

Soft Denture Liners in Complete Denture Prosthodontics: A Narrative Review

Dr. Kashinath Arabbi¹, Dr. Priyanka T²

Abstract: *Soft denture liners are resilient materials placed on the tissue-contacting surface of removable dentures to provide a compliant interface between the denture base and the underlying oral mucosa. They have an important role in the management of selected edentulous patients, particularly those presenting with severely resorbed residual ridges, thin or easily traumatized mucosa, prominent bony areas, unfavorable undercuts, or persistent denture-related discomfort. Soft lining materials can be broadly classified into plasticized acrylic resin-based materials and silicone elastomers, while tissue conditioners constitute a group of short-term resilient materials used mainly for temporary tissue management. Their clinical performance depends on several physical, mechanical and biological characteristics, including resilience, hardness, water sorption, solubility, surface roughness, color stability, bond strength and resistance to microbial colonization. Although resilient liners may improve comfort, masticatory function, patient satisfaction and oral-health-related quality of life in appropriately selected patients, their clinical longevity is limited by changes in material properties, microbial contamination and possible failure of adhesion to the denture base. Recent systematic reviews have provided evidence of beneficial effects on pain, bite force, mastication and quality of life, although heterogeneity and methodological limitations remain. Contemporary research is focused on improving durability, adhesion and resistance to microbial colonization. This narrative review discusses the classification, composition, properties, indications, clinical applications, advantages, limitations, maintenance and recent developments associated with soft denture liners.*

Keywords: Soft denture liner; resilient liner; complete denture; tissue conditioner; acrylic resin; silicone elastomer; denture relining; prosthodontics

1. Introduction

Complete denture treatment aims to restore mastication, speech, facial support and overall oral function in completely edentulous patients. Although modern impression procedures, denture designs and occlusal concepts have improved prosthodontic outcomes, some patients continue to experience discomfort during denture use. This problem may be particularly pronounced when the residual ridge is severely resorbed, when the mucosa is thin or vulnerable, or when the underlying anatomy contains prominent bony structures.^{1,2}

A conventional denture base is relatively rigid. During function, the forces generated during mastication are transmitted through the denture base to the underlying supporting tissues. In patients with favorable anatomy and healthy mucosa, these forces can generally be tolerated. However, when the denture-bearing tissues are compromised, a rigid denture base may contribute to localized discomfort. Soft denture liners have therefore been developed to provide a resilient interface between the denture base and oral tissues.¹

Soft lining materials are compliant, viscoelastic materials that are incorporated into part or all of the tissue-contacting surface of a denture. Their proposed functions include cushioning, modification of force transmission and reduction of localized pressure. However, their effect should not be interpreted as complete elimination of occlusal stresses. The clinical behavior of a liner is influenced by its composition, thickness, hardness, resilience, denture design and the characteristics of the underlying mucosa.^{2,3}

Soft liners have been used in removable prosthodontics for many decades. Early materials included natural rubber and other polymer systems, whereas contemporary materials are predominantly based on acrylic resin or silicone chemistry.^{2,4} Modern resilient liners are available for chairside and

laboratory processing and can be designed for short-term or longer-term use.

The decision to use a soft liner should be based on a specific clinical indication rather than on the presence of discomfort alone. A resilient material cannot correct fundamental problems such as inadequate denture extension, poor retention, instability, inappropriate occlusion or an inaccurate denture base. Proper diagnosis and correction of these factors should precede or accompany the use of a soft liner.⁵

The purpose of this narrative review is to discuss the classification, composition, properties, clinical indications, advantages, limitations, maintenance considerations and recent developments associated with soft denture liners.

2. Classification of Soft Denture Liners

Soft denture liners may be classified according to their intended duration of use or according to their chemical composition.

2.1 Classification according to duration of use

Short-term resilient materials

Short-term materials include tissue conditioners and temporary soft liners. These materials are primarily used during tissue recovery, provisional relining or temporary management of traumatized denture-bearing tissues.⁶

Tissue conditioners are particularly useful when a denture-bearing mucosa has been irritated by an old or poorly fitting denture. Their relatively soft and viscoelastic consistency allows them to provide a temporary cushioning surface while the supporting tissues recover.⁶

Long-term resilient materials

Long-term resilient liners are intended to function for a longer period and are predominantly represented by acrylic resin-based and silicone-based materials. However, even these materials have a finite clinical service life and generally do not demonstrate the same long-term stability as a conventional acrylic denture base.^{3,7}

3. Composition of Soft Denture Liners

3.1 Acrylic resin-based liners

Plasticized acrylic resin-based liners generally contain an acrylic polymer or copolymer combined with liquid components and plasticizers. The plasticizing components increase flexibility by modifying the interactions between polymer chains.^{3,7}

Acrylic-based materials can provide useful initial softness and are relatively compatible with conventional acrylic denture-base processing. However, changes may occur during clinical service because of water uptake, loss or movement of soluble components and other aging processes. These changes can alter the hardness and resilience of the material.^{3,8}

The gradual loss of flexibility is an important consideration when these materials are used as long-term liners. Their clinical performance is therefore influenced not only by their initial properties but also by how those properties change during exposure to saliva, temperature fluctuations, mechanical loading and cleaning procedures.

3.2 Silicone-based liners

Silicone elastomers constitute another major group of resilient denture liners. Their elastic behavior is primarily related to the silicone polymer network rather than the use of conventional leachable plasticizers.^{3,7}

Silicone-based materials generally demonstrate greater stability in certain physical properties than plasticized acrylic liners. However, their adhesion to the denture base can be problematic, particularly when the material is exposed to repeated thermal and mechanical stresses.^{3,9}

Consequently, silicone liners cannot simply be considered superior to acrylic liners in every clinical situation. Material selection should depend on the required clinical performance, method of processing, expected duration of use and patient's individual needs.

4. Tissue Conditioners

Tissue conditioners are short-term resilient materials that are usually prepared by mixing a polymer powder with a liquid containing plasticizing components. The material initially forms a soft and viscoelastic layer and undergoes progressive changes during service.⁶

The primary clinical application of a tissue conditioner is temporary management of traumatized or inflamed denture-bearing tissues. When a poorly fitting denture has caused mucosal irritation, appropriate adjustment of the denture

combined with temporary tissue conditioning may allow the mucosa to recover before definitive treatment.

Tissue conditioners may also be useful during the transition from an existing denture to a definitive prosthesis and in selected situations following oral surgical procedures.⁶

However, they should not be regarded as definitive long-term liners. Their physical properties change with time, and their surface can become less suitable for prolonged clinical use. Therefore, they require periodic evaluation and replacement when clinically indicated.⁶

5. Properties of Soft Denture Liners

The clinical success of a soft liner depends on a combination of mechanical, physical, chemical and biological properties. No currently available material possesses all ideal properties simultaneously.^{3,7}

5.1 Resilience

Resilience is one of the most important characteristics of a soft liner. The material should deform under functional loading and recover sufficiently after the load is removed. This behavior allows the liner to provide a compliant interface between the denture base and the mucosa.

However, greater softness does not automatically indicate superior clinical performance. Excessive deformation may adversely affect denture stability, while excessive hardness reduces the intended cushioning effect. The clinically desirable behavior therefore represents a balance between softness, resilience and dimensional stability.

Studies comparing commercially available liners demonstrate substantial differences in hardness, tensile strength, elongation and other mechanical characteristics among materials.¹⁰

5.2 Hardness

Hardness is clinically relevant because it changes during aging. An increase in hardness may reduce the cushioning effect of a resilient liner.

Experimental investigations have shown that soft lining materials can become harder following prolonged storage or exposure to certain environmental conditions. The magnitude of change varies among materials.^{3,11}

Consequently, the initial hardness of a material should not be considered its permanent clinical hardness.

5.3 Water sorption and solubility

Soft liners remain in contact with saliva and oral fluids throughout their clinical use. Water sorption and solubility are therefore important properties.

Water uptake can influence dimensional and mechanical characteristics, while the dissolution or loss of soluble components can contribute to changes in material

composition. Kawano et al. demonstrated considerable differences in sorption and solubility among soft denture liners and emphasized the relationship of these properties with long-term material stability.¹²

These changes can contribute to hardening, dimensional alteration, color change and deterioration during clinical use.

5.4 Surface roughness

The surface of a soft liner should ideally remain smooth because surface irregularities can make cleaning more difficult and may facilitate microbial retention.

Aging has been shown experimentally to increase surface roughness in some soft lining materials. Tari et al. reported increased roughness and greater *Candida albicans* adherence after accelerated aging of selected soft liners.¹³

However, the relationship between surface roughness and Candida adhesion is not simple. Material composition, surface chemistry, hydrophobicity and other interfacial characteristics may also influence microbial adherence. Kang et al. found that acrylic soft liners and tissue conditioners demonstrated greater Candida adhesion than the tested silicone soft liners, while surface chemistry appeared to influence adhesion more strongly than roughness alone.¹⁴

5.5 Color stability

Color stability can be affected by aging and exposure to cleansing solutions. Changes in color may influence the esthetic acceptability of a liner, particularly when the material is visible at the denture margins.

Shotwell et al. demonstrated that long-term soft lining materials could undergo color changes following accelerated aging.¹⁵ Other experimental studies have demonstrated that the extent of color change varies depending on both the liner and the cleansing solution used.¹⁶

5.6 Bond strength

The bond between the soft liner and denture base is an important determinant of clinical longevity. Loss of adhesion may create a gap at the interface, allowing accumulation of fluid and microorganisms and eventually leading to clinical failure.

The bond strength of a resilient liner is influenced by its chemical composition, the denture-base resin, surface preparation, bonding agent and processing technique.⁹

A systematic review and meta-analysis found that the effectiveness of surface treatments varies according to the type of resilient liner and the testing method. Chemical agents and laser treatments showed potential benefits in some experimental situations, but no single treatment can be considered universally effective.⁹

Another systematic review specifically examining surface treatment and thermocycling found that several chemical and

laser approaches improved bonding in some studies, whereas thermocycling generally reduced bond strength.¹⁷

Importantly, these findings are predominantly based on laboratory studies and should not automatically be interpreted as equivalent to clinical performance.

6. Clinical Indications

Soft denture liners are indicated primarily when a resilient interface is expected to provide a specific clinical benefit.

Commonly described indications include:

- Severely resorbed residual ridges
- Thin or fragile denture-bearing mucosa
- Prominent bony areas
- Selected anatomical undercuts
- Persistent localized denture soreness
- Temporary management of traumatized mucosa
- Certain immediate-denture situations
- Healing following selected oral surgical procedures
- Selected patients who have difficulty tolerating a rigid denture base
- Selected patients with xerostomia or other conditions associated with increased mucosal discomfort.^{3, 7}

Mack emphasized that successful use of a soft lining depends not only on the properties of the material but also on understanding the supporting tissues and the intended clinical function of the liner.⁵

The presence of pain alone should therefore not automatically lead to placement of a soft liner. The clinician should first examine denture extension, retention, stability, occlusion, tissue condition and the possibility of underlying pathology.

7. Clinical Applications

7.1 Severely resorbed residual ridges

Severe residual ridge resorption reduces the available denture-bearing area and may increase the susceptibility of the underlying tissues to mechanical loading. In these situations, a resilient liner may provide a more compliant interface and improve patient comfort.

The evidence from systematic reviews suggests that soft relining can provide beneficial outcomes for selected complete-denture patients, although the magnitude of benefit varies between studies.^{18, 19}

7.2 Thin and sensitive mucosa

Patients with thin or easily traumatized mucosa may have difficulty tolerating a conventional rigid denture. A resilient lining can provide a cushioning layer and may reduce the mechanical irritation experienced during function.

However, the clinician should still ensure that the denture is correctly designed and that excessive localized pressure is not being caused by a correctable denture error.

7.3 Denture-related soreness

Soft liners may be useful in patients who experience persistent discomfort despite appropriate denture adjustment. The liner may reduce the mechanical impact of the denture on susceptible tissues.

Nevertheless, persistent pain should prompt a comprehensive assessment rather than repeated relining without diagnosis.

7.4 Tissue healing and temporary management

Tissue conditioners have a particular role in temporary management of inflamed denture-bearing tissues. They may provide a less traumatic interface during the recovery period and allow the clinician to reassess the tissues before definitive treatment.⁶

8. Effect on Masticatory Function, Satisfaction and Quality of Life

Clinical interest in soft liners has expanded beyond their cushioning effect. Researchers have investigated whether resilient lining materials improve masticatory performance, patient satisfaction and quality of life.

A systematic review by Santiago et al. evaluated long-term resilient liners in completely edentulous patients. Fifteen studies involving 422 patients were included, with follow-up ranging from one week to three years. Overall, the review found favorable results for masticatory function, satisfaction and quality of life when complete dentures relined with long-term resilient materials were compared with conventional dentures.¹⁹

A separate systematic review by Hasegawa et al. evaluated soft denture relining materials in complete-denture treatment. The review found evidence of improvement in patient satisfaction, oral-health-related quality of life and masticatory ability. However, the authors also reported shorter functional duration of soft relining materials compared with hard relining and greater susceptibility to microbial contamination. They emphasized that the included studies frequently had methodological limitations and potential risk of bias.¹⁸

A recent systematic review and meta-analysis published in 2026 included 32 studies involving 710 patients with follow-up of up to six months. Soft liners were associated with improved bite force, masticatory performance and quality of life, as well as lower pain scores in the included comparisons. No significant effect was observed for the examined electromyographic outcomes.²⁰

These findings support the use of soft liners in appropriately selected patients but should not be interpreted as evidence that every patient wearing a resilient liner will experience the same functional improvement.

9. Microbial Colonization and Candida

Microbial colonization is one of the most important biological limitations associated with soft denture liners. *Candida*

albicans has received particular attention because of its association with denture-associated candidiasis.

Soft lining materials can provide a surface on which microorganisms may adhere, and changes in surface characteristics during aging can influence this process. Experimental studies have demonstrated *Candida* colonization on several soft lining materials.^{13, 14}

Importantly, *Candida* adhesion is influenced by more than surface roughness. Material chemistry, hydrophobicity, surface energy and other characteristics can affect microbial adherence.¹⁴

In vivo research has also demonstrated that soft lining materials undergo surface changes during clinical use. Increased surface roughness may occur over time, although the relationship between material deterioration and microbial colonization is complex.²¹

Therefore, it would be inappropriate to conclude that all soft liners inevitably result in *Candida* infection. Rather, the material, its condition, oral hygiene, denture cleaning practices and patient-related factors all contribute to the risk.

10. Denture Cleansers and Maintenance

Denture hygiene is particularly important when a soft liner is present because cleaning procedures can influence both microbial control and material properties.

Nikawa et al. investigated *Candida* biofilm formation on deteriorated soft lining materials after exposure to denture cleansers. The effects varied according to the combination of liner and cleansing agent, demonstrating that cleanser compatibility is an important consideration.²²

Similarly, studies investigating soft liners have shown that some cleansing procedures can alter surface roughness and color.^{16, 23}

A study examining resilient liners and denture cleansers reported differences in surface roughness and *Candida* binding among liner–cleanser combinations.²³ These findings emphasize that a cleansing agent should not be selected solely on the basis of its antimicrobial activity; its compatibility with the lining material must also be considered.

Patients should therefore receive specific instructions from the clinician or manufacturer regarding cleaning procedures. Hot water and inappropriate chemical agents should be avoided when they are known to adversely affect the particular lining material.

11. Advantages of Soft Denture Liners

The major advantages of soft denture liners include:

- 1) Provision of a compliant interface between denture base and mucosa
- 2) Potential reduction of localized tissue discomfort
- 3) Cushioning during functional loading
- 4) Improved comfort in selected patients
- 5) Potential improvement in masticatory performance

- 6) Potential improvement in patient satisfaction and quality of life
- 7) Use during temporary tissue healing
- 8) Application in selected patients with severely resorbed or anatomically unfavorable ridges.

Clinical evidence therefore supports their role as an adjunctive treatment for selected patients rather than as a routine component of every complete denture.¹⁸⁻²⁰

12. Limitations of Soft Denture Liners

Despite their clinical benefits, soft liners have important limitations.

12.1 Limited longevity

Soft lining materials generally undergo greater changes during clinical service than conventional rigid denture-base acrylic resin. Loss of resilience, increased hardness, surface deterioration and changes in other physical properties can eventually compromise their clinical effectiveness.^{3,7}

12.2 Microbial contamination

Soft liners can support microbial adhesion, and deteriorated surfaces may be more difficult to clean. *Candida* colonization is a particular concern in susceptible patients.^{13,14,21}

12.3 Bond failure

Separation of the liner from the denture base is a common technical concern. Silicone-based liners in particular may present challenges related to adhesion.^{3,9}

12.4 Color change

Changes in color may occur during aging and exposure to certain cleansing agents.^{15,16}

12.5 Maintenance requirements

Soft-lined dentures require regular clinical assessment. The clinician should examine the liner for changes in hardness, roughness, discoloration, tearing, loss of adhesion and microbial accumulation.

These limitations explain why soft liners should not be regarded as maintenance-free or indefinitely durable materials.

13. Recent Developments

Research into soft denture liners has focused on improving mechanical stability, adhesion and resistance to microbial colonization.

One approach has been modification of liner materials with antimicrobial or antifungal agents. Experimental studies have investigated the incorporation of substances intended to inhibit *Candida* growth while maintaining acceptable mechanical properties.

Nanomaterials have also been investigated as potential additives. These approaches are promising because they may provide antimicrobial activity without relying entirely on external cleansing procedures. However, much of the current evidence remains laboratory-based, and the clinical safety, long-term effectiveness and durability of these modified materials require further investigation.

Advances in digital dentistry have also introduced new denture-base materials, including milled and 3D-printed denture bases. The interaction between digital denture bases and soft liners is therefore becoming increasingly relevant. A recent systematic review of *in vitro* studies found no significant difference in bond strength between conventional and milled denture-base resins when relined with soft materials, whereas conventional resin demonstrated higher bond strength than 3D-printed denture-base resin in the included studies.²⁴

These findings are relevant to contemporary prosthodontics but should be interpreted cautiously because the available evidence is predominantly laboratory-based.

14. Future Perspectives

Future soft denture liner research should focus on developing materials that combine adequate resilience with long-term dimensional and chemical stability. An ideal liner should maintain its intended softness, demonstrate reliable adhesion to the denture base, resist microbial colonization and remain sufficiently smooth and cleanable throughout its service period.

Antimicrobial modifications and nanotechnology may provide opportunities for reducing *Candida* colonization. However, new materials should undergo appropriate laboratory, biocompatibility and long-term clinical evaluation before routine clinical use.

Future studies should also use standardized methods for evaluating hardness, resilience, sorption, solubility, surface roughness, adhesion and microbial colonization. More long-term randomized clinical trials are needed because many existing studies are short-term or laboratory based.

Digital denture fabrication may further influence the clinical management of soft liners. As milled and 3D-printed denture bases become increasingly common, the interaction between digitally manufactured denture bases, surface treatments and resilient liners deserves additional investigation.

15. Clinical Considerations

For successful clinical use of a soft liner, several factors should be considered:

First, the cause of discomfort should be identified and corrected whenever possible.

Second, the clinician should select the liner according to the intended duration of use and clinical indication.

Third, adequate thickness and extension of the liner should be maintained without compromising denture stability.

Fourth, the manufacturer's recommended processing and bonding procedures should be followed because adhesion is strongly influenced by the material and surface treatment.

Fifth, patients should receive appropriate instructions concerning denture hygiene and cleaning.

Finally, the liner should be reviewed periodically. A soft liner that has become hard, rough, discolored, detached or difficult to clean may no longer provide the intended clinical benefit and may require replacement.

16. Conclusion

Soft denture liners remain an important adjunct in complete denture prosthodontics, particularly for selected patients with compromised denture-bearing tissues, severe residual ridge resorption or persistent discomfort associated with rigid denture bases. The principal long-term materials are plasticized acrylic resin-based liners and silicone elastomers, while tissue conditioners provide a useful short-term option for tissue management.

The literature indicates that soft liners can provide beneficial effects on patient comfort and may improve masticatory function, satisfaction, quality of life and pain in appropriately selected complete-denture patients. However, their clinical performance is limited by material aging, changes in hardness and surface characteristics, microbial colonization, color change and possible failure of adhesion to the denture base.

Therefore, the success of a soft liner depends on appropriate diagnosis, case selection, material selection, denture design, processing, hygiene and regular clinical maintenance. Soft liners should be considered patient-specific therapeutic materials rather than universal substitutes for properly designed conventional denture bases.

Continued development of antimicrobial materials, improved polymer systems and digitally compatible resilient liners may improve their clinical performance in the future. Nevertheless, promising laboratory developments should be supported by well-designed, long-term clinical studies before their routine clinical adoption.

References

- [1] Braden M, Wright PS, Parker S. Soft lining materials—a review. *Eur J Prosthodont Restor Dent*. 1995;3(4):163-174. PMID: 8601159.
- [2] Qudah S, Harrison A, Huggett R. Soft lining materials in prosthetic dentistry: a review. *Int J Prosthodont*. 1990;3(5):477-483. PMID: 2088386.
- [3] Chladek G, Żmudzi J, Kasperski J. Long-term soft denture lining materials. *Materials (Basel)*. 2014;7(8):5816-5842. doi:10.3390/ma7085816. PMID: 28788163.
- [4] Mack PJ. Denture soft linings: materials available. *Aust Dent J*. 1989;34(6):517-521. doi:10.1111/j.1834-7819.1989.tb04657.x. PMID: 2619621.
- [5] Mack PJ. Denture soft lining materials: clinical indications. *Aust Dent J*. 1989;34(5):454-458. doi:10.1111/j.1834-7819.1989.tb00704.x. PMID: 2684116.
- [6] Dorocka-Bobkowska B, Medyński D, Pryliński M. Recent advances in tissue conditioners for prosthetic treatment: a review. *Adv Clin Exp Med*. 2017;26(4):723-728. doi:10.17219/acem/62634. PMID: 28691420.
- [7] Hashem MI. Advances in soft denture liners: an update. *J Contemp Dent Pract*. 2015;16(4):314-318. doi:10.5005/jp-journals-10024-1682. PMID: 26067736.
- [8] Kawano F, Dootz ER, Koran A 3rd, Craig RG. Sorption and solubility of 12 soft denture liners. *J Prosthet Dent*. 1994;72(4):393-398. doi:10.1016/0022-3913(94)90559-2. PMID: 7990045.
- [9] Özdemir H, Özdoğan A. Bond strength of resilient lining materials to denture base resin: a systematic review and meta-analysis. *J Prosthodont*. 2018;27(9):828-841. doi:10.1111/jopr.12958. PMID: 30039888.
- [10] Wilson HJ, Tomlin HR. Comparison of the physical properties of 11 soft denture liners. *J Prosthet Dent*. 1992. PMID: 1527761.
- [11] Cal E, Kesercioglu A, Sen BH, Cilli F. Comparison of the hardness and microbiologic adherence of four permanent denture soft liners. *Gen Dent*. 2006;54(1):28-32. PMID: 16494117.
- [12] Kawano F, Dootz ER, Koran A 3rd, Craig RG. Sorption and solubility of 12 soft denture liners. *J Prosthet Dent*. 1994;72(4):393-398. doi:10.1016/0022-3913(94)90559-2. PMID: 7990045.
- [13] Tari BF, Nalbant D, Dogruman AI F, Kustimur S. Surface roughness and adherence of *Candida albicans* on soft lining materials as influenced by accelerated aging. *J Contemp Dent Pract*. 2007;8(5):18-25. PMID: 17618326.
- [14] Kang SH, Lee HJ, Hong SH, Kim KH, Kwon TY. Influence of surface characteristics on the adhesion of *Candida albicans* to various denture lining materials. *Acta Odontol Scand*. 2013;71(1):241-248. doi:10.3109/00016357.2012.671360. PMID: 22428860.
- [15] Shotwell JL, Razzoog ME, Koran A. Color stability of long-term soft denture liners. *J Prosthet Dent*. 1992;68(5):836-838. doi:10.1016/0022-3913(92)90213-T. PMID: 1432811.
- [16] Jin C, Nikawa H, Makihira S, Hamada T, Furukawa M, Murata H. Changes in surface roughness and colour stability of soft denture lining materials caused by denture cleansers. *J Oral Rehabil*. 2003;30(2):125-130. doi:10.1046/j.1365-2842.2003.01014.x. PMID: 12535137.
- [17] Muddugangadhar BC, Mawani DP, Das A, Mukhopadhyay A. Bond strength of soft liners to denture base resins and the influence of different surface treatments and thermocycling: a systematic review. *J Prosthet Dent*. 2020;123(6):800-806.e6. doi:10.1016/j.prosdent.2019.06.013. PMID: 31703921.
- [18] Hasegawa Y, Minakuchi H, Nishimura M, et al. Effect of soft denture liners on complete denture treatments: a systematic review. *J Prosthodont Res*. 2024;68(4):493-

510. doi:10.2186/jpr.JPR_D_23_00067. PMID: 38382972.

- [19] Santiago JB, Leão RS, Pellizzer EP, Vasconcelos BCE, Moraes SLD. Evaluation of masticatory function, satisfaction, and quality of life among users of complete dentures relined with resilient materials: a systematic review. *Int J Prosthodont.* 2024;37(2):210-220. doi:10.11607/ijp.8130. PMID: 38648166.
- [20] Al-Mohammad YN, Kelly C, Szalai EÁ, et al. Complete denture soft liners improve bite force, mastication, and life quality: a systematic review and meta-analysis. *J Prosthodont.* 2026. doi:10.1111/jopr.70183. PMID: 42318679.