

Medical Policy Manual

Approved New: Do Not Implement Until 12/31/24

Radiofrequency Ablation for Nasal Obstruction and Rhinitis

DESCRIPTION

Nasal obstruction is characterized by partial or complete blockage of airflow through the nasal passage(s) which can make it difficult to breathe through the nose. The airflow reduction may present as unilateral or bilateral. Structural abnormalities (e.g., nasal valve dysfunction, deviated septum, enlarged turbinate, congenital defects, nasal trauma, previous nasal surgery) or changes due to chronic inflammation (e.g., allergies, chronic sinusitis) may increase the risk of nasal obstruction.

Rhinitis can be defined as symptomatic inflammation of the paranasal sinuses and nasal cavity. Chronic rhinitis is rhinorrhea (anterior or post-nasal drip) with or without nasal congestion symptoms despite medical therapy lasting longer than three months. Allergic rhinitis is an immunoglobulin E (IgE)–mediated inflammatory response of the nasal mucous membranes after exposure to inhaled allergens. Symptoms include rhinorrhea, nasal congestion, nasal itching, and sneezing. Allergic rhinitis can be seasonal or perennial, with symptoms being intermittent or persistent.

Radiofrequency ablation has been proposed as a treatment for individuals with nasal obstruction and/or chronic rhinitis who are refractory to medical management. For individuals with nasal obstruction, the reshaping of nasal tissue to treat nasal valve collapse using low-dose radiofrequency ablation energy (e.g., VivAer®) is currently being investigated. This is a non-invasive, office-based procedure that uses radiofrequency energy to shrink the submucosal tissue, including cartilage in the internal nasal valve area. For the treatment of rhinitis, the destruction of tissue in the posterior nasal nerve region using low-power radiofrequency energy and a handheld device under local anesthesia (e.g., RhinAer®) is currently being researched.

POLICY

- Radiofrequency ablation for the treatment of nasal obstruction and/or chronic rhinitis (allergic or nonallergic) is considered *investigational*.

IMPORTANT REMINDERS

- Any specific products referenced in this policy are just examples and are intended for illustrative purposes only. It is not intended to be a recommendation of one product over another and is not intended to represent a complete listing of all products available. These examples are contained in the parenthetical e.g., statement.
- We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, explanation of benefits or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a member is entitled to receive under his or her health plan, the Member's health plan must be reviewed. If there is a conflict between the medical policy and a health plan or government program (e.g., TennCare), the express terms of the health plan or government program will govern.

ADDITIONAL INFORMATION

High quality, well-designed, randomized, controlled trials with long-term follow-up are not available to determine the benefits of radiofrequency ablation for the treatment of nasal obstruction and/or rhinitis.

SOURCES

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American Academy of Otolaryngology-Head and Neck Surgery. (2023, January). *Position statement: PNN ablation for the treatment of chronic rhinitis*. Retrieved August 21, 2024 from <http://www.entnet.org>.

American Rhinologic Society. (2022, January). *ARS position statement: posterior nasal nerve ablation*. Retrieved August 21, 2024 from <http://www.american-rhinologic.org>.

BlueCross BlueShield Association. Evidence Positioning System. (4:2024). *Cryoablation, radiofrequency ablation, and laser ablation for treatment of chronic rhinitis* (7.01.168). Retrieved August 9, 2024 from <https://www.bcbsaoca.com/eps/>. (22 articles and/or guidelines reviewed)

British Society for Allergy & Clinical Immunology (BSACI). (2024, June). *Rhinitis*. Retrieved August 21, 2024 from <https://www.bsaci.org>.

Casale, M., Moffa, A., Giorgi, L., Pierri, M., Lugo, R., et al. (2023). Could the use of a new novel bipolar radiofrequency device (Aerin) improve nasal valve collapse? A systematic review and meta-analysis. *Journal of Otolaryngology - Head & Neck Surgery*, 52 (1), 42. (Level 1 evidence)

Han, J. K., Silvers, S. L., Rosenthal, J. N., McDuffie, C. M., & Yen, D. M. (2022). Outcomes 12 months after temperature-controlled radiofrequency device treatment of the nasal valve for patients with nasal airway obstruction. *JAMA Otolaryngology-- Head & Neck Surgery*, 148 (10), 940–946. (Level 2 evidence)

Kang, Y. J., Kim, D. H., Stybayeva, G., & Hwang, S. H. (2024). Effectiveness of radiofrequency device treatment for nasal valve collapse in patients with nasal obstruction. *Otolaryngology--Head and Neck Surgery*, 170 (1), 34–44. Abstract retrieved August 28, 2024 from PubMed database.

Lee, J. T., Abbas, G. M., Charous, D. D., Cuevas, P. D. M. M., Göktas, P. D. M. Ö., et al. (2022). Clinical and quality of life outcomes following temperature-controlled radiofrequency neurolysis of the posterior nasal nerve (RhinAer) for treatment of chronic rhinitis. *American Journal of Rhinology & Allergy*, 36 (6), 747–754. (Level 2 evidence)

Silvers, S. L., McDuffie, C. M., Yen, D. M., Rosenthal, J. N., Davis, S. E., & Han, J. K. (2024). Two-year outcomes of radiofrequency device treatment of the nasal valve for nasal airway obstruction. *Rhinology*, 62 (3), 310–319. (Level 2 evidence)

Silvers, S. L., Rosenthal, J. N., McDuffie, C. M., Yen, D. M., & Han, J. K. (2021). Temperature-controlled radiofrequency device treatment of the nasal valve for nasal airway obstruction: A randomized controlled trial. *International Forum of Allergy & Rhinology*, 11 (12), 1676–1684. (Level 2 evidence)

Stolovitzky, J. P., Ow, R. A., Silvers, S. L., Bikhazi, N. B., Johnson, C. D., & Takashima, M. (2021). Effect of radiofrequency neurolysis on the symptoms of chronic rhinitis: a randomized controlled trial. *OTO Open*, 5 (3), doi: 10.1177/2473974X211041124. (Level 2 evidence)

Takashima, M., Stolovitzky, J. P., Ow, R. A., Silvers, S. L., Bikhazi, N. B., & Johnson, C. D. (2023). Temperature-controlled radiofrequency neurolysis for treatment of chronic rhinitis: 12-month outcomes after treatment in a randomized controlled trial. *International Forum of Allergy & Rhinology*, 13 (2), 107–115. (Level 2 evidence)

Takashima, M., Stolovitzky, J. P., Ow, R. A., Silvers, S. L., McDuffie, C. M., Dean, M., et al. (2024). Temperature-controlled radiofrequency ablation for the treatment of chronic rhinitis: Two-year outcomes from a prospective multicenter trial. *International Forum of Allergy & Rhinology*, 14 (7), 1182–1194. (Level 2 evidence)



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U. S. Food and Drug Administration. (2019, May). Center for Devices and Radiological Health. *510(k) Premarket Notification Database. K192471*. Retrieved August 19, 2024 from <http://www.fda.gov>.

U. S. Food and Drug Administration. (2020, May). Center for Devices and Radiological Health. *510(k) Premarket Notification Database. K200300*. Retrieved August 19, 2024 from <http://www.fda.gov>.

Winifred S. Hayes, Inc. Evolving Evidence Review. (2022, January; last update search March 2024). *RhinAer procedure (Aerin Medical) for treatment of chronic rhinitis*. Retrieved August 19, 2024 from www.hayesinc.com/subscribers. (10 articles and/or guidelines reviewed)

Winifred S. Hayes, Inc. Evolving Evidence Review. (2023, January; last update search January 2024). *VivAer (Aerin Medical Inc.) for nasal airway remodeling to treat nasal obstruction*. Retrieved August 21, 2024 from www.hayesinc.com/subscribers. (23 articles and/or guidelines reviewed)

Wise, S. K., Damask, C., Roland, L. T., Ebert, C., Levy, J. M., et al. (2023). International consensus statement on allergy and rhinology: Allergic rhinitis - 2023. *International Forum of Allergy & Rhinology*, 13 (4), 293–859.

Yu, A. J., Tam, B., Wrobel, B., & Hur, K. (2024). Radiofrequency neurolysis of the posterior nasal nerve: a systematic review and meta-analysis. *The Laryngoscope*, 134 (2), 507–516. (Level 1 evidence)

EFFECTIVE DATE 12/31/2024

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