic Implants in Rehabilitation of Severely Atrophied Maxilla. *Int J Oral Maxillofac Implants.* 2023;38(1):111-9.
- 11 Wu Y, Tao B, Lan K, Shen Y, Huang W, Wang F. Reliability and accuracy of dynamic navigation for zygomatic implant placement. *Clin Oral Implants Res.* 2022;33(4):362-76.
- 12 Aleksandrowicz P, Kusa-Podkanska M, Borgonovo A, Tomkiewicz W, Szczodry B, Kotula L, et al. Finding Better Ways to Perform Graftless Full Rehabilitation of a Compromised Maxilla: New Platform-Switched Zygomatic Implants Placed Extra-Sinus Improve Prosthetic Restoration-A Preliminary Study of 25 Cases and 85 Implants. *Int J Periodontics Restorative Dent.* 2022;42(1):35-41.
- 13 Goker F, Grecchi E, Del Fabbro M, Tedesco A, Borgonovo A, Bedendo A, et al. Oral rehabilitation with unilateral zygomatic implants: A case series of 32 patients. *International journal of oral implantology (Berlin, Germany).* 2022;15(2):181-90.

¹ Davó R, Syed H, Vicent VG, Pons O. Clinical outcome of 33 immediately loaded NobelZygoma 45° (new design) [PSA-358]. *Clin Oral Implants Res* 2016;27(Suppl 13):256.

Reference about Nobel Biocare zygoma implants

- 13 Lopes A, de Araujo Nobre M, Ferro A, Moura Guedes C, Almeida R, Nunes M. Zygomatic Implants Placed in Immediate Function through Extra-Maxillary Surgical Technique and 45 to 60 Degrees Angulated Abutments for Full-Arch Rehabilitation of Extremely Atrophic Maxillae: Short-Term Outcome of a Retrospective Cohort. *J Clin Med.* 2021;10(16).
- 14 D'Agostino A, Lombardo G, Favero V, Signoriello A, Bressan A, Lonardi F, Nocini R, Trevisiol L. Complications related to zygomatic implants placement: A retrospective evaluation with 5 years follow-up. *J Craniomaxillofac Surg.* 2021 Jul;49(7):620-627.
- 15 Agliardi EL, Panigatti S, Romeo D, Sacchi L, Gherlone E. Clinical outcomes and biological and mechanical complications of immediate fixed prostheses supported by zygomatic implants: A retrospective analysis from a prospective clinical study with up to 11 years of follow-up. *Clin Implant Dent Relat Res.* 2021;23(4):612-24.
- 16 Aleksandrowicz P, Kusa-Podkanska M, Tomkiewicz W, Kotula L, Perek J, Wysokinska-Miszczuk J. Platform switch hybrid zygoma implants improve prosthetics and marginal bone protection after extra-sinus placement. *Clin Implant Dent Relat Res.* 2020;22(2):186-92.
- 17 Davo R, Bankauskas S, Laurincikas R, Kocyigit ID, Mate Sanchez de Val JE. Clinical Performance of Zygomatic Implants - Retrospective Multicenter Study. *J Clin Med.* 2020;9:480.
- 18 Arcas-Sanabre AJ, Gutierrez-Santamaria J, López-López J, Ayuso-Montero R, Velasco-Ortega E. Horizontal augmentation of the maxillary alveolar ridge to change the prosthetic profile: Clinical and radiological results of a retrospective study. *Journal of stomatology, oral and maxillofacial surgery.* 2020;121(1):25-9.
- 19 D'Agostino A, Luciano U, Zangani A, Iurlaro A, Zarantonello M, Zotti F, et al. Zygomatic implants supported rehabilitations in atrophic maxilla: sinus complications, radiological, periodontal and prosthodontic evaluations: a one year follow up retrospective longitudinal study. *Journal of biological regulators and homeostatic agents.* 2020;34(6 Suppl. 2):89-100.
- 20 Balaji SM, Balaji P. Comparative evaluation of direct sinus lift with bone graft and zygoma implant for atrophic maxilla. *Indian J Dent Res.* 2020;31(3):389-95.
- 21 Peñarrocha-Diago M, Bernabeu-Mira JC, Fernández-Ruiz A, Aparicio C, Peñarrocha-Oltra D. Bone Regeneration and Soft Tissue Enhancement Around Zygomatic Implants: Retrospective Case Series. *Materials (Basel, Switzerland)*. 2020;13(7).
- 22 Mozzati M, Gallesio G, Goker F, Tumedei M, Paolleschi C, Tedesco A, et al. Immediate oral rehabilitation with quad zygomatic implants: ultrasonic technique vs conventional drilling. *J Oral Implantol.* 2020.
- 23 Aleksandrowicz P, Kusa-Podkanska M, Grabowska K, Kotula L, Szkutula-Lupina A, Wysokinska-Miszczuk J. Extra-Sinus Zygomatic Implants to Avoid Chronic Sinusitis and Prosthetic Arch Malposition: 12 Years of Experience. *J Oral Implantol.* 2019;45(1):73-8.
- 24 D'Agostino A, Favero V, Nocini R, Venco J, Nocini PF, Trevisiol L. Does Middle Meatal Antrostomy Prevent the Onset of Maxillary Sinusitis After Zygomatic Implant Placement? *J Oral Maxillofac Surg.* 2019;77(12):2475-82.
- 25 Wang F, Bornstein MM, Hung K, Fan S, Chen X, Huang W, et al. Application of Real-Time Surgical Navigation for Zygomatic Implant Insertion in Patients With Severely Atrophic Maxilla. *J Oral Maxillofac Surg.* 2018;76(1):80-7.
- 26 Zhao K, Lian M, Fan S, Huang W, Wang F, Wu Y. Long-term Schneiderian membrane thickness changes following zygomatic implant placement: A retrospective radiographic analysis using cone beam computed tomography. *Clin Oral Implants Res.* 2018.
- 27 Davo R, Felice P, Pistilli R, Barausse C, Martí-Pages C, Ferrer-Fuertes A, et al. Immediately loaded zygomatic implants vs conventional dental implants in augmented atrophic maxillae: 1-year post-loading results from a multicentre randomised controlled trial. *Eur J Oral Implantol.* 2018;11(2):145-61.
Esposito M, Davo R, Martí-Pages C, Ferrer-Fuertes A, Barausse C, Pistilli R, et al. Immediately loaded zygomatic implants vs conventional dental implants in augmented atrophic maxillae: 4 months post-loading results from a multicentre randomised controlled trial. *Eur J Oral Implantol.* 2018;11(1):11-28.
- 28 Alzoubi F, Bedrossian E, Wong A, Farrell D, Park C, Indresano T. Outcomes Assessment of Treating Completely Edentulous Patients with a Fixed Implant-Supported Profile Prosthesis Utilizing a Graftless Approach. Part 1: Clinically Related Outcomes. *Int J Oral Maxillofac Implants.* 2017;32(4):897-903.
- 29 Wang F, Huang W, Zhang C, Sun J, Qu X, Wu Y. Functional outcome and quality of life after a maxillectomy: a comparison between an implant supported obturator and implant supported fixed prostheses in a free vascularized flap. *Clin Oral Implants Res.* 2017;28(2):137-43.
- 30 Agliardi EL, Romeo D, Panigatti S, de Araujo Nobre M, Malo P. Immediate full-arch rehabilitation of the severely atrophic maxilla supported by zygomatic implants: a prospective clinical study with minimum follow-up of 6 years. *Int J Oral Maxillofac Surg.* epub ahead 2017.
- 31 Neugarten J, Tuminelli FJ, Walter L. Two Bilateral Zygomatic Implants Placed and Immediately Loaded: A Retrospective Chart Review with Up-to-54-Month Follow-up. *Int J Oral Maxillofac Implants.* 2017;32(6):1399-403.
- 32 D'Agostino A, Trevisiol L, Favero V, Pessina M, Procacci P, Nocini PF. Are Zygomatic Implants Associated With Maxillary Sinusitis? *J Oral Maxillofac Surg.* 2016;74(8):1562-73.
- 33 Pellicer-Chover H, Cervera-Ballester J, Penarrocha-Oltra D, Bagan L, Penarrocha-Diago MA, Penarrocha-Diago M. Influence of the prosthetic arm length (palatal position) of zygomatic implants upon patient satisfaction. *Med Oral Patol Oral Cir Bucal.* 2016;21(3):e380-4.
- 34 Lombardo G, D'Agostino A, Trevisiol L, Romanelli MG, Mascellaro A, Gomez-Lira M, et al. Clinical, microbiologic and radiologic assessment of soft and hard tissues surrounding zygomatic implants: a retrospective study. *Oral surgery, oral medicine, oral pathology and oral radiology.* 2016;122(5):537-46.
- 35 Mozzati M, Mortellaro C, Arata V, Gallesio G, Previgliano V. Rehabilitation with 4 zygomatic implants with a new surgical protocol using ultrasonic technique. *The Journal of craniofacial surgery.* 2015 May;26(3):722-8.
- 36 de Araujo Nobre M, Malo P, Goncalves I. Evaluation of Clinical Soft Tissue Parameters for Extramaxillary Zygomatic Implants and Conventional Implants in All-on-4 Hybrid Rehabilitations: Short-Term Outcome and Proposal of Clinical Recommendations for Intervention in Recall Appointments. *Implant dentistry.* 2015 Apr 24;24(3):267-74.
- 37 Wu Y, Wang XD, Wang F, Huang W, Zhang Z, Kaigler D, et al. Restoration of Oral Function for Adult Edentulous Patients with Ectodermal Dysplasia: A Prospective Preliminary Clinical Study. *Clinical implant dentistry and related research.* epub ahead 2015 Mar 2.

Reference about Nobel Biocare zygoma implants

- 38 Davo R, Pons O. 5-year outcome of cross-arch prostheses supported by four immediately loaded zygomatic implants: A prospective case series. *European journal of oral implantology.* 2015 Summer;8(2):169-74.
- Davo R, Pons O. Prostheses supported by four immediately loaded zygomatic implants: a 3-year prospective study. *Eur J Oral Implantol.* 2013;6(3):263-9
- Davo R, Pons O, Rojas J, Carpio E. Immediate function of four zygomatic implants: a 1-year report of a prospective study. *Eur J Oral Implantol.* 2010;3(4):323-34.
- 39 Aparicio C, Manresa C, Francisco K, Ouazzani W, Claros P, Potau JM, et al. The long-term use of zygomatic implants: a 10-year clinical and radiographic report. *Clin Implant Dent Relat Res.* 2014;16(3):447-59.
- 40 Nocini PF, D'Agostino A, Chiarini L, Trevisiol L, Procacci P. Simultaneous Le Fort I osteotomy and zygomatic implants placement with delayed prosthetic rehabilitation. *The Journal of craniofacial surgery.* 2014;25(3):1021-4.
- 41 Butura CC, Galindo DF. Combined immediate loading of zygomatic and mandibular implants: a preliminary 2-year report of 19 patients. *Int J Oral Maxillofac Implants.* 2014;29(1):e22-9.
- 42 Yates JM, Brook IM, Patel RR, Wragg PF, Atkins SA, El-Awa A, et al. Treatment of the edentulous atrophic maxilla using zygomatic implants: evaluation of survival rates over 5-10 years. *Int J Oral Maxillofac Surg.* 2014;43(2):237-42.
- 43 Malo P, Nobre Mde A, Lopes A, Ferro A, Moss S. Five-year outcome of a retrospective cohort study on the rehabilitation of completely edentulous atrophic maxillae with immediately loaded zygomatic implants placed extra-maxillary. *European journal of oral implantology.* 2014 Autumn;7(3):267-81.
- Malo P, Nobre M, Lopes A, Francischone C, Rigolizzo M. Three-year outcome of a retrospective cohort study on the rehabilitation of completely edentulous atrophic maxillae with immediately loaded extra-maxillary zygomatic implants. *Eur J Oral Implantol.* 2012;5(1):37-46.
- 44 Aparicio C, Manresa C, Francisco K, Aparicio A, Nunes J, Claros P, et al. Zygomatic Implants Placed Using the Zygomatic Anatomy-Guided Approach versus the Classical Technique: A Proposed System to Report Rhinosinusitis Diagnosis. *Clin Implant Dent Relat Res.* 2013.
- 45 Hinze M, Vrielinck L, Thalmair T, Wachtel H, Bolz W. Zygomatic implant placement in conjunction with sinus bone grafting: the "extended sinus elevation technique." a case-cohort study. *Int J Oral Maxillofac Implants.* 2013;28(6):e376-85.
- 46 Landes CA, Ghanati S, Ballon A, Thai VD, Reinhard R, Nolte D, et al. Severely scarred oronasal cleft defects in edentulous adults: initial data on the long-term outcome of telescoped obturator prostheses supported by zygomatic implants. *Cleft Palate Craniofac J.* 2013;50(4):e74-83.
- 47 Malo P, de Araujo Nobre M, Lopes A, Ferro A, Moss S. Extramaxillary Surgical Technique: Clinical Outcome of 352 Patients Rehabilitated with 747 Zygomatic Implants with a Follow-Up between 6 Months and 7 Years. *Clin Implant Dent Relat Res.* 2013.
- 48 Davo R, Malevez C, Pons O. Immediately loaded zygomatic implants: a 5-year prospective study. *Eur J Oral Implantol.* 2013;6(1):39-47.
- Davo R, Malevez C, Rojas J, Rodriguez J, Regolf J. Clinical outcome of 42 patients treated with 81 immediately loaded zygomatic implants: a 12- to 42-month retrospective study. *Eur J Oral Implantol.* 2008;1(2):141-50.
- 49 Penarrocha M, Vina JA, Carrillo C, Penarrocha D, Penarrocha M. Rehabilitation of reabsorbed maxillae with implants in buttresses in patients with combination syndrome. *J Oral Maxillofac Surg.* 2012;70(5):e322-30.
- 50 Zou D, Wu Y, Wang XD, Huang W, Zhang Z, Zhang Z. A retrospective 3-to-5 year study of the reconstruction of oral function using implant-supported prostheses in patients with hypohidrotic ectodermal dysplasia. *The Journal of oral implantology.* 2012.
- 51 Balshi TJ, Wolfinger GJ, Shuscavage NJ, Balshi SF. Zygomatic Bone-to-Implant Contact in 77 Patients With Partially or Completely Edentulous Maxillas. *J Oral Maxillofac Surg.* 2012;70(9):2065-9.
- 52 Degidi M, Nardi D, Piattelli A, Malevez C. Immediate loading of zygomatic implants using the intraoral welding technique: a 12-month case series. *The International journal of periodontics & restorative dentistry.* 2012;32(5):e154-61.
- 53 Barrowman RA, Wilson PR, Wiesenfeld D. Oral rehabilitation with dental implants after cancer treatment. *Aust Dent J.* 2011;56(2):160-5.
- 54 Aparicio C, Ouazzani W, Aparicio A, Fortes V, Muela R, Pascual A, et al. Immediate/Early loading of zygomatic implants: clinical experiences after 2 to 5 years of follow-up. *Clin Implant Dent Relat Res.* 2010;12 Suppl 1:e77-82.
- 55 Aparicio C, Ouazzani W, Aparicio A, Fortes V, Muela R, Pascual A, et al. Extrasinus zygomatic implants: three year experience from a new surgical approach for patients with pronounced buccal concavities in the edentulous maxilla. *Clin Implant Dent Relat Res.* 2010;12(1):55-61.
- 56 Bedrossian E. Rehabilitation of the Edentulous Maxilla with the Zygoma Concept: A 7-year Prospective Study. *Int J Oral Maxillofac Implants.* 2010;25(6):1213-21.
- 57 Chow J, Wat P, Hui E, Lee P, Li W. A new method to eliminate the risk of maxillary sinusitis with zygomatic implants. *Int J Oral Maxillofac Implants.* 2010;25(6):1233-40.
- 58 Stievenart M, Malevez C. Rehabilitation of totally atrophied maxilla by means of four zygomatic implants and fixed prosthesis: a 6-40-month follow-up. *Int J Oral Maxillofac Surg.* 2010;39(4):358-63.
- 59 Balshi SF, Wolfinger GJ, Balshi TJ. A retrospective analysis of 110 zygomatic implants in a single-stage immediate loading protocol. *Int J Oral Maxillofac Implants.* 2009;24(2):335-41.
- 60 Davo R. Zygomatic implants placed with a two-stage procedure: a 5-year retrospective study. *Eur J Oral Implantol.* 2009;2(2):115-24.
- 61 Landes CA, Paffrath C, Koehler C, Thai VD, Stubinger S, Sader R, et al. Zygoma implants for midfacial prosthetic rehabilitation using telescopes: 9-year follow-up. *Int J Prosthodont.* 2009;22(1):20-32.
- Landes CA. Zygoma implant-supported midfacial prosthetic rehabilitation: a 4-year follow-up study including assessment of quality of life. *Clin Oral Implants Res.* 2005;16(3):313-25.
- 62 Pi Urgell J, Revilla Gutierrez V, Gay Escoda CG. Rehabilitation of atrophic maxilla: a review of 101 zygomatic implants. *Med Oral Patol Oral Cir Bucal.* 2008;13(6):E363-70.
- 63 Davo R, Malevez C, Lopez-Orellana C, Pastor-Bevia F, Rojas J. Sinus reactions to immediately loaded zygoma implants: a clinical and radiological study. *Eur J Oral Implantol.* 2008;1(1):53-60.
-

Reference about Nobel Biocare zygoma implants

- 64 Mozzati M, Monfrin SB, Pedretti G, Schierano G, Bassi F. Immediate loading of maxillary fixed prostheses retained by zygomatic and conventional implants: 24-month preliminary data for a series of clinical case reports. *Int J Oral Maxillofac Implants.* 2008;23(2):308-14.
- 65 Davo R, Malevez C, Rojas J. Immediate function in the atrophic maxilla using zygoma implants: a preliminary study. *J Prosthet Dent.* 2007;97 (6Suppl):S44-S51.
- 66 Duarte LR, Filho HN, Francischone CE, Peredo LG, Branemark PI. The establishment of a protocol for the total rehabilitation of atrophic maxillae employing four zygomatic fixtures in an immediate loading system--a 30-month clinical and radiographic follow-up. *Clin Implant Dent Relat Res.* 2007;9(4):186-96.
- 67 Penarrocha M, Carrillo C, Boronat A, Martí E. Level of satisfaction in patients with maxillary full-arch fixed prostheses: zygomatic versus conventional implants. *Int J Oral Maxillofac Implants.* 2007;22(5):769-73.
- 68 Penarrocha M, Garcia B, Martí E, Boronat A. Rehabilitation of severely atrophic maxillae with fixed implant-supported prostheses using zygomatic implants placed using the sinus slot technique: clinical report on a series of 21 patients. *Int J Oral Maxillofac Implants.* 2007;22(4):645-50.
- 69 Kahnberg KE, Henry PJ, Hirsch JM, Ohrnell LO, Andreasson L, Branemark PI, et al. Clinical evaluation of the zygoma implant: 3-year follow-up at 16 clinics. *J Oral Maxillofac Surg.* 2007;65(10):2033-8.
Hirsch JM, Ohrnell LO, Henry PJ, Andreasson L, Branemark PI, Chiapasco M, et al. A clinical evaluation of the Zygoma fixture: one year of follow-up at 16 clinics. *J Oral Maxillofac Surg.* 2004;62 suppl 2(9):22-9.
- 70 Ahlgren F, Storksen K, Tornes K. A study of 25 zygomatic dental implants with 11 to 49 months' follow-up after loading. *Int J Oral Maxillofac Implants.* 2006;21(3):421-5.
- 71 Aparicio C, Ouazzani W, Garcia R, Arevalo X, Muela R, Fortes V. A prospective clinical study on titanium implants in the zygomatic arch for prosthetic rehabilitation of the atrophic edentulous maxilla with a follow-up of 6 months to 5 years. *Clin Implant Dent Relat Res.* 2006;8(3):114-22.
- 72 Bedrossian E, Rangert B, Stumpel L, Indresano T. Immediate function with the zygomatic implant: a graftless solution for the patient with mild to advanced atrophy of the maxilla. *Int J Oral Maxillofac Implants.* 2006;21(6):937-42.
- 73 Farzad P, Andersson L, Gunnarsson S, Johansson B. Rehabilitation of severely resorbed maxillae with zygomatic implants: an evaluation of implant stability, tissue conditions, and patients' opinion before and after treatment. *Int J Oral Maxillofac Implants.* 2006;21(3):399-404.
- 74 Chow J, Hui E, Lee PK, Li W. Zygomatic implants--protocol for immediate occlusal loading: a preliminary report. *J Oral Maxillofac Surg.* 2006;64(5):804-11.
- 75 Zwahlen RA, Gratz KW, Oechslin CK, Studer SP. Survival rate of zygomatic implants in atrophic or partially resected maxillae prior to functional loading: a retrospective clinical report. *Int J Oral Maxillofac Implants.* 2006;21(3):413-20.
- 76 Balshi SF, Wolfinger GJ, Balshi TJ. Analysis of 164 titanium oxide-surface implants in completely edentulous arches for fixed prosthesis anchorage using the pterygomaxillary region. *Int J Oral Maxillofac Implants.* 2005;20(6):946-52.
- 77 Balshi SF, Wolfinger GJ, Balshi TJ. A prospective study of immediate functional loading, following the Teeth in a Day protocol: a case series of 55 consecutive edentulous maxillas. *Clin Implant Dent Relat Res.* 2005;7(1):24-31.
- 78 Penarrocha M, Uribe R, Garcia B, Martí E. Zygomatic implants using the sinus slot technique: clinical report of a patient series. *Int J Oral Maxillofac Implants.* 2005;20(5):788-92.
- 79 Malevez C, Abarca M, Durdu F, Daelemans P. Clinical outcome of 103 consecutive zygomatic implants: a 6-48 months follow-up study. *Clin Oral Implants Res.* 2004;15(1):18-22.
- 80 Boyes-Varley JG, Howes DG, Lownie JF, Blackbeard GA. Surgical modifications to the Branemark zygomaticus protocol in the treatment of the severely resorbed maxilla: a clinical report. *Int J Oral Maxillofac Implants.* 2003;18(2):232-7.
- 81 Vrielinck L, Politis C, Schepers S, Pauwels M, Naert I. Image-based planning and clinical validation of zygoma and pterygoid implant placement in patients with severe bone atrophy using customized drill guides. Preliminary results from a prospective clinical follow-up study. *Int J Oral Maxillofac Surg.* 2003;32(1):7-14.
- 82 Nakai H, Okazaki Y, Ueda M. Clinical application of zygomatic implants for rehabilitation of the severely resorbed maxilla: a clinical report. *Int J Oral Maxillofac Implants.* 2003;18(4):566-70.
- 83 Bedrossian E, Stumpel L, 3rd, Beckley ML, Indresano T. The zygomatic implant: preliminary data on treatment of severely resorbed maxillae. A clinical report. *Int J Oral Maxillofac Implants.* 2002;17(6):861-5.
- 84 Stevenson AR, Austin BW. Zygomatic fixtures-the Sydney experience. *Annals of the Royal Australasian College of Dental Surgeons.* 2000;15:337-9.
-

nobelbiocare.com

