

Chapter 32. Closure and Dressing

- **Indications:** Following completion of the preoperatively outlined goals and objectives, the surgeon should be pleased with the result. He should not leave the operating room if there is any uncertainty of the result. If he is satisfied, a closure should be performed. Both the open and endonasal techniques of rhinoplasty require sutures to close the incisions used for access. The former requires additional sutures to close the skin and subcutaneous tissues of the columella.
 - **Approach:** In general, the intranasal and external incisions are closed first, followed by placement of packing and application of an external dressing (Figure 32-1). The combination of internal packing and external splinting is commonly used to maintain the desired shape of the nose postoperatively. Internally, one or both nostrils are packed with material to provide support. Externally, the dorsum is covered with a protective splint.
 - With an external approach, the subcutaneous tissues and skin of the columella should be closed with a combination of deep absorbable sutures and superficial 6-0 Prolene or nylon sutures. Many surgeons perform this two-layer closure to minimize spreading of the scar when the cuticular sutures are removed. It is important to re-create the stair-step that was made across the columella as well as the right angle transition between the horizontal and vertical portions of the columellar skin flap. Closure of the mucosal incisions may be performed with interrupted 5-0 chromic gut. If the septal mucosa was elevated to minimize hematoma formation in the potential space, 4-0 plain gut mattress sutures across the septum are recommended to eliminate the dead space.
 - Nasal packing is recommended if the nasal septal mucosa was reflected. Internal nasal splints are available in silicone or a cotton material. These are removed several days after surgery. The Doyle splint actually has a hollow tube in it to facilitate nasal breathing. Some surgeons opt for nonabsorbable Vaseline gauze, which should be removed in 24 to 48 hours to improve respiration as well as minimize the incidence of infection related to the presence of a foreign body. Others opt for dissolvable cellulose packing that maintains some early support but eventually softens and is dissolved naturally. Nasal packing is often difficult to tolerate, since it forces the patient to breathe through the mouth.
- It is not always required and some surgeons avoid it altogether. Its use should be individualized to the patient and the procedure.
- Postoperatively, the skin over the nose has been elevated and relies on lateral perforating vessels for vascularity. Tape applied over the skin often serves two functions. It minimizes edema formation during the early postoperative period and protects the skin if the overlying splint material is too warm. Steri-strips are commonly used for this and the edges should overlap one another.
 - A splint is recommended if the nasal pyramid has been manipulated. A soft splint that progressively hardens such as plaster or a thermoplastic material (Aquaplast) is preferred so that no excess pressure is placed on the osteotomized nasal bones during splint application. The stiffer aluminum splints are harder to control in terms of adapting them precisely to the new nasal dimensions, and they require more pressure to adapt to the dorsum potentially displacing nasal bones under the splint during application. If plaster is used, several layers are superimposed and then they are cut to the desired dimensions. After placing the splint in hot water (heat will set the plaster faster), it is gently applied and molded to the nose. It will warm as it hardens and can be smoothed with a moist finger while it is setting to give it a polished look. A thermoplastic splint requires very hot water. It is cut to the desired shape and size while it hardens and cools. It is then placed in hot water and transitions in color from opaque to clear as it softens. These splints are very sticky when they are soft. A nice trick is to place the splint on a gauze and then lower the gauze in the water. When the splint turns clear, the gauze can be lifted out carrying the splint to the patient for application. Both plaster and Aquaplast splints can be secured with cut Tegaderm dressings for a neat adherent dressing that is minimally cumbersome.
 - **Postoperative care:** Patient's should be instructed to sleep with their head elevated. Gentle ice packs may be used in the first 24 to 48 hours to minimize swelling. While nasal breathing is certainly allowed, forceful nose blowing should be avoided. A saline mist may be used once the nasal packing has been removed to soften any residual blood or mucus to facilitate removal.

- *Tips:*
 - If nasal packing is necessary, the Doyle splint has a breathing tube in it to minimize nasal obstruction.
 - Place the thermoplastic splint on a gauze and then lower the gauze in the water. The gauze can be used to move the sticky splint from water to patient minimizing handling with gloves.

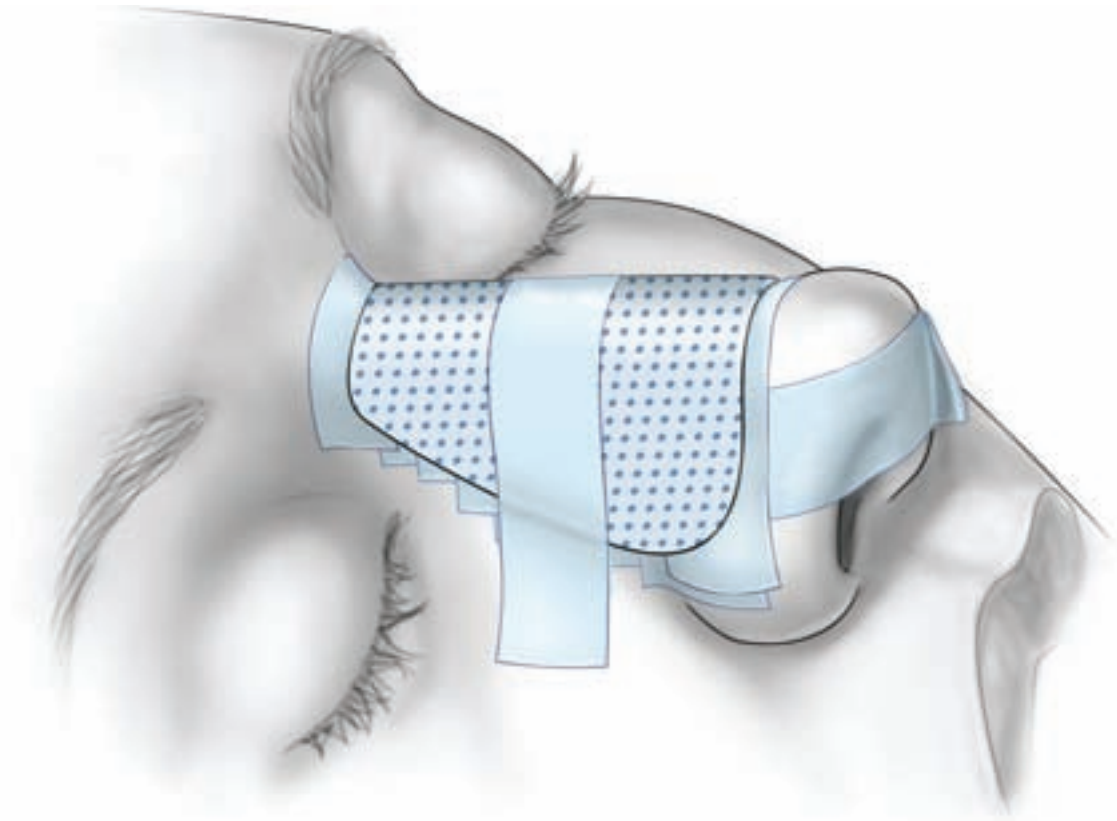


Figure 32-1. Postoperative nasal dressing.