Peri-Pyriform™ Implant  
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Surgical Technique written by Dr Brink

INDICATIONS

The Peripyriform implant was designed to conform closely to the anterior surface of the maxilla inferior and lateral to the pyriform aperture. It is indicated when perialar deficiency occurs in conjunction with an acute nasolabial angle. It is commonly used in cases of bimaxillary protrusion in conjunction with a chin implant, or alone with or without rhinoplasty in Asians, Blacks, and Hispanics where acute nasolabial angles are common.

CONTRAINDICATIONS

Since the Peripyriform implant augments the anterior maxilla in the region of the nasal spine as well as the perialar areas, isolated perialar recession unassociated with an acute nasolabial angle is best treated by other means. The Peripyriform implant is not intended for use when columellar retraction is the sole cause of an acute nasolabial angle, or when appropriate rotation of the nasal tip will correct acuteness sufficiently.

PATIENT EVALUATION

Assessment of the nasolabial angle is an integral part of pre-rhinoplasty planning, and is done on straight lateral view. Use of the Peripyriform implant will open the nasolabial angle and contribute to nasal tip projection by supporting the nasal base. When used in cases with a plunging nasal tip, less rotation than expected will be necessary. The most common size used is the Medium, with the Large more commonly used in males with more severe degrees of angulation and the Small reserved for subtle changes.

OPERATIVE TECHNIQUE

For reasons of sterility and because the Peripyriform implant will be the platform on which the caudal nasal structures rest, it is always placed as the initial step in rhinoplasty. After suitable infiltration with local anesthetic, the Peripyriform implant can be inserted via a small intra oral incision in the upper labial sulcus, via the alar wedge incisions or via a deep transfixion incision. The plane of dissection is deep to the orbicularis oris muscle which is split in the direction of its fibers. Bleeding is minimal to non-existent. The periosteum in this region is thin and indistinct and the dissection is completed directly on bone with a Freer elevator.
on either side of the nasal spine and up and around the pyriform aperture. If alar wedge incisions are used, the dissection must be done on each side separately and joined in the midline over the nasal spine. The inferior aspect of the pyriform aperture is clearly visualized. Vigorous dissection is unnecessary, and care is taken not to enter the nasal cavity. The implant is inserted and positioned so that the notch on its posterior surface engages the nasal spine. Direct visualization and palpation are used to confirm the implant's position. The orbicularis and mucosa are closed with 5-0 chromic catgut under no tension. Alar wedge and transfixion incisions are closed as usual after approximating the orbicularis.

**COMMENTS**

Although a variety of techniques have been advocated for augmenting the premaxillary region, the Peripyriform implant offers some distinct advantages.

**EASE OF INSERTION:** The Peripyriform implant's distinct shape and notched posterior surface make orientation elementary. Made of pliable silicone, it is easily inserted through a small incision.

**CONFORMITY:** Shaped to conform closely to the underlying maxilla, it is rarely if ever palpebral to either patient or physician. This cannot be said for autogenous cartilage grafts, bone grafts, Hydroxyapatite granules, rolled Supramid, or carved Proplast (unavailable at this time) all of which may result in palpebral if not visible lumpiness.

**PREDICTABILITY:** The Peripyriform implant offers a predictable degree of improvement in both the perialar and premaxillary areas. Resorption is not a consideration with solid silicone implants.

**TOLERABILITY:** The Peripyriform implant is designed with narrow midline dimensions which allow it to fit without tension over the nasal spine just superior to the upper labial sulcus where erosions of bulky grafts or ill-fitting prostheses are typical.

**REMOVABILITY:** In contrast to Hydroxyapatite granules and autogenous grafts and some other alloplastic implants (Supramid), the Peripyriform implant, like all solid silicone implants, is easily removable if desired.

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