

# Diagnostic Algorithm for Evaluating Nasal Airway Obstruction

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## KEYWORDS

• Nasal obstruction • Diagnosis • Cause • Examination

## KEY POINTS

- Nasal airway obstruction is a common complaint with multiple possible causes.
- A thorough evaluation of patient history and nasal anatomy is necessary for establishing an accurate diagnosis and initiating appropriate and targeted intervention.
- A diagnostic algorithm can aid in the development of a systematic approach to nasal obstruction evaluation and selection of treatment options.

Nasal airway obstruction (NAO) is a common symptom that significantly impairs quality of life. It also can be challenging for clinicians to treat because the severity of nasal obstruction is typically subjective and does not necessarily correlate to an objective examination or test. Although validated instruments, such as the Nasal Obstruction and Septoplasty Effectiveness Scale (NOSE), can be used to help clinicians and patients better communicate about the severity of symptoms, they do not help clinicians accurately identify the underlying cause.<sup>1,2</sup> Additionally, by the time patients present for evaluation, they have tried numerous different treatments and think that their symptoms are severe and unmanageable enough that further help is needed.

Effective treatment of NAO requires an accurate diagnosis. There is no single test that correlates specifically to the underlying cause of NAO in all patients. It is essential for the clinician to evaluate patients in a systematic fashion. Identification of all

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possible causes allows the clinician to appropriately tailor treatment plans. Treatment options may involve lifestyle changes, medications, and/or surgical intervention.

The underlying causes of NAO can be anatomic, related to normal physiology, or have a pathophysiologic basis. Furthermore, NAO can be static in nature and present all of the time or may be dynamic, fluctuating with respiratory effort, time, or other factors.<sup>1,3,4</sup> There are multiple potential causes for NAO in the differential diagnosis (Fig. 1, Box 1). It is also important to recognize that patient symptomatology may be multifactorial.

A thorough history and physical examination is the most important tool to delineate the underlying causes in a specific case. Nasal endoscopy, imaging, allergy testing, and other ancillary tests are tools that can be useful in evaluating these patients.

## HISTORY

When patients present with NAO, a thorough history is essential. Historical elements that should be considered include location of the obstruction; severity; elements of timing; the setting in which it occurs; aggravating factors; relieving factors; associated manifestations; previous testing; and response to previous treatments<sup>3,5</sup> (Table 1). Response or nonresponse to previous treatments can provide diagnostic clues.

## PHYSICAL EXAMINATION

The physical examination is equally crucial to narrowing the differential diagnosis and establishing the correct diagnosis. An important component of the physical examination begins with the history taking. *Observation* of patients during this time is essential.

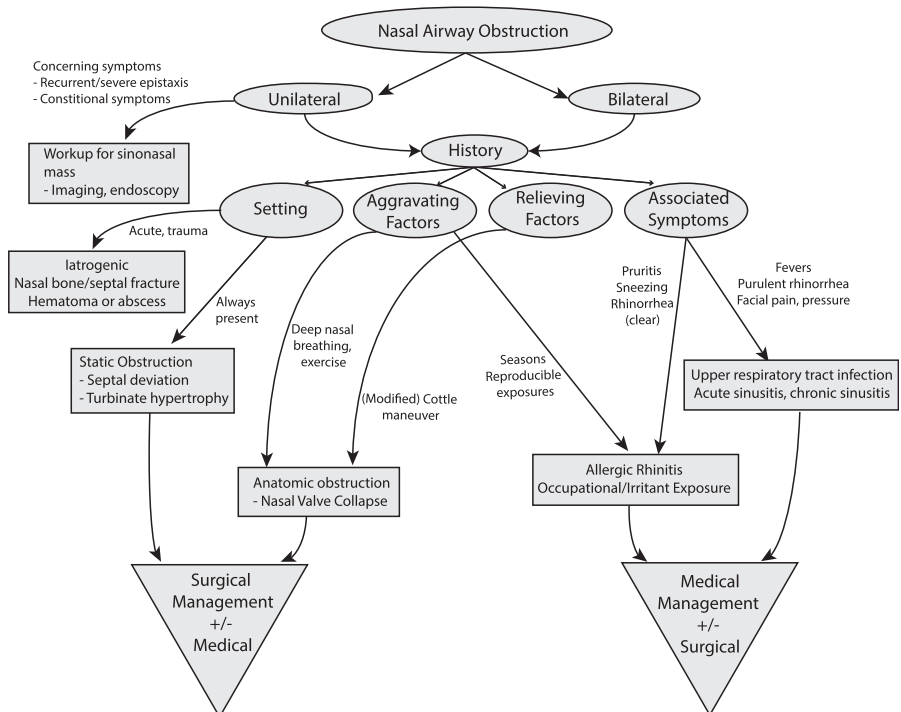


Fig. 1. Algorithm to evaluation and management of nasal airway obstruction.

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