# DECISION FACTORS IN IMMEDIATE LOADING OF DENTAL IMPLANT FOR COMPLETE EDENTULISM

**Alexandru Burcea[1,†], Andreea Mariana Bănățeanu[1,†], Claudia Florina Bogdan-Andreescu[1*], Oana Botoacă[1*], Laurențiu-Camil Bohîlţea[2], Corina Roxana Cîmpean[3], Emin Cadar[4], Cristian-Viorel Poalelungi[5]**

[1]"Titu Maiorescu" University, Bucharest, Romania, Faculty of Dental Medicine, Department of Speciality Disciplines,
[2]"Carol Davila" University of Medicine and Pharmacy Bucharest, Romania, Faculty of Medicine, Department 7,
[3]"Regina Maria" Dental Clinics, Bucharest, Romania,
[4]"Ovidius" University, 900470 Constanta, Romania, Faculty of Pharmacy, Department of Pharmaceutical Science I,
[5]"Carol Davila" University of Medicine and Pharmacy Bucharest, Romania, Faculty of Medicine, Department 13.
Corresponding authors; *e-mail:* claudia.andreescu@prof.utm.ro, oana.botoaca@prof.utm.ro,

†These authors contributed equally to this work.

## ABSTRACT
Immediate loading of dental implants has emerged as a viable option for patients with complete edentulism, offering advantages like reduced treatment time and improved patient satisfaction. However, its success depends on a multitude of interrelated clinical, anatomical, biomechanical, and prosthetic factors. This paper reviews the principal decision-making factors that influence the feasibility, planning, and predictability of outcomes for immediate loading protocols in completely edentulous patients. Evidence-based criteria and clinical guidelines are discussed to help clinicians optimize treatment strategies and minimize risks.

**Key words:** complete edentulism; dental implant; immediate loading; fixed oral rehabilitation; PMMA

## INTRODUCTION

Complete edentulism has a significant impact on oral function, facial aesthetics, and psychological well-being [1, 2]. Conventional prostheses often fail to restore masticatory performance and, together with poor retention, lead to a shift towards implant-supported rehabilitation [3, 4].

Immediate loading (IL) of dental implants involves placing a prosthetic restoration within 48 hours of implant insertion, and it has become increasingly popular among patients and dentists [5, 6]. The popularity is due to its benefits, including reduced treatment time, immediate function, aesthetic improvements, and enhanced social life [7,8].

Immediate loading differs from conventional protocols, which typically delay implant loading for 3 to 6 months post-implant placement [9]. The rationale behind IL includes enhanced patient comfort, decreased need for removable prosthetics, and improved preservation of peri-implant structures [10, 11].



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Today, the immediate function protocol of dental implants is a valid treatment alternative, and it has become a patient demand, mainly due to psychological factors and an improved quality of life [12, 13]. However, the suitability of IL depends on several decision-making factors that influence osseointegration and long-term success.

**This study aims** to present a standardized clinical and surgical protocol for the rehabilitation of patients with failing dentition using the All-on-Six implant technique in both the maxilla and mandible, with immediate loading of screw-retained prostheses. Additionally, the study seeks to analyze and discuss the critical clinical, anatomical, and prosthetic factors that influence decision-making in the successful implementation of immediate loading protocols for completely edentulous patients.

## MATERIAL AND METHODS

### Patient Selection

The patients included in this study were treated at the Helpdent Dental Clinic in Bucharest, Romania. The clinical protocol involved the rehabilitation of failing dentition using the All-on-Six implant technique with immediate loading of screw-retained provisional prostheses fabricated from polymethyl methacrylate (PMMA). All procedures were conducted in accordance with the principles outlined in the Declaration of Helsinki, and written informed consent was obtained from each patient prior to treatment.

All patients presented with a history of extensive dental caries and/or advanced periodontitis, which had led to terminal dentition. Candidates for this protocol were generally in good systemic health or had medically managed and stable conditions at the time of surgery. Patients with systemic contraindications for oral surgery were excluded from the study.

A preliminary orthopantomogram (OPG) was performed for each patient, followed by cone-beam computed tomography (CBCT) scans to evaluate bone volume, density, and the anatomical relationship with neighboring structures. Routine blood tests were conducted to assess the medical condition for surgical intervention.

Before surgery, full-arch impressions of both the maxilla and mandible were obtained, and bite registration was performed to record the maxillomandibular relationship.

### Surgical Protocol

All patients followed a standardized preoperative medication regimen consisting of Cefuroxime 500 mg and Metronidazole 500 mg, administered orally every 12 hours, beginning 24 hours before surgery and continued for a total duration of seven days to reduce the risk of postoperative infection.

Surgical procedures were performed under local anesthesia using articaine 4% with epinephrine 1:100,000, in combination with intravenous conscious sedation achieved with Midazolam. This approach ensured patient comfort and reduced anxiety while maintaining intraoperative responsiveness.

Implant placement began in the mandible, followed by the maxilla. This sequencing facilitated improved surgical access, intraoperative control, occlusal management, and prosthetic planning. A full-thickness mucoperiosteal flap was raised in both arches. Following atraumatic extraction of any remaining teeth, six titanium dental implants were placed in each arch: in the interforaminal and first



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molar region of the mandible and the anterior and premolar regions of the maxilla. The implant osteotomies were prepared using standard drilling protocols following the manufacturer's guidelines. All implants were inserted into pristine bone, and no augmentation was required.

All implants achieved sufficient primary stability to permit immediate loading. Insertion torque values were ≥ 35 Ncm, and implant stability was confirmed with resonance frequency analysis, with implant stability quotient (ISQ) values ≥ 65. These parameters met the clinical thresholds for immediate prosthetic loading [5, 14, 15]. Multi-unit abutments were then connected to the implants to accommodate the passive fit and retention of screw-retained provisional prostheses.

**Prosthetic Procedure**

Immediately following implant placement, a conventional open-tray impression technique was used to capture the position of the multi-unit abutments.

A screw-retained provisional full-arch prosthesis was fabricated from high-impact polymethyl methacrylate (PMMA) using computer-aided design (CAD) and computer-aided manufacturing CAD/CAM technology. The provisional prosthesis was designed with a balanced occlusal scheme and light centric contacts to reduce occlusal overload during the critical period of osseointegration. No contacts were present in lateral or protrusive excursions. A metallic bar was utilized to splint and immobilize the implants, ensuring additional stability.

The PMMA prostheses were secured to the multi-unit abutments using titanium prosthetic screws torqued at 15–20 Ncm. Final occlusal adjustments were performed intraorally to eliminate any interferences.

Postoperative care included continuation of the antibiotic regimen (Cefuroxime 500 mg and Metronidazole 500 mg, administered orally every 12 hours), analgesic medication (Nimesulide 100 mg, administered every 12 hours), and three times daily rinsing with lukewarm saline to promote soft tissue healing.

**Follow-up**

Patients were evaluated postoperatively at 48 hours, one week, one month, and at monthly intervals thereafter. Each follow-up included clinical assessment of soft tissue healing, prosthetic function, hygiene maintenance, and peri-implant tissue condition. Adjustments to the provisional prostheses were made as necessary to maintain function and comfort. No adverse events were reported by the patients throughout the follow-up period.

At six months, radiographic assessments were performed to evaluate crestal bone levels and confirm implant osseointegration. Patients were then scheduled for definitive prosthetic rehabilitation using a fixed screw prosthesis fabricated through CAD/CAM protocols.

## RESULTS AND DISCUSSION

To demonstrate the immediate loading IL protocol, we present the clinical case of a 55-year-old male patient with a history of chronic periodontitis and long-term tobacco use (Figure 1). Despite these risk factors, the patient was in generally good systemic health and reported no current medical conditions contraindicating oral surgery. His chief complaints included poor aesthetics, diminished masticatory function, and discomfort caused by progressive tooth mobility. The patient expressed a strong preference for a fixed, long-term rehabilitative solution.



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Intraoral examination confirmed generalized advanced periodontal destruction, with mobility affecting multiple teeth. A CBCT scan revealed extensive horizontal and vertical alveolar bone loss, consistent with severe periodontitis (Figure 2). Additionally, the scan showed pronounced bilateral thickening and enlargement of the Schneiderian membrane in the posterior maxilla, suggestive of chronic maxillary sinus mucosal inflammation. These anatomical findings were carefully considered during implant planning to minimize surgical risk and ensure optimal implant positioning within available bone volume.

Based on the CBCT findings, a one-stage surgical approach was selected. This involved the extraction of all remaining teeth and the immediate placement of standard dental implants in bone-rich regions that did not require augmentation. After implant insertion, multi-unit abutments were connected (Figures 3 and 4), and a definitive impression was taken to fabricate the provisional prosthesis.

The following day, screw-retained PMMA prostheses were delivered and fixed onto the multi-unit abutments (Figure 5). Occlusion was carefully adjusted to minimize loading forces during the osseointegration period. The patient reported immediate improvement in comfort and function, and no postoperative complications were observed during the early healing period (Figure 6).

**Figure 1. Preoperative aspect of remaining teeth.**

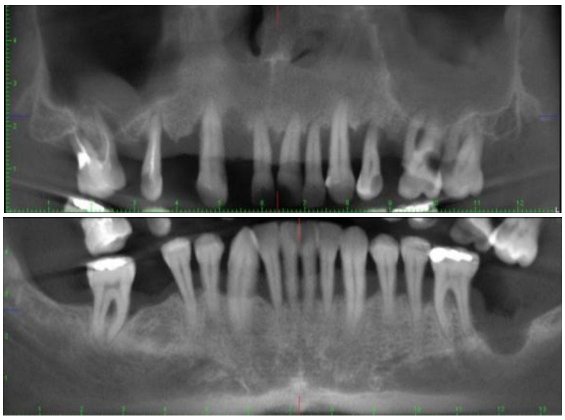

**Figure 2. CBCT image showing severe periodontitis with important bone loss and enlargement of Schneiderian membrane.**



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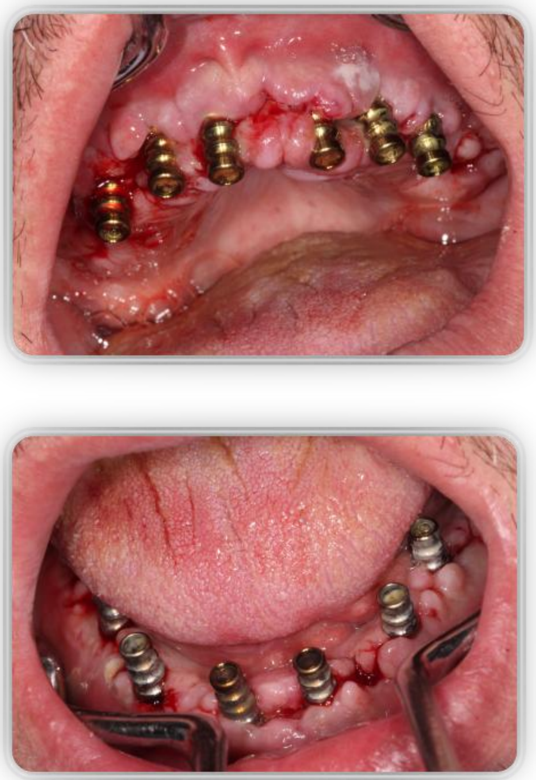

**Figure 3. Multiunit abutments in place.**

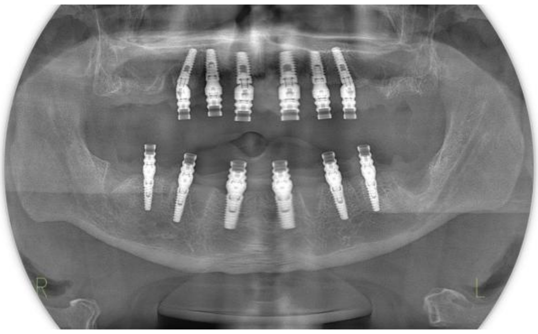

**Figure 4. Postoperative OPG after surgery**

**Figure 5. Fixed screw PMMA dentures.**

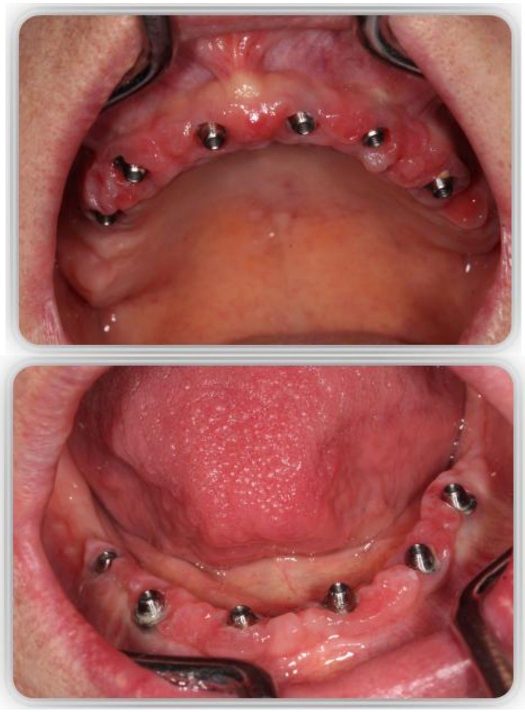

**Figure 6. Periimplant tissues after wound healing.**

IL differs from conventional protocols, which typically delay loading for 3 to 6 months post-implant placement. The rationale behind IL includes enhanced patient comfort, decreased need for removable prosthetics, and improved preservation of peri-implant structures. However, IL carries inherent risks if critical



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clinical conditions are not satisfied. Understanding these conditions is essential for treatment success.

The primary challenge in IL is achieving sufficient implant primary stability at the time of placement, which is a key determinant of success [16, 17]. Implant primary stability, in turn, depends on a variety of factors, including bone density and quality, implant macrogeometry and surface characteristics, and surgical technique [5, 18-21]. These parameters must be carefully considered during the treatment plan, and intraoperative decision-making should be taken to ensure adequate initial fixation and minimize the risk of micromovement, which can compromise osseointegration [22].

Proper bone density and adequate bone volume are key determinants of primary implant stability. Bone quality significantly influences the primary implant stability: Type I and Type II bone—characterized by dense cortical or thick trabecular architecture—are generally considered ideal for immediate loading protocols. In contrast, Type IV bone, which consists predominantly of thin trabecular bone, presents a high risk of early implant failure in the case of IL due to insufficient initial stability.

In addition to overall bone density, the presence and thickness of the cortical bone layer are important for enhancing implant stability, due to its favorable structural and mechanical properties [23-26]. To improve primary stability in low-density bone, surgical techniques such as underpreparation of the osteotomy site appeared to be the most efficient and easiest technique. This approach increases bone compaction and promotes osseodensification, thereby enhancing the mechanical anchorage of the implant [27-29]. A recent systematic review also supports this technique as a predictable and efficient strategy for improving outcomes in soft bone scenarios [30].

The number and distribution of implants are essential factors in the successful rehabilitation of edentulous arches with fixed dental prostheses. For full-arch restorations, a minimum of four to six implants in the mandible and six to eight implants in the maxilla is generally recommended to achieve adequate biomechanical support [31-33].

Strategic implant placement and the use of tilted implants can bypass anatomical limitations, such as the mandibular canal or maxillary sinus, thereby maximizing available bone and optimizing implant positioning [34, 35].

The concept of cross-arch stabilization is essential in this context, as it enables the even distribution of occlusal forces across the prosthesis [36, 37]. This approach reduces the risk of implant overloading, minimizes mechanical complications, and enhances the long-term success of the restoration.

A fixed screw PMMA denture was deliver 24 hours after surgery. Since occlusal load is critical in IL protocols, a balanced occlusion with minimal lateral forces was established to enhance biomechanical stability. Cantilevers were avoided where was possible or minimize and occlusal contacts where avoided on them.

This biomechanical balance reduces the risk of overloading individual implants and enhances long-term stability. In cases involving IL proper occlusal adjustment is essential; premature contacts should be carefully identified and eliminated to



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prevent excessive stress on the implant system.

Digital PMMA, recognized for its biocompatibility and high-density characteristics, presents an advantageous option for the fabrication of high-performance prosthetic restorations [38, 39]. Its application is indicated as an interim prosthesis during the healing and transitional stages of implant treatment.

IL outcomes are influenced not only by local anatomical and mechanical factors but also by the patient's systemic health and behavioral habits [40]. Systemic conditions such as uncontrolled diabetes, osteoporosis, and compromised immune status, and lifestyle factors such as smoking and poor oral hygiene, can interfere with healing and increase the risk of implant failure in the case of IL [41-45]. Although successful implant placement has been reported in patients with systemic conditions, immediate loading is often contraindicated in such cases due to compromised local bone quality and delayed healing capacity [46-48].

Moreover, patient compliance with postoperative care and long-term maintenance protocols is essential for the success of IL protocols. Parafunctional habits (e.g., bruxism) and non-compliance with follow-up visits and hygiene practices are recognized contraindications to immediate loading and may significantly jeopardize implant survival [49].

The decision to employ a one-stage surgical approach combined with IL is based on clinical judgment. Clinical decision-making is guided by a comprehensive assessment of current evidence, coupled with a thorough evaluation of both local anatomical conditions and systemic patient factors. When appropriately indicated, this approach eliminates the need for a second surgical procedure, facilitates soft tissue healing, shortens overall treatment time, and enhances aesthetic outcomes—ultimately improving patient satisfaction and treatment efficiency [50, 51].

## CONCLUSIONS

Immediate loading of implants in complete edentulism offers substantial benefits when applied in properly selected cases.

Decision-making must be multidimensional, incorporating anatomical, biomechanical, surgical, prosthetic, and patient-specific factors. This approach requires careful planning, clinical experience, and effective collaboration among the surgeon, dentist, and dental technician.

Future directions include refining digital workflows and developing predictive algorithms for case selection and management.

**Conflict of interest**

The authors declare that they have no conflict of interests.



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**REFERENCES**

1. Gumeniuc A. Outcome implant treatment in complete edentulism: A retrospective 5-year follow-up study. Rom J Oral Rehabil. 2013; 5: 99-103.
2. Martins AM, Guimarães LS, Campos CH, Küchler EC, Pereira DM, Maia LC, Antunes LA. The effect of complete dentures on edentulous patients' oral health-related quality of life in long-Term: A systematic review and meta-Analysis. Dent Res J (Isfahan). 2021; 18: 65.
3. Qazi A, Sundarkar P, Barabde AS, Agrawal SR, Bele R, Dammani B. A comparative evaluation of masticatory efficiency and patient satisfaction between single implant-supported mandibular overdentures and conventional dentures in edentulous patients: A systematic review. Journal of Osseointegration 2022; 14: 226-236.
4. Earar K, Beuran IA, Forna NC, Dimofte AR, Carnaru MV, Sarbu I. Modern oral implantology: developments, challenges, and clinical perspectives. Rom J Oral Rehabil. 2025; 17: 448-459.
5. Tettamanti L, Andrisani C, Bassi MA, Vinci R, Silvestre-Rangil J, Tagliabue A. Immediate loading implants: review of the critical aspects. Oral Implantol (Rome). 2017; 10: 129-139.
6. Duong HY, Roccuzzo A, Stähli A, Salvi GE, Lang NP, Sculean, A. Oral health-related quality of life of patients rehabilitated with fixed and removable implant-supported dental prostheses. Periodontol 2000. 2022; 88: 201–237.
7. Mitrea M, Maxim RR, Dmour A, Moraru MC, Walid EA, Tepordei RT, Stefanescu OM, Tecuceanu A, Ciurcanu OE, Gurzu IL, Buzduga CM, Niculescu S, Bozomitu LI, Danila V. Improving the reconstruction of dental occlusion using implants in elderly patients. Rom J Oral Rehabil. 2022; 14: 150-166.
8. Mitrea M, Tepordei RT, Gurzu IL, Walid EAH, Jemnoschi-Hreniuc I, Tecuceanu A, Dmour A, Maxim RR, Dumachita-Sargu B, Moscu M, Mereuta VD, Francu LL, Danila V. Five year follow-up of immediate restoration with Bredent implants. Rom J Oral Rehabil. 2023; 15: 230-246.
9. Sanda M, Fueki K, Bari PR, Baba K. Comparison of immediate and conventional loading protocols with respect to marginal bone loss around implants supporting mandibular overdentures: A systematic review and meta-analysis. Jpn Dent Sci Rev. 2019; 55: 20-25.
10. Palanyandi C. Comparison between immediate and conventional implant loading for



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fixed and removable prosthesis. 2022, Master Degree Thesis. https://uwcscholar.uwc.ac.za:8443/server/api/core/bitstreams/80650667-622c-41d1-b53e-53ecf3d26926/content.

11. Sikri A, Sikri J, Piplani V, Thakur Y. Immediate implant placement: A comprehensive review. Journal homepage: https://gjrpublication. com/gjrds 2023; 3: 12-24.
12. Mitrea M, Walid EAH, Maxim RR, Partene Vicoleanu SA, Niculescu S, Nedelcu AH, Jemnoschi Hreniuc I, Moraru CM, Francu LL, Stan CI, Tecuceanu A, Florea C, Forna NC, Danila V. Restoring Immediate Function by Inserting Post-extractional Implants into Maxilla and Mandible. Rom J Oral Rehabil. 2022; 14: 135-149.
13. Beldiman MA, Tatarciuc M, Diaconu-Popa D, Macovei G, Budu V, Checheriță LE, Aminov L, Luca O. Aspects of aesthetic rehabilitation by implant-supported fixed prosthesis in a complete edentulous case. Rom J Oral Rehabil. 2024; 16: 31-38.
14. Gültekin A, Şirali A, Gültekin P, Ersanlı S. Clinical evaluation of the stability of implants placed at different supracrestal levels. Journal of Istanbul University Faculty of Dentistry 2016; 50: 21-31.
15. Huang H, Wu G, Hunziker H. The clinical significance of implant stability quotient (ISQ) measurements: A literature review. J Oral Biol Craniofac Res. 2020; 10: 629-638.
16. Eini E, Yousefimanesh H, Ashtiani AH, Saki-Malehi A, Olapour A, Rahim F. Comparing success of immediate versus delay loading of implants in fresh sockets: a systematic review and meta-analysis. Oral Maxillofac Surg.2022; 26: 185–194. doi: 10.1007/s10006-021-00983-7.
17. Huang YC, Huang YC, Ding SJ. Primary stability of implant placement and loading related to dental implant materials and designs: A literature review. J Dent Sci. 2023; 18: 1467-1476. doi:10.1016/j.jds.2023.06.010.
18. Iliescu AA, Iliescu R, Rusu D, Didilescu AC, Tănase G, Iliescu A. Putative early risk factors at bone-implant interface in immediate loading. Rom J Oral Rehabil. 2009; 1: 25-33.
19. Javed F, Romanos GE. The role of primary stability for successful immediate loading of dental implants. A literature review. J dent. 2010; 38: 612–620. doi: 10.1016/j.jdent.2010.05.013.
20. Elias CN, Rocha FA, Nascimento AL, Coelho PG. Influence of implant shape, surface morphology, surgical technique and bone quality on the primary stability of dental implants. J Mech Behav Biomed Mater. 2012; 16: 169-180.



DOI : 10.62610/RJOR.2025.1.18.2

doi:10.1016/j.jmbbm.2012.10.010.

21. Peitsinis PR, Blouchou A, Chatzopoulos GS, Vouros ID. Optimizing Implant Placement Timing and Loading Protocols for Successful Functional and Esthetic Outcomes: A Narrative Literature Review. J Clin Med. 2025; 14: 1442. doi:10.3390/jcm14051442.
22. Manfredini M, Ghizzoni M, Cusaro B, Beretta M, Maiorana C, Souza FÁ, Poli PP. High Insertion Torque—Clinical Implications and Drawbacks: A Scoping Review. Medicina. 2025; 61: 1187. doi: 10.3390/medicina61071187.
23. Wallace MJ. Skeletal Hard Tissue Biomechanics. In Basic and Applied Bone Biology, 2nd ed.; Burr DB, Allen, MR, Eds.; Academic Press: Cambridge, MA, USA, 2019, Volume 1, pp. 125–140.
24. Di Stefano DA, Arosio P, Capparè P, Barbon S, Gherlone EF. Stability of Dental Implants and Thickness of Cortical Bone: Clinical Research and Future Perspectives. A Systematic Review. Materials. 2021; 14: 7183. doi: 10.3390/ma14237183
25. Orlando F, Arosio F, Arosio P, Di Stefano DA. Bone Density and Implant Primary Stability. A Study on Equine Bone Blocks. Dentistry Journal. 2019; 7: 73. doi: 10.3390/dj7030073.
26. Dragomirescu AO, Bencze MA, Vasilache A, Teodorescu E, Albu CC, Popoviciu NO, Ionescu E. Reducing Friction in Orthodontic Brackets: A Matter of Material or Type of Ligation Selection? In-Vitro Comparative Study. Materials (Basel). 2022; 15: 2640. doi: 10.3390/ma15072640.
27. Herrero-Climent M, Lemos BF, Herrero-Climent F, Falcao C, Oliveira H, Herrera M, Gil FJ, Ríos-Carrasco B, Ríos-Santos J-V. Influence of Implant Design and Under-Preparation of the Implant Site on Implant Primary Stability. An In Vitro Study. Int J Environ Res Public Health 2020; 17: 4436. doi: 10.3390/ijerph17124436 .
28. Lemos BF, Lopez-Jarana P, Falcao C, Ríos-Carrasco B, Gil J, Ríos-Santos JV, Herrero-Climent M. Effects of Different Undersizing Site Preparations on Implant Stability. Int J Environ Res Public Health 2020; 17: 8965. doi: 10.3390/ijerph17238965.
29. Attanasio F, Antonelli A, Brancaccio Y, Averta F, Figliuzzi MM, Fortunato , Giudice A. Primary Stability of Three Different Osteotomy Techniques in Medullary Bone: An in Vitro Study. Dentistry Journal. 2020; 8: 21. doi: 10.3390/dj8010021.
30. Yu X, Chang C, Guo W, Wu Y, Zhou W, Yu D. Primary implant stability based on alternative site preparation techniques: A systematic review and meta-analysis. Clin Implant Dent Relat Res. 2022; 24: 580-590. doi:10.1111/cid.13127.



DOI : 10.62610/RJOR.2025.1.18.2

31. Daudt Polido W, Aghaloo T, Emmett TW, Taylor TD, Morton D. Number of implants placed for complete-arch fixed prostheses: A systematic review and meta-analysis. Clin Oral Implants Res. 2018; 29: 154–183. doi: 10.1111/clr.13312.
32. Heydecke G, Zwahlen M, Nicol A, Nisand D, Payer M, Renouard F, Grohmann P, Mühlemann S, Joda T. What is the optimal number of implants for fixed reconstructions: a systematic review. Clin Oral Implants Res. 2012; 23 Suppl 6: 217-228. doi:10.1111/j.1600-0501.2012.02548.x.
33. Moraru M, Buzdugă C, Gurzu I, Mereuta VD, Ciurcanu OE, Balan M, Walid EAH, Bozomitu L, Nedelcu A, Mitrea M. The advantage of the all-on-six and all-on-eight technique compared to the all-on-four technique. Rom J Oral Rehabil. 2024; 16: 196-214. doi: 10.62610/RJOR.2024.1.16.17.
34. Del Fabbro M, Bellini CM, Romeo D, Francetti L. Tilted implants for the rehabilitation of edentulous jaws: a systematic review. Clin Implant Dent Relat Res. 2012; 14, 612–621. doi: 10.1111/j.1708-8208.2010.00288.x.
35. Avila-Ortiz G, Vegh D, Mukaddam K, Galindo-Moreno P, Pjetursson B, Payer M. Treatment alternatives for the rehabilitation of the posterior edentulous maxilla. Periodontol 2000. 2023; 93: 183–204. doi: 10.1111/prd.12507.
36. Yanıkoğlu ND, Oktay F. Role of Immediate Loading in the Success of Implants and Implant-Supported Dentures. Arch Basic Clin Res 2023; 5: 296-305. doi: 10.5152/ABCR.2023.22044.
37. Curca R, Agop-Forna D, Cretu IC, Camilar M, Tibeica A, Radu A, Forna N. Biomechanics of implant prosthetic prosthesis. Romanian Journal of Medical and Dental Education, 2025; 14: 59-63.
38. Bănățeanu AM, Cumpătă CN, Burcea A. Digital PMMA, when and which. Rom J Oral Rehabil. 2024; 16: 427-438. doi: 10.6261/RJOR.2024.4.16.41.
39. Burcea A, Bănățeanu AM, Poalelungi CV, Forna N, Cumpătă CN. Enhanced properties and multifaceted applications of polymethyl methacrylate (PMMA) in modern medicine and dentistry. Rom J Oral Rehabil 2024; 16: 108-123. doi: 10.6261/RJOR.2024.4.16.11
40. Bogdan-Andreescu CF, Bănățeanu AM, Albu CC, Poalelungi CV, Botoacă O, Damian CM, Dîră LM, Albu ŞD, Brăila MG, Cadar E, Brăila AD. Oral Mycobiome Alterations in Postmenopausal Women: Links to Inflammation, Xerostomia, and Systemic Health. Biomedicines. 2024; 12: 2569. doi: 10.3390/biomedicines12112569.
41. Schliephake H. The role of systemic diseases and local conditions as risk factors.



DOI : 10.62610/RJOR.2025.1.18.2

Periodontol 2000. 2022; 88: 36-51. doi:10.1111/prd.12409.

42. Uesugi T, Shimoo Y, Munakata M, Kataoka Y, Sato D, Yamaguchi K, Sanda M, Fujimaki M, Nakayama K, Watanabe T, Malo P. A Study of the Associated Risk Factors for Early Failure and the Effect of Photofunctionalisation in Full-Arch Immediate Loading Treatment Based on the All-on-Four Concept. Bioengineering (Basel). 2024; 11: 223. doi: 10.3390/bioengineering11030223.
43. Defta CL, Bogdan-Andreescu CF, Botoacă O, Albu ŞD, Albu CC. The effect of dietary components on the oral microbiome composition in school-aged children and adolescents. Rom J Oral Rehabil. 2023; 15: 272-285.
44. Sachelarie L, Scrobota I, Cioara F, Ghitea TC, Stefanescu CL, Todor L, Potra Cicalau GI. The Influence of Osteoporosis and Diabetes on Dental Implant Stability: A Pilot Study. Medicina. 2025; 61: 74. doi: 10.3390/medicina61010074.
45. Bohîlţea LC, Bogdan-Andreescu CF, Albu CC, Burcea A , Poalelungi CV, Bănățeanu AM, Ionescu TP. Beyond traditional dentistry: the rise of genomic and personalized oral health. Rom J Oral Rehabil. 2025; 17: 2015-274. DOI: 10.62610/RJOR.2025.1.17.21
46. Diz P, Scully C, Sanz M. Dental implants in the medically compromised patient. J Dent. 2013; 41: 195-206. doi:10.1016/j.jdent.2012.12.008.
47. Barbu HM, Comaneanu RM, Andreescu CF, Mijiritsky E, Nita T, Lorean A. Dental Implant Placement in Patients with Osteoporosis. J. Craniofac. Surg. 2015; 26: e558–e559. doi: 10.1097/SCS.0000000000001958.
48. Ripszky Totan A, Greabu M, Stanescu-Spinu II, Imre M, Spînu TC, Miricescu D, Ilinca R, Coculescu EC, Badoiu SC, Coculescu BI, Albu C. The Yin and Yang dualistic features of autophagy in thermal burn wound healing. Int J Immunopathol Pharmacol. 2022; 36: 3946320221125090. doi: 10.1177/03946320221125090.
49. Orishko A, Imber JC, Roccuzzo A, Stähli A, Salvi GE Tooth- and implant-related prognostic factors in treatment planning. Periodontol 2000. 2024; 95: 102-128. doi:10.1111/prd.12597.
50. Burcea A, Bogdan-Andreescu CF, Albu C-C, Poalelungi C-V, Bănățeanu A-M, Cadar E, Mirea LG, Bohîltea L-C. One-Stage Surgical Management of an Asymptomatic Maxillary Sinus Mucocele with Immediate Lateral Sinus Lift and Simultaneous Implant Placement: A Case Report. J. Clin. Med. 2025; 14: 1946. doi: 10.3390/jcm14061946.
51. Cîmpean CR, Ormenișan A, Burcea A, Bogdan-Andreescu CF, Bănățeanu AM, Poalelungi CV, Nan L, Şerbanică IV. Implant-based rehabilitation strategies for the


DOI : 10.62610/RJOR.2025.1.18.2

severely atrophic maxilla. Rom. J. Med. Dent. Educ. 2025; 14: 483-497. DOI: 10.62610/RJOR.2025.2.17.44.



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