



## ADVANCED SINUS AND ALLERGY CENTER

1030 W. Higgins #325  
Park Ridge, IL 60068

# Septal Perforation Repair

The nasal septum is the wall that divides the nose from right to left. It is composed of three layers: mucosa (nasal skin) on each side and a layer of cartilage and bone in the middle. When all three layers are damaged, a through-and-through defect forms. This is called a septal perforation.

Septal perforations result from decreased blood flow to the septum. Some of the causes of septal perforations include previous nasal surgery, intranasal cocaine use, chronic use of nasal decongestant sprays like Afrin or Neo-Synephrine, nose picking, trauma, cancer, or diseases such as tuberculosis, sarcoidosis, or syphilis.

Small perforations typically cause whistling, while larger perforations cause congestion and nasal obstruction. Pain, dryness, crusting and nasal bleeding are also common symptoms. The management of nasal perforations includes frequent use of nasal saline spray, saline irrigations, lubrication of the nose with a petrolatum-based ointment and treatment of any associated superficial infection. Continued enlargement of the perforation can occur despite good nasal hygiene and humidification.

Closure of septal perforations can be classified into two main categories: placing a plastic/ acrylic/silicone prosthesis called a septal button and surgical repair. The surgical technique depends on the size of the perforation, the amount of native tissue present in the nose, the surgeon's preference and the patient's comorbidities. Broadly, the repair ladder includes autologous and biocompatible grafts like BioDesign®, local flaps from the turbinates or the nasal floor and free flaps where tissue from the arms or legs is harvested and used to close the opening. Typically, less invasive procedures are chosen first, reserving more aggressive surgeries for larger perforations or cases where the less invasive techniques fail.

Success of the repair depends on the condition of surrounding tissues, cartilage, and blood supply. Proper nasal hygiene plays a vital role in success. This care includes lavage with frequent saline nasal irrigations; application of emollients; weekly nasal toilet, including suctioning and debriding of crust; use of nasal steroids; and antibiotic treatment for infection. Nasal splints are typically placed in each side of the nose after surgery, and they are kept in place for over one week after the surgery. Keeping the splints clean is also an important aspect of post-operative care.



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Some risks associated with septal perforation repair include:

1. Risks of general anesthesia
2. Pain – this is usually mild but a pain medication is usually prescribed
3. Infection - an oral antibiotic is usually prescribed. A topical rinse containing an antibiotic may also be recommended.
  
4. Bleeding from the nose - should be minimal, but can sometimes be significant
5. Vestibular stenosis – narrowing of the nasal opening
6. Changes in the appearance of the nose
7. Failure of the repair
8. Enlargement of the perforation
9. Potential need for revision surgery