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VI. DAFTAR PUSTAKA

Abuhajar, E., Ali, K., Zulfiqar, G., Al Ansari, K., Raja, H. Z., Bishti, S., & Anweigi, L. (2023). Management of Chronic Atrophic Candidiasis (Denture Stomatitis)—A Narrative Review. *International Journal of Environmental Research and Public Health*, *20*(4), 3029. https://doi.org/10.3390/ijerph20043029

Adistya, T., Kumalasari, F., Dewi, A. H., & Rachmawati, M. W. (2013). The effect of chitosan gel concentration on neutrophyl and macrophage in gingival ulcer of Sprague Dawley rat. *Dental Journal Majalah Kedokteran Gigi*, *46*(3), 152–157.

Aldwimi, I., Akil, H., Hamid, Z., & Alhareb, A. (2025). Properties of the Modified Polymethyl Methacrylate as Denture Base Materials: A Comprehensive Review. *International Journal of Biomedical Materials Research*, *13*(2), 32–59. https://doi.org/10.11648/j.ijbmr.20251302.11

Alqutaibi, A. Y., Baik, A., Almuzaini, S. A., Farghal, A. E., Alnazzawi, A. A., Borzangy, S., Aboalrejal, A. N., AbdElaziz, M. H., Mahmoud, I. I., & Zafar, M. S. (2023). Polymeric Denture Base Materials: A Review. *Polymers*, *15*(15), 3258. https://doi.org/10.3390/polym15153258

Altarawneh, S., Bencharit, S., Mendoza, L., Curran, A., Barrow, D., Barros, S., Preisser, J., Loewy, Z. G., Gendreau, L., & Offenbacher, S. (2013). Clinical and Histological Findings of Denture Stomatitis as Related to Intraoral Colonization Patterns of Candida albicans, Salivary Flow, and Dry Mouth. *Journal of Prosthodontics*, *22*(1), 13–22. https://doi.org/10.1111/j.1532-849X.2012.00906.x

Angelia, V., Wahyuni, S., Ritonga, S., & Amesta, V. R. (2023). The effect of chitosan addition on polymethyl methacrylate denture base on surface roughness and against Candida albicans growth: a laboratory experiment study. *Jurnal Kedokteran Gigi Universitas Padjadjaran*, *7*(2), 230–237. https://doi.org/10.24198/jkg.v35i2.47990

Aranaz, I., Alcántara, A. R., Civera, M. C., Arias, C., Elorza, B., Heras Caballero, A., & Acosta, N. (2021). Chitosan: An Overview of Its Properties and Applications. *Polymers*, *13*(19), 3256. https://doi.org/10.3390/polym13193256

Arora, S., Das, G., Alqarni, M., Grover, V., Manzoor Baba, S., Saluja, P., Hassan, S. A. Bin, Abdulla, A. M., Bavabeedu, S. S., Abullais, S. S., Chahal, G. S., & Ohri, A. (2023). Role of Chitosan Hydrogels in Clinical Dentistry. In *Gels* (Vol. 9,

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Number 9). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/gels9090698

Atai, Z., Atai, M., Amini, J., & salehi, N. (2017). In vivo study of antifungal effects of low-molecular-weight chitosan against Candida albicans. *Journal of Oral Science*, *59*(3), 425–430. https://doi.org/10.2334/josnusd.16-0295

Barrientos, S., Stojadinovic, O., Golinko, M. S., Brem, H., & Tomic-Canic, M. (2008). PERSPECTIVE ARTICLE: Growth factors and cytokines in wound healing. *Wound Repair and Regeneration*, *16*(5), 585–601. https://doi.org/10.1111/j.1524-475X.2008.00410.x

Barros, S. P., Al-Tarawneh, S., Bencharit, S., Loewy, Z., Gendreau, L., & Offenbacher, S. (2012). Salivary cytokines and levels in denture stomatitis: An exploratory case-control study. *Open Journal of Stomatology*, *02*(04), 326–333. https://doi.org/10.4236/ojst.2012.24056

Bars, P. Le, & Soueidan, A. (2012). Distribution Patterns of E-Cadherin, Type VII Collagen and Fibronectin in Denture-Related Stomatitis: A Preliminary Study. *The Open Dentistry Journal*, *6*(1), 14–22. https://doi.org/10.2174/1874210601206010014

Binaljadm, T. M. (2024). Flexible Denture: A Literature Review. *Cureus*. https://doi.org/10.7759/cureus.55425

Campos, E. N., Clemente, L. M., Pizzolo, P. G., Oliveira, V. de C., Macedo, A. P., Watanabe, E., Silva-lovato, C. H., & Ribeiro, A. B. (2023). Relation between the risk factors for the severity of denture stomatitis and quality of life of complete edentulous individuals: a cross-sectional study. *Journal of Applied Oral Science*, *31*. https://doi.org/10.1590/1678-7757-2023-0192

Che, X., Zhao, T., Hu, J., Yang, K., Ma, N., Li, A., Sun, Q., Ding, C., & Ding, Q. (2024). Application of Chitosan-Based Hydrogel in Promoting Wound Healing: A Review. In *Polymers* (Vol. 16, Number 3). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/polym16030344

Chen, X.-G., Wang, Z., Liu, W.-S., & Park, H.-J. (2002). The effect of carboxymethyl-chitosan on proliferation and collagen secretion of normal and keloid skin fibroblasts. *Biomaterials*, *23*(23), 4609–4614. https://doi.org/10.1016/S0142-9612(02)00207-7

Dakka, A., Nazir, Z., Shamim, H., Jean, M., Umair, M., Muddaloor, P., Farinango, M., Ansary, A., & Khan, S. (2022). Ill Effects and Complications Associated to Removable Dentures With Improper Use and Poor Oral Hygiene: A Systematic Review. *Cureus*. https://doi.org/10.7759/cureus.28144

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

D'Dharan, S. R., & Ganapathy, D. (2016). Medical management of denture stomatitis. In *Asian Journal of Pharmaceutical and Clinical Research* (Vol. 9, Number 5, pp. 14–16). Innovare Academics Sciences Pvt. Ltd. https://doi.org/10.22159/ajpcr.2016.v9i5.12670

de Souza, R., Chaves, C., Rohani, K., Bouferguene, S., Barbeau, J., Borie, E., Weber, B., Fuentes, R., Crizostomo, L., Silva-Lovato, C., & Emami, E. (2022). Palatal brushing for the treatment of denture stomatitis: A multicentre randomized controlled trial. *Journal of Prosthodontic Research*, *67*(1), 93–102. https://doi.org/10.2186/JPR.JPR_D_21_00258

Deng, Z., Fan, T., Xiao, C., Tian, H., Zheng, Y., Li, C., & He, J. (2024). TGF-β signaling in health, disease and therapeutics. *Signal Transduction and Targeted Therapy*, *9*(1), 61. https://doi.org/10.1038/s41392-024-01764-w

Dev, A. S., Mohan, N., & Mohan, R. (2025). Chitosan-based composite scaffolds for accelerated epidermal-dermal wound healing. *Exploration of BioMat-X*, *2*. https://doi.org/10.37349/ebmx.2025.101336

Dias, D. M., Botelho, L. P., de Almeida e Silva, L. D., Soares, M. E. da C., & Galo, R. (2025). Effect of Adding Chitosan Nanoparticles to Acrylic Resin on Mechanical and Antimicrobial Properties of Removable Dentures: Scoping Review. *Oral*, *5*(4), 85. https://doi.org/10.3390/oral5040085

Ebrahimi Saravi, M., Vojdani, M., & Bahrani, F. (2012). Evaluation of cellular toxicity of three denture base acrylic resins. *Journal of Dentistry (Tehran, Iran)*, *9*(4), 180–188.

Elangwe, C. N., Morozkina, S. N., Olekhnovich, R. O., Krasichkov, A., Polyakova, V. O., & Uspenskaya, M. V. (2022). A Review on Chitosan and Cellulose Hydrogels for Wound Dressings. In *Polymers* (Vol. 14, Number 23). MDPI. https://doi.org/10.3390/polym14235163

Eom, Y. W., Hong, J.-E., Jung, P. Y., Yoon, Y., Yoo, S.-H., Hong, J., Rhee, K.-J., Regmi, B., Fatima, S., Kim, M. Y., Baik, S. K., Ryu, H., & Kwon, H. Y. (2025). TGF-β expressed by M2 macrophages promotes wound healing by inhibiting TSG-6 expression by mesenchymal stem cells. *PLOS ONE*, *20*(4), e0316692. https://doi.org/10.1371/journal.pone.0316692

Feng, P., Luo, Y., Ke, C., Qiu, H., Wang, W., Zhu, Y., Hou, R., Xu, L., & Wu, S. (2021). Chitosan-Based Functional Materials for Skin Wound Repair: Mechanisms and Applications. *Frontiers in Bioengineering and Biotechnology*, *9*. https://doi.org/10.3389/fbioe.2021.650598

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Finnson, K. W., McLean, S., Di Guglielmo, G. M., & Philip, A. (2013). Dynamics of Transforming Growth Factor Beta Signaling in Wound Healing and Scarring. *Advances in Wound Care*, *2*(5), 195–214. https://doi.org/10.1089/wound.2013.0429

Gad, M. M., Ali, M. S., Al-Thobity, A. M., Al-Dulaijan, Y. A., Zayat, M. El, Emam, A.-N. M., Akhtar, S., Khan, S. Q., Al-Harbi, F. A., & Fouda, S. M. (2022). Polymethylmethacrylate Incorporating Nanodiamonds for Denture Repair: In Vitro Study on the Mechanical Properties. *European Journal of Dentistry*, *16*(02), 286–295. https://doi.org/10.1055/s-0041-1735792

Gasparoto, T. H., Sipert, C. R., de Oliveira, C. E., Porto, V. C., Santos, C. F., Campanelli, A. P., & Lara, V. S. (2012). Salivary immunity in elderly individuals presented with Candida-related denture stomatitis. *Gerodontology*, *29*(2). https://doi.org/10.1111/j.1741-2358.2011.00476.x

Gladwin, M. A., & Bagby, M. D. (2013). *Clinical aspects of dental materials: Theory, practice and cases* (4th ed.). Lippincott Williams & Wilkins.

Grzela, T., Krejner, A., & Litwiniuk, M. (2016). Matrix metalloproteinases in the wound microenvironment: therapeutic perspectives. *Chronic Wound Care Management and Research*, 29. https://doi.org/10.2147/CWCMR.S73819

Gunadi, H. A., Margo, A., Burhan, L., & Suryatenggara, F. (2017). *Buku ajar prostodonsia sebagian lepasan* (2nd ed., Vols. 1 & 2). Hipokrates.

Gurtner, G. C., Werner, S., Barrandon, Y., & Longaker, M. T. (2008). Wound repair and regeneration. *Nature*, *453*(7193), 314–321. https://doi.org/10.1038/nature07039

Hannah, V. E., O'Donnell, L., Robertson, D., & Ramage, G. (2017). Denture Stomatitis: Causes, Cures and Prevention. *Primary Dental Journal*, *6*(4), 46–51. https://doi.org/10.1308/205016817822230175

Herawati, E., & Novani, D. (2017a). Penatalaksanaan kasus denture stomatitis Management of denture stomatitis case. *Jurnal Kedokteran Gigi Universitas Padjadjaran*, *29*(3). https://doi.org/10.24198/jkg.v29i3.15945

Herawati, E., & Novani, D. (2017b). Penatalaksanaan kasus denture stomatitis, Management of denture stomatitis case. *Jurnal Kedokteran Gigi Universitas Padjadjaran*, *29*(3).

Hosseinkhani, A., Molaei, R., Roosta, A., Mansouri Ghader Abad, N., & Saberian, M. (2026). Molecular modulation of cell migration via chitosan-based hydrogels: Toward smart biomaterial for wound regeneration. *Journal of*

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Applied Biomaterials & Functional Materials, *24*. https://doi.org/10.1177/22808000261431513

Huang, F., & Chen, Y. G. (2012). Regulation of TGF-β receptor activity. In *Cell and Bioscience* (Vol. 2, Number 1). https://doi.org/10.1186/2045-3701-2-9

Ilyas, R. A., Aisyah, H. A., Nordin, A. H., Ngadi, N., Zuhri, M. Y. M., Asyraf, M. R. M., Sapuan, S. M., Zainudin, E. S., Sharma, S., Abral, H., Asrofi, M., Syafri, E., Sari, N. H., Rafidah, M., Zakaria, S. Z. S., Razman, M. R., Majid, N. A., Ramli, Z., Azmi, A., … Ibrahim, R. (2022). Natural-Fiber-Reinforced Chitosan, Chitosan Blends and Their Nanocomposites for Various Advanced Applications. In *Polymers* (Vol. 14, Number 5). MDPI. https://doi.org/10.3390/polym14050874

Ismiyati, T., & Alhasyimi, A. A. (2023). Effect of Chitosan and Acrylic Acid Addition to Acrylic Resin on Porosity and Streptococcus mutans Growth in Denture Base. *European Journal of Dentistry*, *17*(3), 693–698. https://doi.org/10.1055/s-0042-1751002

Ismiyati, T., Ali Alhasyimi, A., & Siswomihardjo, W. (2021). The Effect of Chitosan and Acrylate Acid Complex into Acrylic Resin as Denture Material Against Fibroblast and Inflammatory Cells. In *Journal of International Dental and Medical Research* (Vol. 14, Number 4). http://www.jidmr.com

Ismiyati, T., Siswomihardjo, W., Soesatyo, M. H. N. E., & Rochmadi, R. (2017a). Campuran kitosan dengan resin akrilik sebagai bahan gigi tiruan penghambat Candida albicans. *Majalah Kedokteran Gigi Indonesia*, *3*(3), 21. https://doi.org/10.22146/majkedgiind.23721

Ismiyati, T., Siswomihardjo, W., Soesatyo, M. H. N. E., & Rochmadi, R. (2017b). Uji Sitoksisitas Campuran Resin Akrilik Dengan Kitosan Sebagai Bahan Gigi Tiruan Anti Jamur. *Jurnal Teknosains*, *5*(2), 97. https://doi.org/10.22146/teknosains.27580

Jayakumar, R., Prabaharan, M., Sudheesh Kumar, P. T., Nair, S. V., & Tamura, H. (2011). Biomaterials based on chitin and chitosan in wound dressing applications. *Biotechnology Advances*, *29*(3), 322–337. https://doi.org/10.1016/j.biotechadv.2011.01.005

Jiménez-Gómez, C. P., & Cecilia, J. A. (2020). Chitosan: A Natural Biopolymer with a Wide and Varied Range of Applications. *Molecules*, *25*(17), 3981. https://doi.org/10.3390/molecules25173981

Keşoğlu, A. C., Bural, C., Genç, G. E., Erturan, Z., Çınar Kekik, Oğuz, F., Bilgin, T., & Bilhan, H. (2018). Cytokine gene polymorphism in denture stomatitis

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

patients: A clinical study. *Oral Diseases*, *24*(6), 983–992. https://doi.org/10.1111/odi.12844

Khiyani, M. F., Ahmadi, M., Barbeau, J., Feine, J. S., de Souza, R. F., Siqueira, W. L., & Emami, E. (2019). Salivary Biomarkers in Denture Stomatitis: A Systematic Review. *JDR Clinical & Translational Research*, *4*(4), 312–322. https://doi.org/10.1177/2380084419830941

Komariah, K., Roeslan, M. O., Anggraeni, R., Santosa, D. N., & Rennata, A. K. (2026). The Effect of Nano Chitosan Xylotrupes Gideon on Fibroblast Proliferation and Collagen Deposition in the Oral Mucosa of Rattus norvegicus. *Biology, Medicine, & Natural Product Chemistry*, *15*(1), 23–30. https://doi.org/10.14421/biomedich.2026.151.23-30

Kondaveeti, S. B., Kumar, D., Shiekmydeen, J., Dabburu, K., & Kumar, M. (2026). Signalling pathways underlying the therapeutic potential of chitosan-based nanoformulations in wound healing: A review. *Journal of the Science of Food and Agriculture*. https://doi.org/10.1002/jsfa.70687

Kostić, M., Igić, M., Gligorijević, N., Nikolić, V., Stošić, N., & Nikolić, L. (2022). The Use of Acrylate Polymers in Dentistry. *Polymers*, *14*(21), 4511. https://doi.org/10.3390/polym14214511

Layton, D. M. (2023). The Glossary of Prosthodontic Terms 2023: Tenth Edition. In *Journal of Prosthetic Dentistry* (Vol. 130, Number 4, pp. e1–e3). Elsevier Inc. https://doi.org/10.1016/j.prosdent.2023.03.003

Le Bars, P., Bandiaky, O. N., Le Guéhennec, L., Clouet, R., & Kouadio, A. A. (2023). Different Polymers for the Base of Removable Dentures? Part I: A Narrative Review of Mechanical and Physical Properties. *Polymers*, *15*(17), 3495. https://doi.org/10.3390/polym15173495

Le Bars, P., Kouadio, A. A., Bandiaky, O. N., Le Guéhennec, L., & de La Cochetière, M.-F. (2022). Host's Immunity and Candida Species Associated with Denture Stomatitis: A Narrative Review. *Microorganisms*, *10*(7), 1437. https://doi.org/10.3390/microorganisms10071437

Le, L. T. T., Giang, N. N., Chien, P. N., Trinh, X.-T., Long, N.-V., Van Anh, L. T., Nga, P. T., Zhang, X.-R., Nam, S.-Y., & Heo, C.-Y. (2023). Enhancement of Wound Healing Efficacy by Chitosan-based Hydrocolloid on Sprague Dawley Rats. *In Vivo*, *37*(3), 1052–1064. https://doi.org/10.21873/invivo.13180

Leivonen, S.-K., Lazaridis, K., Decock, J., Chantry, A., Edwards, D. R., & Kähäri, V.-M. (2013). TGF-β-Elicited Induction of Tissue Inhibitor of Metalloproteinases (TIMP)-3 Expression in Fibroblasts Involves Complex

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Interplay between Smad3, p38α, and ERK1/2. *PLoS ONE*, *8*(2), e57474. https://doi.org/10.1371/journal.pone.0057474

Liarte, S., Bernabé-García, Á., & Nicolás, F. J. (2020). Role of TGF-β in Skin Chronic Wounds: A Keratinocyte Perspective. *Cells*, *9*(2), 306. https://doi.org/10.3390/cells9020306

Lyu, X., Zhao, C., Hua, H., & Yan, Z. (2016). Efficacy of nystatin for the treatment of oral candidiasis: a systematic review and meta-analysis. *Drug Design, Development and Therapy*, 1161. https://doi.org/10.2147/DDDT.S100795

Marin, L., Andreica, B. I., Ailincai, D., Anisiei, A., & Lungu, R. (2025). Chitosan: A Critical Review Of Structural Characteristics – Properties Relationship. *Cellulose Chemistry and Technology*, *59*(7–8), 747–759. https://doi.org/10.35812/CelluloseChemTechnol.2025.59.64

Mathivanan, A., Sayeeganesh, N., Raveendran, A., Ramya, D., & Mani, J. (2023). Treatment of Denture Stomatitis Using Modified Tissue Conditioners: A Systematic Review. *Journal of Pharmacy and Bioallied Sciences*, *15*(Suppl 1), S98–S100. https://doi.org/10.4103/jpbs.jpbs_593_22

Mawei, G. T. H., Wowor, V. N. S., & Mintjelungan, C. N. (2022). Hubungan Tingkat Kebersihan Gigi Tiruan Penuh dengan Kejadian Denture Stomatitis. *E-GiGi*, *11*(1), 20–25. https://doi.org/10.35790/eg.v11i1.44383

McCabe, J. F., & Walls, A. W. G. (2008a). *Applied Dental Materials* (9th ed.). Wiley-Blackwell.

McCabe, J. F., & Walls, A. W. G. (2008b). *Applied Dental Materials Ninth Edition*.

McReynolds, D. E., Moorthy, A., Moneley, J. O., Jabra-Rizk, M. A., & Sultan, A. S. (2023). Denture stomatitis—An interdisciplinary clinical review. *Journal of Prosthodontics*, *32*(7), 560–570. https://doi.org/10.1111/jopr.13687

Molaei, R., Hosseinkhani, A., & Saberian, M. (2025). Molecular Regulation of Tissue Remodeling Through Chitosan-Based Hydrogels in Wound Healing Dynamics. *Tissue Engineering Part B: Reviews*. https://doi.org/10.1089/ten.teb.2025.0078

Moraes, G. S., Albach, T., Ramos, I. E., Kopacheski, M. G., Cachoeira, V. S., Sugio, C. Y. C., Galvão Arrais, C. A., Neppelenbroek, K. H., & Urban, V. M. (2021). A novel acrylic resin palatal device contaminated with Candida albicans biofilm for denture stomatitis induction in Wistar rats. *Journal of Applied Oral Science*, *29*. https://doi.org/10.1590/1678-7757-2020-0865

UNIVERSITAS
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Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Moraes, G. S., Albach, T., Sugio, C. Y., de Oliveira, F. B., Neppelenbroek, K. H., & Urban, V. M. (2022). Experimental animal models for denture stomatitis: A methodological review. *Laboratory Animals*, *56*(4), 331–343. https://doi.org/10.1177/00236772211069249

Morel, L. L. M., Possebon, A. P. da R. P., Faot, F., & Pinto, L. de R. (2019). Prevalence of risk factors for denture stomatitis in complete denture wearers. *Brazilian Journal of Oral Sciences*, *10*, 1–8.

Murakami, N., Wakabayashi, N., Matsushima, R., Kishida, A., & Igarashi, Y. (2013). Effect of high-pressure polymerization on mechanical properties of PMMA denture base resin. *Journal of the Mechanical Behavior of Biomedical Materials*, *20*, 98–104. https://doi.org/10.1016/j.jmbbm.2012.12.011

Naini, A. (2015). Pengaruh Berbagai Minuman Terhadap Stabilitas Warna Resin Akrilik. *STOMATOGNATIC - Jurnal Kedokteran Gigi*, *8*(2), 74–77.

Navabi, N., Shakibaei, P., & Hassani, A. R. (2023). Management of denture stomatitis: An overview. In *Acta Marisiensis - Seria Medica* (Vol. 69, Number 1, pp. 23–29). Sciendo. https://doi.org/10.2478/amma-2023-0007

Oktaria, I. (2022). Prevention And Management Of Denture Stomatitis. *Interdental Jurnal Kedokteran Gigi (IJKG)*, *18*(2), 67–73. https://doi.org/10.46862/interdental.v18i2.5404

Özkan, Y. K. (2018). *Complete Denture Prosthodontics Treatment and Problem Solving*. Springer.

Patil, S., Licari, F. W., Bhandi, S., Awan, K. H., Badnjević, A., Belli, V., Cervino, G., & Minervini, G. (2023). The Cytotoxic Effect of Thermoplastic Denture Base Resins: A Systematic Review. *Journal of Functional Biomaterials*, *14*(8), 411. https://doi.org/10.3390/jfb14080411

Penn, J. W., Grobbelaar, A. O., & Rolfe, K. J. (2012). The role of the TGF-β family in wound healing, burns and scarring: a review. *International Journal of Burns and Trauma*, *2*(1), 18–28.

Perić, M., Miličić, B., Kuzmanović Pfićer, J., Živković, R., & Arsić Arsenijević, V. (2024a). A Systematic Review of Denture Stomatitis: Predisposing Factors, Clinical Features, Etiology, and Global Candida spp. Distribution. In *Journal of Fungi* (Vol. 10, Number 5). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/jof10050328

Perić, M., Miličić, B., Kuzmanović Pfićer, J., Živković, R., & Arsić Arsenijević, V. (2024b). A Systematic Review of Denture Stomatitis: Predisposing Factors,

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Clinical Features, Etiology, and Global Candida spp. Distribution. *Journal of Fungi*, *10*(5), 328. https://doi.org/10.3390/jof10050328

Petrov, L., Stoilova, O., Pramatarov, G., Kanzova, H., Tsvetanova, E., Andreeva, M., Georgieva, A., Atanasova, D., Philipov, S., & Alexandrova, A. (2023). Effect of Chitosan-Diosgenin Combination on Wound Healing. *International Journal of Molecular Sciences*, *24*(5). https://doi.org/10.3390/ijms24055049

Queen, A., Singla, L., & Goyal, R. R. (2021). Denture stomatitis. *Dental Abstracts*, *57*(3), 152–154. https://doi.org/10.1016/j.denabs.2011.09.039

Rahayu, I., Fadriyanti, O., & Edrizal, E. (2014). Efektivitas Pembersih Gigi Tiruan Dengan Rebusan Daun Sirih 25% Dan 50% Terhadap Pertumbuhan Candida Albicans Pada Lempeng Resin Akrilik Polimerisasi Panas. *B-DeNT*, *1*(2).

Rai, A., Misra, S. R., Panda, S., Sokolowski, G., Mishra, L., Das, R., & Lapinska, B. (2022). Nystatin Effectiveness in Oral Candidiasis Treatment: A Systematic Review & Meta-Analysis of Clinical Trials. *Life*, *12*(11), 1677. https://doi.org/10.3390/life12111677

Rajinikanth B, S., Rajkumar, D. S. R., K, K., & Vijayaragavan, V. (2024). Chitosan-Based Biomaterial in Wound Healing: A Review. *Cureus*. https://doi.org/10.7759/cureus.55193

Ramage, G., Tomsett, K., Wickes, B. L., López-Ribot, J. L., & Redding, S. W. (2004). Denture stomatitis: a role for Candida biofilms. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology*, *98*(1), 53–59. https://doi.org/10.1016/j.tripleo.2003.04.002

Ramirez, H., Patel, S. B., & Pastar, I. (2014). The Role of TGFβ Signaling in Wound Epithelialization. *Advances in Wound Care*, *3*(7), 482–491. https://doi.org/10.1089/wound.2013.0466

Rao, Y., D'souza, M., Porwal, A., Yadav, P., Kumar, S., & Aggarwal, A. (2014). Clinical and histopathological changes in palatal mucosa following two treatment modalities in patients wearing maxillary complete dentures with suction cup. *Contemporary Clinical Dentistry*, *5*(2), 150–154. https://doi.org/10.4103/0976-237X.132301

Rashid, H., Sheikh, Z., & Vohra, F. (2015). Allergic effects of the residual monomer used in denture base acrylic resins. *European Journal of Dentistry*, *09*(04), 614–619. https://doi.org/10.4103/1305-7456.172621

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Rhea, L., & Dunnwald, M. (2020). Murine Excisional Wound Healing Model and Histological Morphometric Wound Analysis. *Journal of Visualized Experiments*, (162). https://doi.org/10.3791/61616

Sadek, S. A., Dehis, W. M., & Hassan, H. (2018). Different Materials Used as Denture Retainers and Their Colour Stability. *Open Access Macedonian Journal of Medical Sciences*, *6*(11), 2173–2179. https://doi.org/10.3889/oamjms.2018.415

Santoso, W. A., Soekobagiono, & Salim, S. (2012). Kekuatan transversa resin akrilik heat-cured yang ditambah ultra high molecular weight polyethylene fiber. *Journal of Prosthodontics*, *3*(2), 6–11.

Sartawi, S. Y., Abu-Hammad, S., A. Salim, N., & Al-Omoush, S. (2021). Denture Stomatitis Revisited: A Summary of Systematic Reviews in the Past Decade and Two Case Reports of Papillary Hyperplasia of Unusual Locations. *International Journal of Dentistry*, *2021*, 1–8. https://doi.org/10.1155/2021/7338143

Shen, C., Rawls, H. R., & Esquivel-Upshaw, J. F. (2021). *Phillips' Science of Dental Materials* (13th ed.). Saunders.

Stefanov, I., Hinojosa-Caballero, D., Maspoch, S., Hoyo, J., & Tzanov, T. (2018). Enzymatic synthesis of a thiolated chitosan-based wound dressing crosslinked with chicoric acid. *Journal of Materials Chemistry B*, *6*(47), 7943–7953. https://doi.org/10.1039/C8TB02483A

Sugio, C. Y. C., Garcia, A. A. M. N., Albach, T., Moraes, G. S., Bonfante, E. A., Urban, V. M., & Neppelenbroek, K. H. (2020). Candida-Associated Denture Stomatitis and Murine Models: What Is the Importance and Scientific Evidence? *Journal of Fungi*, *6*(2), 70. https://doi.org/10.3390/jof6020070

Taebunpakul, P., & Jirawechwongsakul, P. (2021). Palatal Inflammation and the Presence of Candida in Denture-Wearing Patients. *Journal of International Society of Preventive and Community Dentistry*, *11*(3), 272–280. https://doi.org/10.4103/jispcd.JISPCD_368_20

Takebe, J. (2025). A case series on the basic concept and design of removable partial dentures: support and bracing considerations. *BMC Oral Health*, *25*(1), 157. https://doi.org/10.1186/s12903-025-05553-x

Titik Ismiyati, Adelia Syiva Maharani, & Archadian Nuryanti. (2025). *Rehabilitasi Kehilangan Gigi dengan Gigi Tiruan Sebagian Lepasan* (1st ed., Vol. 1). UGM PRESS.

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Toma, A. I., Fuller, J. M., Willett, N. J., & Goudy, S. L. (2021). Oral wound healing models and emerging regenerative therapies. *Translational Research*, *236*, 17–34. https://doi.org/10.1016/j.trsl.2021.06.003

Toumaj, N., Salehi, M., Zamani, S., Arabpour, Z., Djalian, A. R., & Rahmati, M. (2024). Development of alginate/chitosan hydrogel loaded with obestatin and evaluation of collagen type I, III, VEGF and TGF-β 1 gene expression for skin repair in a rat model (in vitro and in vitro study). *Skin Research and Technology*, *30*(8). https://doi.org/10.1111/srt.70018

Tsui, C., Kong, E. F., & Jabra-Rizk, M. A. (2016). Pathogenesis of Candida albicans biofilm. *Pathogens and Disease*, *74*(4), ftw018. https://doi.org/10.1093/femspd/ftw018

Tzavlaki, K., & Moustakas, A. (2020). TGF-β Signaling. *Biomolecules*, *10*(3), 487. https://doi.org/10.3390/biom10030487

Ueno, H., Nakamura, F., Murakami, M., Okumura, M., Kadosawa, T., & Fujinaga, T. (2001). Evaluation effects of chitosan for the extracellular matrix production by fibroblasts and the growth factors production by macrophages. *Biomaterials*, *22*(15), 2125–2130. https://doi.org/10.1016/S0142-9612(00)00401-4

Veeraiyan, D. N. (2017). *Textbook of Prosthodontics* (2nd ed.). JP Medical Ltd.

Victoria Elizabeth Hannah, Lindsay O'Donnell, Douglas Robertson, & Gordon Ramage. (2017). Denture stomatitis causes, cures and prevention. *Primary Dental Journal*, *6*(4), 46–51.

Wilkinson, H. N., & Hardman, M. J. (2020). Wound healing: cellular mechanisms and pathological outcomes. *Open Biology*, *10*(9). https://doi.org/10.1098/rsob.200223

Wulandari, P., Hutagalung, M., & Perdanakusuma, D. (2021). Deteksi Kadar Transforming Growth Factor (Tgf-B) Pada Luka Akut. *Jurnal Rekonstruksi Dan Estetik*, *6*(1), 1. https://doi.org/10.20473/jre.v6i1.28225

Yadav, N. S., Somkuwar, S., Mishra, S. K., Hazari, P., Chitumalla, R., & Pandey, S. K. (2015). Evaluation of Bond Strength of Acrylic Teeth to Denture Base using Different Polymerization Techniques: A Comparative Study. *Journal of International Oral Health : JIOH*, *7*(Suppl 1), 54–56.

Zafar, M. S. (2020). Prosthodontic Applications of Polymethyl Methacrylate (PMMA): An Update. *Polymers*, *12*(10), 2299. https://doi.org/10.3390/polym12102299

UNIVERSITAS
GADJAH MADA
Efektivitas kitosan konsentrasi 2% terhadap ekspresi transforming growth factor beta pada penyembuhan stomatitis gigi tiruan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Zhang, J., Dai, H., Lv, C., & Xing, X. (2012). The systematic effects of chitosan on fibroblasts derived from hypertrophic scars and keloids. *Indian Journal of Dermatology, Venereology, and Leprology*, *78*(4), 520. https://doi.org/10.4103/0378-6323.98098

Zheng, Y., Ke, L., Lu, Y., Zuo, Q., Deng, G., Wang, H., & Zeng, X. (2020). Enhanced Healing and Antimicrobial Efficacy of Chitosan-g-Polyacrylamide in a Rat Model of Gingival Ulcers. *Frontiers in Chemistry*, *8*. https://doi.org/10.3389/fchem.2020.00273