

# RHINOPLASTY OVERVIEW

Jay M. Dutton, MD FACS

## INTRODUCTION

The term “rhinoplasty” refers to surgery performed to alter the structure of the external nose, and is commonly referred to as a “nose job”. When combined with surgery on the internal nose – specifically the nasal septum – it is referred to as a “septorhinoplasty.” This may be performed for purely cosmetic reasons (to look better), purely functional reasons (to breathe better), or both. Rhinoplasty also may be combined with other related procedures such as turbinate surgery, endoscopic sinus surgery, or harvesting cartilage or bone from various sites such as the ear or rib to graft to the nose.

The earliest recorded rhinoplasty of any form was 1700 years ago in Egypt, where surgeons attempted to repair nasal fracture deformities with plugs of linen soaked with grease. The earliest recorded nasal reconstruction was in 600 BC when Indian surgeons reconstructed noses that were amputated as a punishment for crimes.

## INDICATIONS

According to the American Academy of Otolaryngology-Head & Neck Surgery, the indications for a rhinoplasty include, but are not limited to:

- Obstructed breathing (functional)
- Unsatisfactory appearance
- Nasal injury (trauma) causing unsatisfactory appearance or breathing
- Nasal birth defect impairing form or function
- Acquired deformity due to trauma, tumor or infection

## PROCEDURE

Rhinoplasty may be performed under different types of anesthesia depending on patient and physician preference. These types include under injected (local) anesthetic with the patient awake, intravenous sedation (i.e. “twilight”), or general anesthesia, meaning the patient is completely asleep. Incisions are made to allow access to the underlying cartilage and bone. When these incisions are hidden completely inside the nostrils, it is referred to as a “closed” rhinoplasty. When a small incision is performed at the base of the nose to improve exposure, this is an “open” rhinoplasty.

Depending on the anatomy of the nose, cartilage and bone may need to be removed, rearranged, or added. It is not uncommon for a nose to require parts to be taken away in one area and parts to be added in another. Suture techniques can also alter the shape of the cartilage in a favorable manner.

For many years, extensive cartilage removal (“reduction rhinoplasty”) was common. Unfortunately, this led to tell-tale post-surgical issues such as cosmetic problems and high rates of nasal obstruction. In recent years, the trend has been towards cartilage augmentation (meaning addition) as much as reduction resulting in a more natural appearance, improved airflow and higher satisfaction rates.

When cartilage is required to augment certain areas of the nose, these cartilage grafts are often taken from the nasal septum, particularly if the patient has not had a prior rhinoplasty (i.e. they are undergoing a “primary rhinoplasty”). However, when a patient has had a previous rhinoplasty (i.e. they are undergoing a “revision rhinoplasty”), cartilage may need to be obtained from the patient’s own ear or rib, or bone obtained from the skull or other locations. Further reshaping may need to be performed with sutures to the cartilage. “Osteotomies” – or deliberate fracturing of the nasal bones – are often performed to straighten or narrow the nasal bones.

At the conclusion of the procedure, the outside of the nose is typically taped and some form of external cast may be applied. Plastic sheets and/or packing may also be temporarily placed inside the nose depending on the procedure and

the surgeon's preference.

## RISKS

Studies have shown that most rhinoplasties heal without adverse problems or complications and that patient satisfaction is high. However, there are potential complications that every rhinoplasty candidate should be aware of before proceeding with the procedure. These include (but are not limited to):

- Complications of anesthesia
- Epistaxis (nosebleed)
- Septal perforation (hole in internal wall of nose)
- Unsatisfactory appearance: over-removal of tissue, under-removal of tissue, asymmetries (sides looking different), abnormal scarring
- Revision surgery
- Infections
- Nasal obstruction
- 

## BENEFITS

The primary benefit of a cosmetic rhinoplasty is the improved appearance of the external nose, which may significantly help the patient's self esteem. An improvement in nasal breathing is the primary benefit of a rhinoplasty performed for functional reasons.



## SUMMARY

Rhinoplasty is a procedure to improve the form and/or function of the external nose, and the surgeon may use a great range of techniques depending on the patient's goals, the anatomic problems, and the surgeon's preferences. The procedure may be done with the patient awake or under anesthesia and as a primary or revision surgery. It may involve reducing or adding tissue (or both) and may be performed "closed" or "open". The length of recovery may vary greatly depending on the extent of surgery. Patients should be prepared to discuss their specific goals with their surgeon. After their consultation they should understand the procedure itself, as well as its risks and its benefits. It is helpful to have a surgeon with extensive training in both the appearance *and* function of the nose, so one is not sacrificed to achieve the other.



Revised 02/17/2015

©American Rhinologic Society

