

# NASAL SEPTAL DEVIATION: A LITERATURE REVIEW

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## Abstract

The nose is separated into two nasal cavities by the nasal septum, an osteocartilaginous wall. A mild, asymptomatic septal deviation is regarded as a typical developmental variation that most people experience. Because of the degree of departure taken into account in the reporting studies, the reported global prevalence rates varied greatly. Prior classification schemes have been put up to categorize nasal septal deviations based on the nasal septum's features as viewed both vertically and horizontally. The severity of the deviation may impact nasal airflow in certain people, resulting in blockage or olfactory function impairment. Nasal septal deviation can also manifest clinically as headache, rhinosinusitis, hypertension, obstructive sleep apnea, and breathing noises. While imaging tools are necessary for decision-making, clinical assessment is adequate for diagnosis. Computed tomography (CT) and other radiological imaging methods are used to categorize and evaluate the degree of deviated septum. The alternative for treating nasal septal deviation is surgical correction. The most popular nose corrective treatment, septoplasty, has a low rate of complications and excellent satisfaction. We provide a thorough overview of the idea, presentation, diagnosis, available treatments, and quality of life of individuals with nasal septal deviation in this review.

**Keywords:** Nasal septal deviation, review, deformation.

## Introduction

The nose is separated into two nasal passages by the intricate osseocartilaginous nasal septum [1]. A symmetrical nasal cavity is uncommon in general, and a certain amount of deviation is regarded as a typical anatomical variation [2]. However, nasal septum deviation (NSD) can be either a result of trauma, which is typically more dislocated and uneven, or developmental, which is typically a smooth "C-shaped or S-shaped" deformity [1].

Classification schemes have evolved as a result of the considerable variety in NSD structure, symptoms, and related comorbidities. The degree of nasal deviation on the inferior turbinate can



be used to categorize NSD [3]. There are three degrees in this classification: degree I is a septal deviation that does not reach the inferior turbinate, degree II is a deviation that does, and degree III is a deviation that does reach the inferior turbinate and compress it [3]. S-shaped and C-shaped deviations, two often observed deviation patterns, are the basis for another classification [4]. According to Mladina's system, there are seven different types of nasal septum deviation: type I is characterized by a vertical ridge that does not reach the nasal dorsum; type II is characterized by a vertical ridge that does reach the nasal dorsum; type III is characterized by a vertical ridge in a deeper area; type IV is characterized by the anterior and deeper areas of the vertical ridge; type V is characterized by a horizontal deformity on one side of the nose while the other side is flat; type VI is a bilateral involvement of the septum with dislocation of one side and deviation of the other side; and type VII is a combination of two or more types. [5,6]

Given that type VII was the most prevalent type identified, the association with advancing age may indicate a developmental influence on NSD [7]. This was comparable to the 74.5% prevalence that was found in the United Arab Emirates [8]. The degree of deviation taken into account in the reporting studies explains the wide range of reported prevalence rates of NSD worldwide, which range from 26% to 97% [9]. According to Gray's struts, a clinical examination of neonates in India who were "2" days old revealed a 20% frequency of nasal septal deviation. Primiparas and instrumental deliveries were found to have higher numbers [10].

NSD can be managed non-surgically or surgically. The primary complaint typically determines which intervention is best. For instance, long-term use of steroid nasal spray is used to treat allergic rhinitis. However, compared to nonsurgical therapies, septal surgery is the most successful and superior [11]. With a satisfaction percentage between 50% and 100%, septoplasty is beneficial for patients with obstructive symptoms [12].

### Conclusions

This article's goal was to present a thorough analysis of nasal septum deviation, surgical reasons, and procedures. It's possible for the nasal septum's typical anatomical variance to go unnoticed throughout life. Septoplasty may be necessary if there is blockage or symptoms associated with septal deviation. The best course of action for treating NSD is thought to be septoplasty. Individual traits and the type of deviance determine which strategy is best. Even though the operation is thought to be more convenient and beneficial, unintended undesirable side effects could happen. Bleeding and deformity are uncommon post-operative consequences, and surgical procedures have been demonstrated to significantly enhance patients' quality of life and increase patient satisfaction.

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