

<b>MEDICAL POLICY</b>	<b>Rhinoplasty (All Lines of Business Except Medicare)</b>
<b>Effective Date: 11/1/2021</b>	Medical Policy Number: 166
 11/1/2021	Medical Policy Committee Approved Date: 11/09; 9/17; 3/18; 3/19; 6/19; 10/19; 11/2020; 10/2021
Medical Officer                      Date	

**See Policy CPT CODES section below for any prior authorization requirements**

**SCOPE:**

Providence Health Plan, Providence Health Assurance, Providence Plan Partners, and Ayin Health Solutions as applicable (referred to individually as “Company” and collectively as “Companies”).

**APPLIES TO:**

All lines of business except Medicare

**BENEFIT APPLICATION**

Medicaid Members

*Oregon:* Services requested for Oregon Health Plan (OHP) members follow the OHP Prioritized List and Oregon Administrative Rules (OARs) as the primary resource for coverage determinations. Medical policy criteria below may be applied when there are no criteria available in the OARs and the OHP Prioritized List.

**POLICY CRITERIA**

Note: This medical policy does not address surgical treatments for rhinoplasty (with or without cleft palate repair) in patients 17 years of age or younger *OR* rhinoplasty in the case of acute nasal fracture/trauma, all of which may be considered medically necessary. “Acute” is defined as the emergent treatment of nasal fractures when the problem is diagnosed and a treatment plan delineated within 72 hours of the fracture/trauma.

- I. Rhinoplasty for reconstructive purposes may be considered **medically necessary and covered** when all of the following criteria (A.-C.) are met:
  - A. Patient has severe nasal airway obstruction and the procedure is essential to accomplish opening of the nasal airways; **and**
  - B. Patient has **one or more** of the following (1.-2.):

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<ol style="list-style-type: none"> <li>1. Nasal deformity; <b>and/or</b></li> <li>2. History of trauma; <b>and</b></li> </ol> <p>C. <b>All</b> of the following (1.-2.) documentation is submitted:</p> <ol style="list-style-type: none"> <li>1. Complete otolaryngologist evaluation; <b>and</b></li> <li>2. Documentation of the proposed surgical plan.</li> </ol> <p>II. Rhinoplasty is considered <b>cosmetic and not covered</b> when criterion I. above is not been met.</p> <p>Link to <a href="#">Policy Summary</a></p>
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**CPT CODES**

All Lines of Business Except Medicare	
Prior Authorization Required	
30400	Rhinoplasty, primary; lateral and alar cartilages and/or elevation of nasal tip
30410	Rhinoplasty, primary; complete, external parts including bony pyramid, lateral and alar cartilages, and/or elevation of nasal tip
30420	Rhinoplasty, primary; including major septal repair
30430	Rhinoplasty, secondary; minor revision (small amount of nasal tip work)
30435	Rhinoplasty, secondary; intermediate revision (bony work with osteotomies)
30450	Rhinoplasty, secondary; major revision (nasal tip work and osteotomies)
No Prior Authorization Required	
30460	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columellar lengthening; tip only
30462	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columellar lengthening; tip, septum, osteotomies

**DESCRIPTION**

Per the Centers for Medicare & Medicaid Local Coverage Determination (LCD): Plastic Surgery (L37020), rhinoplasty is defined as:<sup>1</sup>

“a procedure performed on the external or internal structures of the nose, septum, or turbinate. This surgery may be performed to improve abnormal function, reconstruct congenital or acquired deformities, or to enhance appearance. It generally involves rearrangement or excision of the supporting bony and cartilaginous structures and incision or excision of the overlying skin of the nose.”

## REVIEW OF EVIDENCE

A review of the ECRI, Hayes, Cochrane, and PubMed databases was conducted regarding the use of functional rhinoplasty. Below is a summary of the available evidence identified through September 2021.

### *Systematic Reviews*

- In 2019, Kandathil and colleagues conducted a systematic review and meta-analysis evaluating efficacy of repair of the lateral nasal wall in adult patients with nasal airway obstruction.<sup>2</sup> Independent investigators systematically searched the literature through July 2017, identified eligible studies, assessed study quality, and extracted data. Effect sizes were first calculated for each study and then pooled together using random effects synthesis. In total, 10 observational studies were included for review (8 prospective, 2 retrospective), assessing 324 participants (range: 6 to 79). Follow-up ranged from 3 months to 24 months. The pooled effect size supported the efficacy of functional rhinoplasty for the treatment of nasal airway obstruction caused by lateral nasal wall insufficiency – the pooled effect size for functional rhinoplasty was -47.7 (95% CI, -53.4 to 42.1) points on the Nasal Obstruction Symptom Evaluation scale with high heterogeneity of 72%. Outcomes were similar at short- (-45.0 points [95% CI, -47.8 to -42.2 points]), mid- (-48.4 points [95% CI, -52.5 to -44.4 points]), and long-term (-49.0 points [95% CI, -62.1 to -35.8 points]) follow-ups. Limitations included small sample sizes, study design, high heterogeneity ( $I^2 = 72%$ ) and the lack of randomized or controlled trials.
- In 2017, Floyd and colleagues conducted a systematic review and meta-analysis of studies evaluating functional rhinoplasty outcomes with the Nasal Obstruction Symptom Evaluation (NOSE) score.<sup>3</sup> Independent investigators systematically searched the literature through November 2015, identified eligible studies, assessed study quality, and extracted data. Study results were pooled with a random effects model; change in NOSE score after surgery was assessed with both the mean difference between baseline and postoperative results and the standardized mean difference. In total, 16 studies were included for review, assessing NOSE scores for 479 patients (range: 7 to 38). The studies' had a pooled mean preoperative NOSE score of 67.4 (95% CI, 61-73.9) based on random effects meta-analysis. The range of scores was 34.8 to 86.5 with very high heterogeneity ( $I^2 = 95$ ). Substantial improvement in NOSE score was reported at 3-, 6-, and 12-month follow-up. Investigators concluded that nasal obstruction, as measured by the NOSE survey, improves substantially for at least 12 months after functional rhinoplasty. Limitations undermining results' validity included small sample sizes, high heterogeneity, the preponderance of case series included for review, inadequate follow-up, and a lack of randomized or controlled trials conducted to date.
- In 2008, Rhee and colleagues conducted a systematic review evaluating the safety and efficacy of functional rhinoplasty or nasal valve repair.<sup>4</sup> Independent investigators systematically searched the literature through August 2007, identified eligible studies, assessed study quality, and extracted data. In total, 82 articles were included for review, 44 of which met inclusion criteria (42 case series, 2 cohort studies), evaluated 2,295 patients (range: 7 to 312) who had undergone some form of functional rhinoplasty. Follow-up ranged from 1 month to 13 years.

Outcome measures of interest included subjective gross patient reports, non-validated questionnaires, validated patient-report measures and objective measurements (e.g. rhinomanometry, acoustic rhinometry, and nasal airflow studies). Limitations included heterogeneity of study design, quality, invention and outcome measures used, all of which prevented the pooling of data. Despite heterogeneity, all articles generally supported the efficacy of functional rhinoplasty techniques for the treatment of nasal obstruction. Efficacy ranged from 65% to 100%, with no study finding rhinoplasty ineffective as an intervention. Investigators concluded that there was substantial level 4 evidence (i.e. case series/case report) to support the efficacy of rhinoplasty techniques for treatment of nasal obstruction due to nasal valve collapse. Authors also called for additional studies using comparison cohorts and standardized objective outcome measures to further establish the efficacy of rhinoplasty.

## **CLINICAL PRACTICE GUIDELINES**

No relevant clinical practice guidelines were identified addressing the use of functional rhinoplasty for the treatment of nasal obstruction.

## **POLICY SUMMARY**

Data from systematic reviews of case series indicate that rhinoplasty is a safe and effective treatment of nasal obstruction. Despite limitations arising from studies' small sample sizes, case series design and high heterogeneity, meta-analyses suggest that rhinoplasty significantly improves patients' Nasal Obstruction Symptom Evaluation (NOSE) score, an important patient-reported outcome. While randomized and controlled trials with larger patient cohorts are necessary to further establish validity, especially of objective outcomes measures, long-term data from low-quality studies sufficiently demonstrates the procedure's efficacy.

## **INSTRUCTIONS FOR USE**

Company Medical Policies serve as guidance for the administration of plan benefits. Medical policies do not constitute medical advice nor a guarantee of coverage. Company Medical Policies are reviewed annually and are based upon published, peer-reviewed scientific evidence and evidence-based clinical practice guidelines that are available as of the last policy update. The Companies reserve the right to determine the application of Medical Policies and make revisions to Medical Policies at any time. Providers will be given at least 60-days' notice of policy changes that are restrictive in nature.

The scope and availability of all plan benefits are determined in accordance with the applicable coverage agreement. Any conflict or variance between the terms of the coverage agreement and Company Medical Policy will be resolved in favor of the coverage agreement.

## REGULATORY STATUS

### Mental Health Parity Statement

Coverage decisions are made on the basis of individualized determinations of medical necessity and the experimental or investigational character of the treatment in the individual case. In cases where medical necessity is not established by policy for specific treatment modalities, evidence not previously considered regarding the efficacy of the modality that is presented shall be given consideration to determine if the policy represents current standards of care.

## MEDICAL POLICY CROSS REFERENCES

- Cosmetic and Reconstructive Procedures (All Lines of Business Except Medicare)
- Cosmetic and Reconstructive Procedures (Medicare Only)
- Rhinoplasty (Medicare Only)

## REFERENCES

1. Centers for Medicare & Medicaid Services. Local Coverage Determination. Plastic Surgery L37020. Effective 10/1/2019. <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=37020>. Accessed 9/22/2021.
2. Kandathil CK, Spataro EA, Laimi K, Moubayed SP, Most SP, Saltychev M. Repair of the Lateral Nasal Wall in Nasal Airway Obstruction: A Systematic Review and Meta-analysis. *JAMA facial plastic surgery*. 2018;20(4):307-313.
3. Floyd EM, Ho S, Patel P, Rosenfeld RM, Gordin E. Systematic Review and Meta-analysis of Studies Evaluating Functional Rhinoplasty Outcomes with the NOSE Score. *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*. 2017;156(5):809-815.
4. Rhee JS, Arganbright JM, McMullin BT, Hannley M. Evidence supporting functional rhinoplasty or nasal valve repair: A 25-year systematic review. *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*. 2008;139(1):10-20.
5. Bulut OC, Wallner F, Plinkert PK, Prochnow S, Kuhnt C, Baumann I. Quality of life after septorhinoplasty measured with the Functional Rhinoplasty Outcome Inventory 17 (FROI-17). *Rhinology*. 2015;53(1):54-58. <https://www.ncbi.nlm.nih.gov/pubmed/25756079>
6. Lee SB, Jang YJ. Treatment outcomes of extracorporeal septoplasty compared with in situ septal correction in rhinoplasty. *JAMA facial plastic surgery*. 2014;16(5):328-334. <https://www.ncbi.nlm.nih.gov/pubmed/25079613>
7. Rhee JS, Sullivan CD, Frank DO, Kimbell JS, Garcia GJ. A systematic review of patient-reported nasal obstruction scores: defining normative and symptomatic ranges in surgical patients. *JAMA facial plastic surgery*. 2014;16(3):219-225; quiz 232. <https://www.ncbi.nlm.nih.gov/pubmed/24604253>
8. Shuaib SW, Undavia S, Lin J, Johnson CM, Jr., Stupak HD. Can functional septorhinoplasty independently treat obstructive sleep apnea? *Plast Reconstr Surg*. 2015;135(6):1554-1565. <https://www.ncbi.nlm.nih.gov/pubmed/26017591>