

Transkrestaler Sinuslift im Vergleich: Von der Summers-Technik bis zur Ballon- Methode.

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Literatur

Al-Moraissi, E. A., Altairi, N. H., Abotaleb, B., Al-Iryani, G., Halboub, E., & Alakhali, M. S. (2019). What Is the Most Effective Rehabilitation Method for Posterior Maxillas With 4 to 8 mm of Residual Alveolar Bone Height Below the Maxillary Sinus With Implant-Supported Prosthesis? A Frequentist Network Meta-Analysis. *Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons*, 77(1), 70.e1–70.e33. <https://doi.org/10.1016/j.joms.2018.08.009>

Alhayati, J. Z., & Al-Anee, A. M. (2023). Evaluation of crestal sinus floor elevations using versah burs with simultaneous implant placement, at residual bone height ≥ 2.0 _ < 6.0 mm. A prospective clinical study. *Oral and maxillofacial surgery*, 27(2), 325–332. <https://doi.org/10.1007/s10006-022-01071-0>

Canullo, L., Del Fabbro, M., Khijmatgar, S., Panda, S., Ravidà, A., Tommasato, G., Sculean, A., & Pesce, P. (2022). Dimensional and histomorphometric evaluation of biomaterials used for alveolar ridge preservation: a systematic review and network meta-analysis. *Clinical oral investigations*, 26(1), 141–158. <https://doi.org/10.1007/s00784-021-04248-1>

Carosi, P., Lorenzi, C., Lio, F., Laureti, M., Ferrigno, N., & Arcuri, C. (2021). Short implants (≤ 6 mm) as an alternative treatment option to maxillary sinus lift. *International journal of oral and maxillofacial surgery*, 50(11), 1502–1510. <https://doi.org/10.1016/j.ijom.2021.02.014>

Catros, S., Montaudon, M., Bou, C., Da Costa Noble, R., Fricain, J. C., & Ella, B. (2015). Comparison of Conventional Transcrestal Sinus Lift and Ultrasound-Enhanced Transcrestal Hydrodynamic Cavitation Sinus Lift for the Filling of Subantral Space: A Human Cadaver Study. *The Journal of oral implantology*, 41(6), 657–661. <https://doi.org/10.1563/aaid-joi-D-14-00038>

Chan, H. L., Oh, T. J., Fu, J. H., Benavides, E., Avila-Ortiz, G., & Wang, H. L. (2013). Sinus augmentation via transcresal approach: a comparison between the balloon and osteotome technique in a cadaver study. *Clinical oral implants research*, 24(9), 985–990.

<https://doi.org/10.1111/j.1600-0501.2012.02506.x>

Farina, R., Franceschetti, G., Travaglini, D., Consolo, U., Minenna, L., Schincaglia, G. P., Riccardi, O., Bandieri, A., Maietti, E., & Trombelli, L. (2019). Radiographic outcomes of transcresal and lateral sinus floor elevation: One-year results of a bi-center, parallel-arm randomized trial. *Clinical oral implants research*, 30(9), 910–919.

<https://doi.org/10.1111/clr.13497>

Farina, R., Franzini, C., Trombelli, L., & Simonelli, A. (2023). Minimal invasiveness in the transcresal elevation of the maxillary sinus floor: A systematic review. *Periodontology 2000*, 91(1), 145–166. <https://doi.org/10.1111/prd.12464>

Farina, R., Riccardi, O., Schincaglia, G. P., Severi, M., Trombelli, L., & Simonelli, A. (2023). Six-year extension results of a randomized trial comparing transcresal and lateral sinus floor elevation at sites with 3-6 mm of residual bone. *Clinical oral implants research*, 34(8), 813–821. <https://doi.org/10.1111/clr.14110>

Gargallo-Albiol, J., Tattan, M., Sinjab, K. H., Chan, H. L., & Wang, H. L. (2019). Schneiderian membrane perforation via transcresal sinus floor elevation: A randomized ex vivo study with endoscopic validation. *Clinical oral implants research*, 30(1), 11–19. <https://doi.org/10.1111/clr.13388>

Haas, R., Donath, K., Födinger, M., & Watzek, G. (1998). Bovine hydroxyapatite for maxillary sinus grafting: comparative histomorphometric findings in sheep. *Clinical oral implants research*, 9(2), 107–116. <https://doi.org/10.1034/j.1600-0501.1998.090206.x>

Hsu, Y. T., Rosen, P. S., Choksi, K., Shih, M. C., Ninneman, S., & Lee, C. T. (2022). Complications of sinus floor elevation procedure and management strategies: A systematic review. *Clinical implant dentistry and related research*, 24(6), 740–765. <https://doi.org/10.1111/cid.13086>

Lie, S. A. N., Claessen, R. M. M. A., Leung, C. A. W., Merten, H. A., & Kessler, P. A. W. H. (2022). Non-grafted versus grafted sinus lift procedures for implantation in the atrophic maxilla: a systematic review and meta-analysis of randomized controlled trials. *International journal of oral and maxillofacial surgery*, 51(1), 122–132.

<https://doi.org/10.1016/j.ijom.2021.03.016>

Lin, J. C., Chang, W. J., Nevins, M., & Kim, D. M. (2022). Incidence of Sinus Membrane Perforation Using Two Types of Implant Drills: An Ex Vivo Animal Study. *The International journal of periodontics & restorative dentistry*, 42(4), 479–485.

<https://doi.org/10.11607/prd.6111>

Lundgren, S., Cricchio, G., Hallman, M., Jungner, M., Rasmusson, L., & Sennerby, L. (2017). Sinus floor elevation procedures to enable implant placement and integration: techniques, biological aspects and clinical outcomes. *Periodontology 2000*, 73(1), 103–120. <https://doi.org/10.1111/prd.12165>

Pommer, B., & Watzek, G. (2009). Gel-pressure technique for flapless transcrestal maxillary sinus floor elevation: a preliminary cadaveric study of a new surgical technique. *The International journal of oral & maxillofacial implants*, 24(5), 817–822.

Pommer, B., Unger, E., Sütö, D., Hack, N., & Watzek, G. (2009). Mechanical properties of the Schneiderian membrane in vitro. *Clinical oral implants research*, 20(6), 633–637. <https://doi.org/10.1111/j.1600-0501.2008.01686.x>

Raghoobar, G. M., Onclin, P., Boven, G. C., Vissink, A., & Meijer, H. J. A. (2019). Long-term effectiveness of maxillary sinus floor augmentation: A systematic review and meta-analysis. *Journal of clinical periodontology*, 46 Suppl 21, 307–318. <https://doi.org/10.1111/jcpe.13055>

Ragucci, G. M., Elnayef, B., Suárez-López Del Amo, F., Wang, H. L., Hernández-Alfaro, F., & Gargallo-Albiol, J. (2019). Influence of exposing dental implants into the sinus cavity on survival and complications rate: a systematic review. *International journal of implant dentistry*, 5(1), 6. <https://doi.org/10.1186/s40729-019-0157-7>

Rammelsberg, P., Kilian, S., Büsch, C., & Kappel, S. (2020). The effect of transcrestal sinus-floor elevation without graft on the long-term prognosis of maxillary implants. *Journal of clinical periodontology*, 47(5), 640–648. <https://doi.org/10.1111/jcpe.13278>

Santoro, M., & Pippi, R. (2018). Intrasinus Bone Gain with the Osteotome Sinus Floor Elevation Technique: A Review of the Literature. *The International journal of oral & maxillofacial implants*, 33(5), 995–1002. <https://doi.org/10.11607/jomi.6334>

Si, M. S., Mo, J. J., Zhuang, L. F., Gu, Y. X., Qiao, S. C., & Lai, H. C. (2015). Osteotome sinus floor elevation with and without grafting: an animal study in Labrador dogs. *Clinical oral implants research*, 26(2), 197–203. <https://doi.org/10.1111/clar.12313>

Stacchi, C., Bernardello, F., Spinato, S., Mura, R., Perelli, M., Lombardi, T., Troiano, G., & Canullo, L. (2022). Intraoperative complications and early implant failure after transcrestal sinus floor elevation with residual bone height ≤ 5 mm: A retrospective multicenter study. *Clinical oral implants research*, 33(8), 783–791. <https://doi.org/10.1111/clar.13959>

Stacchi, C., Lombardi, T., Ottonelli, R., Berton, F., Perinetti, G., & Traini, T. (2018). New bone formation after transcrestal sinus floor elevation was influenced by sinus cavity dimensions: A prospective histologic and histomorphometric study. *Clinical oral implants research*, 29(5), 465–479. <https://doi.org/10.1111/clar.13144>

Thoma, D. S., Haas, R., Sporniak-Tutak, K., Garcia, A., Taylor, T. D., & Hämmerle, C. H. F. (2018). Randomized controlled multicentre study comparing short dental implants (6 mm) versus longer dental implants (11-15 mm) in combination with sinus floor elevation

procedures: 5-Year data. *Journal of clinical periodontology*, 45(12), 1465–1474.
<https://doi.org/10.1111/jcpe.13025>

Thoma, D. S., Haas, R., Tutak, M., Garcia, A., Schincaglia, G. P., & Hämmerle, C. H. (2015). Randomized controlled multicentre study comparing short dental implants (6 mm) versus longer dental implants (11-15 mm) in combination with sinus floor elevation procedures. Part 1: demographics and patient-reported outcomes at 1 year of loading. *Journal of clinical periodontology*, 42(1), 72–80.
<https://doi.org/10.1111/jcpe.12323>

Tilotta, F., Lazaroo, B., & Gaudy, J. F. (2008). Gradual and safe technique for sinus floor elevation using trephines and osteotomes with stops: a cadaveric anatomic study. *Oral surgery, oral medicine, oral pathology, oral radiology, and endodontics*, 106(2), 210–216. <https://doi.org/10.1016/j.tripleo.2007.12.030>

Volpe, S., Di Girolamo, M., Pagliani, P., Zicari, S., & Sennerby, L. (2022). Osteotome-Induced Blood Clot and Subsequent Bone Formation with the Use of Collagen Sponge for Integration of Single Dental Implants into the Atrophied Posterior Maxilla: A Retrospective Follow-Up of 36 Implants after 5 to 13 years. *International journal of dentistry*, 2022, 6594279. <https://doi.org/10.1155/2022/6594279>

Zheng, X., Huang, L., Huang, S., Mo, A., & Zhu, J. (2022). Influence of anatomical factors related to maxillary sinus on outcomes of transcresal sinus floor elevation. *Journal of dental sciences*, 17(1), 438–443.
<https://doi.org/10.1016/j.jds.2021.07.023>

Zhou, Y., Shi, Y., Si, M., Wu, M., & Xie, Z. (2021). The comparative evaluation of transcresal and lateral sinus floor elevation in sites with residual bone height ≤ 6 mm: A two-year prospective randomized study. *Clinical oral implants research*, 32(2), 180–191. <https://doi.org/10.1111/clr.13688>