



ADVANCED SINUS AND ALLERGY CENTER

1030 W. Higgins #325
Park Ridge, IL 60068

Draf III Procedure

A Draf III, also known as a Modified Lothrop Procedure (MEL) is a surgical procedure designed to open the frontal sinuses very widely. During this surgery, access to the frontal sinus is gained from both sides by removing cells that protrude into the frontal sinus and removing the floor of each the sinus from one orbit to the other. A common "C"-shaped cavity is created by removing the floor and the most superior (upper) portion of the nasal septum. The partition that divides the right and left frontal sinuses is removed to allow for the creation of the common cavity. The inner portion of the thick forehead bone is drilled to enlarge the opening. A 1 cm opening (neo-ostium) is the usual goal given that typically only 1/3 of the opening remains patent due to post-operative scarring.

The surgery is performed through the nose using angled telescopes. A combination of specially designed punches and powered instruments including drills are used to perform the surgery. Intraoperative navigation (image-guidance) is crucial during a Draf III procedure.

A Draf III procedure is appropriate in cases of failed prior frontal surgery, severe CRS with nasal polyposis, inverted papillomas, obstruction of the frontal sinus outflow tract as a result of facial trauma as in the case of Naso-Orbito-Ethmoidal (NOE) fractures, repair of non-comminuted posterior table fractures in select cases and resection of other benign or malignant tumors. A

Draf III has also become the procedure of choice for the surgical management of mucocoeles, frontal sinus unobliteration and CSF leak and encephalocele repair as long as the lesions are not located in the lateral aspect of a well-pneumatized frontal sinus beyond the reach of the current endoscopic instrumentation.

At times, stents or silastic sheets shaped into a cone and more recently biodegradable steroid-diluting implants have been used to maintain patency of the opening. Sometimes free mucosal grafts are used to cover the exposed bone to decrease the amount of cicatricial scarring that can compromise the surgical outcome. The success rate of a Draf III procedure is above 85%, and in cases where a neo-ostium larger than 2 cm x 2 cm is created, a Draf III can achieve success rates of higher than 95%.

Potential complications include but are not limited to the risks of general anesthesia, post-operative sinus infection, nasal bleeding, decreased sense of smell, cerebrospinal fluid (CSF) CSF leak, intracranial injury, orbital injury, vision loss or decreased vision, septal perforation, injury to the lacrimal system, the potential need for revision surgery for chronic sinusitis and the potential need for revision surgery in order to repair an intraoperative injury.

Preoperative management includes systemic oral steroids to increase intraoperative visibility. These are then continued post-operatively and tapered off when as healing occurs. Post-operative oral antibiotics, nasal irrigations and topical steroids are also prescribed. Meticulous endoscopic debridement (cleaning) of the cavity and close monitoring of the neo-ostium are key to ensure adequate wound healing and to prevent stenosis (closure).