

DAFTAR PUSTAKA

1. Setyowati S, Purnomo PS, Hartina M, Tinggi S, Kesehatan I, Global S. Dampak kehilangan gigi, fungsi kognitif dan kualitas hidup lanjut usia. 2021. gada;5(3):88–96.
2. Berdaya L, Sejahtera B. InfoDATIN.
3. Thalib B, Alwi IP. The comparison of body mass index of elderly used and did not use full denture Perbandingan indeks massa tubuh antara manula yang menggunakan dengan yang tidak menggunakan gigitiruan penuh. J Dentomaxillofacial Sci. 2011. gada;10(3):140.
4. Halim J, Elias S, Astoeti TE, Anggraini W, Ilmu D, Gigi K, u.c. Laporan penelitian Hubungan kemampuan mastikasi pemakai gigi tiruan lengkap dengan kekuatan gigit , ketebalan musculus masseter , kemampuan kognitif , dan kualitas hidup lansia. 2021. gada;
5. Amin M Al, Juniati D. Klasifikasi Kelompok Umur Manusia. MATHunesa. 2017. gada;2(6):34.
6. Mohamed MMS, Alassal A, Eldosry S, Mostafa MMM, Amin HK, Basalah A. Fracture response of acrylic resin denture base material to different heat curing cycles modalities. Curr Sci Int. 2016. gada;20(5):134–8.
7. Liza Rahman, P. Roshan Kumar, Natarajan Kalavathy, Mitha Shetty, Archana K. Sanketh MRD. Digital occlusal analysis of bite force distribution in partially edentulous patients before and after prosthetic rehabilitation: SRM J Res Dent Sci. 2021. gada;12(2):204–9.
8. Pratama S, Koesmaningati H, Kusdhany LS. The effect of various factors on the masticatory performance of removable denture wearer. J Phys Conf Ser. 2017. gada;884(1):0–8.
9. Arafi A, Habar ID. The importance of surveying in determining denture design in partially removable. J Dentomaxillofacial Sci. 2017. gada;2(3):147.
10. Sakr HM, Fayad M. Bite force and oral health impact profile in completely edentulous patients rehabilitated with two different types of denture bases. Tanta Dent J. 2017. gada;14:173–80.
11. Oncescu Moraru AM, Preoteasa CT, Preoteasa E. Masticatory function

- parameters in patients with removable dental prosthesis. *J Med Life.* 2019. gada;12(1):43–8.
12. Yoshimoto T, Hasegawa Y, Salazar S, Kikuchi S, Hori K, Ono T. Factors affecting masticatory satisfaction in patients with removable partial dentures. *Int J Environ Res Public Health.* 2021. gada;18(12).
 13. Patil SR, Maragathavalli G, Ramesh D. Bite Force: A Contemporary Narrative Review. *Int J Heal Sci Res.* 2022. gada;12(5):108–16.
 14. Mahmood Al-Jammali Z. Comparison of the maximum bite force in patient with heat cure acrylic and flexible partial dentures (Free end extension). *Asian J Pharm Tech [Internets].* 2013. gada;3(3):93–7. Pieejams: www.asianpharmaonline.org
 15. Atlas AM, Behrooz DMDE, Barzilay I. Can bite-force measurement play a role in dental treatment planning , clinical trials , and survival outcomes ? A literature review and clinical recommendations. 2022. gada;2–12.
 16. Manzon L, Vozza I, Poli O. Bite force in elderly with full natural dentition and different rehabilitation prosthesis. *Int J Environ Res Public Health.* 2021. gada;18(4):1–12.
 17. Kesehatan P, Dan G, Lanjut M, Di U, Sosial P. Profil kesehatan gigi dan mulut lanjut usia di panti sosial tresna werdha nirwana puri samarinda. 2023. gada;3(1):41–9.
 18. Siagian K V, Bahar A, Kedokteran F, Universitas G, Ilmu D, Gigi K, u.c. Penurunan keadaan dan fungsi gigi mulut (oral hypofunction) terkait risiko sarkopenia pada lansia. 2023. gada;11:70–8.
 19. Pangandaheng ND, Medea GP. Early Detection of Memory in the Elderly using Short Portable Mental Status Questionnaire (SPMSQ) in Belengan Village, Manganitu District. *J Ilm Tatengkorang.* 2022. gada;6(1):43–8.
 20. Poul Holm-Pedersen, Angus W.G. Walls JAS. *Textbook of Geriatric Dentistry - Third edition.* p.;cm. 2015.
 21. Tentang P, Dan P, Kehilangan D. KNOWLEDGE ABOUT CAUSES AND IMPACTS OF TOOTH LOSS ON THE INCIDENCE OF. 2021. gada;2(47):52–7.

22. Kartika L, Himawan LS. Penatalaksanaan Kasus Gangguan Sendi Temporomandibular dengan Latihan Rahang. *J Dent Indones.* 2008; gada;14(1).
23. Impiani Y, Ngestiningsih D, Kusuma IA. Gambaran Temporomandibular Disorder pada Lanjut Usia melalui Fonseca's Questionnaire. *e-GiGi.* 2021; gada;9(1):64–70.
24. Intan M, Yuana¹, hyan Y, Basuki² O, S1 P, Institut K, Kesehatan I, u.c. Hubungan Kehilangan Gigi Dengan Fungsi Kognitif Pada Lansia. *J Keperawatan Med [Internets].* 2022; gada;1(1):18–27. Pieejams: <https://jkem.ppj.unp.ac.id/index.php/jkem/article/view/7/4>
25. Sari KI, Dewi W, Jasrin TA, Sumarsongko T. Kebersihan Gigi Tiruan pada Lansia, Suatu Tinjauan Metode dan Bahan. *J Mater Kedokt Gigi.* 2018; gada;7(1):1.
26. Georgieva K, Katreva I, Abadjiev M. Mastication, Phonetics and Esthetics As a Final Result of Partial or Complete Denture Treatment. *J IMAB - Annu Proceeding (Scientific Pap.* 2015; gada;21(3):846–8.
27. Tripathi G, Ponnanna AA, Rajwadha N, Chhaparia N, Sharma A, Anant M. Comparative evaluation of maximum bite force in dentulous and edentulous individuals with different facial forms. *J Clin Diagnostic Res.* 2014; gada;8(9):ZC37–40.
28. Soni R, Yadav H, Pathak¹ A, Bhatnagar A, Kumar V. Comparative evaluation of biting force and chewing efficiency of all-on-four treatment concept with other treatment modalities in completely edentulous individuals. *J Indian Prosthodont Soc.* 2020; gada;20(3):312–20.
29. Gu Y, Bai Y, Xie X. Bite Force Transducers and Measurement Devices. *Front Bioeng Biotechnol.* 2021; gada;9(151):1–9.
30. Edmonds HM, Glowacka H. The ontogeny of maximum bite force in humans. *J Anat.* 2020; gada;237(3):529–42.
31. Al-Gunaid at H. Bite force - What we should know: A literature review. *Int J Orthod Rehabil.* 2019; gada;10(4):96–100.
32. Fayad MI, Alruwaili HHT, Khan MS, Baig MN. Bite Force Evaluation in

- Complete Denture Wearer with Different Denture Base Materials: A Randomized Controlled Clinical Trial. *J Int Soc Prev Community Dent.* 2018; gada;8(5):416–9.
33. Fontijn-Tekamp FA, Slagter AP, Van Der Bilt A, Van 'T Hof MA, Witter DJ, Kalk W, u.c. Biting and chewing in overdentures, full dentures, and natural dentitions. *J Dent Res.* 2000; gada;79(7):1519–24.
 34. Koc D, Dogan A, Bek B. Bite force and influential factors on bite force measurements: a literature review. *Eur J Dent.* 2010; gada;4(2):223–32.
 35. Verma TP, Kumathalli KI, Jain V, Kumar R. Bite force recording devices - A review. *J Clin Diagnostic Res.* 2017; gada;11(9):ZE01–5.
 36. Kubo KY, Chen H, Zhou X, Liu JH, Darbin O. Chewing, stress-related diseases, and brain function. *Biomed Res Int.* 2015; gada;2015.
 37. Indonesia KKR. Peraturan Menteri Kesehatan Republik Indonesia Nomor 41 Tahun 2014 Tentang Pedoman Gizi Seimbang. 2014; gada;9:1–96. Pieejams: http://hukor.kemkes.go.id/uploads/produk_hukum/PMK No. 41 ttg Pedoman Gizi Seimbang.pdf
 38. Hanin I, Kusdhany LS, Gita F. Hubungan kemampuan mastikasi (analisis menggunakan alat ukur kemampuan mastikasi) dengan kualitas hidup wanita pra-lansia dan lansia. Thesis. Dept Prostodonsia, Univ Indones Jakarta. 2012; gada;37–9, 58–9.
 39. Melati CA, Susilawati S, Rikmasari R. Gambaran kualitas hidup pasien lansia pengguna gigi tiruan lepasan di RSGM Unpad. Maj Kedokt Gigi Indones. 2017; gada;3(3):15.
 40. Shala K, Tmava-dragusha A, Dula L, Pustina-krasniqi T, Bicaj T, Ahmed E, u.c. Evaluation of Maximum Bite Force in Patients with Complete Dentures. 2018; gada;6(3):559–63.
 41. Sie S, Eduardo J, Hallak C, Ceci S. Age and gender influence on maximal bite force and masticatory muscles thickness Age and gender influence on maximal bite force and masticatory muscles thickness. 2010; gada;(October).
 42. Força NA, Mordida MDE. THE INFLUENCE OF GENDER AND BRUXISM ON THE HUMAN MAXIMUM BITE FORCE. 2006.

- gada;14(6):448–53.
43. Taruna M. The Effect of Denture Adhesive on Bite Force in Patients with Complete Denture Wearer Based on Gender at University of Sumatera Utara Dental Hospital. 2021. gada;20(5):17–21.
 44. Manzon L, Vozza I. Bite Force in Elderly with Full Natural Dentition and Different Rehabilitation Prosthesis. 2021. gada;
 45. Sun K ting, Chen S chueh, Li Y fen. ScienceDirect Bite-force difference among obese adolescents in central Taiwan. J Formos Med Assoc [Internets]. 2016. gada;115(6):404–10. Pieejams:
<http://dx.doi.org/10.1016/j.jfma.2015.05.007>
 46. Cassiano AFB, Dantas M, Leite ARP, Marin DOM, Pero AC. Influence of the height of the mandibular ridge on the masticatory function during the functional adaptation with new complete dentures Abstract. 2020. gada;
 47. Borie E, Orsi IA, Fuentes R, Beltrán V, Navarro P, Pareja F, u.c. Maximum bite force in elderly indigenous and non-indigenous denture wearers. Acta Odontol Latinoam. 2014. gada;27(3):115–9.
 48. Júnior M césar bento laurindo, Goiato M coelho, Caxias F pereira De. Masticatory efficiency , bite force and electrical activity of the masseter and temporalis muscles in bodybuilders. 2021. gada;13(9).
 49. Boretti G, Bickel M. A review of masticatory ability and efficiency. 1995. gada;74(4):400–3.
 50. Caloss R, Finn RA, Lonergan O, Throckmorton GS. Oral Rehabilitation Does long-term use of unstable dentures weaken jaw muscles ? 2010. gada;(14):256–61.
 51. Manly RS. Masticatory efficiency adjustment d.m.d.,*. 1954. gada;
 52. Wongkar VT, Siagian K V., Tendean LEN. Kualitas Hidup Lansia Pengguna Gigi Tiruan di Desa Toulimembet Kecamatan Kakas. e-GiGi. 2019. gada;7(2):106–12.
 53. Sidrap RB, Asikin M, Umar F, Konsentrasi M, Fakultas G, Kesehatan I, u.c. Hubungan penggunaan gigi tiruan penuh dengan status gizi. J Ilm. 2018. gada;1(3):230–41.

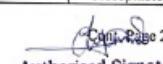
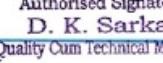
54. Thalib B, Dammar I, Ikbal M, Mude AH, Sam IW, Asmawati, u.c. Relationship between the chewing ability and cognitive function in elderly: A systematic review. *Syst Rev Pharm.* 2020; gada;11(11):10–3.
55. Sauliyusta et al. Aktifitas fisik mempengaruhi fungsi kognitif lansia. 2016; gada;19(2):71–7.

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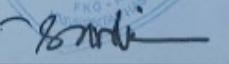
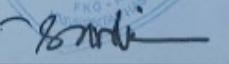
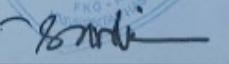
1. Pengambilan sampel



2. Validasi alat

DOC No.: TM/CAL/04	ESSJAY TECHNOMEASURE PVT. LTD. <i>(A House of Calibration Engineering & Allied Services)</i>	MSME MICRO, SMALL & MEDIUM ENTERPRISES Regd. No. 94-KARN-2016					
 <p>AN ISO 9001 & ISO 45001 CERTIFIED ORGANISATION Apartment No. : D1, 3rd Floor, 36, Kantapukur 3rd Bye Lane, Howrah - 711 101 Ph.: 033 2667 0835, 9674756761, 9674756767 website : www.technomeasurenl.com, E-mail : technomeasure@gmail.com</p>							
Calibration Certificate							
Issued to Innovatos Technology Pvt.Ltd. 188/2,Anekal Main Road,Attibele Bengaluru,Karnataka,India,Pin-562107		Certificate No.: 2310125/I443(A)/SK/01 Date : 14.10.2023					
Date of Calibration 13.10.2023	Recommended Due Date (As agreed with Customer) 13.10.2024	Page No. : 1 of 5					
Location of Calibration : At Site Date of Receipt : 13.10.2023 Description of Instrument : Byte-bite Force Measurement Make: Innovations Technology Range: 0 to 444 N L.C: 0.01 N Identification Number of Instrument IT/BBFM-01 Method of Calibration : As per Work Instruction (WI- 01)							
Details of Major Equipment used for Calibration							
Description Proving Ring (1kN)	Traceability Certificate No. & Issue Date AWON 1 kN 34508, dated: 14.11.2021	Valid upto 14.01.2024	Calibration Agency FRI				
Traceability: Standards used for calibration are traceable to National Standards through NABL accredited laboratory							
Customer's Specification		: Not provided by the Customer.					
Environmental conditions of measurement Uncertainty of measurement at 95% , C.L (k=1.96)		: Temperature: 25±2°C Humid: 50±10 % RH ± 1%					
CALIBRATION RESULTS							
Obs. No.	Standard Load Applied in N	Observed Results on DUC* in N			Avg. Reading	Accuracy Error	Remarks
		Set-1	Set-2	Set-3			
1	3	2.98	2.99	2.99	2.987	0.333	Acceptable
2	6	5.98	5.97	5.97	5.973	0.333	Acceptable
3	9	9.97	9.98	9.97	9.973	0.333	Acceptable
4	12	11.95	11.95	11.97	11.957	0.667	Acceptable
5	15	14.91	14.93	14.92	14.920	0.667	Acceptable
6	18	17.90	17.92	17.91	17.910	0.667	Acceptable
7	21	20.85	20.86	20.88	20.863	1.000	Acceptable
8	24	23.87	23.85	23.86	23.860	0.667	Acceptable
9	27	26.84	26.83	26.85	26.840	0.667	Acceptable
10	30	29.81	29.81	29.83	29.817	0.667	Acceptable
11	33	32.79	32.8	32.81	32.800	0.667	Acceptable
12	36	35.74	35.75	35.77	35.753	1.000	Acceptable
13	39	38.72	38.73	38.74	38.730	0.667	Acceptable
14	42	41.72	41.72	41.73	41.723	0.333	Acceptable
15	45	44.69	44.71	44.71	44.703	0.667	Acceptable
16	48	47.68	47.66	47.69	47.677	1.000	Acceptable
17	51	50.65	50.67	50.67	50.663	0.667	Acceptable
Calibrated By Souvik Biswas (Calibration Engineer)						Authorised Signatory D. K. Sarkar	
Branch Office : Guwahati • Jamshedpur • Coochbehar				Quality Cum Technical Manager 			

3. Etik penelitian

	KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN GIGI RUMAH SAKIT GIGI DAN MULUT KOMITE ETIK PENELITIAN KESEHATAN Sekretariat : Lantai 2, Gedung Lama RSGM Unhas JL.Kandeo No. 5 Makassar Contact Person: drg. Muhammad Ikbal, Sp.Pros/Nur Aedah AR TELP. 081342971011/08114919191																																							
REKOMENDASI PERSETUJUAN ETIK Nomor: 0158/PL.09/KEPK FKG-RSGM UNHAS/2023																																								
Tanggal: 29 Agustus 2023																																								
Dengan ini menyatakan bahwa protokol dan dokumen yang berhubungan dengan protokol berikut ini telah mendapatkan persetujuan etik:																																								
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<ul style="list-style-type: none"> ▪ Menyerahkan Amandemen Protokol untuk persetujuan sebelum diimplementasikan ▪ Menyerahkan laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan lapor SUSAR dalam 72 jam setelah peneliti utama menerima laporan. ▪ Menyerahkan laporan kemajuan (<i>progress report</i>) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah. ▪ Menyerahkan laporan akhir setelah penelitian berakhir. ▪ Melaporkan penyimpangan dari protokol yang disetujui (<i>protocol deviation/violation</i>) ▪ Mematuhi semua aturan yang berlaku. 																																								